



PC460t

## **Digital Camera**

User Manual



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# Preface

## About this Manual

This manual is designed to assist you in using your new digital camera. All information presented is as accurate as possible but is subject to change without notice.

For the latest revision, please visit [www.hp.com/support](http://www.hp.com/support).

## Copyright

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## Federal Communications Commission (FCC) Compliance

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 distance between the equipment and the receiver.
- Connect the equipment to 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.

Warning: A shielded-type power cord is required in order to meet FCC emission limits and to prevent interference to radio and television reception. Use only shielded cable to connect I/O devices to this equipment. Any changes or modifications not expressly approved by the manufacturer may void your warranty and service agreement.

## Declaration of Conformity

This device complies with Part 15 of the FCC rules. Operation is subject to the following conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

## Trademark Recognition

Windows 2000/XP/Vista/Windows 7 are registered trademarks of Microsoft Corporation in the United States and/or other countries. Macintosh and Mac OS are registered trademarks of Apple Inc. In addition, all other companies or product names are trademarks or registered trademarks of their respective companies.

# Safety and Handling Precautions Camera Information



- Do not take apart or attempt to service the camera yourself.
- Do not expose the camera to moisture, or extreme temperatures.
- Allow the camera to warm up when moving from cold to warm temperatures.
- Do not touch the camera lens.
- Do not expose the lens to direct sunlight for extended periods.
- Do not use abrasive chemicals, cleaning solvents or strong detergents to clean the product. Wipe the product with a clean slightly damp soft cloth.

## Battery Information

- Only use the provided battery or type of battery and charger that came with your camera. Using other types of battery or charger may damage the equipment and invalidate the warranty.
- Turn off the camera before installing or removing the battery.
- When the camera is used for an extended period of time, it is normal for the camera body to feel warm.
- Do not remove the battery while downloading pictures, videos, or audio content. This could result in a complete loss of these items.
- It is recommended to remove the battery if the camera will not be used for a long period of time.
- When inserting the battery in this camera, ensure that they are oriented correctly. Please see **Inserting the Battery** section of this manual for additional details. Inserting the battery incorrectly may cause damage to the camera and battery.
- An single depleted or low battery power level may cause the lens to not extend or retract properly.
- Dispose of used battery according to their instructions.

## Important Notes and Information

Throughout this manual, look for the symbols below that highlight useful and important information.

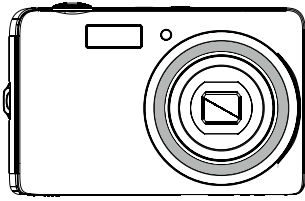
	This symbol will be used to indicate useful information when using the camera.
	This symbol will be used to indicate important message that should be read before using the function.

# Specifications

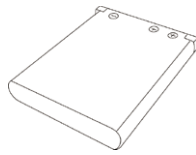
<b>LCD Display</b>	3.0" touch screen
<b>Sensor Type</b>	1/2.3" CCD
<b>Effective Pixels</b>	14.2MP (4352x3264)
<b>Zoom</b>	4X optical zoom, 5X digital zoom
<b>Lens</b>	Focal Length: 5.05 (W) ~ 20.2 (T) mm
<b>Aperture</b>	F2.8 ~ F6.3
<b>Still Image Format</b>	JPEG/EXIF 2.2
<b>Photo Resolution</b>	14 M (4320 x 3240), 3:2 (4320 x 2880), 8M (3264 x 2448), 5M (2592 x 1944), 3M (2048 x 1536), 16:9 (1920 x 1080), VGA (640 x 480)
<b>ISO Sensitivity</b>	Auto, 100, 200, 400, 800, 1600, 3200 (3M, 16:9 <2M>, VGA), 6400 (3M, 16:9 <2M>, VGA)
<b>Video Format</b>	AVI (Motion JPEG)
<b>Video Resolution</b>	1280 x 720p (16:9)_Only SDHC Class 6 memory cards supported, 640 x 480, 320 x 240, 640 x 480 (Web)
<b>Storage Media</b>	SD/SDHC (Up to 32GB)
<b>Power</b>	NP-45 Li-ion rechargeable battery
<b>Dimensions</b>	3.6 x 2.3 x 0.7 inch / 91.6 x 57.8 x 18.2 mm
<b>Weight</b>	0.24 lb / 110g (without battery)

# Package Contents

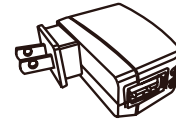
Please check the contents of your camera package. It should contain:



Digital camera



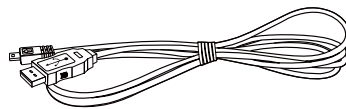
Li-ion Battery x 1 pcs



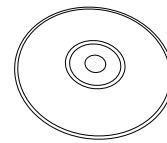
USB Adapter



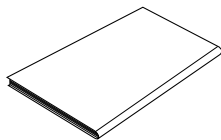
Camera strap



USB cable



User Manual and Software installation



Quick Start guide

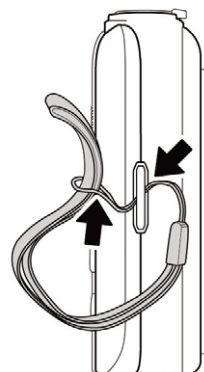


Warranty card

# Getting Started

## Attach the Camera Strap

To reduce the risk of dropping the camera, it is strongly recommended to attach and use the provided camera strap.



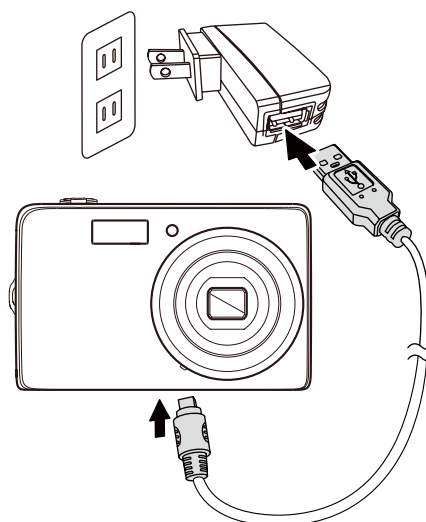
## Charging the Battery by USB

The battery that comes along with your package is not fully charged. You need to charge the battery before using the camera.

1. Connect the camera with the USB cable as shown.
2. Connect the other end with the USB adapter and plug it into a power outlet or with the USB port of PC directly for charging.

- When the battery is charging, the LED indicator lights up.
- When the battery is fully charged, the LED indicator goes off.
- When the battery is unusual charged, the LED indicator flashes rapidly.
- When the camera charges without the battery inside, the LED indicator goes off.

The battery charging time is around 2 hours.

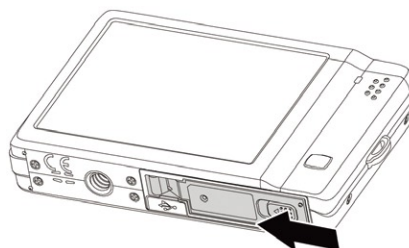


It's recommended not operating the camera when charging.

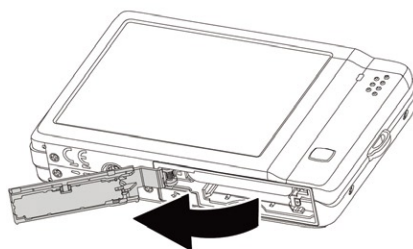
## Inserting the Battery

Follow these instructions to insert the rechargeable battery into the battery/memory card compartment. Please read "Battery Information" on page 2 before inserting/removing battery.

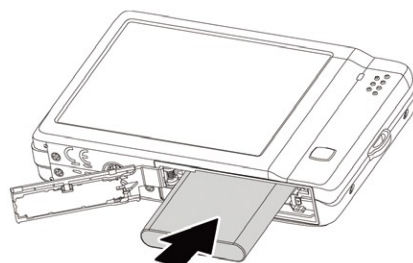
1. If the battery are already installed, make sure to power off the camera before removing and inserting recharged or new battery.



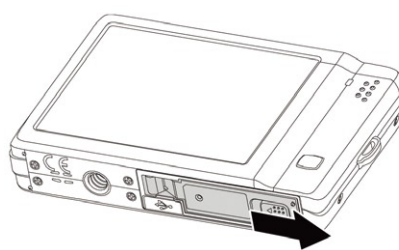
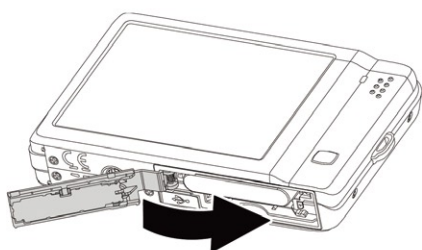
2. Open the battery/memory card compartment at the bottom of the camera.



3. Insert the battery into the compartment with correct orientation as illustrated.



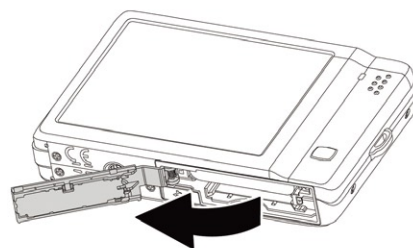
4. Close and lock the battery/memory card compartment.



## Inserting an SD/SDHC Memory Card

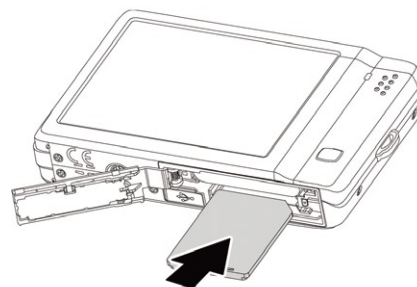
It is highly recommended that the camera storage is expanded by inserting a SD or SDHC memory card. These memory cards are available at most consumer store and online locations.

1. Make sure to power off the camera before proceeding. Inserting the memory card while powered on may damage the card and camera.
2. Open the Battery/memory card compartment at the bottom of the camera.
3. Insert the SD/SDHC card into the memory card slot with the metallic connectors facing the front side of the camera as illustrated below.
4. Push the SD/SDHC card into the memory slot until it clicks into place. If the card does not click into place, repeat the previous step to ensure proper orientation.
5. Close the Battery/memory card compartment.



### To remove the SD/SDHC card

1. Make sure to power off the camera before proceeding. Removing the memory card while powered on may damage the card and camera.
2. Open the battery/memory card compartment.
3. Gently push the card until it clicks and pushes out of position.
4. Carefully pull out the card.




# Camera Memory


## Internal memory

This camera is equipped with 32MB of internal memory. However, storage of images, video and audio clips is limited to approximately 14MB. For optimal use, it is strongly recommend that this camera is used with SD or SDHC memory cards. If there is no SD or SDHC memory card inserted in the memory card slot, all images, videos and audio clips recorded are automatically stored in the internal memory.

## External storage

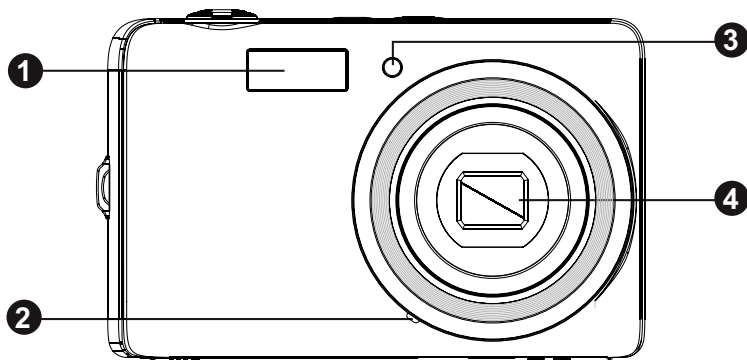
This camera supports SD cards of up to 4GB, and SDHC cards with a maximum capacity of 32GB. It is strongly recommended that Class 4 or above memory cards are used with this camera. Consult the reseller or manufacturer of the memory card for class rating details.

If a SD/SDHC card is inserted in the memory slot, the camera automatically saves all images, videos and audio clips to this storage card. The LCD memory card icon  indicates the camera is using SD card.

	<ul style="list-style-type: none"><li>• Not all cards may be compatible with your camera. When purchasing a card, please check the card's specifications and take the camera with you.</li><li>• Only class 6 (High Speed) SD/SDHC memory cards can be used with the 720p video recording feature of this camera.</li></ul>
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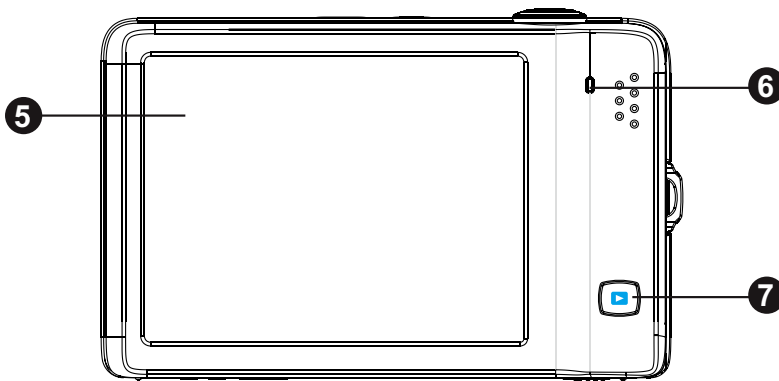
# Camera Views

## Front View



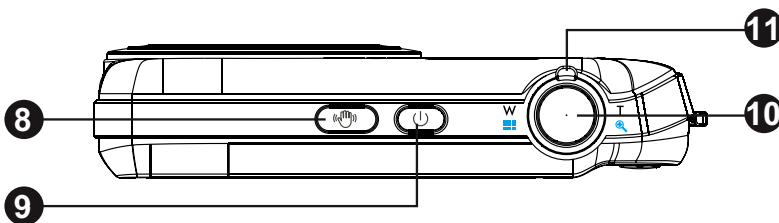
- 1. Flash
- 2. Microphone
- 3. Self-timer LED / Assist Lamp
- 4. Lens

## Back View



- 5. LCD Screen
- 6. LED Indicator
- 7. Playback Button

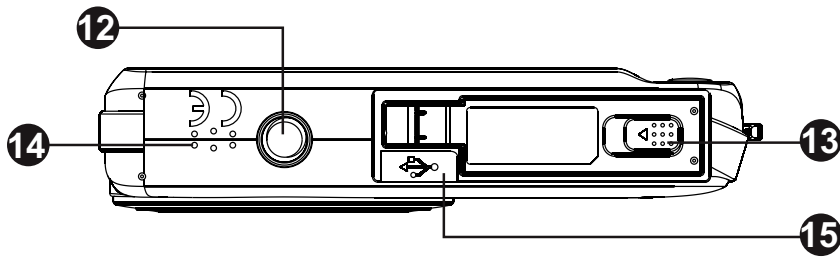
## Top View



- 8. Stabilizer Button
- 9. Power Button
- 10. Shutter Button
- 11. Zoom Toggle

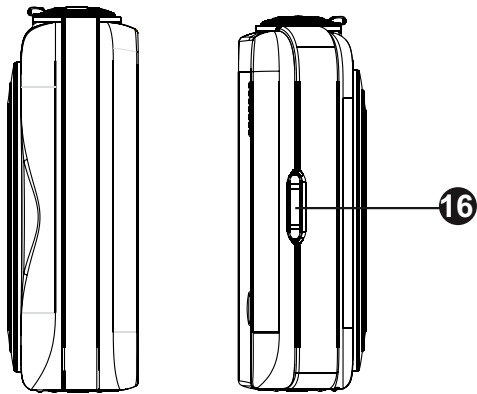


### Bottom View



- 12. Tripod Screw Hole
- 13. Battery / Memory Compartment
- 14. Speaker
- 15. USB / TV Out






### Left/Right View



- 16. Strap Ring












## Camera Buttons

Your camera is equipped with different buttons for ease of use.

No.	Button	Description
9	Power 	Press the Power button to turn the power on/off.
8	Stabilizer 	The stabilizer sets the optimal ISO value according to light levels to compensate for camera motion and help reduce motion blur. Press to set stabilizer on/off.
10	Shutter 	Press to capture an image or start/stop recording video or audio clip.
11	Zoom 	In photo and Video mode, move the toggle to the "W" position to zoom out, or "T" to zoom in.
78	Playback 	Press to enable Playback mode or return Record mode.


## Onscreen Touch Buttons


The control buttons appear on the touch screen and change dynamically depending on the task you're performing.

Icon	Touch Button	Description
	Record mode	Tap to launch the scene mode menu.
	Self-timer/Burst	Tap to popup the self-timer/burst menu.
	Macro	Tap to popup the macro menu.
	AF area/Face tracking	Tap to popup the AF area/Face tracking menu.
	Menu	Tap to launch record menu.
	Display	Tap to switch the display mode of the LCD monitor.
	Previous file	Tap to view the previous file.
	Next file	Tap to view the next file.
	Exit	Tap to exit the menu.
	Return	Tap to return main menu or last screen.
	OK	Tap to apply the setting.

# Turning the Power On and Off

Press the **Power button**  to power on and off the camera.

- The startup image displays briefly and the startup sound plays if enabled.
- This camera will also power up if the playback button is pressed . If pressed, the last recorded photo, video clip, or audio clip will be displayed and the lens will not be extended.



To turn off the camera, press the **Power button** , or the camera will automatically shut off when not used for the selected Power Save (see page 68 for details) setting. The default setting is after 1 minute of inactivity.

## Initial Settings

When the camera is powered up for the first time, please set the display language and date & time.




### Setting the Language

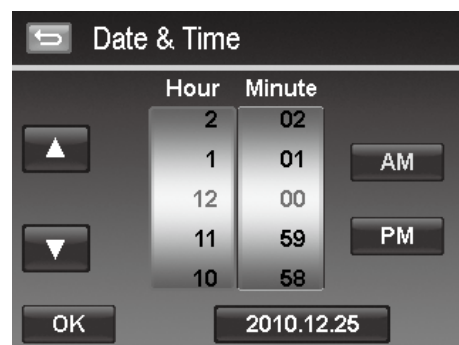
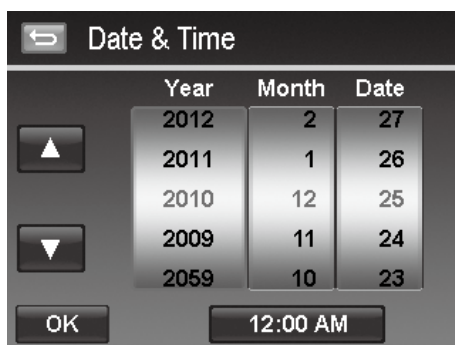
Specify in which language menus and messages are to be displayed on the LCD monitor.

1. Tap  or  to turn pages.
2. Tap the desired language button and apply.






### Setting the Date & Time

1. Tap the screen to select Year/Month/Date or Hour/Minute.
2. Tap  or  icon to change the value for the date and time.
3. Tap  to apply.



If necessary, press  to close the menu.

At this point, the camera settings are set to the default automatic mode and is ready to take photos and videos.

	<ul style="list-style-type: none"><li>• Holding down  or  icons keys to change the values continuously.</li><li>• If the camera is without battery power for more than 48 hours, the initial settings may reset and require another setup.</li></ul>
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# Modes

Your camera has two modes:

## Record Mode

This is the default mode while you turn on the camera every time. You are able to take photos and record videos/ audio clips in this mode.

## Playback mode

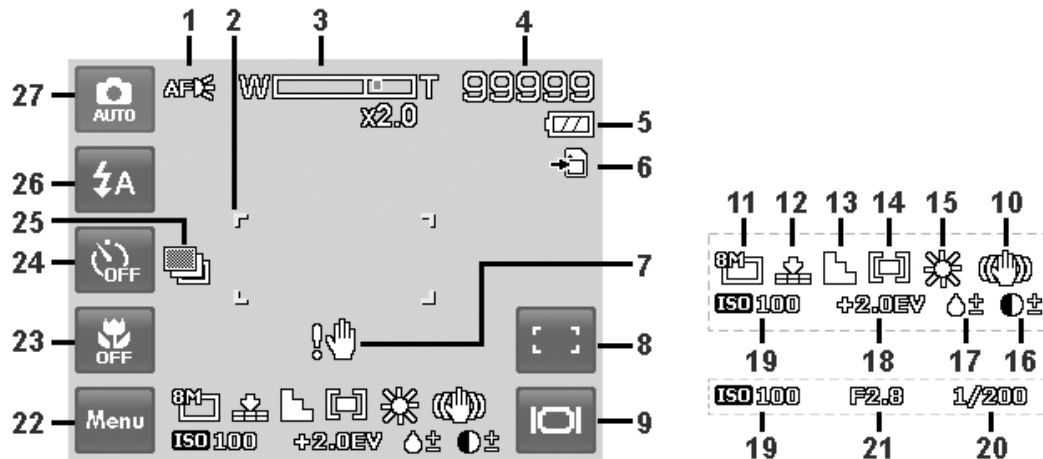
Press the **Playback** button  after the camera is turned on to view and edit captured images or playback videos and audio clips. The recording of voice memo attached to images is available in this mode.

# Using the Touch Screen

The touch screen shows all important information regarding camera settings as well as the visual image of your image or video. It also provides all kinds of touch buttons to control the settings for the camera. The display on the touch screen is called the On Screen Display or OSD.

## Touch screen Layout

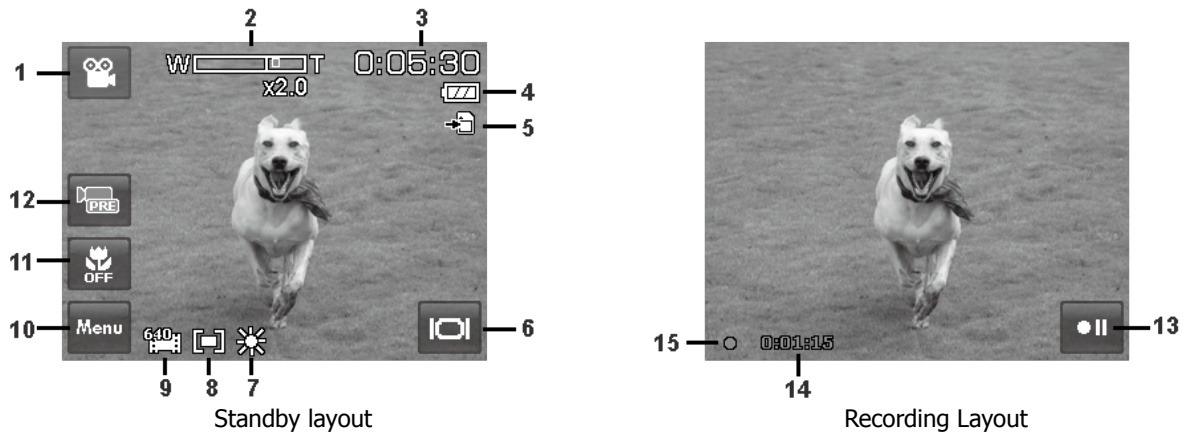
### Photo Mode Screen Layout



No.	Item	Description
1	AF lamp	Indicates AF lamp is enabled. Please see page 44 for additional details.
2	Display focus area settings	Use to frame subject to capture.
3	Zoom indicator	Displays zoom type and level. Please see page 24 for additional details.
4	Shots remaining	Indicates the remaining shots available.
5	Battery	Indicates approximate battery level.
6	Storage media	Indicates current storage media in use. Options are Internal memory and SD/SDHC memory card.
7	Shake warning	Indicates that the camera is moving too much that may result in image blur. Use of a tripod or steady hand may be required.
8	Touch button – AF area/Face tracking	Tap to display the AF area/face tracking popup menu.
9	Touch button - Display	Tap to switch the display mode of the LCD monitor.
10	Image Stabilizer	Indicates if the image stabilizer function is enabled. Please see page 23 for additional details.
11	Resolution	Displays photo resolution settings. Please see page 41 for additional details.
12	Quality	Displays quality settings. Please see page 41 for additional details.
13	Sharpness	Displays sharpness settings. Please see page 45 for additional details.
14	Metering	Displays metering settings. Please see page 43 for additional details.
15	White balance	Displays white balance settings. Please see page 42 for additional details.

16	Contrast	Displays contrast settings. Please see page 46 for additional details.
17	Saturation	Displays saturation settings.
18	Exposure	Displays exposure settings.
19	ISO	Displays ISO settings. Please see page 43 for additional details
20	Shutter speed	Displays shutter speed settings. Please see page 27 for additional details
21	Aperture value	Displays aperture settings.
22	Touch button - Menu	Tap to launch record menu
23	Touch button - Macro	Tap to display the macro popup menu.
24	Touch button - Self-timer/Burst	Tap to display the self-timer/burst popup menu.
25	AEB	Indicates AEB function is enabled
26	Touch button - Flash	Tap to popup the flash menu.
27	Touch button - Record mode	Tap to launch the scene mode menu.

## Scene Mode - Video Mode Screen Layout

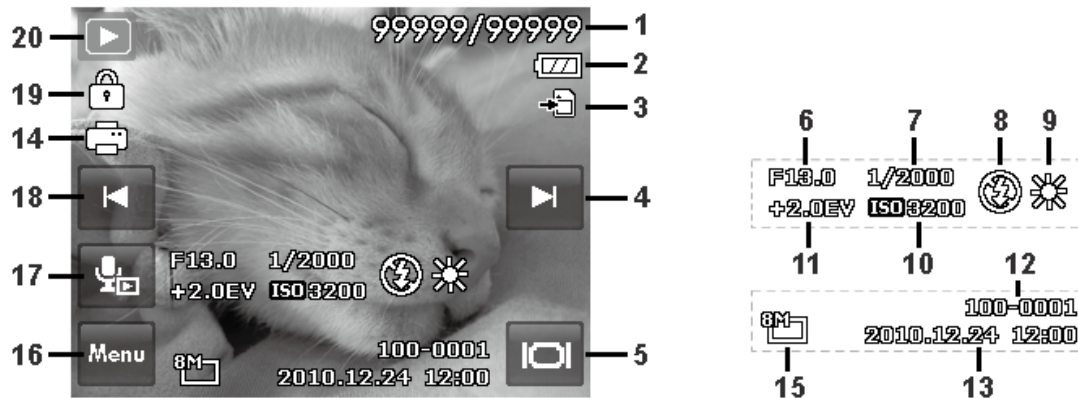


No.	Item	Description
1	Touch button - Record mode	Tap to launch the scene mode menu.
2	Zoom indicator	Displays zoom. Please see page 24 for additional details.
3	Time remaining	Indicates the remaining time of video available.
4	Battery	Indicates approximate battery level. Please see page 68 for additional details.
5	Storage media	Indicates current storage media in use.
6	Touch button - Display	Tap to switch the display mode of the LCD monitor.
7	White balance	Displays white balance settings. Please see page 42 for additional details.
8	Metering	Displays metering settings. Please see page 43 for additional details.
9	Resolution	Displays video resolution settings.
10	Touch button - Menu	Tap to launch record menu.
11	Touch button - Macro	Tap to display the macro popup menu.
12	Touch button - Pre Record	Tap to set pre record on/off.
13	Touch button - Pause	Tap to pause/resume recording.
14	Recorded time	Display recorded time.
15	Recording status	Indicates recording status.

## Playback Mode Screen Layout

The Playback mode display varies depending on the type of image being viewed.

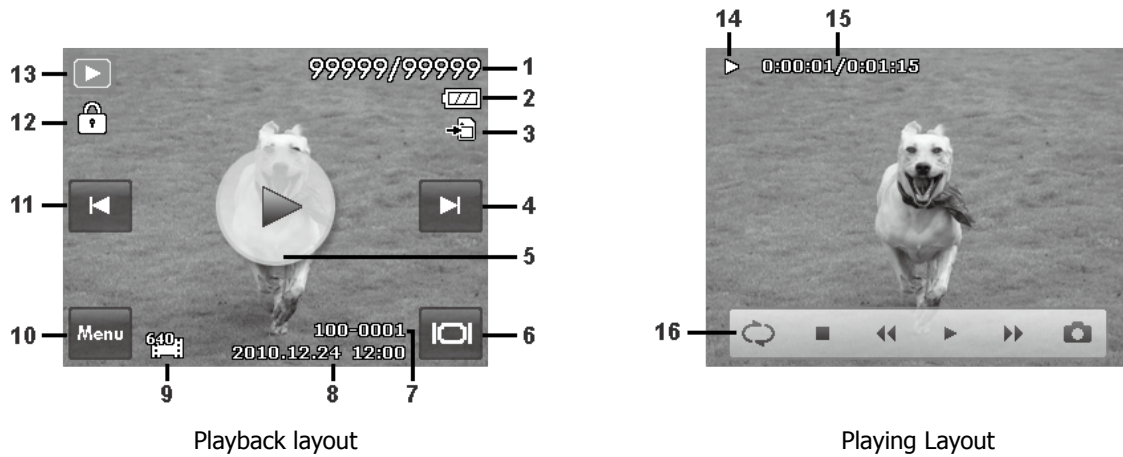
Playback mode display of photos:



No.	Item	Description
1	File no./Total no.	Indicates the file number over the total number of files in the internal memory or SD/SDHC memory card.
2	Battery	Indicates approximate battery level.
3	Storage media	Indicates current storage memory. Options are internal camera memory or SD/SDHC memory card.
4	Touch button - Next file	Tap to view the next file.
5	Touch button - Display	Tap to switch the display mode of the LCD monitor.
6	Aperture value	Displays aperture value of the image.
7	Shutter speed	Displays shutter speed setting of the image
8	Flash	Displays flash setting of the image.
9	White balance	Displays white balance setting of the image.
10	ISO	Displays ISO setting of the image.
11	Exposure	Displays exposure setting of the image.
12	Folder/Filename	Indicate the location/filename of the image
13	Date & Time	Displays the recorded date & time of the image.
14	DPOF	Indicates the file is marked for printing. Please see page 66 for additional details.
15	Resolution	Displays the photo resolution setting at the time it was taken.
16	Touch button - Menu	Tap to launch playback menu.
17	Voice memo	Tap to record an attached voice memo for the image.
18	Touch button - Previous file	Tap to view the previous file.
19	Protect	Indicates file is protected. Please see page 63 for additional details.
20	Playback mode	Indicates playback mode.



Playback mode of videos:

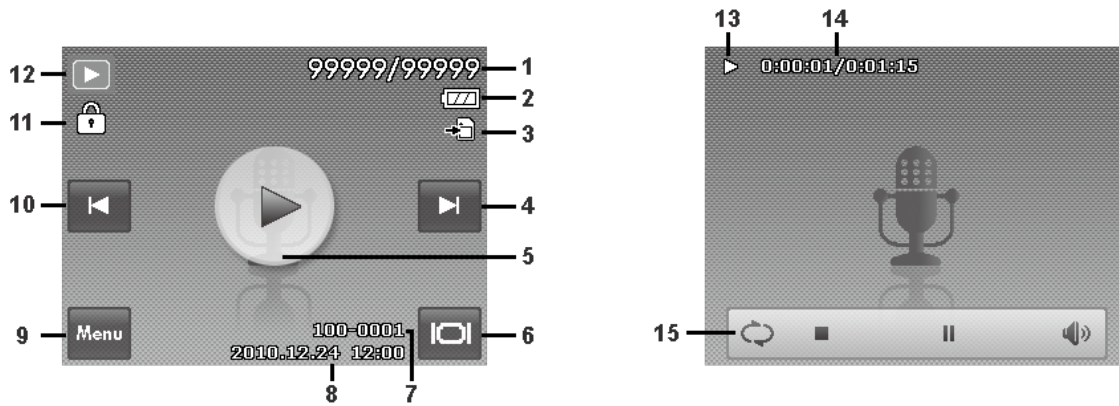


Playback layout

Playing Layout


No.	Item	Description
1	File no./Total no.	Indicates the current file number and total files stored in the internal memory or SD/SDHC memory card.
2	Battery	Indicates approximate battery level.
3	Storage media	Indicates current storage memory. Options are internal camera memory or SD/SDHC memory card.
4	Touch button - Next file	Tap to view the next file.
5	Touch button - Play	Tap to play the video clip.
6	Touch button - Display	Tap to switch the display mode of the LCD monitor.
7	Folder/Filename	Indicate the location/filename of the video clip.
8	Recording date & time	Displays the date and time of the video clip at the time is was recorded.
9	Video Resolution	Indicates the resolution setting of the video clip at the time is was recorded.
10	Touch button - Menu	Tap to launch playback menu.
11	Touch button - Previous file	Tap to view the previous file.
12	Protect	Indicates file is protected. Please see page 63 for additional details.
13	Playback mode	Indicates the camera is in playback mode.
14	Playing status	Displays playing status. The options are: play, pause, rewind, or fast forward.
15	Played time	Indicates the played time of the video clip.
16	Control touch panel	The control panel of video clip. (Repeat, Stop, Rewind, Play/Pause, Fast Forward, Snap Shot / Volume)

Playback mode of audio clips:




No.	Item	Description
1	File no./Total no.	Indicates the current file number and total files stored in the internal memory or SD/SDHC memory card.
2	Battery	Indicates the approximate battery level.
3	Storage media	Indicates current storage memory. Options are internal camera memory or SD/SDHC memory card.
4	Touch button - Next file	Tap to view the next file.
5	Touch button - Play	Tap to play the audio clip.
6	Touch button - Display	Tap to switch the display mode of the LCD monitor.
7	Folder/Filename	Indicate the location/filename of the audio clip.
8	Date & Time	Displays the recorded date & time of the audio clip.
9	Touch button - Menu	Tap to launch playback menu.
10	Touch button - Previous file	Tap to view the previous file.
11	Protect	Indicates file is protected. Please see page 63 for additional details.
12	Playback mode	Indicates the camera is in playback mode.
13	Playing status	Displays playing status.
14	Played time	Indicates played time.
15	Control touch panel	The control panel of audio clip. (Repeat, Stop, Play/Pause, Volume)

# Changing the LCD Monitor Display


The type of information displayed on the LCD monitor can be changed tapping the on-screen display button. Tap the  icon repeatedly to change the LCD display from one type to another. In Photo/Video Mode, the LCD display can be changed into any of the following:

- Basic
- Full
- Minimal
- Guidelines
- No icons or information

	<ul style="list-style-type: none"><li>• The OSD information may vary depending on the record mode type.</li><li>• The following icons, if enabled, are still displayed on the LCD even when OSD off or Guide lines on: AEB, Face tracking, AF lamp, Drive mode, and Macro.</li><li>• Use the "Guide lines" to properly set image for capture.</li></ul>
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## In Playback mode, the LCD display can be changed into any of the following:




- Basic
- Full
- No icons or information


	<p>LCD display cannot be changed in the following situations:</p> <ul style="list-style-type: none"><li>• Manual exposure mode</li><li>• While recording video or audio clips</li><li>• During playing video or audio clips</li><li>• Playing slideshow</li></ul>
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# Recording Photos, Videos and Voices

## Taking Photos



This camera is designed to make the experience of taking photos simple and quick. Its Auto mode feature will optimise the internal settings so that in most situations, it can take photos with ease. This camera also has additional modes and features that extend the capabilities for the more experienced user.

1. Power on the camera by pressing the **Power button** .
2. Frame the shot using the focus bracket on the LCD monitor.
3. Lightly pressing the **Shutter button**  down to the halfway position will start the automatic focus and adjustments to the exposure level. When the camera has successfully completed this automatic routine, the focus bracket will turn green. If the automatic focus and exposure routine is not successful, the bracket will turn red. If this occurs, simply release the shutter and repeat this step until the bracket turns green. In some situations, lighting and contrast may be insufficient for the camera to successfully complete the auto focus and exposure level routine. If this occurs, try better lighting.
4. Pressing the **Shutter button**  down fully will take the photo. If you take the photo when the bracket is red, the focus and exposure may not be correct.

If the shake warning icon  appears, hold the camera steadily, with your arms at your side or use a tripod to stabilize the camera to reduce the risk of blurred photos.



## Using Voices Recording










1. From the Scene menu, select **Voice**. The Voice Recording screen layout is displayed on the LCD monitor.
2. Press the **Shutter**  button to start recording.
3. Press the **Shutter**  button again to stop recording.






# Recording Videos


This camera is capable of recording videos. Since video recording requires significant memory capacity, it is highly recommended to use SD/SDHC cards with this feature. The available recording time depends on the capacity of the memory card. Videos can be recorded until the maximum memory capacity has been reached. However the length of a single video clip is limited to 4 GB. To increase the recording length, lower the video quality settings (See page 22 for details).



1. Power on the camera by pressing the **Power button** .
2. Tap the on-screen **Record mode icon**  **AUTO** and navigate to and tap the .
3. Lightly pressing the **Shutter button**  down to the halfway position will start the automatic focus and adjustments the exposure level. When the camera has successfully completed this automatic routine, the focus bracket will turn green. If the automatic focus and exposure routine is not successful, the bracket will turn red. If this occurs, simply release the shutter and repeat this step until the bracket turns green. In some situations, lighting and contrast may be insufficient for the camera to successfully complete the auto focus and exposure level routine. If this occurs, try better lighting.
4. Pressing the **Shutter toggle**  down fully will begin the video recording.
5. Use the **Zoom toggle**  to zoom in and zoom out.
6. To pause recording, tap the **Pause icon** .
7. To continue recording, tap the **Pause icon**  again.
8. To stop recording, press the **Shutter button** .

	<ul style="list-style-type: none"> <li>• When the camera stop recording due to reaching maximum capacity (<b>4GB</b>) for a single video, simply press the <b>Shutter button</b>  again to continue recording. To increase the recording length, lower the video quality settings (See page 22 for details)</li> <li>• The camera will automatically stop recording when the memory capacity is full.</li> <li>• Digital zoom is not available while recording a video.</li> <li>• Sound cannot be recorded while pressing the <b>Zoom toggle</b> .</li> <li>• Power save is not available in video recording or pause recording.</li> </ul>
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## Settings of Recording Videos





Tap the on-screen MENU  icon to launch video menu and configure the settings before recording a video.

### Movie Size

The Movie Size function appears only in Video mode. Use this function to adjust the resolution and quality of video clips.



The table below shows the available size and corresponding image quality settings.

Icon	Item	Description
	1280 x 720p	1280 x 720p HD (Note: Only class 6 [High Speed] SD/SDHC memory cards can be used with the 720p video recording feature of this camera). The length of a single video recording is up to 29 minutes.
	640 X 480	High Quality
	320 x 240	Normal
	Web	For Internet, see " Internet Mode" below.

### Internet Mode

The Internet Mode allows you to record videos with predefined video settings for easy upload to the Internet website.

The Internet supports two file upload standards:

- Single File Uploader. The maximum video file size is up to 100 MB.
- Internet Uploader. The maximum video file size is up to 1 GB.

Most uploaded video length ranges within 5 minutes.

Therefore when you record using the YouTube mode, the following standards are followed:

- Recorded videos are set to Internet standard resolution of 640 X 480.
- Recording automatically stops when the file reaches 100 MB.
- To record a YouTube video, select from the Movie Size function. Available recording time for a YouTube video is up to 10 minutes.

## Using the Stabilizer Feature

The Stabilizer feature is for Photo taking only. This feature is designed to help reduce the blurring effects on photos caused by slight camera movement. It is important to note that this feature cannot compensate for all movement and lighting situations and that in many cases may slow the camera's ability to auto focus.

How does it work? It works according to the luminance of the target object. This function uses special image data processing to optimise the high sensitivity of CCD sensor (also known as the digital film). High sensitivity allows the use of faster shutter speeds compared to the default mode, so it may reduce blurring caused by camera movement.

### To activate Stabilizer

- Press the **Stabilizer button**  located on the top of the camera to enable/disable stabilizer.

If Stabilizer is enabled, the stabilizer icon is displayed on the LCD monitor and the ISO setting is automatically set to Auto. See "Setting ISO" on page 43 for more details.



## Setting the Zoom Control

Using a combination of 4 times optical zoom and 5 times digital zoom permits zoom photography at up to 20 times magnification. While the digital zoom can be a useful feature, the more an image is enlarged (zoomed), the more pixelated (grainier) the image may appear. Please refer to "Setting the Digital Zoom" on page 48 on how to setup digital zoom.

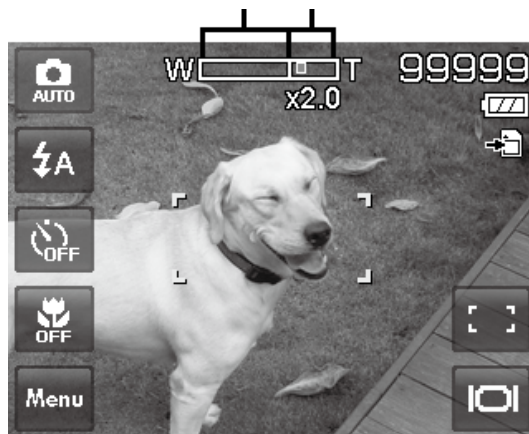
### To adjust the optical zoom:

1. Move the Zoom toggle to the left  to zoom out or to the right  to zoom in.
2. The zoom indicator appears on the LCD monitor. 

To adjust the digital zoom:

1. Activate digital zoom. See "Setting the Digital Zoom" on page 48.
2. Move the Zoom toggle to the **T** position until the maximum 4X optical zoom is reached.
3. Momentarily center the zoom toggle then move to the **T** position to initiate the Digital Zoom feature.
4. Moving the toggle to the **W** position will zoom out and return the camera to optical zoom.

Optical zoom 1X to 4X Digital zoom 1X to 5X




- Digital zoom is not available for video recording.
- Slight camera movement in digital zoom will make it more difficult to focus on objects/subjects. Use of a tripod can reduce this issue.



# Using Flash Features

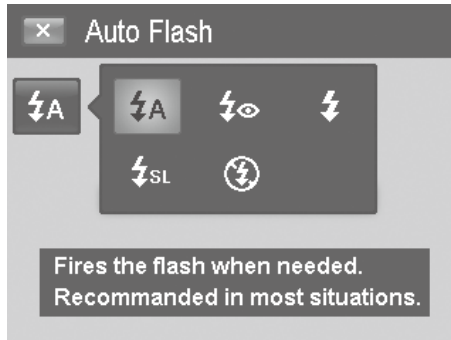
By default, this camera is set to automatic flash mode which means that it will determine when to use this feature or not. However, in some situations, it may be useful to manually select the appropriate flash mode. When taking







pictures in difficult lighting conditions, use the **Flash button**  to select the desired mode. This function cannot be activated while recording videos or continuous shooting.


## To activate Flash:



- Tap the on-screen **Flash** icon to display the popup flash menu and tap desired flash mode icon.



Icon.	Item	Description
	AUTO	The flash fires automatically whenever the camera determines extra lighting is needed. This is the default mode of the camera.
	Red-eye reduction	The flash fires twice to help reduce the red-eye effect. The first flash strobe is designed to force the iris of the subject to reduce in size to compensate for the bright light, thus reducing the reflection (red eye effect) of the Eye retina. The second strobe is when the photo is taken.
	Forced on	The flash fires whenever you press the <b>Shutter button</b>  regardless of lighting conditions. This may be useful in some bright backlight situations.
	Slow sync	This would be used to capture a dimly lit background while keeping the foreground (subject) properly lighted. This flash mode forces the camera to use a slower shutter speed in combination with the flash. The flash fires briefly to light the foreground (subject) while capturing ambient light to reveal more detail in the background. If Slow Sync flash is not used, the background may appear black or underexposed.
	Forced off	The flash is turned off and will not fire regardless of the lighting situation. In low light situations, the use of a tripod may be required to reduce photo blurring.

	<ul style="list-style-type: none"> <li>• Flash function is only available in shooting still images but not available in Burst and AEB modes.</li> <li>• Do not change the flash while moving the zoom toggle. Change the flash after releasing the zoom toggle if necessary.</li> </ul>
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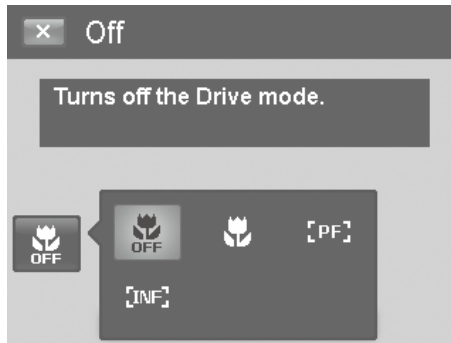
# Setting the Focus Mode

This function allows users to define the type focus when recording a still image or a video clip.

## To set the Focus mode



- Tap the on-screen Macro icon to display popup macro menu and tap the desired icon.



Icon.	Item	Description
	Normal	With normal focus, the focus range starts from 0.4m (about 16 inches) to near infinity. When the camera is set to Normal mode, there is no icon displayed on the screen.
	Macro	This mode is designed for close-up photography. This mode should be used for subjects closer that are 0.4 m (or 16 inches) from the lens. If Macro is enabled, the camera can capture the detail and sharpness of a very close subject by fixed focus.
	Pan Focus	This mode is designed to accurately focus on a desired subject so that closer and further objects are out of focus. For example, the camera might focus on a nearby tree, and the distant trees and mountains are blurry, as well as an even closer object such as a flower.
	Infinity	When Infinity is set, the camera focuses on distant objects. This may be good to use when taking landscape photos.

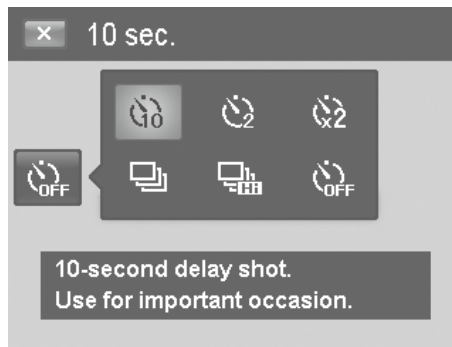
# Setting the Drive Mode

This camera features a Self-timer and Burst function which can be set in the Drive mode function on the screen. The Self-timer allows you to take photos after a pre-defined delay. While burst lets you take consecutive shots. This function is only available in recording still images. The Drive mode setting is automatically set to off when you turn off the camera.

## To activate Drive mode:



- Tap the on-screen Drive icon to display the popup drive mode menu and tap the desired icon.



The table below shows the available Drive mode settings.

Icon	Item	Description
	10 Sec Self-timer	Sets a 10-second delay to capture image after pressing the <b>Shutter button</b>
	2 Sec Self-timer	Sets a 2-second delay to capture image after pressing the <b>Shutter button</b>
	Double Self-timer	Performs delay and capture twice: <ul style="list-style-type: none"> <li>• Performs a 10-second delay, then captures the image.</li> <li>• Performs another 2-second delay then captures the image again.</li> </ul>
	Burst	Performs continuous shooting when the <b>Shutter button</b> is pressed. Stops shooting when the <b>Shutter button</b> is released.
	Speedy Burst	Captures 30 images in a shot when the <b>Shutter button</b> is pressed. Auto set Image size to VGA only.
	Off	Captures an image without time delay.



Tap operation is disabled during drive mode.

# Setting the AF Area/Face tracking/Touch Shot

AF stands for Automatic Focus. This feature determines the area on which the camera focuses.





To set AF Area:



- Tap the on-screen AF Area icon to display the popup AF Area menu and tap the desired icon.





How to use Face tracking:

1. Tap the on-screen **AF Area icon**  and then choose **Face Tracking** .
2. Frame the target(s), when a face is detected, a white focus box appears on the screen and tracks the face continuously.
3. Press the **Shutter button**  halfway, the white box turns into green (success focus), or red (focus failed).
4. If the box of main focus target turns green, press the **Shutter button**  (full press) to take the shot.
5. Or, release the shutter to re-focus target(s).







Up to 10 faces can be detected in the same time.

How to use Touch shot:

1. Tap the on-screen **AF Area icon**  and then choose **Touch shot** .
2. Frame the subject with the yellow focus frame on the screen.
3. Tap the yellow focus frame and a dotted line area appears on screen.
4. Drag the focus frame to desired position **within** the dotted line area.
5. Release your finger from the screen, the camera performs AF and then captures the image.
6. If your finger left the screen outside the dotted line area and the camera did not perform AF and shooting, please repeat step 2 to 5 again.



The table below shows the available AF Area settings.





Icon	Item	Description
	Wide	The camera automatically selects focus area within the wide frame.
	Center	The focus area is fixed on the center.
	Face Tracking	The focus area traces human face automatically.
	Touch Shot	The focus area is controlled by finger and performs AF and shooting.

## Using the Record Menu

The Record menu allows you to change modes, and setup other capture settings.

### Record Menu



To go to Record Menu:

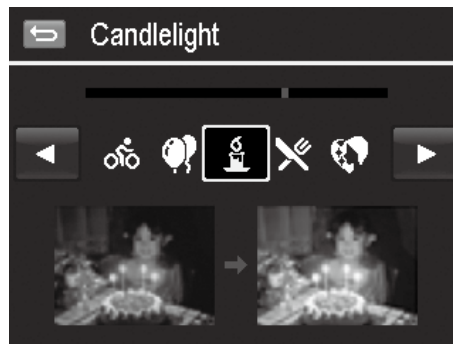
1. Tap the on-screen **MENU**  icon to launch the Record Menu.
2. Tap ▲ or ▼ to turn pages.
3. Tap the desired option button to enter submenu.
4. Configure the settings in the submenu.
5. Press the on-screen  icon to save and apply changed settings.
6. Tap the  icon or  icon to exit the menu or return main menu anytime.



## Setting the Scene Mode
















By simply selecting one of the following 32 modes, you can capture the image with the most appropriate settings.


















1. From the Record **MENU**  icon, tap to select **Scene Mode**. Or, tap on-screen **Record mode** icon  to enter scene mode selections.
2. Tap the ◀ and ▶ to move through the scene mode selections.
3. The center highlighted scene mode icon will either have text to describe the benefits of the mode or will have a side by side comparison that illustrates the benefits of selecting that scene mode. It is important to note that by selecting a particular scene mode (other than Auto) will take the camera out of its normal automatic settings capabilities and therefore optimize various settings that match a specific scene.






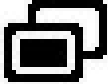



4. Once the desired scene mode is highlighted, tap the icon to select and exit to live view. The camera will remain in this scene mode until another is selected.
5. It is important to return the camera to the Auto mode when finished shooting specific conditions. This will reduce the risk of taking a bad photo in normal situations.

The table below shows the available scene mode settings.

Icon	Item	Description
	Auto	The simplest and usually safest way to shoot basic photos. Settings are automatically adjusted by the camera. Each time the camera is Powered off then on, this mode will be selected by default. This is recommended for novice photographers.
	Video	This mode is used to record video clips.
	Program	The camera automatically adjusts suitable shooting settings like shutter speed and aperture values. However, this mode allows for manual adjustments to EV, Auto White Balance, ISO(gain), Metering, and Color effects.
	Intelligent Scene	The camera detects the shooting conditions and automatically switches to the appropriate scene mode.
	Portrait	This scene mode will attempt to isolate the subject by opening a wide aperture to blur the background and providing little depth of field. The subject will stand out because the background is blurry and the subject is in focus.
	Landscape	This feature is used to emphasize wide distant scenic views.
	Sunset	This feature enhances the red hue for recording dramatic sunrise or sunset images.
	Backlight	This feature is best used to capture photos with a strong backlight. For example, this mode will lighten the exposure to make the face of the person in the foreground to look normal instead of dark while maintaining the clarity and brightness of the background details.
	Kids	This feature forces the camera to select settings that will be optimal for moving kids. Red eye reduction and skin tone enhancement are also a benefit of using this mode.
	Night Scene	This feature is used to taking photos with night scenery background. Camera settings will be adjusted to capture brighter and more vivid night shots. For best results and reduced image blurring, the use of a tripod for this mode is strongly recommended.
	LOMO	This mode emulates the image effects known as Lomography.
	Fireworks	This feature slows shutter speed to capture the full burst of fireworks. Another interesting use would be to take photos of night traffic. This will produce artistic head and tail light stretch effects. For best results and reduced image blurring, the use of a tripod for this mode is strongly recommended.
	Snow	This scene mode is best used when you're shooting against a bright background, such as snow or sand. This will enable the camera to focus on the subject instead of the background to determine the proper exposure and AWB settings for optimal results. If not selected, the subject may be too dark and the background "washed out".
	Sports	This scene mode will continue to capture images as long as the <b>Shutter button</b>  is pressed down. This is designed to aid for subjects in constant motion. It should only be used in adequate lighting situations because the flash will be disabled.

	Party	This scene mode will set red-eye flash and narrow other parameters that best match typical indoor wedding/party conditions.
	Candlelight	This feature is used to capture warm candle light effects.
	Night Portrait	This scene mode uses the flash and will leave the shutter open longer to get more ambient light from the background. This will help reduce typical flash pictures where the subject does not have a black/dark background. Ideally, this will produce photos that have more detail in the background. For best results and reduced image blurring, the use of a tripod for this mode is strongly recommended.
	Soft Skin	This scene mode will set red-eye flash and other camera parameters to enhance/soften tones that produce smoother younger looking skin as well as reduce the appearance of blemishes.
	Flowing Water	This mode enhances flowing water by applying a slight blurring effect.
	Food	This scene mode is designed to capture pictures of food in vivid colors. The Camera is set to macro mode focus and other parameters to increase saturation for enticing food images.
	Building	This feature enhances the edges of captured images that make it ideal to highlight details of buildings.
	Text	This feature enhances the black and white contrast normally used when capturing text images. Typically, normal photos of documents may look grey in tone. This mode will optimise settings for more color accurate results.
	Foliage	This feature boosts the saturation of greens to give a rich color to foliage and lawns.
	Auction	This feature combines up to 4 shots into a single photo and provides 4 patterns to select for usage of auction. It also selects resolution settings that produce detailed but smaller size photos that are ideal for email attachments and online auction postings.
	Smile Capture	This feature uses face tracking to auto detect faces to capture. Press the <b>Shutter button</b>  and with each smile, the camera automatically detects and takes the photo to help ensure those moments are captured. The camera will continuously take smile detected subjects until the <b>Shutter button</b>  is pressed again.
	Blink Detection	This feature detects if the subject blinked an eye when the image is captured and gives the user an option whether to save the photo or not.
	Pre-composition	Compose the desired background and capture the shot by pressing the <b>Shutter button</b>  . A semi-transparent portion of the photo will display in the background of the LCD live display. Use this as a guide to compose the final photo. Press the shutter again to capture the final photo.
	Love Portrait	This feature uses face tracking to auto detect faces to capture portraits photos without the help of others. When two faces or more are detected in the same focus range, the AF is automatically activated and the camera starts a visual count down. In a few seconds, the camera automatically takes a picture. The camera will continue to snap photos as long as the two or more subjects are in range. This is a great feature to have when no one is around to assist.



	Self Portrait	<p>Normally, self portraits require the subject to hold the camera at arms length so that they can push the <b>Shutter button</b> . Often the result is a too close-up self image that is over exposed and background details reduced.</p> <p>This mode will not require the <b>Shutter button</b>  to be press while using face detection to track one or more faces in focus range. Once the camera has made the appropriate adjustments, it will start a visual countdown In a few seconds, the camera automatically take a picture. The camera will continue to snap photos as long as the one or more subjects are in range. This feature is great to compose never before possible self portraits.</p>
	HDR	<p>This feature applies digital processing only to the necessary portion(s) of the image and preserves details in highlights and shadows with natural contrast.</p>
	Fisheye Lens	<p>This mode emulates the effects of a Fisheye lens to photograph.</p>
	Voice Recording	<p>This mode is used to record audio clips. Slide the mode selector switch to the Voice Record icon (  )to enable this mode.</p>

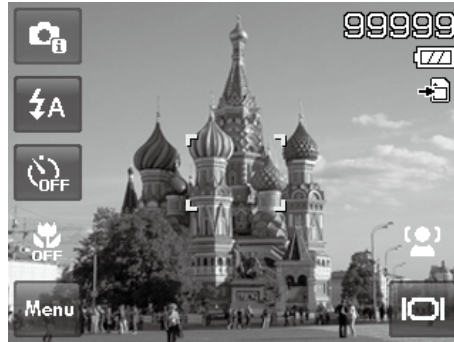
After selecting the scene mode, the selected mode, except Voice Rec, will be added to the forefront in **My Mode** of Function Menu.

## Using Intelligent Scene




This feature is most useful for novice users to capture great images even without basic knowledge of photography. Simply frame the shot with the help of Intelligent Scene Mode, the camera automatically recognizes 11 kinds of scenes - Portrait, Landscape, Sunset, Macro, Text, Snow, Backlight Portrait, Backlight Portrait, Night Scene, Night Portrait and Foliage - and selects the ideal settings.

Intelligent scene icon. After the camera detects the shooting conditions, this icon changes to show the detected scene mode.

Intelligent scene icon. After the camera detects the shooting conditions, this icon changes to show the detected scene mode.



### To activate Intelligent Scene

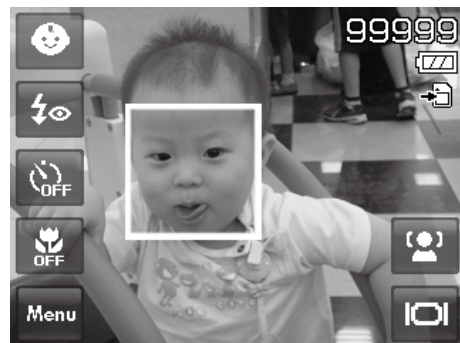
1. Select  from the Scene Mode submenu.
2. Focus the camera on the subject to capture.
3. The camera detects the shooting conditions and switches to an appropriate scene mode.
4. Half press the **Shutter button**  to focus the subject. The frame turns green to indicate focus is set.
5. Press the **Shutter button**  to take the shot.

The camera changed to Landscape mode automatically.



## Using Kids Mode

Many people believe kids are one of the most difficult subject to photograph. They tend to be highly animated and can be a real challenge to make them pay attention for more than just a second or two. To capture a great moment for your kids, just keep the camera in kid mode. The mode provides higher shutter speed and always focuses on moving subject.



## Using LOMO Mode

The LOMO mode applies the following effects on the photo:

1. Over-saturated colors
2. Off-kilter exposure
3. Blurring
4. Darkening around the edges of photo



Original



LOMO

## Using Sports Mode

Ideal to taking a series of sports motion images, such as a golf swing, or try to capture the images of a flying hummingbird/butterfly, be sure to switch the scene mode to sports mode. This mode provides shutter in **Burst**

**speed** (Keep shooting images long as the **Shutter button**  is pressed) which allows you to capture a sequence of pictures that are frames apart clearly.



Make sure you have plenty of memory in your memory card as you will need it when you start shooting.

## Using Party Mode

Let the Party begin! It can be difficult to get everyone on a party. Get the whole gang together, take a group or family portrait. Party mode features Red-eye reduction flash and face tracking. Miss fewer shots, and have more time to focus on enjoying the party.

## Using Soft Skin mode

When the soft skin mode is activated, it makes wrinkles and lines look less conspicuous, while preserving resolution in areas of the picture outside of the skin. The camera detects skin color area, such as the face and processes the image to make the skin appear smooth.

## Using Flowing Water Mode

This feature enhances smooth effects like water or silk.



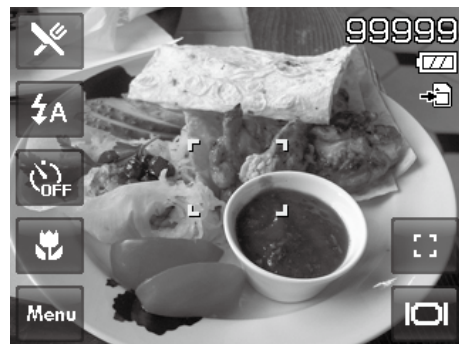
Original



Flowing Water

## Using Food Mode

How to share your dining experiences and comments of interesting widgets on your blog by close-up images? Just get the camera and set the scene with food mode. This mode features on macro focus and auto flash designed for close-up photography.



Marco focus and Auto Flash are enabled by using Food mode.

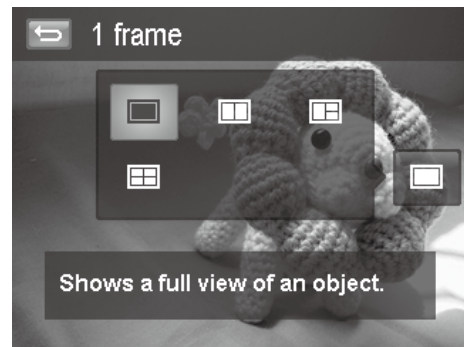
## Using Foliage Mode



A scenic image, such as a garden or forest scene, that full of dull green colors is boring. In foliage mode, the greens, blues, are brilliantly enhanced making scenic pictures pop out with bright color.

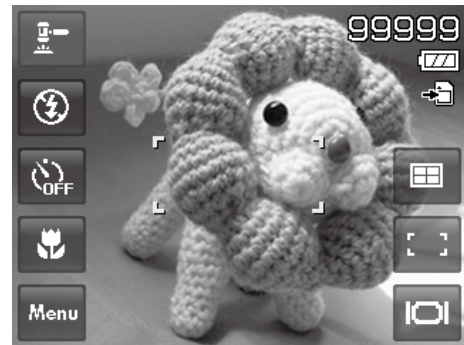
## Using Auction Mode

It's hard and wastes a lot of time to combine several images by software. Select Auction mode and choose a pattern, then take a few shots from different angles. The camera composes a combined image in lower resolution suited to online posting.

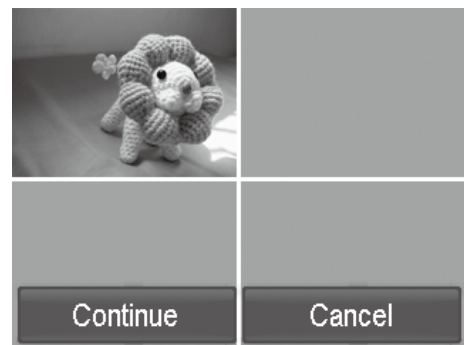
1. Select Auction mode from Scene mode menu.
2. Choose a pattern by tapping the icon.
3. Return the preview screen to start shooting.



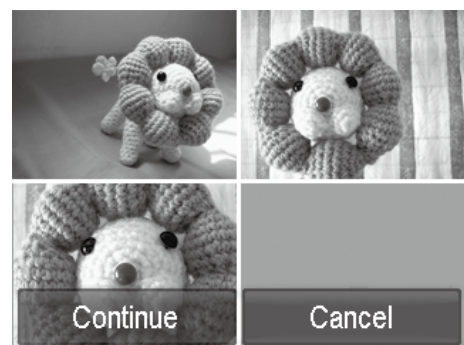
4. Frame the subject and press the **Shutter button**  to take the first shot.
5. Or, tap the on-screen **Auction** icon  to reset pattern.



6. Tap **Continue** button to proceed the second shot.
7. Or, tap **Cancel** button to go back the first shot.



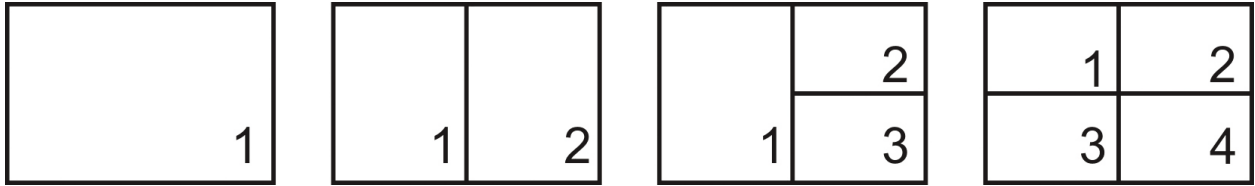
8. Repeat step 4 to 6, until the pattern is filled in images.




9. Tap **Save** button to save the composed image.
10. Or, tap **Cancel** button to go back last shot.
11. The image can be transferred to PC via USB cable (Please refer to "Connecting the Camera to a PC" on page 71) or memory card reader and uploaded to website



### Auction mode provides 4 kinds of pattern as follow




 The image is set to low quality and VGA (640x480) size only.

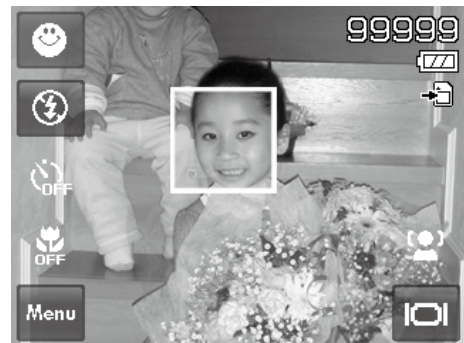
### Using Smile Capture Mode

When facing camera, especially kids, smiles are always short and hard to seize by manual shutter. Smile capture mode detects every smile all the time and performs Automatic Focus (AF) to capture an image without pressing

**Shutter button** .

Follow these instructions to capture a photo by Smile Capture Mode:

1. Select  from scene menu.
2. Focus the camera on the subject to capture.
3. When a smile is detected, the white focus frame turns green to denote camera shutter and take a shot automatically.






### Using Blink Detection Mode

Nothing ruins a great picture more than having a subjects' eyes closed. Blink Detection provides an extra assurance when capturing once-in-a-lifetime moments.

If closed eyes are detected, a saving confirmation menu appears on the screen, allowing you to re-take the shot before your subject or subjects move on.

To activate Blink Detection

1. Select  from Scene Mode submenu.
2. Half press the **Shutter button**  to focus the subject. The frame turns green to indicate focus is set.
3. Press the **Shutter button**  to capture the photo and automatically save the Image.
4. If the camera detects that a subject has blinked, a "**Save image or Cancel**" option appears on the screen.
5. Select **Save image** to save the photo, or **Cancel** to exit.





## Using Pre-composition Mode

When asking someone else to take photos for you, but the photos always don't come up right?



Pre-composition helps to get the desired background, even if someone else is needed to take the picture.

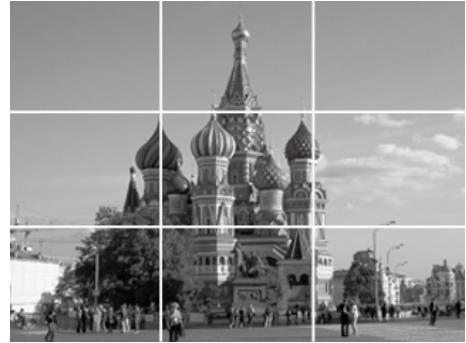
Basically, Pre-composition is a two-step process.

1. Compose the desired background and press the **Shutter button**




(full press), which causes a semi-transparent image of the background to remain on the LCD monitor. If the background

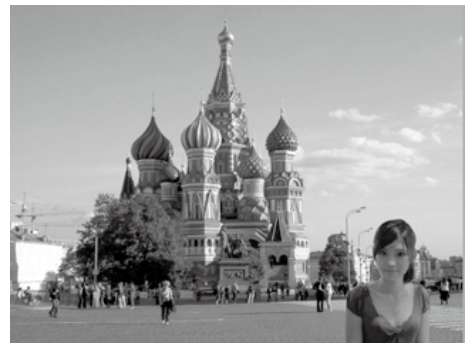
is not correct, tap the **Menu icon**  to cancel the semi-transparent temporarily image and repeat this step until the desired background is achieved. Tap the  button to cancel the semi-transparent temporarily image.



2. Ask someone else to take the desired picture by using the semi-transparent screen image as a guide.
3. Move your position until photographer confirm your whole or half body in the frame and in the right place.




4. Press the **Shutter button** . Camera stores the image produced by this step only.



## Using Love Portrait

Want to take a good photo when there are just two of you? All you have to do is position the camera and smile together.

If two or more faces are recognized, the camera performs 2-second countdown with a beep notice then take a shot without pressing the **Shutter button** . The camera will continue to take photos as long as two or more faces are in the field of view.

## Using Self Portrait

When taking the picture for yourself, the self portrait mode is necessary besides the tripod. If a face has been recognized, the camera performs 2-second countdown with a beep notice then take a shot without pressing the

**Shutter button** .

Tips to make a great shape by self portrait photography:

- Lean in towards the camera to reduce double chin.
- Angle your body and bend your arms to look slimmer.
- Keep your shoulders back.

## Using HDR Mode

Active HDR mode preserves details in highlights and shadows, creating photos with natural contrast. Use for high contrast scenes, for example, when photographing brightly light outdoor scenery through a door/window, or taking pictures of shaded subjects on a sunny day. With this feature, the adjustment of contrast is accomplished in-camera and requires no additional post-processing for the bulk of images.

## Using Fisheye Lens Mode

The Fisheye Lens mode applies a hemispherical effect on the photos to make them look more interesting.



Original

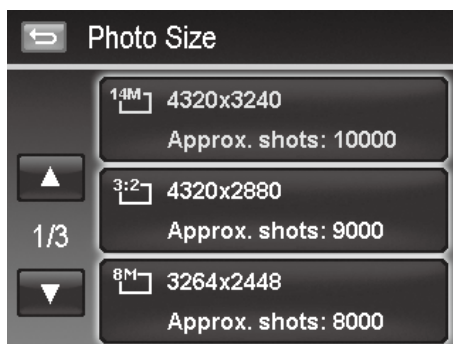


Fisheye Lens



## Setting Photo Size

The Photo Size function is used to set the resolution before you capture the image. Changing the Photo Size affects the number of images that can be stored in your memory card. The higher the resolution, the more memory space is required.



The table below shows the Photo Size values for still images.

Icon	Pixel Size	Printing Size Suggestion	Icon	Pixel Size	Printing Size Suggestion
	4320 x 3240	A2 Size		2048 x 1536	4" x 6"
	4000 x 2672	A2 Size		1920 x 1080	HDTV
	3264 x 2448	A3 Size		640 x 480	E-mail
	2592 x 1944	A4 Size			

## Setting Quality

This allows the quality (compression) at which the photo is captured to be increased or decreased. The quality determines the amount of compression applied to the photos. Superfine setting results in a more detailed image. However, the higher the quality, the more memory space is required in memory.



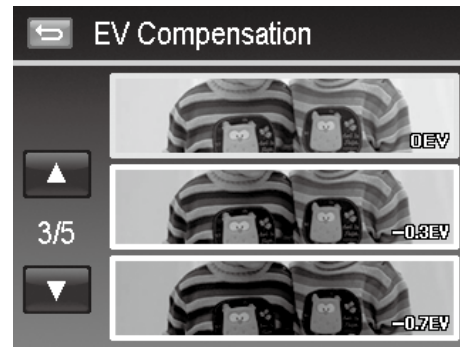
## Setting EV Compensation

Images can be captured with the overall scene intentionally made brighter or darker. These settings are used when a suitable brightness (exposure) cannot otherwise be obtained in circumstances where the difference in brightness between the subject and the background (the contrast) is large, or when the subject that you wish to capture is very small within the scene. Available for still images only.

To adjust EV settings:

- Tap ▲ or ▼ to turn pages and tap the desired EV value.
- The available settings are: 0EV +2.0EV/+1.7EV/+1.3EV/+1.0EV/+0.7EV/+0.3EV/0EV/-0.3EV/-0.7EV /-1.0EV/-1.3EV/-1.7EV/-2.0EV

As you tap ▲ and ▼ turn through the pages, you can see the closet 3 adjusting preview on screen synchronously.



## Setting White Balance

This sets the white balance for a variety of lighting conditions and permits photos to be captured to the desired level.

- As you tap and turn through the pages, you can see the closet 3 adjusting preview on screen synchronously.
- Below is a table with a description of the different settings



Icon	Item	Description
	Auto	The camera automatically adjusts the white balance.
	Daylight	Ideally used for bright sunny conditions.
	Cloudy	Ideally used for cloudy conditions.
	Tungsten	Ideally used for indoor photos with tungsten or halogen lighting without a flash.
	Fluorescent 1	Ideally used for indoor photos with reddish fluorescent lighting conditions.
	Fluorescent 2	Ideally used for indoor photos with bluish fluorescent lighting conditions.
	Manual	Used when light source cannot be specified. Press the <b>Shutter button</b> for the camera to automatically adjust the appropriate white balance setting according to the environment.

## Setting ISO

This sets the sensitivity of the sensor for capturing photos to compensate for various lighting situations. When the sensitivity is raised (and the ISO value is increased), photography in dark or dim lit locations are improved. However, this may result in a more pixelated (grainier) photo.

- Use a higher ISO setting in dim conditions and a lower ISO setting in brighter conditions. Read the text at the top to assist in determining the desired result.
- Available settings are :Auto, 100, 200, 400, 800, 1600 ,3200 <3M>, 6400 <3M>.

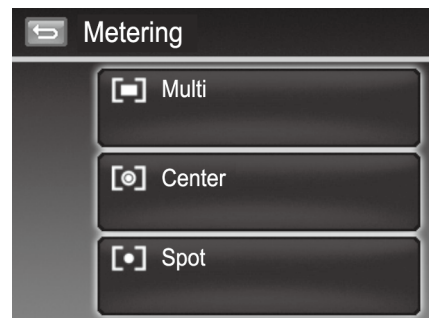


If the Stabilizer is enabled, ISO is automatically set to Auto and cannot be adjusted. To adjust ISO disable Stabilizer first.

## Setting Metering

The Metering function allows adjustment to select the area of the subject or frame by which the camera measures light to record still images or video.

- As adjustments to the settings are made, the LCD screen synchronously displays the image applying the metering settings.
- Below is a table with a description of the different settings.



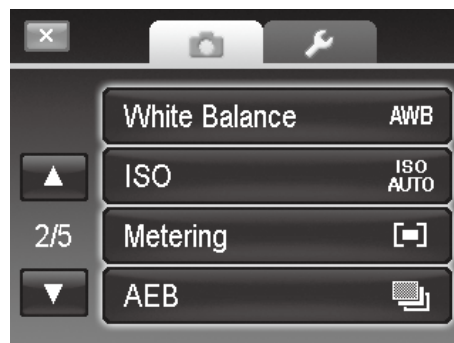
Icon	Item	Description
	Multi	The camera measures the exposure readings from multiple points in the subject area and selects the settings that best match this situation.
	Center	The camera measures the average light from the entire frame but gives greater weight to the subject matter at the center. The camera will select the settings that best match the situation.
	Spot	The camera selects the exposure value based on the center of your picture and selects the appropriate settings to match.

## Setting AEB

AEB stands for Automatic Exposure Bracketing. It takes 3 consecutive photos in the order of standard exposure, under exposure and overexposure compensation.

To set AEB

1. From the Record menu, tap AEB button.
2. Tap On/Off to enable/disable AEB.



## Setting AF area

AF stands for Automatic Focus. This feature determines the area on which the camera focuses.

To set AF Area:

1. From the Record menu, tap **AF Area**.
2. Tap the desired option button to apply.

For more information, please refer to "Setting the AF Area/Face tracking/Touch Shot" on page 28.

## Setting AF Lamp

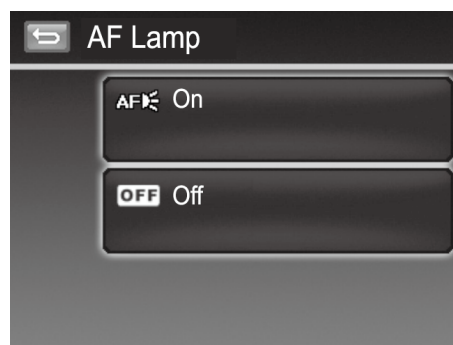
The AF Lamp function allows you to record images even low light conditions.

If AF Lamp is set to Auto, the AF lamp located in the front of the camera, see "Front View" on page 7, emits an red light by half

pressing the **Shutter button**  allowing the camera to focus easily.

To set AF Lamp:

1. From the Record menu, tap **AF Lamp**.
2. Tap On/Off to enable/disable AF lamp.

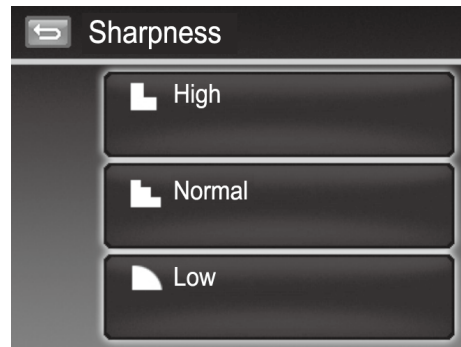


## Setting Sharpness




This function allows you to enhance or soften finer details of your photos.

### To set Sharpness

1. From the Record menu, tap Sharpness.
2. Tap the desired option button to apply.



The table below shows the available Sharpness settings.

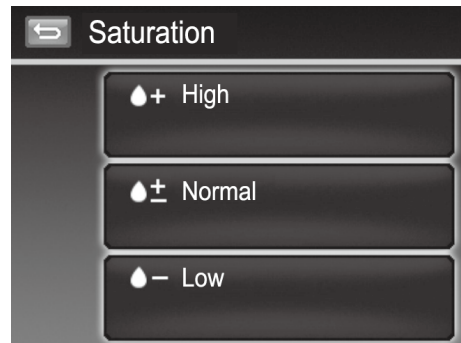
Icon	Item	Description
	High	Sharpens the image.
	Normal	Normal sharpness.
	Low	Softens the image.

## Setting Saturation




The Saturation function lets you adjust the color saturation in your photos. Use a higher saturation setting for rich colors and a lower saturation setting for more natural tones.

### To set Saturation

1. From the Record menu, tap Saturation.
2. Tap the desired option button to apply.



The table below shows the available Saturation settings.

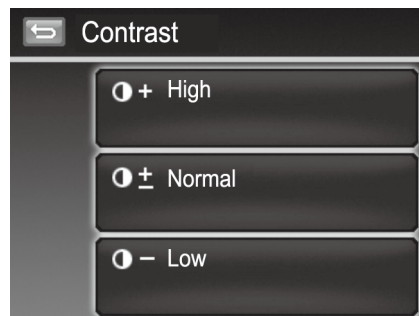
Icon	Item	Description
	High	Enhance the saturation.
	Medium	Medium saturation is applied.
	Low	Reduce the saturation.

## Setting Contrast

This function allows you to adjust the contrast of your photos.

### To set Contrast

1. From the Record menu, tap Contrast.
2. Tap the desired option button to apply.



Icon	Item	Description
	High	Enhance the contrast
	Normal	Normal contrast
	Low	Reduce the contrast

## Setting Flash

### To set Flash:

1. From the Record menu, tap **Flash**.
2. Tap the desired option button to apply.

For more information, please refer to "Using Flash Features" on page 25.

## Setting Drive Mode

### To set Drive mode:

1. From the Record menu, tap **Drive Mode**.
2. Tap the desired option button to apply.

For more information, please refer to "Setting the Drive Mode" on page 27.

## Setting Focus Mode

### To set Focus mode:

1. From the Record menu, tap **Focus Mode**.
2. Tap the desired option button to apply.











For more information, please refer to "Setting the Focus Mode" on page 26.

## Setting Color Mode

This feature allows adjustment to record photos and videos in different colors and tones for a more artistic effect. Tinting an photo or video color can make them appear more vivid.

- Present the adjusting results on screen synchronously when change options by tapping < / > in loop



Icon	Item	Description
	Normal	The camera records normally.
	Vivid	The camera captures the image with more contrast and saturation emphasizing on the bold colors.
	Sepia	Used to add the effect of an "aged" photo or video.
	B&W	Images are captured in black and white.
	Vivid Red	Images are tinted red. Ideally used to record images like flowers and cars to make them more vivid.
	Vivid Green	Images are tinted green. Ideally used to record images like mountains and lawns to make them more vivid.
	Vivid Blue	Images are tinted blue. Ideally used to record images like the sky and the ocean to make them look more vivid.
	Color Accent (Red)	Retains red tone while the rest of the scene becomes black and white.
	Color Accent (Green)	Retains green tone while the rest of the scene becomes black and white.
	Color Accent (Blue)	Retains blue tone while the rest of the scene becomes black and white.

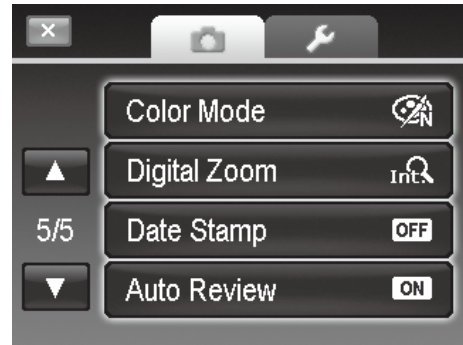
## Setting the Digital Zoom

This feature controls the digital zoom mode of your camera.




Your camera enlarges an image using the optical zoom first. When the zoom scale exceeds 4X, the camera uses digital zoom.

### To set Digital Zoom

1. From the Record menu, tap **Digital Zoom**.
2. Tap the desired option button to apply.



The table below shows the available Digital Zoom settings.

Icon	Item	Description
	Intelligent Zoom	Enlarges the image digitally with almost no distortion. This feature is available for still images only.
	Standard Zoom	Enlarges all image sizes up to a maximum of 5x in playback, but the image quality deteriorates.
	Off	Uses the optical zoom only.



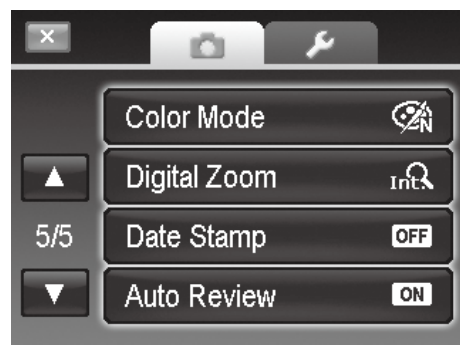
- Digital Zoom is not available in Face tracking on, Video, and Voice Recording modes.
- The maximum Intellect zoom scale varies depending on the image type and resolution.

## Setting the Date Stamp

The date of recording can be printed directly on the still images. This function must be activated before the image is captured. Once date and time are stamped on a photo, they can no longer be edited or deleted.

Limitations of Date Stamp functions are as follows:

- Available for still images only.
- May slow down AEB/ Burst shooting when Date Stamp is enabled in AEB/ Burst mode.
- In vertical or rotated images, the date and time on your photos still appear horizontally.



### To set Date Stamp

1. From the Record menu, tap **Date Stamp**.
2. Tap the desired option button to apply. (Date/Date& Time/Off)

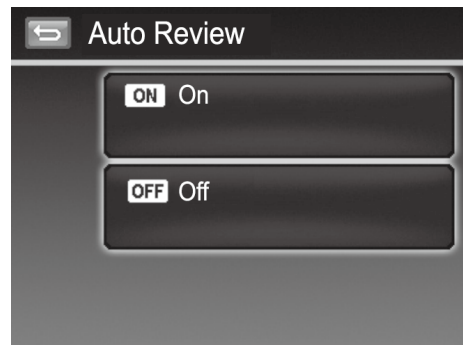


# Setting Auto Review

The Auto Review function lets you view the captured image right after shooting it. If Auto review is On, the camera will display the captured image for **1 second** on the LCD monitor.

## To set Auto Review

1. From the Record menu, tap Auto Review.
2. Tap On/Off to enable/disable Auto review.




## White Balance, Metering, Color Mode

To set above settings, please refer to pages 41, 42, and 45.

## Pre-Record

Catch the first three seconds of action that may would have potentially missed. Once enable this function, the camera starts recording video automatically before pressing

**Shutter button** .

As soon as the **Shutter button**  is hit, the most recent three seconds of video are added to the beginning of the clip.


Display the icon in red while turning Pre-record on.

### To set Pre-Record:

Tap the on-screen Pre-Record  icon to enable/disable the function.



The icon display in red while turning Pre-Record on.

	<p>Pre-Record will be canceled in the following situation:</p> <ul style="list-style-type: none"><li>• After recording starts.</li><li>• Switch to Photo mode or Playback mode.</li><li>• Any kind of menu is turned on.</li><li>• Enter USB mode.</li></ul>
---	--

# Playback

You can playback the still images, videos and audio clips on the LCD monitor.


## File Navigation

There are 4 playback modes for file navigation in this camera:

- Single navigation
- Photo Steam
- Thumbnail
- Calendar

## Viewing in Single Navigation Mode

The single navigation mode displays the image one by one on the LCD monitor. To view images/videos/audio clips, follow the steps below:

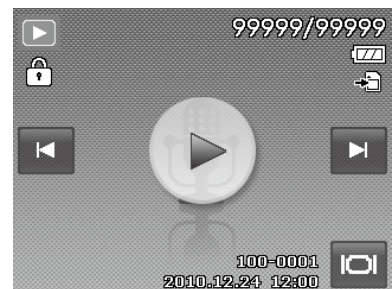
1. Press the **Playback** button  on the camera.
2. The LCD monitor displays an image. To understand the icons and other information on the screen, please see "Photo Mode Screen Layout" on page 13.






**Still Image**



**Video**



**Audio Clip**

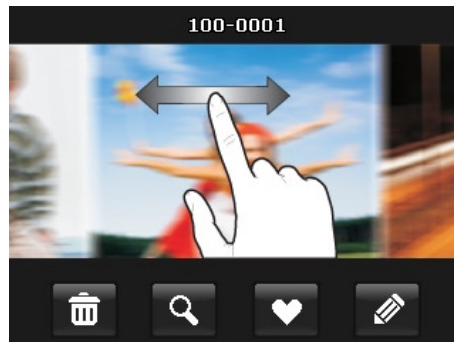
3. Tap the  or  on-screen icons to view next/previous image/video/audio.
  4. To play a video or audio clip, tap the on-screen **Play** icon .
- See "Playing Videos" on page 53 and "Playing Voice Recording" on page 54 for more details.

## Viewing in Photo Stream Mode





The photo stream mode displays files side-by-side and supports finger motions allows you to browse files with ease.

To use photo stream navigation:

- Switch from single navigation by tapping any part of the screen, except onscreen buttons.
- Drag left or right to scroll. (Dragging to scroll won't choose or activate anything on the screen)
- Flick to scroll quickly. You can wait for the scrolling to come to a stop, or touch anywhere on the screen to stop it immediately.
- Tap the center displayed image to view it in single navigation mode. Or, you can tap the half-hidden displayed image on the left/right side of the screen to view previous/next file in single navigation mode.





The table below shows the function of onscreen application buttons in photo stream mode.

Icon	Item	Description
	Delete	Tap to popup delete confirmation. For more information, please refer to "Delete" on page 61.
	Search Photos	Tap to launch photo search menu. For more information, please refer to "Search Photos" on page 55.
	Favorite	Tap to launch add-to-favorite menu. For more information, please refer to "Favorite" on page 57.
	Painter	Tap to activate painter application to edit the still image. For more information, please refer to "Painter" on page 60.

## Viewing in Thumbnail Mode

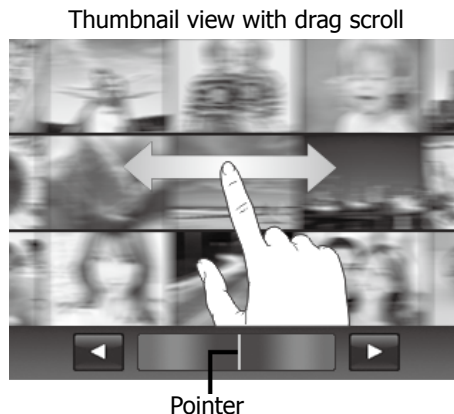
This function allows you to view 9-thumbnail images on the screen and it also supports finger motions as photo stream mode.

To set thumbnail mode

1. Set the camera to Playback – Single Navigation or Photo Stream mode.
2. Move the zoom toggle to the wide position  to display the thumbnail mode. Move the zoom toggle to the telephoto position  to exit thumbnail mode.




## To use thumbnail navigation:

- Drag left or right to scroll. (Dragging to scroll won't choose or activate anything on the screen)
- Flick to scroll quickly. You can wait for the scrolling to come to a stop, or touch anywhere on the screen to stop it immediately.
- Scroll a row horizontally to the previous/next row by tapping the on-screen ◀ or ▶ icon.
- Tap one of the displayed 9 images in the middle of the screen to view it in single navigation mode.
- To quickly scroll to your chosen location, drag the pointer of the scroll bar.




## Viewing in Calendar Mode

To set calendar mode:



1. Set the camera to **Playback** button .
2. Move the zoom toggle to the wide position twice  to display the calendar mode. Move the zoom toggle to the telephoto position **twice**  to exit the calendar mode.
3. Tap to select desired date to view the files in single navigation mode.



	<p>In calendar mode:</p> <ul style="list-style-type: none"> <li>• The first file (Including photo, video, audio and error file) recorded on each date appears on the screen.</li> <li>• Move the zoom toggle to the telephoto position once to switch to thumbnail mode.</li> </ul>
---	---



## Thumbnail icons:

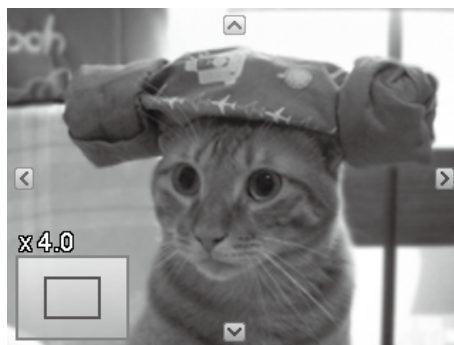
In playback mode some images may contain icons. These icons indicate the type of file or recording.

Icon	Item	Description
	Voice Record	Indicates a voice recording file.
	File Error	Indicates an error file. File errors may be a result of editing a photo with an external software editor or attempting to view a photo taken with a different camera.


## Zooming images

The zoom view function works with still images only.













- In single navigation mode, move the zoom toggle to the telephoto position  repeatedly until the desired magnification level.
- The 4 arrows on the LCD monitor indicate that the image is zoomed in.
- You can **zoom** to view an image up to 12X.
- Drag the enlarged image to desired position.
- Press the **Shutter button**  to close zoom view.




- Draw a circle (clockwise/counterclockwise) in single navigation mode to enlarge the image up to 4X.

	For 320 x 240 resolution images, you can only zoom in up to 6X.
---	---







## Playing Videos

1. Set the camera to **Playback** icon .
2. Tap the onscreen **Play** icon  to play a video clip.
3. During playback, tap the  or  icons on the control panel to fast forward or rewind the video. The camera supports forward and rewind speed of 4x.
4. Tap the  icon to pause playback; tap the  icon to resume or save a screen shot by tapping the  icon.
5. To forward or rewind the video frame by frame, press the  icon to pause playback, then press the  or  icons.
6. Tap the  icon to stop the playback. The screen displays the video frame image in Single navigation mode.
7. Tap the  icon to set repeat on/off



	<ul style="list-style-type: none"> <li>• Volume cannot be adjusted when you Pause or REW/FF.</li> <li>• On-screen control panel and playing info appears 2 seconds then hide. Tap the screen to pop them up.</li> </ul>
---	---

## Playing Voice Recording






1. Set the camera to **Playback** icon .
2. Tap the onscreen **Play** icon  to play the voice recording.
3. Tap the  icon to pause playback; tap the  icon to resume.
4. Tap the  icon to stop the playback and return single navigation mode.
5. Tap the  icon to set repeat on/off.



- Volume cannot be adjusted when you Pause.
- On-screen control panel and playing info appears 2 seconds then hide. Tap the screen to pop them up.

## Playing Voice Memo

Voice memo is separately recorded and attached to a captured image. See "Voice Memo" on page 54 on how to record voice memo.

1. Set the camera to Playback mode.
2. Tap the  icon to play the voice recording.
3. Tap the  icon to pause playback; tap the  icon to resume.
4. Tap the  icon to stop the playback and return single navigation mode.
5. Tap the  icon to set repeat on/off.




- Volume cannot be adjusted when you pause the voice memo
- On-screen control panel and playing info appears 2 seconds then hide. Tap the screen to pop them up.

## Volume Control

This feature controls the audio volume only when a video, voice recording or voice memo is playing back.

To set volume control:

1. During playback, tap the  icon to popup the volume bar.
2. Slide your finger vertically on it to adjust the volume.
3. Or, use Zoom button to control volume.  
Press zoom in/out to increase/decrease volume.












# Playback Menu

The Playback menu allows you to edit images, record voice memo, and setup playback settings.

To go to Playback Menu:

1. Set the camera to **Playback**  button.
2. Tap the on-screen **MENU**  icon to launch the Playback Menu.
3. Tap  and  icons to turn pages.
4. Tap the desired option button to enter submenu.
5. Configure the settings in the submenu.
6. Tap the  icon to save and apply changed settings.
7. Tap the  or  icon to exit the menu or return main menu anytime.




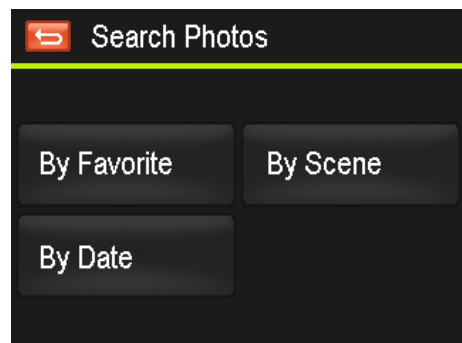
## Search Photos

Built-in search engine list files in the specific conditions:

- By Favorite
- By Scene
- By Date

To use the search function:

1. Select **Search Photos** by tapping it in the playback menu.  
Or, tap on-screen  icon from photo stream mode.
2. Tap the desired sorting rules and display files of the group in single navigation mode.
3. Switch to photo stream or thumbnail mode to locate the specific file(s). Please refer to "Viewing in Photo Stream Mode" on page 51 or "Viewing in Thumbnail Mode" on page 51.
4. Reset to display all photos by :
  - Enter Calendar mode then back single navigation.
  - Reboot



- Search by Favorite:

Favorite groups list in order of:



Please refer to "Favorite" on page 57. to know about how to add files into these groups. Tap the group button to display all files of the group in single navigation mode.



- Search by Scene:





Tap the group button to display all files of the scene in single navigation mode.



- Search by Date:

All date groups will be listed in captured order. Tap the group button to display all files of the scene in single navigation mode.







	The files of each group have a group icon in front of filename and display a specific Playback icon:  ,  or 
--	--

## Slideshow

The slideshow function enables you to playback all your still images automatically in order one image at a time.

### To view slideshow:

1. From the Playback menu, tap **Slideshow**. The Slideshow menu appears.
2. Set the slideshow settings.
3. Tap onscreen **Start** button to start the slideshow.
4. During slideshow, tap the  icon to pause/resume slideshow.
5. Or tap the  icon to stop the slideshow and return single slideshow menu.

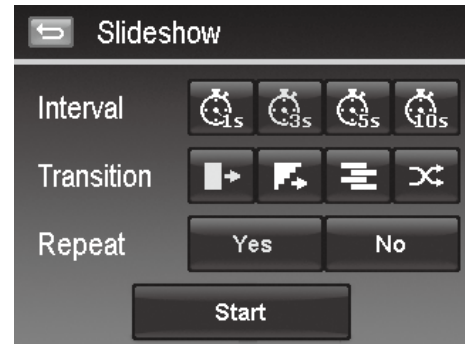
Slideshow icon appears on screen during the slideshow is playing or pausing. (  or  )





## To configure slideshow settings:


1. Tap to select Interval settings: 1 sec., 3 sec., 5 sec., and 10 sec.
2. Tap to select Transition settings:
  - Horizontal
  - Shrink
  - Fade
  - Random
3. Tap to select Repeat setting.  
Available settings are: Yes, No.



## Favorite

Arrange your files by sorting them to the built-in 10 favorite groups. The feature makes it easier to locate the desired photo/video/voice recording among numerous files with the function "Search Photos".

### To add/remove files to Favorite groups:



1. Set the camera to Playback mode and locate the desired file by single navigation or photo stream mode.
2. Tap the on-screen **MENU** Menu icon to launch playback menu and tap **Favorite**.  
Or, tap the on-screen  icon from photo stream mode.
3. Tap to select a group to mark the desired file and return playback mode.
4. Repeat step 1 and 2 to **remove** the desired file from the favorite group.
5. Tap **YES** to confirm, **Cancel** to abort.

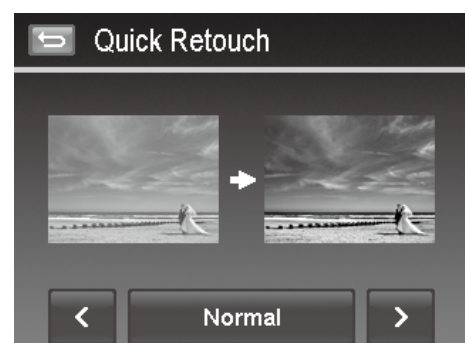


## Quick Retouch

The unique feature is designed to create a retouched copy for a still image with the best balance of contrast and saturation.

### To use Quick Retouch:


1. Set the camera to Playback mode and locate the desired photo by single navigation.
2. Tap the on-screen **MENU** Menu icon to launch playback menu and tap **Quick retouch**.
3. Tap to select a retouched level by the on-screen  or  icon.  
Available levels: **Low/Normal/High**.
4. Tap the on-screen level icon to popup confirm menu.
5. Tap **YES** to create a copy, **Cancel** to abort.



## Red Eye Correction

The 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.

### To activate Red Eye Correction:





1. Set the camera to Playback mode and locate the desired photo by single navigation.
2. Tap the on-screen **MENU**  icon to launch playback menu and tap **Red Eye Correction**.
3. Tap the on-screen Start icon to popup confirm menu.
4. Tap **YES** to save the corrected image as a new one, **Cancel** to abort.
5. Repeat step 2 to 4 to enhance the correction, if necessary.

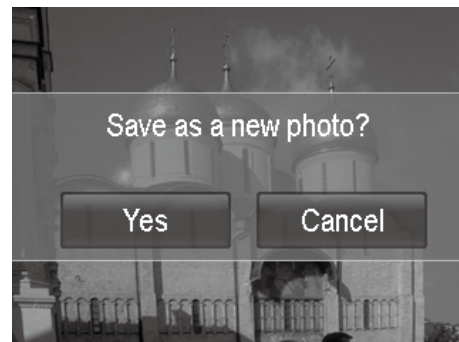


## Perspective Control

You may have noticed that buildings look as though they are thinner at the top when you shoot from a low viewpoint, also a road disappearing into the distance. All these are result of perspective distortion and all affected by the angle of view and focusing point. Perspective Control allows you to make areas thicker or narrower to correct these distortions.

### To use Perspective Control:

1. Set the camera to Playback mode and locate the desired photo by single navigation.
2. Tap the on-screen **MENU**  icon to launch playback menu and tap **Perspective Control**.
3. Tap the  or  icon once or more to correct distorted image until the subject in the image is straight and in correct size.
4. Tap the  icon to popup confirm menu.
5. Tap **YES** to save corrected image as a new photo, **Cancel** to abort.






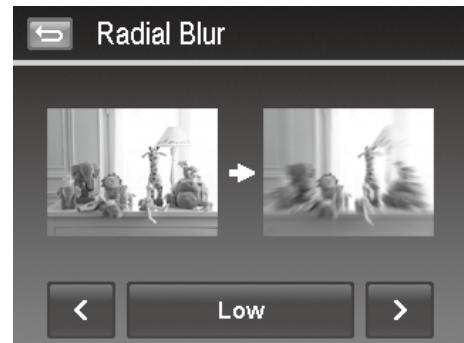
The camera allows applying this feature up to 10 times in the same perspective angle to an image.

## Radial Blur

The Radial Blur is an effect creates blurs around a point, simulating the result of a zooming or rotating camera.

To set Radial blur for an image:




1. Set the camera to Playback mode and locate the desired photo by single navigation.
2. Tap the on-screen **MENU**  icon to launch playback menu and tap **Radial Blur**.
3. Tap to select a blurred level by the onscreen  or  icon. Available levels: **Low/Normal/High**.
4. Tap the on-screen level button to popup confirm menu.
5. Tap **YES** to save blurred image as a new photo, **Cancel** to abort.



## Color Mode

The Photo Edit function lets you adjust edit still images to apply different colors or tones for a more artistic effect. Edited photos in this function are saved as a new file.

To set Color Mode for an image:

1. Set the camera to Playback mode and locate the desired photo by single navigation.
2. Tap the on-screen **MENU**  icon to launch playback menu and tap **Color Mode**.
3. Tap the  or  icon to select a color level on the image. Available filters: **Sepia/B&W/Negative/Mosaic/Vivid Red/Vivid Green/Vivid Blue**
4. Tap the on-screen filter button to popup confirm menu.
5. Tap **YES** to save the image as a new photo, **Cancel** to abort.






The succeeding table shows the available settings.

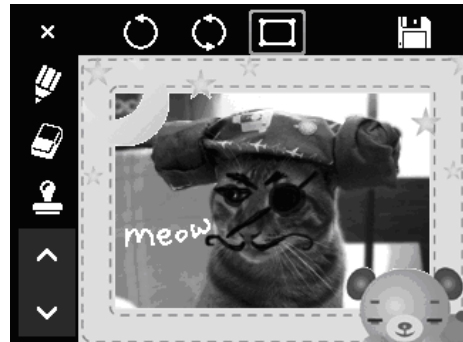
Item	Description
Normal	No effect is added to the image.
Sepia	Image is saved with a sepia tone.
B&W	Image is saved in black and white.
Negative	Image appears to be the opposite of the original image.
Mosaic	Image is saved with mosaic tiles.
Vivid Red	Image is saved with reddish tint.
Vivid Green	Image is saved with greenish tint.
Vivid Blue	Image is saved with bluish tint.

## Painter











Use your imagination and this Painter application to create exclusive images with the touch screen. Painter is an easy drawing toolbox which contains color pen, eraser, stamp and photo frame.

### To use the Painter for an image:

1. Set the camera to Playback mode and locate the desired image by single navigation or photo stream mode.
2. Tap the on-screen **MENU**  icon to launch playback menu and tap **Painter**.
3. Or, tap the on-screen  icon from photo steam mode.
4. Use your finger tip and the painter tools to edit the picture.
5. Tap the **X** button to **Yes / Cancel** edited image.
6. Or, Tap the  icon to save the image.
7. Tap **YES** to save the image as a new photo, **Cancel** to abort.








How to use the painter tools:

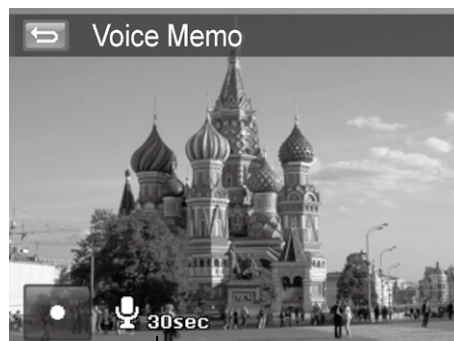
 Use the Pan: Tap ● or ■ to set stroke size or color.	 Use the stamp: Tap ★ or ■ to set stamp style or color.
 Use the eraser: Tap ● to set eraser size.	 Use the photo frame: Tap Λ or V to select photo frame.
 Undo Tap to undo last operation.	 Save Tap to save the image as a new photo.
 Reset Rest all painter's operation; wipe the screen.	 Exit Tap to exit without saving.
	For greater performance, the camera only allows  undo the operation on time.

## Voice Memo


A maximum of 30 seconds of audio can be recorded as a memo for captured still images.

To record voice memo:

1. Set the camera to Playback mode and locate the desired image by single navigation.
2. Tap the on-screen **MENU**  icon to launch playback menu and tap Voice Memo.
3. Start recording by tapping the on-screen  icon.
4. If your memo is less than 30 seconds, tap the  icon again to stop the recording.
5. The camera save the recording automatically and a  icon appears on the screen.
6. Tap the  icon to playback the voice memo.




Time left (n seconds) for recording.

	When you record voice memo to an image with an existing voice memo, the old recording file would be replaced by the new one.
---	--

## Delete

The Delete function allows to remove unwanted files in the internal memory or on the memory card. Protected files cannot be erased, to delete, unprotect the file first. See "Protect" on page 63.

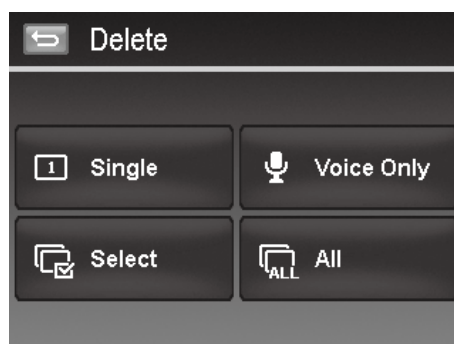
To delete a photo/video/audio clip:

1. Set the camera to Playback mode and locate the desired image by single navigation or photo stream mode.
2. Tap the on-screen **MENU**  icon to launch playback menu and tap **Delete**.

Or, tap the on-screen  icon from photo steam mode.

Available settings are as follow:

- **Single.** Select one file to delete.
- **Voice Only.** Delete the attached voice memo only, not voice clips. The image is still retained in the memory.
- **Multi.** Select multiple files to delete at the same time.
- **All.** Delete all files.



To delete a single file:

1. Tap **Single** button in the delete submenu to popup confirm menu.
2. Tap **YES** to delete the file, **Cancel** to abort.



### To delete attached voice memo:

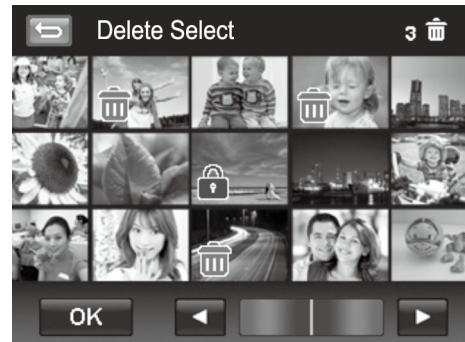
1. Locate an image with voice memo attached in single navigation or photo stream mode.
2. Tap the onscreen **voice only** button in the delete submenu to popup confirm menu.
3. Tap **YES** to delete the voice memo, **Cancel** to abort.



Up to **200** files can be selected in one time for Delete.

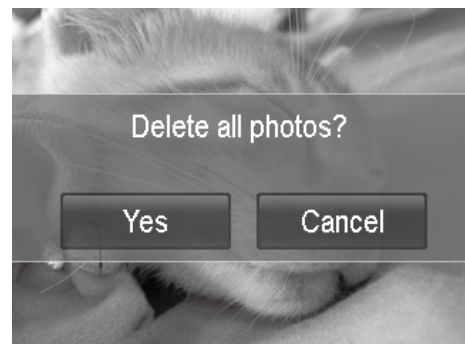
### To delete multiple files:

1. Tap the **Multi** button in the delete submenu, and the images are displayed in thumbnail mode on the LCD monitor.
2. Tap all you desired files to highlight a delete mark.
3. Tap the **OK** icon to popup confirm menu.
4. Tap **YES** to delete the marked files, **Cancel** to abort.



### To delete all files:

1. Tap the **All** button in the delete submenu to popup a confirm menu.
2. Tap **YES** to delete all files in the memory, **Cancel** to abort.



## Protect

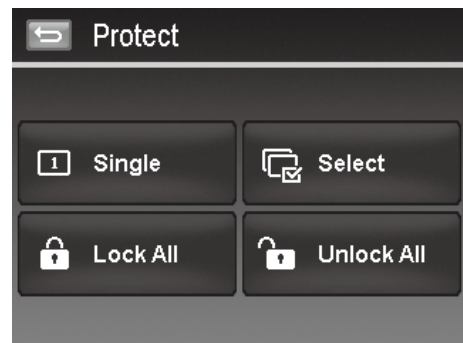
Set the data to read-only to prevent images from being erased by mistake. a  
A protected file has a lock icon when viewed in Playback mode.

### To protect files:

1. From the Playback menu, tap to select Protect.
2. The Protect submenu is displayed on the LCD monitor.

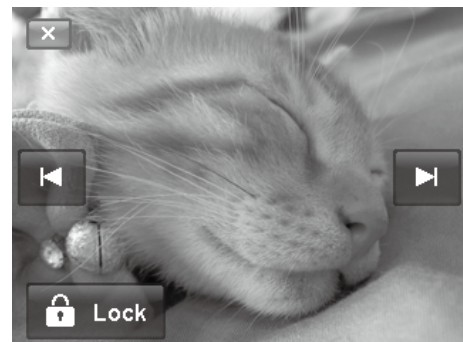
### Available settings are as follow:

- **Single.** Select one file to lock/unlock.
- **Select.** Select multiple files from the thumbnail view to lock/unlock.
- **Lock All.** Lock all files.
- **Unlock All.** Unlock all files.



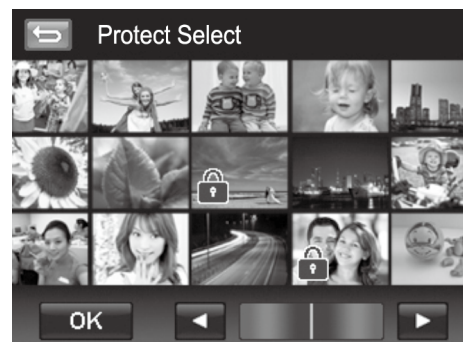
### To protect/unprotect a single file:

1. Select Single in the protect submenu,
2. Tap or icons to scroll the display.
3. When the desired file is displayed on the LCD monitor, tap the on-screen **Lock/Unlock** icon to protect/unprotect it.
4. Tap icon anytime to exit the protect screen and return single navigation mode.



### To protect/unprotect multiple files:

1. Tap **Select** button in the protect submenu, the images are displayed in thumbnail mode on the LCD monitor.
2. Tap all you desired files to add or remove a lock mark.
3. Tap the icon to popup confirm menu.
4. Tap **YES** to change the protect settings, **Cancel** to abort.



### To protect all files:

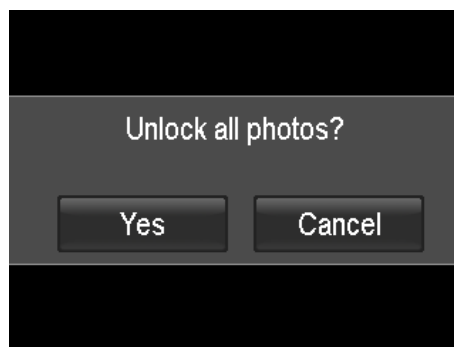
1. Tap **Lock all** in the protect submenu to popup a confirm menu.
2. Tap **Yes** to lock all files, **Cancel** to abort





## To unlock all files:



1. Tap **Unlock all** in the protect submenu to popup a confirm menu.
2. Tap **Yes** to unlock all files, **Cancel** to abort



## Trim

The Trim function allows you to trim an image to another image size. This function is only available for still images.

### To trim an image:

1. Set the camera to Playback mode and locate the desired image by single navigation mode.
2. Tap the on-screen **MENU**  icon to launch playback menu and tap Trim.
3. Press the **Wide/Tele** key on the **Zoom** toggle to change trim size.
4. Tap the 4-way indicator on the screen to move trim area to your desired position.
5. Tap the  icon to save the trimmed image as a new image and return single navigation mode.



NO	Description
1	Return button.
2	Preview screen.
3	4-Way indicator.
4	Save button and trimmed size.
5	Image area.
6	The approx. location of the trimmed area.




- Trim function is not available for photos with image size set to VGA.
- All images will be trimmed in 4:3 ratio regardless of its original image ratio.

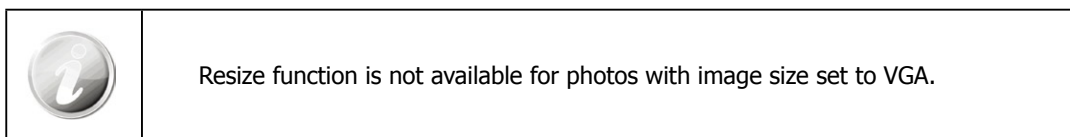


## Resize

Resizes a previously saved image and only resizing to a smaller size is available.

### To resize an image:





1. Set the camera to Playback mode and locate the desired image by single navigation mode.
2. Tap the on-screen **MENU**  icon to launch playback menu and tap **Resize**.
3. Tap to select a resize option button.
4. Available sizes: **8M/3M/5M/VGA**. Available size settings may vary depending on original image size. Unavailable settings appear as gray icons in Resize submenu.
5. The camera saved the resized image as a new one and return single navigation mode.

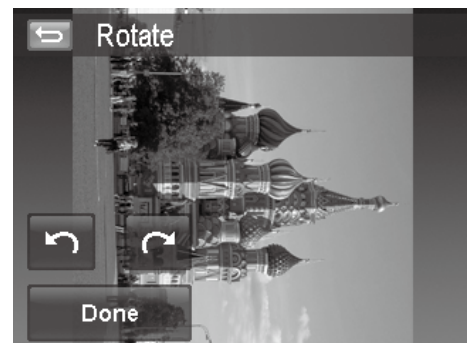


## Rotate

You can rotate a still image 90, 180 and 270 degrees.

### To rotate an image:






1. Set the camera to Playback mode and locate the desired image by single navigation mode.
2. Tap the on-screen **MENU**  icon to launch playback menu and tap **Rotate**.
3. Tap the  or  icon to rotate the image.
4. Tap the  icon to save the rotated image as a new one and return to single navigation mode.

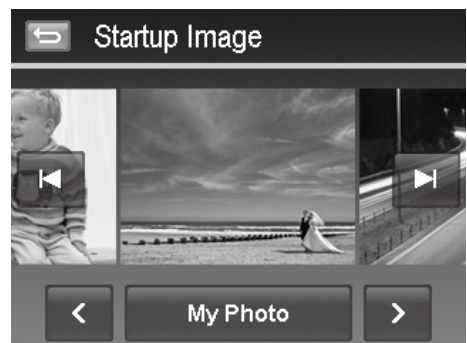


## Startup Image

You can specify the startup image from the captured images for camera.

### To set startup image:


1. Set the camera to Playback mode and tap the on-screen **MENU**  icon to launch playback menu and tap **Startup Image**.
2. Tap the  or  icon to switch startup image options as follow:
  - **System:** Built-in image.
  - **My Photo:** Tap the  or  icon to select desired image in the memory card.
  - **Off:** Turn off the startup image display.
3. Tap the on-screen **System/My Photo/Off** button to apply the setting.

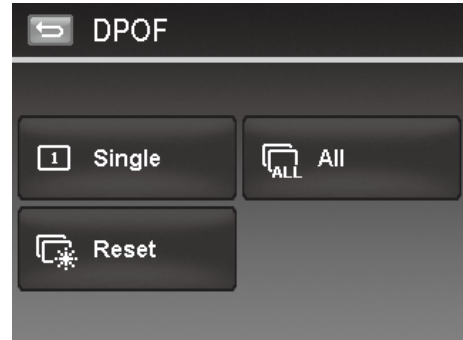


## DPOF







DPOF is the abbreviation for Digital Print Order Format, which allows you to embed printing information on your memory card. You can select the images to be printed and how many prints to make with the DPOF menu in the camera and insert the memory card to the card compatible printer. When the printer starts printing, it will read the embedded information on the memory card and print the specified images.

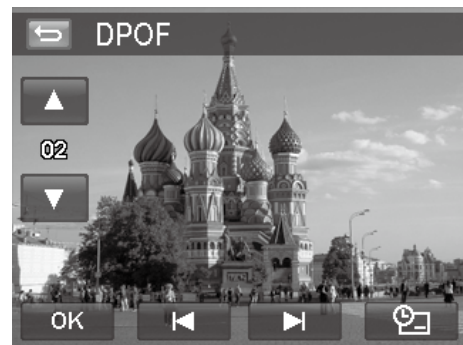
### To set DPOF:

1. Set the camera to Playback mode and tap the on-screen **MENU**  icon to launch playback menu.
  - **Single.** Select a single image to mark.
  - **All.** Mark all images in the memory card.
  - **Reset.** Reset all DPOF settings to initial settings.



### To set DPOF on a single image/all images:

1. Tap to select **Single** or **All** on the DPOF submenu.
2. For single image, tap the  or  icon to scroll and select an image to mark for printing.
3. Specify the number of copies for single image or all images. Tap  or  icons to increase/decrease the number.
4. Tap the  icon to set date stamp On/Off
5. Tap the  icon to save DPOF settings.



### To reset DPOF:

1. Tap to select **Reset DPOF** on the DPOF submenu.
2. A confirm popup menu appears on the screen.
3. Tap **Yes** to reset DPOF, **Cancel** to abort.










# Using the Setup Menu

You can access the Setup menu whether you are in Record or Playback mode.

The Setup menu allows you to configure general camera settings.


To go to Setup Menu:

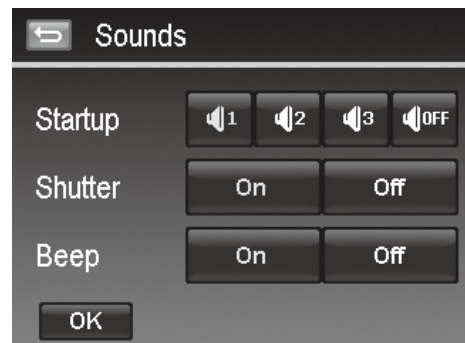
1. Tap the on-screen **MENU**  icon to launch the Record/Playback Menu.
2. Tap the tab  icon to launch Setup menu.
3. Tap  or  icons to turn pages.
4. Tap the desired option button to enter submenu.
5. Configure the settings in the submenu.
6. Press the onscreen  icon to save and apply changed settings.
7. Tap the  or  icons to exit the menu or return main menu anytime.




## Setting Sounds

Use the option buttons to control the sounds produced by the camera.

1. From the Setup menu, tap to select **Sounds**.
2. Configure settings by tapping the option icons.
3. Tap the  icon to apply.



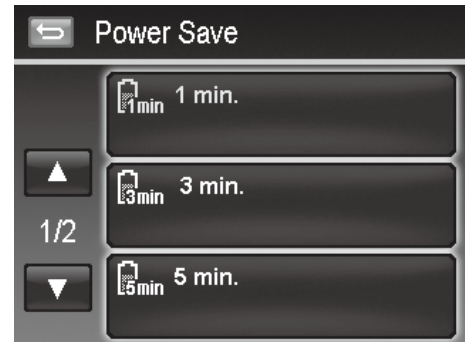
Icon	Item	Description
<b>Startup</b>	Sound 1, Sound 2, Sound 3, Off	Selects the startup sound when camera is turned on.
<b>Shutter</b>	On, Off	Enables or disables shutter sound when <b>Shutter button</b>  is pressed. Shutter sound is not available when recording videos or voice clips.
<b>Beep</b>	On, Off	Enable or disable the beep sound when using touch screen.

## Setting Power Save

The Power Save function allows you to set an idle time after which the camera automatically sets to sleep mode to save power. After a minute of being in sleep mode, the camera eventually turns off power.

This function is not available in the following instances:

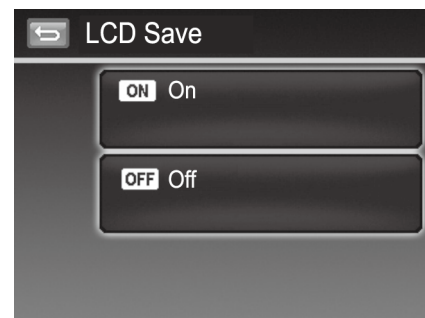
- Recording a video or audio file
- Playing a slideshow/video/audio file
- Using the USB connector



## Setting LCD Save

Enable the LCD Save function to automatically decrease the LCD brightness to conserve battery power. When the camera is idle for 20 seconds, the LCD darkens. Press any button to resume to normal brightness.

- The camera is idle when no buttons are pressed. LCD Save, though enabled, does not function during video playback, slideshow, video recording and Pre-Composition scene mode shooting.



## Setting Date & Time

Use the Date & Time function to set the date and time of your camera. This function is useful in attaching date stamps on captured images. Your camera uses a 12-hour time format.

## Setting Language

Specify in which language menus and messages are to be displayed on the LCD monitor.

1. Use the navigation control to scroll through the list and select the desired language.
2. Tap your selection to confirm and apply settings.

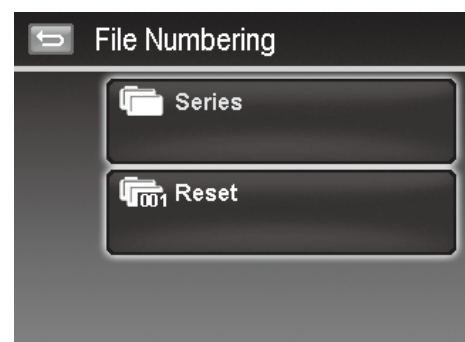
## Setting File Numbering

This function allows you to select the method in which to assign file numbers to images.

Available settings are:

- Series. Assigns number to files in sequence even if the folder is changed.
- Reset. Starts from 0001 each time the folder is changed.

To understand folder and file structure of your camera, see "About Folder and File Names" on page 74.

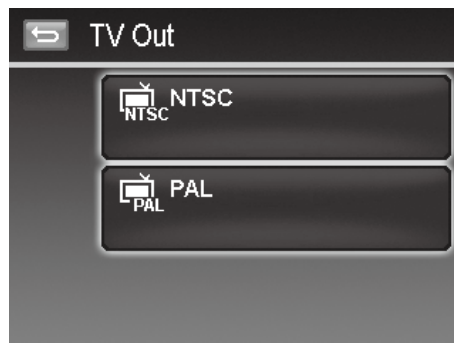


## Setting TV Out

Use the TV Out function to adjust video output signal to accommodate different regional settings. If TV out is not set correctly, the image may not display properly on TV.

Available settings are:

- **NTSC.** Applicable in Japan, USA, Canada, Taiwan and others.
- **PAL.** Applicable in Europe, Asia (excluding Taiwan), Oceania and others.



## Setting LCD Brightness

Select a brightness level for the LCD monitor.

Available settings are:

- Bright
- Normal

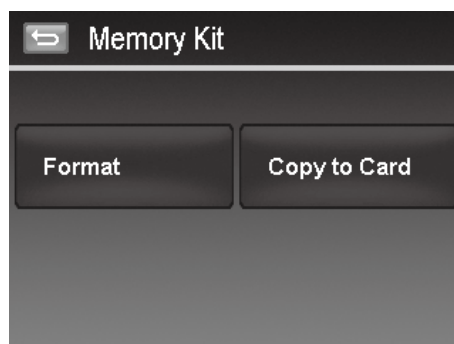


## Setting Memory Kit

This utility formats the internal memory (or memory card) and erases all stored images and data. If the images were saved in the internal memory, when inserting memory card into the camera, you can use Copy to Card function in order to copy all images from the internal memory into memory card.

**Available settings are:**

- **Format.** Tap to format currently used memory.
- **Copy to Card.** Tap to copy all files stored in the internal memory to the memory card.

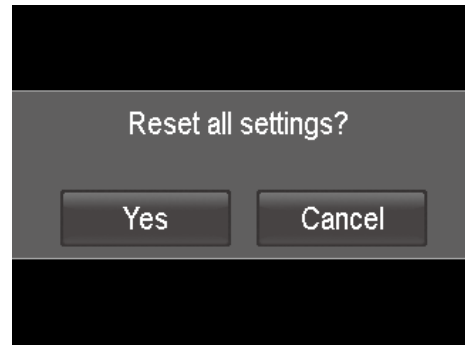


- If the photos were saved in the internal memory when inserting memory card into the camera, you can use **Copy to Card** function in order to copy all photos from the internal memory into memory card.
- If there is a memory card inserted in the memory slot, the camera automatically saves all files to the memory card.
- If there is no memory card or the internal memory is empty, the **Copy to Card** function is disabled.

## Reset All

Use this function to reset the camera to its factory settings. However, the following settings are exceptions and not affected by Reset.

- Date and Time
- Language
- TV Out
- Custom White Balance data



# Making Connections

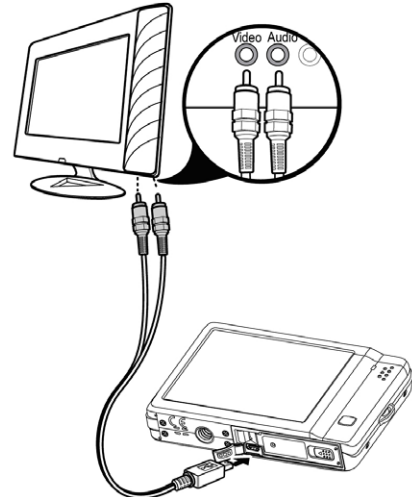
You can connect your camera to: TV, computer, or a printer.

## Connecting the Camera to a TV

You can play back your images on a TV screen. Before connecting to any video devices, make sure to select NTSC/PAL to match the broadcast standard of the video equipment you are going to connect to the camera.

To connect your camera to a TV:

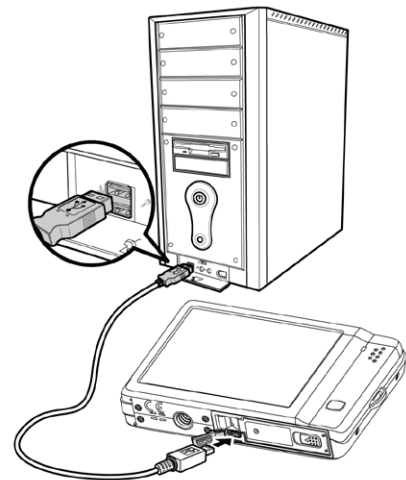
1. Turn on the camera.
2. Set the TV out to match the TV's video out format. See "Setting TV Out" on page 69.
3. Connect the USB/AV 3-in-1 cable (not included) to the USB port on the bottom of your camera.
4. Connect the other end of the cable to the TV's AV input port.
5. The LCD monitor turns black and all images and videos are displayed on the TV.



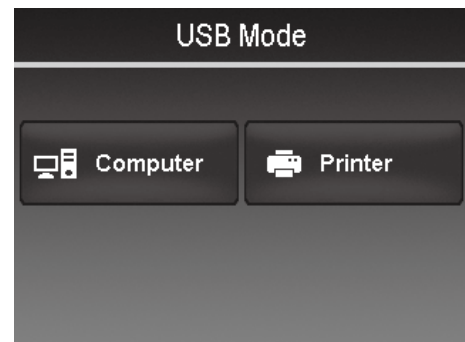
## Connecting the Camera to a PC

You can transfer photos, videos and audio files to your PC.

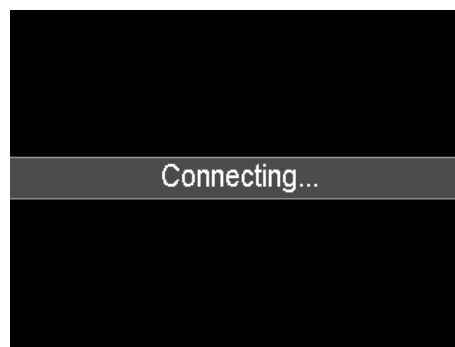
1. Connect one end of the USB cable to an available USB port on your computer
2. Connect the other end of the USB cable to the USB terminal on the camera.
3. Turn on the camera.



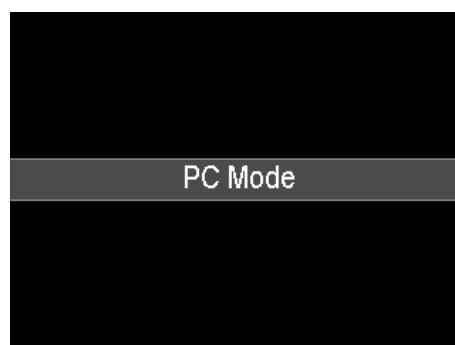
4. The USB mode menu appears on the screen. Tap to select the on-screen "Computer" button.



- The PC starts to detect the connection while the LCD monitor appears "**Connecting...**"



- Connection established after "**PC MODE**" appeared on the LCD monitor
- Access the files in the camera by your PC.

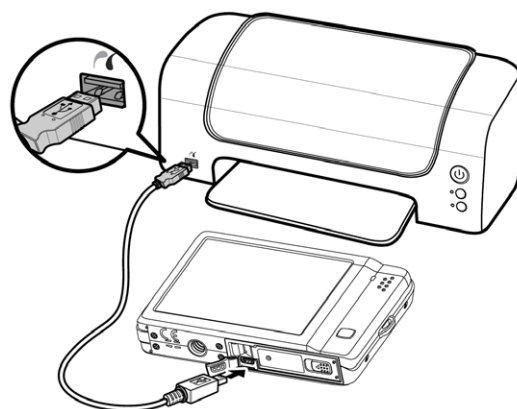


- The camera's internal memory and memory card would display as removable drives in PC.
- After the connection, no image is displayed on the LCD monitor.

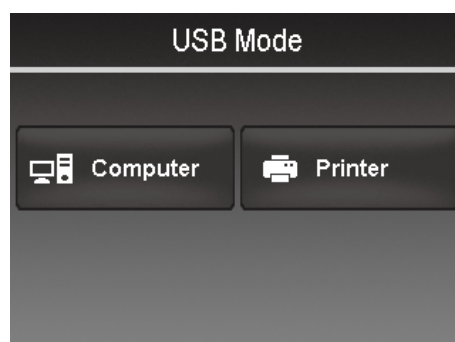
## Connecting the Camera to a Printer

You can print your photos directly using a **PictBridge compatible** printer.

- Turn on your Printer. Check that the printer is turned on, there is paper in the printer, and there are no printer error messages.
- Connect one end of the USB cable to the printer while the other end to USB terminal on the camera.



- The USB mode menu appears on the screen. Select "**Printer**" by using the ▲ or ▼ icons and tap the **OK** icon.
- Enter the print mode and print the selected images.
- For details on the following page "**Setting the Print Mode Menu**".



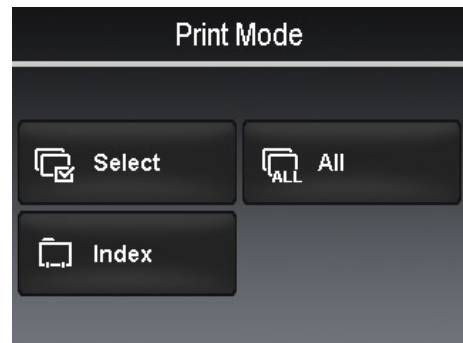


## Setting the Print Mode Menu

Print Mode menu appears on the screen after the connection between a printer and your camera is established.

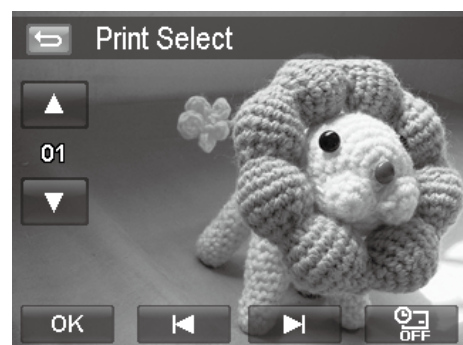
Print Mode includes three major settings:

- **Select.** An image can then be selected to print.
- **All.** Prints all images.
- **Index.** Prints all images as thumbnails.



### To set Print Select

1. Tap the ◀ or ▶ icons to scroll and select an image for printing.
2. Specify the number of copies. Tap ▲ or ▼ icons to increase/decrease the number.
3. Tap the 📅 icon to set date stamp On/Off
4. Tap the OK icon to start printing.



### To set Print All and Print Index

- Repeat the same steps 2 to 4, then start printing.



After the printer has printed all the images that had been selected, disconnect the camera from the printer.

# Appendix

## About Folder and File Names

Your camera automatically creates specific directory of folder in the internal memory cards to organize captured images, videos and audio files.

### File Naming

File names begin with "HPIM" and followed by a 4-digit number that increases in sequence. File numbering starts from 0001 when a new folder is created.

If the highest folder number is 999 and the highest file number exceeds 9999, the camera will display the warning message "Folder cannot be created." When this happens, try one of the following ways:

- Reset the file number. See "Setting File Numbering" on page 68.
- Plug in a new memory card.



Do not change the folder and file names in the memory card using your PC. It may be unable to playback the data using the camera.

# Troubleshooting

<b>Problem</b>	<b>Cause and/or Action</b>
Camera does not turn on.	The battery may be exhausted. Charge or replace the battery.
Camera turns off automatically.	Press any button except the Power button to power on the camera.
LCD turns blank.	Press any button except the Power button to turn on the LCD.
Empty battery icon is displayed on the LCD, and then the camera turns off.	One or both of the battery may be exhausted. Charge or replace the battery.
LCD screen displays 'No images in memory'.	The image file on the memory card. Image file format may not be supported.
LCD screen displays 'Not available for this file'.	Function is only available for specific file types. File format is not supported.
LCD screen displays 'Memory full'.	Memory card is full. Replace the memory card with a new one or delete unnecessary images.
LCD screen displays 'File locked'	This file is locked. Unlock the file.
LCD screen displays 'Card locked'.	The memory card is protected. Remove the card and slide the write-protect switch to it's unlock position.
LCD screen displays 'CARD HAS WRONG FORMAT'.	The memory card is protected. Remove the card and slide the write-protect switch to it's unlock position.
LCD screen displays 'Copy error'.	The memory card is protected. Remove the card and slide the write-protect switch to it's unlock position. The memory card is full. Replace card or delete unnecessary files.
The lens is extended and will NOT retract.	Do not force the lens to go back. The type of the battery used may be incorrect or the battery power level is too low. Change the battery or charge the battery before using the camera.

# Getting Help

Should you have a technical support question or your HP Digital Camera require service within the warranty period, please contact the original point of purchase or an authorized HP reseller in your country. If service is not available at those locations, please contact an HP Branded Product warranty agent from the support contact list provided below. A service agent will work with you to troubleshoot your issue and if necessary, issue a Return Material Authorization (RMA) number in order to replace your HP Branded Product. For warranty claims, you will be required to provide a copy of your original dated sales receipt as proof of purchase and the issued RMA number. You will be responsible for shipping charges when shipping the product to the service center. The service agent will provide you with an address and you will also be responsible for any shipping charges to the warranty service center. Once your product is received by this service center, a replacement unit will be shipped back to you typically within 5 business days.

<b>Contact/phone Support:</b>	
<b>Language</b>	<b>Contact/phone Support:</b>
繁體中文	simp.chinese@hpodd.com
	trad.chinese@hpodd.com
Deutsch	deutsch@hpodd.com
Nederlands	hollands@hpodd.com
English	english@hpodd.com
Español	espanol@hpodd.com
Français	français@hpodd.com
Italiano	italiano@hpodd.com
日本語	nippon@hpodd.com
한국어	korean@hpodd.com
Português	portugues@hpodd.com
Svenska	svensk@hpodd.com

<b>Contact/phone Support:</b>			
<b>Country</b>	<b>Language</b>	<b>Number</b>	
<b>Europe Region (EMEA)</b>			
België	Nederlandsk/ Deutsch	+ 32 2700 1724	
Deutschland	Deutsch	+ 49 6950073896	
España	Español	+ 34 914533458	
France	Français	+ 33 171230454	
Ireland	English	+ 353 1850882016	
Italia	Italiano	+ 39 269682189	
Nederland	Nederlandsk	+ 31 202015093	
Schweiz	Deutsch/ Français/ Italiano	+ 41 18009686	
UK	English	+ 44 2073652400	
<b>North America</b>			
United States	English	1.866.694.7633	
Canada	English and Français	1.866.694.7633	
<b>Country</b>	<b>Language</b>	<b>City</b>	<b>Number</b>
México	Español	Mexico City	52.55.1204.8185
		Guadalajara	52.33.1031.3872
		Monterrey	52.81.1107.2639
Venezuela	Español	Caracas	58.212.335.4574
Colombia	Español	Bogota	57.1.508.2325
Perú	Español	Lima	51.1.705.6232
Chile	Español	Santiago	55.11.5504.6633
Brasil	Português	Sao Paolo	55.11.5504.6633
Argentina	Español	Buenos Aires	54.11.6091.2399



