s520

Digital Camera

User Manual

Preface
About this Manual

• The contents of this manual and the bundled Basic Reference are subject to change without notice.
• Note that the example screens and product illustrations shown in this User's Guide may differ somewhat from the screens and configuration of the actual camera.

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FCC STATEMENT

following two conditions:

(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

Note:

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

■ Reorient or relocate the receiving antenna.
■ Increase the separation between the equipment and receiver.
■ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
■ Consult the dealer or an experienced radio/TV technician for help.

Use of shielded cable is required to comply with Class B limits in Subpart B of Part 15 of the FCC rules.
Do not make any changes or modifications to the equipment unless otherwise specified in the manual. If such changes or modifications should be made, you could be required to stop operation of the equipment.

Notice

If static electricity or electromagnetism causes data transfer to discontinue midway (fail), restart the application or disconnect and connect the communication cable (USB, etc.) again.

READ THIS FIRST

Trademark Information

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- Pentium® is a registered trademark of Intel Corporation.
- Macintosh is a trademark of Apple Inc.
- SD™ is a trademark.
- SDHC™ is a trademark.
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Product Information

- Product design and specifications are subject to change without notice. This includes primary product specifications, software, software drivers, and user's manual. This User Manual is a general reference guide for the product.
- The product and accessories that come with your camera may be different from those described in this manual. This is due to the fact that different retailers often specify slightly different product inclusions and accessories to suit their market requirements, customer demographics, and geographical preferences. Products very often vary between retailers especially with accessories such as batteries, chargers, AC adapters, memory cards, cables, pouches, and language support. Occasionally a retailer will specify a unique product color, appearance, and internal memory capacity. Contact your dealer for precise product definition and included accessories.
- The illustrations in this manual are for the purpose of explanation and may differ from the actual design of your camera.
- The manufacturer assumes no liability for any errors or discrepancies in this user manual.

SAFETY INSTRUCTIONS

Read and understand all **Warnings** and **Cautions** before using this product.

Warnings

If foreign objects or water have entered the camera, turn the power off and remove the battery.
Continued use might cause fire or electric shock. Consult the store of purchase.

If the camera has fallen or its case has been damaged, turn the power off and remove the battery.
Continued use might cause fire or electric shock. Consult the store of purchase.

Do not disassemble, change or repair the camera.
This might cause fire or electric shock. For repair or internal inspection, ask the store of purchase.

Use the supplied AC adapter only with the indicated power supply voltage.
Use with any other power supply voltage might cause fire or electric shock.

Do not use the camera in areas near water.
This might cause fire or electric shock. Take special care during rain, snow, on the beach, or near the shore.

Do not place the camera on inclined or unstable surfaces.
This might cause the camera to fall or tilt over, causing damage.

Keep the battery out of the reach of children.
Swallowing the battery might cause poisoning. If the battery is accidentally swallowed, immediately consult a physician.

Do not use the camera while you are walking, driving or riding a motorcycle.
This might cause you to fall over or result in traffic accident.

Please use battery with complete external seals.
Do not use battery from which the seals have been damaged or removed. This may cause leakage, explosion, or injury.

Cautions

Insert the battery paying careful attention to the polarity (+ or –) of the terminals.
Inserting the battery with its polarities inverted might cause fire and injury, or damage to the surrounding areas due to the battery rupturing or leaking.

Do not fire the flash close to anyone's eyes.
This might cause damage to the person's eyesight.

Do not subject the LCD monitor to impact.
This might damage the glass on the screen or cause the internal fluid to leak. If the internal fluid enters your eyes or comes into contact with your body or clothes, rinse with fresh water. If the internal fluid has entered your eyes, consult a physician to receive treatment.

A camera is a precision instrument. Do not drop it, strike it or use excessive force when handling the camera.
This might cause damage to the camera.

Do not use the camera in humid, steamy, smoky, or dusty places.
This might cause fire or electric shock.

Do not remove the battery immediately after long period of continuous use.
The battery becomes hot during use. Touching a hot battery might cause burns.

Do not wrap the camera or place it in cloth or blankets.
This might cause heat to build up and deform the case, resulting in fire. Use the camera in a well-ventilated place.

Do not leave the camera in places where the temperature may rise significantly, such as inside a car.
This might adversely affect the case or the parts inside, resulting in fire.

Before you move the camera, disconnect cords and cables.
Failure to do this might damage cords and cables, resulting in fire and electric shock.

Notes on Battery Usage

When you use the battery, carefully read and strictly observe the *Safety Instructions* and the notes described below:

- Use only the specified battery (3.7V).
- Avoid extremely cold environments as low temperatures can shorten the battery life and reduce camera performance.
- When you are using a new rechargeable battery or a rechargeable battery that has not been used for an extended period of time (the battery that passed the expiry date is an exception), it may affect the number of images that can be captured. Therefore, to maximize its performance and lifetime, we recommend that you fully charge the battery and discharge it for at least one complete cycle before use.
- The battery may feel warm after a long period of continuous use of the camera or the flash. This is normal and not a malfunction.
- The camera may feel warm after a long period of continuous use. This is normal and not a malfunction.
- If the battery is not to be used for a long period of time, remove it from the camera to prevent leakage or corrosion and store it after no battery power is left. Stored for a long time in a fully charged condition, its performance may be impaired.
- Always keep the battery terminals clean.
- There is a risk of explosion if the battery is replaced by an incorrect type.
- Dispose of used battery according to the recycle instructions.
- Charge the rechargeable battery fully before using for the first time.
- To prevent short-circuiting or fire, keep the battery away from other metal objects when carrying or storing.

This symbol mark [crossed-out wheeled bin] indicates separate collection of waste batteries in the EU countries. The batteries provided with this product shall not be treated as household waste. Please use the return and collection systems available in your country for the disposal of the waste batteries.
If a chemical symbol is printed beneath the symbol mark, this chemical symbol means that the batteries contains a heavy metal at a certain concentration. It is indicated as follows:
Hg: mercury, Cd: cadmium, Pb: lead.

CONTENTS

INTRODUCTION

Overview

Congratulations on your purchase of the new HP digital camera.
Capturing high-quality digital images is fast and easy with this state-of-the-art smart camera. Equipped with a 16.0-megapixel CCD, this camera is capable of capturing photos with a resolution of up to 4608 x 3456 pixels.

Package Contents

Carefully unpack your camera and ensure that you have the following items:

Common Product Components:
- Digital Camera
- User Manual
- Software CD-ROM
- Camera strap
- Rechargeable lithium-ion battery
- USB cable
- USB-AC adapter

Common (Optional) Accessories:
- SD/SDHC memory card

- Accessories and components may vary by retailer.

GETTING TO KNOW YOUR CAMERA

Front View
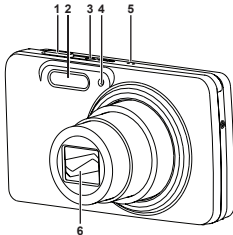
1.	Shutter button
2.	Flash
3.	**ON/OFF** Power button
4.	Self-timer LED
5.	Microphone
6.	Lens

Rear View
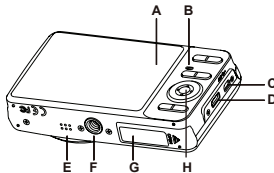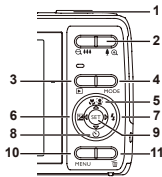
A.	LCD monitor
B.	Status LED
C.	USB and AV OUT terminal
D.	Strap holder
E.	Speaker
F.	Tripod socket
G.	Battery / Memory card cover
H.	Set / 4-way navigation control

Item	Function		
	Capture Mode	**Video Mode**	**Playback Mode**
1.	Shutter button	Record button	Photo : to capture mode Video clip: to capture mode
2.	⊖ ᵂ: Zooms out ♦ ⊕ : Zooms in	⊖ ᵂ: Zooms out ♦ ⊕ : Zooms in	⊖ ᵂ: Zooms out ♦ ⊕ : Zooms in
3.	Playback mode	Playback mode	Photo : to capture mode Video clip: to capture mode
4.	Switches to: Video mode > Capture mode	Switches to: Capture mode > Video mode	Photo : to capture mode Video clip: to capture mode
5.	Focus	Focus	Next 10th image
6.	Compensation ⊠ > ⊠	--	Previous Image
7.	Flash	--	Next Image
8.	Self-timer	Self-timer	Previous 10th image
9.	If any scene mode is set: switches to scene mode selection screen	--	Photo : to display photo Records voice memo (if "Voice Memo" is "Record"). Video clip: to play video clip
10.	Capture menu	Video menu	Playback menu
11.	--	--	Delete

LCD Monitor Display

Capture mode

1. Zoom status
2. Available number of photos
3. Storage media
   - [🔳] Internal memory (no card)
   - [💾] SD/SDHC memory card
4. Battery condition
   - [▥▥] Full battery power
   - [▥▥] Medium battery power
   - [▥▥] Low battery power
   - [▭] No battery power
5. Focus setting
   - [AUTO] Auto
   - [⊙] AF Tracking
   - [😊] Face Detect
   - [♥] Macro
   - [∞] Infinity
6. Flash mode
   - [⚡A] Auto
   - [⚡] Flash On
   - [🚫] Flash Off
   - [⚡◉] Red-eye
   - [⚡S] Slow Sync
7. [☑] Exposure compensation
   (It can not be used in below modes: Tv, Av, Intelligent Scene, Smile Detection, LOMO, Fisheye, Toy, Sketch, Watercolor.)
   [🔲] Backlight correction
   (It can only be used in Beauty Enhancer, Portrait.)
8. Self-timer & Self-portrait icon
   - [🔲] Off
   - [◉] Self-portrait
   - [⏱] 2 sec.
   - [⏱] 10 sec.
   - [⏱] 10+2 sec.
9. [▣] Histogram
10. Photo size resolution
    - [16] 4608 x 3456
    - [12] 3968 x 2976
    - [8] 3264 x 2448
    - [2] 1600 x 1200
    - [VGA] 640 x 480
    - [12] 4608 x 2592
11. Set key: SCN hint icon
12. Main focus area
13. Date and time
14. Capture mode icon
    - [🔲] Single
    - [🔲] Continuous
    - [🅰] AEB (Auto Exposure Bracketing)
    - [🔲] Album Shot
    - [🔲] Burst
    - [🔲] Cont.flash
    - [🔲] Pre-shot
    - [🔲] Coupl.shot
    - [🔲] Burst 30fps
    - [🔲] Interval capture
15. White balance
    - [AUTO] Auto
    - [🔲] Incand.
    - [🔲] Fluoresc.1
    - [🔲] Fluoresc.2
    - [🔲] Daylight
    - [🔲] Cloudy
    - [🔲] Manual WB
16. Photo quality
    - [🔲] Fine
    - [🔲] Standard
    - [🔲] Economy
17. ISO
    - [ISO AUTO] Auto
    - [ISO 100] ISO 100
    - [ISO 200] ISO 200
    - [ISO 400] ISO 400
    - [ISO 800] ISO 800
    - [ISO 1600] ISO 1600
    - [ISO 3200] ISO 3200
18. Slow shutter warning
19. Mode icon / Scene mode
    Refer to the section in this manual titled
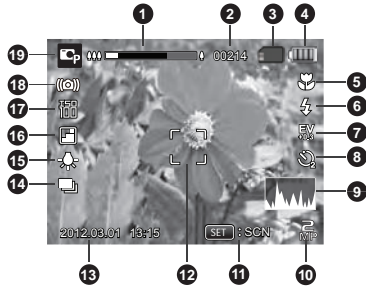
Video mode

1. Zoom status
2. Storage media
3. Battery condition
4. Focus setting
5. Self-timer icon
6. Video resolution
7. Elapsed time / Available recording time
8. Main focus area
9. Date and time
10. Video quality
11. Audio off
12. Mode icon
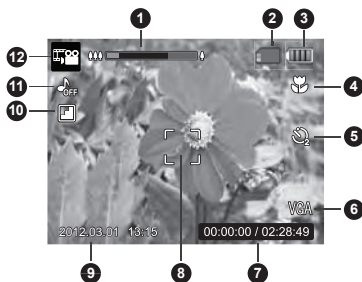
Playback mode - Photo playback

1. Voice memo
2. DPOF icon
3. Protect icon
4. Folder / File number
5. Storage media
6. Battery condition
7. Photo size resolution
8. Set key: Play hint icon
9. Date and time
10. Histogram
11. Aperture value / Shutter speed
12. Exposure value
13. Photo quality
14. ISO
15. Mode icon
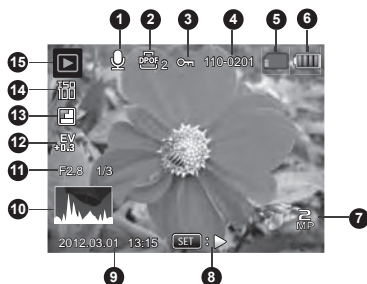
Playback mode - Video playback

1. Protect icon
2. Folder / File number
3. Storage media
4. Battery condition
5. Volume mode
6. Total recorded time
7. Video status bar
8. Video condition icon
9. Elapsed time
10. Set key: Play / Pause hint icon
11. Down key: Stop hint icon
12. Mode icon

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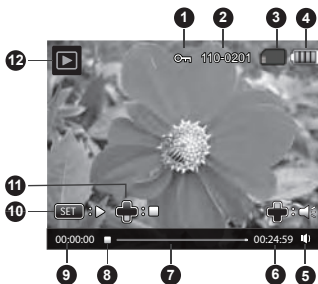
GETTING STARTED

Preparation
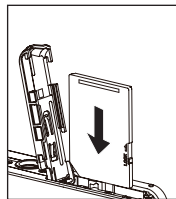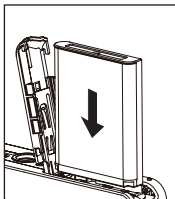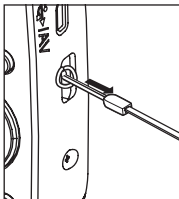
1. Attach the camera strap.
2. Open the battery/memory card cover.
3. Insert the supplied battery with correct orientation as shown (label side front).
4. Insert an SD/SDHC memory card (Optional).
    - The camera has 32MB internal memory(23MB available for image storage), but you can load an SD/SDHC memory card to expand the camera's memory capacity.
    - Be sure to format the memory card with this camera before its initial usage.
5. Close the battery/memory card cover and make sure it is locked securely.

- To prevent valuable data from being accidentally erased from an SD/SDHC memory card, you can slide the write protect tab (on the side of the SD/SDHC memory card) to "LOCK".
- To save, edit, or erase data on an SD/SDHC memory card, you must unlock the card.
- To prevent damaging of an SD/SDHC memory card, be sure to turn off the power when inserting or removing the SD/SDHC memory card. If inserting or removing the SD/SDHC memory card with the power on, the camera will automatically turn off.
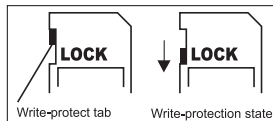
Power the Camera On by Pressing Playback Button

1. Press the ▶ button for about 3 seconds to turn the camera on and begin playback.
   - Lens do not zooms out/in in this playback preview.
   - The camera will turn off automatically if no operations are performed for the length of time selected in the Auto off menu.
2. Press the ▶ button again or press the **ON/OFF** button to power the camera off, or press the shutter button to enter the capture mode.
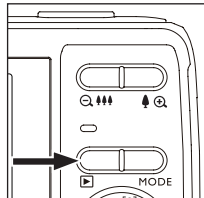
Charging the Battery

The battery is not fully charged at the time of purchase. Fully charge the battery and use it until it is discharged before you recharge it again. This maximize the performance and lifetime of the battery.

1. Connect camera to USB-AC adapter with USB cable.
2. Insert the plug into a wall outlet.

Status LED	Description
Green (blinks slowly)	Charging normally
Green	Charging finished
Green (blinks quickly)	Error
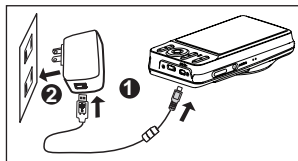
- The included USB-AC adapter differs depending on the region where you purchased the camera.
- User can also charge the battery by connecting camera to computer with USB cable.
- Charging time varies according to the ambient temperature and the status of battery.

Initial Settings

The language & date/time needs to be set if and when:

- The camera is turned on for the first time.
- The camera is turned on after leaving the camera without the battery for an extended period of time.

1. Press the ON/OFF button to turn the power on.
2. Press any button to enter language setup. Select the displayed language with the 4-way navigation control and press the SET button.
3. Select the date format with the left or right side of the 4-way navigation control, and press the SET button.
4. Select the item's field with the left or right side of the 4-way navigation control and adjust the value for the date and time with the up or down side of the 4-way navigation control .
5. After confirming all settings are correct, press the SET button.
   - Press the MENU button will enter capture mode with saving the settings.

Setting the Date and Time

When the date and time information is not displayed on the LCD monitor, follow these steps to set the correct date and time.

1. Press the MODE button, and set the camera mode to [ ] or [ ]; or press the 7   button.
2. Press the MENU button.
3. Select the [Setup] at the end of the Menu with the up or down side of the 4-way navigation control, and press the SET button.
4. Select [Date/Time] with the up or down side of the 4-way navigation control, and press the SET button.
5. Select the date format with the up or down side of the 4-way navigation control, and press the SET button.

   - Select the item's field with the left or right side of the 4-way navigation control and adjust the value for the date and time with the up or down side of the navigation control
   - The time is displayed in 24-hour format.
   - After confirming all settings are correct, press the SET button.
6. To exit from the [Setup] menu, press the MENU button.

Choosing the Language

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

1. Press the MODE button, and set the camera mode to [📷] or [🎬]; or press the ▶ button.
2. Press the MENU button.
3. Select the [Setup] at the end of the Menu with the up or down side of the 4-way navigation control, and press the SET button.
4. Select [Language] with the up or down side of the 4-way navigation control and press the SET button.
5. Select the displayed language with the 4-way navigation control and press the SET button.
   - The setting will be stored.
6. To exit from the [Setup] menu, press the MENU button.

Formatting the Memory Card or internal memory

This utility formats the memory card (or internal memory) and erases all stored photos and data.

1. Press the MODE button, and set the camera mode to [📷] or [🎬]; or press the ▶ button.
2. Press the MENU button.
3. Select the [Setup] at the end of the Menu with the up or down side of the 4-way navigation control, and press the SET button.
4. Select [Format] with the up or down side of the 4-way navigation control, then press the **SET** button.
5. Select [Execute] with the left or right side of the 4-way navigation control, and press the **SET** button.
   - To cancel formatting, select [Cancel] and press the SET button.
6. To exit from the [Setup] menu, press the **MENU** button.
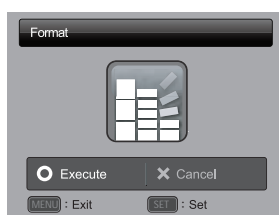
CAPTURE MODE

Capturing Photos

Your camera is equipped with a 3.0" full color TFT LCD monitor to help you compose photos, playback recorded photos/video clips or adjust menu settings.

1. Press the ON/OFF button to turn the power on.
2. Press the MODE button, and set the camera mode to [🔲].
3. Compose your photo in the LCD monitor.
   - ■ Pressing the ♦⊕ button zooms in on the subject, and enlarges the subject on the LCD monitor.
   - ■ Pressing the ⊝♦♦♦ button zooms out on the subject, and provides a wider angle photo.
4. Press the shutter button.
   - ■ Pressing the shutter button down halfway automatically focuses and adjusts the exposure, and pressing the shutter button down fully captures the photo.
   - ■ The focus area frame turns green when the camera is in focus and the exposure is calculated.
   - ■ When the focus is not suitable, the frame of the focus area turns red.
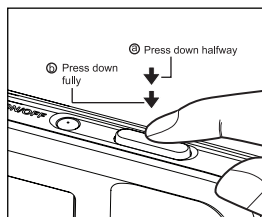
AF Tracking Mode

Use this option to take pictures of moving subjects.

1. Press the MODE button, and set the camera mode to [🔲].
2. Press the 🌷👤 button, and select [👁] icon with the left or right side of the 4-way navigation control. Press the SET button.
3. To lock the desired tracking subject, press the down side of the 4-way navigation control.
   - ■ The frame automatically tracks the subject movement to focus on it continuously.
4. Press the shutter button down fully to capture your image.
   - ■ When the camera fails to recognize or track the subject, the frame will turns red and blinks. After blinking of the red frame, the camera returns to unlock display.
   - ■ Press the down side of the 4-way navigation control, to returns to unlock display.

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Setting the Scene Mode

By simply selecting one of the available scene modes, you can capture the photo with the most appropriate settings.

1. Press the **MODE** button, and set the camera mode to [ ], and press the **SET** button.
2. Select the desired scene mode with the 4-way navigation control, and press the **SET** button.
3. Compose the photo and press the shutter button.

The table below will help you choose the appropriate scene mode:

Scene mode	Description
Auto	Select this mode when you want to capture photos without having to set special functions or manual adjustments.
Intelligent Scene	Select this mode when you want the camera to select an ideal shooting mode according to environment automatically.
Program AE	Select this mode when you want to set parameters manually other than the shutter speed and the aperture value.
Av	Select this mode when you want to capture photos with the priority given to aperture.
Tv	Select this mode when you want to capture fast moving subjects in fast shutter speed, or capture still subjects in slow shutter speed.
Smile Detection	Select this mode to automatically capture an photo when a smiling face is detected.
Anti-shake	Select this mode when you want to minimize the influences of hand shaking when capturing an photo.
Panorama Video	Select this mode when you want the camera to combine pictures in the camera automatically.
LOMO	Select this mode when you want to create a lomo-like effect by adding over saturated colors, etc.
Fisheye	Select this mode when you want to simulate a fisheye lens effect or to make a distorted hemisphere-like photo.
Toy	Select this mode when you want to simulate a shallow depth of field by gradually blurring the top and bottom areas of a composition.
Sketch	Select this mode when you want to make your photos like sketch.
Watercolor	Select this mode when you want to make your photos like watercolor.

Scene mode	Description
⊙ Beauty Enhancer	Select this mode when you want the camera to enhance the tone of skin so that the facial skin appears smooth.
⚑ Portrait	Select this mode when you want the camera to make the subject stand out with smooth and natural looking skin tones.
☾ Night Scene	Select this mode when you want to capture dark scenes such as night views.
☾ Night Portrait	Select this mode when you want to capture people with an evening or night scene background.
❀ Fireworks	Select this mode when you want to capture fireworks clearly with optimal exposure. The shutter speed becomes slower, so using a tripod is recommended.
▥ Candlelight	Select this mode when you want to capture photos of candlelight scene, without spoiling the ambience.
✖ Sports	Select this mode when you want to capture fast-moving subjects.
◉ Pets	Select this mode when you want to capture your pets. Shoot from their eye level.
▲ Landscape	Select this mode when you want to capture a photo with infinity focus, hard sharpness and high saturation.
◣ Natural Green	Select this mode when you want to capture the green scenery background such as forest. This mode helps to brighten the colors.
◣ Flow Water	Select this mode when you want to capture the soft flowing water.
◣ Splash Water	Select this mode when you want to capture photos of splashing water.
◪ Sunset	Select this mode when you want to capture a sunset. This mode helps keep the deep hues in the scene.
◪ Sunrise	Select this mode when you want to capture a sunrise. This mode helps keep the deep hues in the scene.
❄ Snow	Select this mode when you want to capture clear snow scenes without darkened subjects and bluish tint.
◪ Beach	Select this mode when you want to capture bright beach scenes and sunlit water surfaces.
▤ Text	Select this mode when you want to capture a photo that contains black and white subjects like printed documents.

Taking D\chcs with Intelligent Scene mode

In this Intelligent Scene mode, the camera can sense the ambient conditions and automatically select the ideal shooting mode.
1. Press the **MODE** button, and set the camera mode to [🔲], and press the **SET** button.
2. Select [Intelligent Scene] with the 4-way navigation control, and press the **SET** button.
   - ■ The camera can automatically select best mode for the shooting scene from [Auto] / [Landscape] / [Backlight] / [Portrait] / [Night] / [Night Portrait] / [Macro].
3. Compose the photo, and press the shutter button down fully.

Taking D\chcs When the Smile Feature Is On

With the camera's new "smile detection" function, this camera detects smiles so you do not miss those special moments in life.
1. Press the **MODE** button, and set the camera mode to [🔲], and press the **SET** button.
2. Select [Smile Detection] with the 4-way navigation control, and press the **SET** button.
3. Compose the photo, and press the shutter button down fully.
4. Once the camera detects a smile, it will automatically capture 3 photos (by default, the flash mode setting is set to 🚫).
   - ■ If the [Capture Md.] is set to [Single], the camera will only capture a photo after it detects a smile.
   - ■ When capturing group photos (if the number of people is more than 1), the camera will automatically capture the photo(s) when it detects two smiles.
   - ■ If the camera does not detect a smile within 5 seconds, the camera returns to preview display.
   - ■ Press the shutter button once again to reactivate this function.

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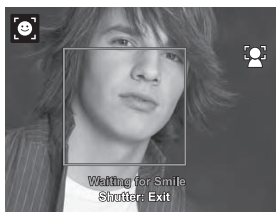
Taking a Panoramic Pictures

Pictures are manually shot, and the camera automatically combines pictures in the camera.

1. Press the **MODE** button, and set the camera mode to [▣], and press the **SET** button.
2. Select [Panorama Video] with the 4-way navigation control, and press the **SET** button.
3. Press the shutter button down fully.
4. Horizontally move your camera to select the photographic direction, meanwhile the camera begins to recording.
5. Press the shutter button again to stop recording when the status bar move to the end. And the pictures are automatically combined.
   - You can press the shutter button anytime to stop recording. And the pictures are automatically combined.

- Panoramic pictures shooting may not be available in the following situations.
  a. When shooting has not finished after a certain period of time.
  b. When the camera movement speed is too fast.
  c. When the camera is not straight relative to the panorama direction.

Setting the LOMO

Creates a lomo-like effect by adding over saturated colors, dark corners, and so on.

1. Press the **MODE** button, and set the camera mode to [▣], and press the **SET** button.
2. Select [LOMO] with the 4-way navigation control, and press the **SET** button.
3. Press the left side of the navigation control to select the desired option item with the left or right side of the 4-way navigation control and press the **SET** button.
   - LOMO 1: Creates a typical LOMO effect.
   - LOMO 2: Creates a retro LOMO effect (more sepia tone).
   - LOMO 3: Creates a retro LOMO effect (greener tone).
   - LOMO 4: Creates a vivid LOMO effect.
4. Press the down side of the 4-way navigation control to exit.

Find Blur Function

With the camera's new "Find Blur" function, this camera finds the blurry photo when capture under Continuous.

1. Press the **MODE** button, and set the camera mode to [🔲].
2. Press the **MENU** button, and select [Find Blur] icon with the up or down side of the 4-way navigation control. Set "Find Blur" on.
3. Press the shutter button to return to preview display.
4. Press the shutter button down fully to capture your photo.
5. Press the **SET** button to save the best photo.
   - Press the **MENU** button to save all photos.
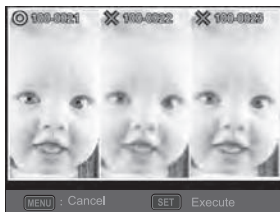
Recording Shots using Face Detection Technology

Face Detection Technology can identify and focus on the human faces in the image.

1. Press the **MODE** button, and set the camera mode to [🔲].
2. Press the 🌷 👤 button, and select [👤] icon with the left or right side of the 4-way navigation control. Press the **SET** button.
   - With Face Detection turned on, the camera identifies main face (white frame) and subsidiary faces (gray frames).
   - If the camera cannot detect and track any faces, there will be no frame shown on the screen.
3. Press the shutter button halfway down to lock the focus.
   - When the main face is in focus, the white frame simultaneously turns green. Otherwise, it turns red.
4. Press the shutter button down fully to capture your image.

Main Face(Green Frame)

Focus Lock

- Subjects that are not suitable with this function:
  a. A person is wearing glasses, sunglasses, or face is covered with hat or hair.
  b. A person turns sideways.

Self-portrait Function

Use this function to take pictures of yourself or include yourself in pictures.

1. Press the **MODE** button, and set the camera mode to [🔲].
2. Press the 🕐 button, and select [🔞] icon with the
   left or right side of the 4-way navigation control. Press the **SET** button.
3. Press the shutter button.
4. If the camera detect and track any faces, after twice blinking of the self-timer LED,
   one photo will be captured.
   - Press the shutter button to exit.
   - If it does not detect any face within 30 seconds, the camera will automatically
     capture an photo and return to preview display.
   - Select [🔞] to reactivate this function.

Taking Photos with Interval Capture mode

This mode is used to capture continuous photos at a preselected time interval.

1. Press the **MODE** button, and set the camera mode to [🔲].
2. Press the **MENU** button, and select [Capture Md.] with the up or down side of
   4-way navigation controlt, and press the **SET** button.
3. Select [Interval capture] with the left or right side of the 4-way navigation control,
   and press the **SET** button.
4. Press the **MENU** button, to exit from the [Capture] menu,
5. Press the down side of the 4-way navigation contro and select the desired option item
   with the left or right side of the 4-way navigation control and press the **SET** button.
   - Self-timer is disable in interval capture mode.
   - You can select desired option item from [10 Sec.] / [30 Sec.] / [5 Min.] / [30 Min.] /
     [1 hr.].
6. Compose the photo, and press the shutter button
   down fully.
   - The camera will countdown from your
     preselected time interval and take the first
     picture.
   - The LCD display will turn off after 2 seconds to
     save battery power.
   - The camera will continue to take photos at the
     preselected time interval, until:
     a. Pressing the shutter button again.
     b. The memory card is full.
     c. The battery is empty.

VIDEO MODE

Recording Video Clips

This mode allows you to record video clips at a resolution of 320 x 240 / 640 x 480 / 720p pixels.

1. Press the **MODE** button, and set the camera mode to [📹].
2. Compose the subject.
3. Press the shutter button.
   - The recording of the video clip will start.
   - Pressing the shutter button one more time will end the recording of the video clip.
   - The recording time depends on the storage size and the subject of the video to be recorded.
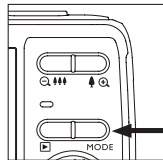
- When recording a video clip, the flash and "10+2 sec." self-timer function cannot be used.
- If the write speed of your SD/SDHC memory card is not fast enough for recording video clips in the currently selected quality, the video recording will stop. In this case, select a video quality lower than the current one.

Playing Back Video Clips

You can play back recorded video clips on the camera. You can also play back sound if recorded with the video.

1. Press the ▶ button.
   - The last video or photo appears on the screen.
2. Select the desired video clip with the left or right side of the 4-way navigation control.
3. Press the **SET** button.
   - A press of the right or left side of the 4-way navigation control during playback allows fast forward play / fast reverse play.
   - To stop video playback, press the down side of the 4-way navigation control. This stops playback and returns to the start of the video clip.
   - To pause video playback, press the **SET** button. This pauses video playback. To cancel pause, press the **SET** button again.

- Video clips cannot be displayed rotated or enlarged.
- Windows Media player or QuickTime Player is recommended to play back the video clip on your computer.
- QuickTime Player is a free media player available at www.apple.com; and compatible with Mac and Windows computers.
- For more information about the operation of the media player, refer to its respective help documentation.
- When watching a video on a computer, frames may drop, it may not play smoothing, and the audio may stop suddenly depending on the computer's capabilities.

   No sound will be recorded when using the zoom function of the camera.

PLAYBACK MODE

Playing Back D\chcs

You can play back the photos on the LCD monitor.

1. Press the ▶ button.
   - The last photo or video appears on the screen.
2. The images can be displayed in forward or reverse sequence with the left or right side of the 4-way navigation control.
   - To view the previous photo or video, press the left side of the 4-way navigation control
   - To view the next photo or video, press the right of the 4-way navigationcontrol
   - Pressing the ♦⊕ button enlarges the photo.
   - To return to normal magnification, press the ⊖♦♦♦ button.
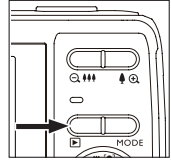
   - An [🎤] icon is displayed with images which have an audio memo recorded.

Entire image Current position of enlargement

Playback Display

This function allows you to search quickly for the photo that you want and playback images on the LCD monitor sequentially.

1. Press the ▶ button.
   - The last photo or video appears on the screen.
2. Press the up of the 4-way navigation control to display the next 10th photo or video.
   - If the 1st image taken is displayed, press the up of the 4-way navigation control to playback the 11th photo or video taken.
     Press the up of the 4-way navigation control again to playback the 21th photo or video taken and so forth.
3. Press the down of the 4-way navigation control to display the previous 10th image.
4. Press and hold the left or right side of the 4-way navigation control to display the previous or next images automatically in sequential order.
   - Release the left or right side of the 4-way navigation control if you wish to stop the automatic playback.

   - If the total number of photo or video is less than 10, press the down of the 4-way navigation control button jumps to the first iphoto or video and press the down of the 4-way navigation control jumps to the last photo or video.

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Removing Red-eye

You can use this function to remove the red-eye effect after a photo is taken.

1. Press the ▶ button.
   - The last photo or video appears on the screen.
2. Select the photo or video that you want to edit with the left or right side of the 4-way navigation control.
3. Press the **MENU** button.
4. Select [Fix Red Eyes] with the up or down side of the 4-way navigation control, and press the **SET** button.
5. Select [Execute] with the left or right side of the 4-way navigation control, and press the **SET** button.
6. View the changes on the corrected photo.
7. To save your corrected photo, select [Confirm] with the left or right side of the 4-way navigation control, and press the **SET** button.
   - When this process ends, this replaces the original photo with the corrected photo.
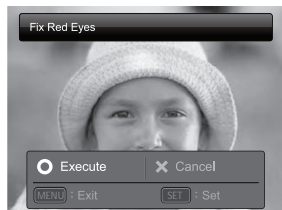
Dynamic Lighting Feature

This feature compensates for the unfavorable lighting conditions by brightening underexposed areas and balancing overexposed areas.

1. Press the ▶ button.
   - The last photo appears on the screen.
2. Select the photo that you want to edit with the left or right side of the 4-way navigation control.
3. Press the **MENU** button.
4. Select [Dynam. Light.] with the up or down side of the 4-way navigation control, and press the **SET** button.
5. Select [High] or [Low] with the left or right side of the 4-way navigation control, and press the **SET** button.
6. View the changes on the corrected photo.
7. To save your corrected photo, select [Confirm] with the left or right side of the 4-way navigation control, and press the **SET** button.
   - When this process ends, this replaces the original photo with the corrected photo.

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Attaching Voice Memos

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

1. Press the ▶ button.
   - The last photo or video appears on the screen.
2. Select the photo to which you want to attach the voice memo with the left or right side of the 4-way navigation control.
3. Press the **MENU** button.
4. Select [Voice Memo] with the up or down side of the 4-way navigation controlbuttons, and press the **SET** button.
5. Press the **SET** button.
   - [🖥] is displayed on the screen and recording starts.
6. To stop recording a voice memo as it is being recorded, press the **SET** button again.
   - An [🎤] icon is displayed with photos that have been recorded with a voice memo.

- RE-REC mode can only be used for the recorded and selected file, and it can record voice memo repeatedly to replace the previous recordings.

Playing back voice memo

A press of the **SET** button displays [🖥] and plays back

- Voice memo is only available for photos.

Protecting Photos and Videos

Set the data to read-only to prevent photos or videos from being erased by mistake.

1. Press the ▶ button.
   - The last photo or video appears on the screen.
2. Select the photo or video that you want to protect with the left or right side of the 4-way navigation control.
3. Press the **MENU** button.
4. Select [Protect] with the up or down side of the 4-way navigation control, and press the **SET** button.
5. Select [Single] or [All] with the left or right side of the 4-way navigation control, and press **SET** button.
6. Select [Set] with the left or right side of the 4-way navigation control, and press the **SET** button.
   - Protection is applied to the photo or video and the camera returns to the playback mode.
   - The protect icon [⊶] is displayed with protected photos and videos.
     When [All] has been selected, [⊶] is displayed with all the photos and videos.
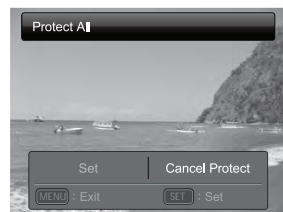
Canceling the Protection

To cancel protection for only one photo or video, display the photo or video on which you want to remove the image protection.

1. Press the ▶ button.
   - The last photo or video appears on the screen.
2. Select the photo or video that you want to cancel protection with the left or right side of the 4-way navigation control.
3. Press the **MENU** button.
4. Select [Protect] with the up or down side of the 4-way navigation control, and press the **SET** button.
5. Select [Single] or [All] with the left or right side of the 4-way navigation control, and press the **SET** button.
6. Select [Cancel Protect] with the left or right side of the 4-way navigation control, and press the **SET** button.
   - The removal of protection is executed and the camera returns to the playback mode.

- Formatting an SD/SDHC memory card overrides protection, and erases all photos and videos regardless of their protected status.

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DPOF Settings

DPOF is the abbreviation for Digital Print Order Format, which allows you to embed printing information on your memory card. You can select the photos 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 photos.

1. Press the ▶ button.
   - The last photo or video appears on the screen.
2. Select the photo that you want to set DPOF with the left or right side of the 4-way navigation control.
3. Press the MENU button.
4. Select [DPOF] with the up or down side of the 4-way navigation control, and press the SET button.
   - The DPOF setting screen is displayed.
5. Select [Single] or [All] with the left or right side of the 4-way navigation control, and press the SET button.
   - [Single]: Sets DPOF for each individual photo.
   - [All]: Sets DPOF for all photos at once.
6. Select [Print Num.] with the up or down side of the 4-way navigation control, and press the SET button.
   - This displays the number of prints setting screen.
7. Set the number of prints with the left or right side of the 4-way navigation control, and press the SET button.
8. Select [Date Print] with the up or down side of the 4-way navigation control, and press the SET button.
   - The date setting screen appears.
9. Select date to [On] or [Off] with the left or right side of the 4-way navigation control, and press the SET button.
   - [On]: The date of the photo will also be printed.
   - [Off]: The date of the photo will not be printed.
   - The DPOF icon [⊡] isdisplayed on each photo that has set up DPOF settings.

✎
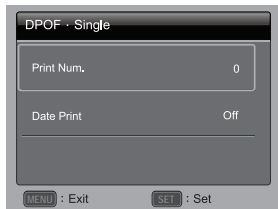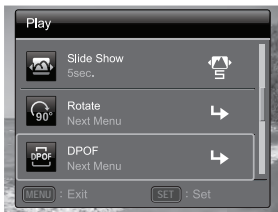
- The date that is printed on the photo is the date set on the camera. To print the correct date on the photo, set the date on the camera before you capture the photo. Refer to the section in this manual titled "Setting the Date and Time" for further details.

Erasing Images

Erasing a single image / Erasing all images

1. Press the ▶ button.
   - The last photo or video appears on the screen.
2. Select the photo or video you want to erase with the left side of the 4-way navigation control.
3. Press the **MENU** button.
4. Select [Delete] with the up or down side of the 4-way navigation control, and press the **SET** button.
5. Select [Single] or [All] with the left or right side of the 4-way navigation controlbuttons,and press the **SET** button.
   - [Single]: Erases the selected photo or video or the last photo or video.
   - [All]: Erases all of the iphotos and videos except for the protected files.
6. Select [Execute] with the left or right side of the 4-way navigation control buttons, and press the **SET** button.
   - To not erase, select [Cancel], and press the **SET** button.
7. To exit from the menu, press the **MENU** button.
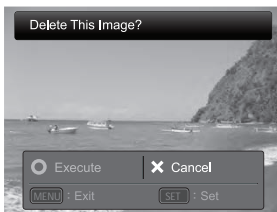
MENU OPTIONS

Capture Menu

This menu is for the basic settings to be used when capturing photos.

1. Press the **ON/OFF** button to turn the power on.
2. Press the **SET** button, and set the camera mode to any scene mode.
3. Press the **MENU** button to enter the [Capture] menu.
4. Select the desired option item with the up or down side of the 4-way navigation control, and press the **SET** button to enter its respective menu.
   - The selectable items may vary in different capture modes.
5. Select the desired setting with the left or right side of the 4-way navigation control, and press the **SET** button.
6. To exit from the menu, press the **MENU** button.

Size

This sets the size of the photo that will be captured.
* 16M / 12M / 8M / 2M / VGA / 16:9

ISO

This sets the sensitivity for capturing photos. When the sensitivity is raised (and the ISO figure is increased), photography will become possible even in dark locations, but the more pixelated (grainier) the photo will appear.
* Auto / ISO100 / ISO 200 / ISO 400 / ISO 800 / ISO 1600 / ISO 3200

Quality

This sets the quality (compression) at which the photo is captured.
* Fine / Standard / Economy

W. Balance

This sets the white balance for a variety of lighting conditions and permits photos to be captured that approach the conditions that are seen by the human eye.
*Auto / Incand. / Fluoresc.1 / Fluoresc.2 / Daylight / Cloudy / Manual WB

Sharpness

This sets the sharpness of the photo that will be captured.
* Hard / Standard / Soft

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Color

This sets the color of the photo that will be captured.

* Standard / Vivid / Sepia / B&W / Blue / Red / Green / Yellow / Purple

Saturation

This sets the saturation of the photo that will be captured.

* High / Standard / Low

Metering

This sets the metering method for calculating the exposure.

* Center:	Averages the light metered from the entire frame, but gives greater weight to the subject matter at the center.
* Spot:	A very small portion of the center of the screen is measured to calculate the correct exposure.
* Average:	The exposure is measured all of the subject area.

Capture Md.

This sets the recording method at the time of capturing photos.

* Single:	Captures one photo at a time.
* Continuous:	Permits continuous capture of up to 3 photos.
* AEB:	Permits 3 consecutive photos in the order of standard exposure, underexposure and overexposure compensation.
* Album Shot:	Creates an album-like layout to combine 3 shots into a single image.
* Burst:	Permits continuous photography while pressing and holding the shutter button. As long as you hold the shutter button pressed, images are captured until the memory capacity is exhausted.
* Cont.flash:	Permits continuous capture of up to 3 photos with flash.
* Pre-shot:	Select a background by 1st shot, the image shown on display will be transparent, then take the 2nd shot on the basis of 1st image. Image of 1st shot is only a guiding tool, it won't be saved on SD card. Normally this function is used when taking a portrait picture and the background is selected by the model instead of the photographer.
* Coupl.shot:	Uses separate areas to combine two shots. You can include yourself in the photo.
* Burst 30fps:	Permits continuous capture of up to 30 photos in the resolution 640 x480 within 1 second.
* Interval capture:	Captures continuous photos at a preselected time interval.

Digi. Zoom

This sets whether or not to use digital zoom at the time of photography.

* On / Off

Find Blur

Refer to the section in this manual titled "Find Blur Function" for further details.
* On / Off

Preview

This sets whether or not to display the captured photo on the screen immediately after the photo is captured.
* On / Off

Date Print

The date of recording can be printed directly on the photos. This function must be activated before the photo is captured.
* On / Off

Setup

Refer to the section in this manual titled "Setup Menu" for further details.

Video Menu

This menu is for the basic settings to be used when recording video clips.

1. Press the **MODE** button, and set the camera mode to [▦].
2. Press the **MENU** button to enter the [Video] menu.
3. Select the desired option item with the up or down side of the 4-way navigation control, and press the **SET** button to enter its respective menu.
4. Select the desired setting with the left or right side of the 4-way navigation control, and press the **SET** button.
5. To exit from the menu, press the **MENU** button.

Size

This sets the size of the video clip that will be captured.
* HD / VGA / QVGA

Quality

This sets the quality (compression) at which the video clip is captured.
* Fine / Standard

Color

This sets the color of the video clip that will be captured.
* Standard / Vivid / Sepia / B&W / Blue / Red / Green / Yellow / Purple

Audio

This sets whether or not to record audio at the time of video recording.
* On / Off

Digi. Zoom

Refer to the section in this manual titled "Digi. Zoom" in Capture Menu for further details.

Setup

Refer to the section in this manual titled "Setup Menu" for further details.

Playback Menu

In the [▶] mode, choose which settings are to be used for playback.
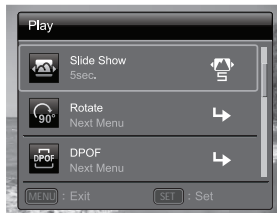
1. Press the ▶ button.
2. Press the **MENU** button.
3. Select the desired option item with the up or down side of the 4-way navigation control, and press the **SET** button to enter its respective menu.
4. Select the desired setting with the left or right side of the 4-way navigation control, and press the **SET** button.
5. To exit from the menu, press the **MENU** button.

Delete

Refer to the section in this manual titled "Erasing photos" for further details.

Fix Red Eyes

Refer to the section in this manual titled "Removing Red-eye" for further details.

Dynam. Light.

Refer to the section in this manual titled "Dynamic Lighting Feature" for further details.

Slide Show

This function enables you to play back your photos automatically in order one image at a time.

* 3 Sec. / 5 Sec. / 10 Sec.

Rotate

If you wish to rotate a still image 90 degrees to the right, select +90°; if you wish to rotate it 90 degrees to the left, select -90°. Video clips cannot be rotated.

* +90° / -90°

DPOF

Refer to the section in this manual titled "DPOF Settings" for further details.

Protect

Refer to the section in this manual titled "Protecting photos" for further details.

Voice Memo

Refer to the section in this manual titled "Attaching Voice Memos" for further details.

Resize

Resizes a previously saved photo. Resizing replaces the original photo with the changed photo. It is only possible to resize to a smaller size.

Qual. Change

Changes the quality (compression) of a recorded photo. Compress photos down to half of their size or less, overwrite old size photos with newly compressed photos. It is only possible to reduce the photo quality/size, never to increase it.

Copy to Card

Allows you to copy your files from the camera's internal memory to an SD/SDHC memory card. Of course, you can only do this if you have a memory card installed and some files in internal memory. All files remain in the internal memory, even after copy to the SD/SDHC memory card from the internal memory.
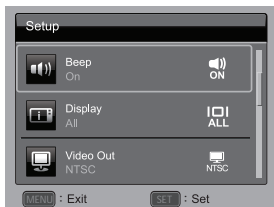
* Execute / Cancel

Setup

Refer to the section in this manual titled "Setup Menu" for further details.

Setup Menu

Set your camera's operating environment.

Setup	
Date/Time 2012.03.01	↳
Language English	🌐 EN
Auto Off Off	⏻ OFF
MENU : Exit	SET : Set

Setup	
Beep On	🔊 ON
Display All	🖵 ALL
Video Out NTSC	🖵 NTSC
MENU : Exit	SET : Set

1. Press the **MODE** button, and set the camera mode to [📷] or [🎬]; or press the ▶ button.
2. Press the **MENU** button.
3. Select the [Setup] at the end of the Menu with the up or down side of the 4-way navigation control, and press the **SET** button.
4. Select the desired option item with the up or down side of the 4-way navigation control, and press the **SET** button to enter its respective menu.
5. Select the desired setting with the left or right side of the 4-way navigation control, and press the **SET** button.
6. To exit from the menu, press the **MENU** button.

Date/Time

Refer to the section in this manual titled "Setting the Date and Time" for further details.

Language

Refer to the section in this manual titled "Choosing the Language" for further details.

Auto Off

If no operation is performed for a specific period of time, the power to the camera is automatically turned off. This feature is useful for reducing battery usage.
* Off / 1 Min. / 2 Min. / 3 Min.

Beep

This sets whether or not to mute the camera sound each time you press the camera's buttons.
* On / Off

Display

This sets the image information display state.
* Standard / All / Off

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Video Out

This sets your camera to match the system of the equipment that you are going to connect to the camera.

* NTSC / PAL

Fr. No. Reset

This creates a new folder. The captured photos are recorded to the newly created folder from number 0001.

* Execute / Cancel

Light Freq.

This camera supports different lighting frequencies: 50 Hz and 60 Hz. When photographing under fluorescent lighting, select the correct frequency setting depending in your local area's voltage.

* 50 Hz / 60 Hz

LCD Bright.

Select a brightness level for the LCD monitor.

* Standard / Bright

Format

Refer to section in this manual titled "Formatting the Memory Card or Internal Memory" for further details.

Media Info.

This displays the free capacity of the internal memory or the memory card.

Sys. Info.

This displays the firmware version of the camera.

Sys. Reset

This returns all basic settings to the camera's default settings.

* Execute / Cancel

TRANSFERRING FILES TO YOUR COMPUTER

Minimum System Requirements

Windows	Macintosh
■ Pentium III 1GHz or equivalent	■ PowerPC G3/G4/G5
■ Windows 7/XP/Vista	■ OS 10.3.9 or later
■ 2GB RAM	■ 256MB RAM (2GB recommended)
■ 150MB available hard disk space	■ 128MB available hard disk space
■ CD-ROM drive	■ CD-ROM drive
■ Available USB port	■ Available USB port

Downloading Your Files

1. Power on your camera.
2. Connect the camera to your computer with the USB cable.
3. Select [PC] using the up or down side of the 4-way navigation control and press the SET button.
4. From the Windows desktop, double click on "My Computer".
5. Look for a new "removable disk" icon.
6. Double click on the removable disk and locate the DCIM folder.
    - ■ Your recorded photos and video clips will be inside the folders of DCIM folder.
    - ■ Copy & Paste or Drag-N-Drop photo and video files to a folder on your computer.

Mac users: Double-click the "untitled" or "unlabeled" disk drive icon on your desktop.

iPhoto may automatically launch.
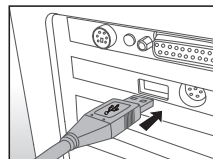
SPECIFICATIONS

Item	Description
Image sensor	1/2.3" CCD sensor (16.0 megapixels)
Image resolution	Photo 16M (4608 x 3456), 12M(3968 x 2976), 8M (3264 x 2448), 2M(1600 x 1200), VGA(640 x 480) , 16:9(4608 x 2592) Video clip HD(720p), VGA(640x480), QVGA(320x240)
LCD monitor	3.0" full color TFT LCD (460K pixels)
Recording media	32MB internal memory (23MB available for photo or video storage) Supports SD/SDHC memory card (1 ~ 32GB) (optional)
File format	DCF, JPEG (EXIF 2.2), DPOF, Motion-JPEG (AVI), HD720p
Lens	8x optical zoom lens Aperture range: 2.9(W) - 5.9(T) Focal length: 4.5mm - 36mm (equivalent to 25mm - 200mm on a 35mm camera)
Focus Range	Macro: 0.05m(W) 0.7m~Inf (T) Normal: 0.3m~Inf (W) 0.7m~Inf (T)
Shutter speed	2 ~ 1/2000 Sec.
Digital zoom	6x (Capture mode) 12x (Playback mode)
Terminals	USB/AV OUT (2 in 1 terminal)
Power supply	Rechargeable Lithium-ion battery (3.7V)
Battery Charging environment	Temperature 0°C - 40°C(32°F to 104°F)(Charging)
Dimensions	Approx. 99 x 57.9 x 19.7mm (without protruding parts)
Weight	Approx. 122g (without battery and memory card)

* Design and specifications are subject to change without notice.

APPENDIX

Possible Number of Shots

Possible number of shots (d\chcg)

The table shows the approximate photos that you can capture at each setting based on the capacity of the internal memory and the SD/SDHC memory card.

Size	Quality		internal memory	SD/SDHC memory card capacity					
				1GB	2GB	4GB SDHC	8GB SDHC	16GB SDHC	32GB SDHC
16MP 4608 x 3456	🔲	Fine	5	244	497	976	1987	4000	8024
	🔲	Standard	8	358	729	1433	2916	5869	11773
	🔲	Economy	11	479	976	1918	3903	7854	15756
12MP 3968 x 2976	🔲	Fine	6	303	618	1214	2471	4973	9976
	🔲	Standard	10	445	906	1780	3622	7289	14623
	🔲	Economy	14	591	1204	2365	4813	9685	19428
8MP 3264 x 2448	🔲	Fine	9	396	807	1585	3226	6491	13022
	🔲	Standard	13	577	1174	2305	4692	9442	18941
	🔲	Economy	18	770	1567	3077	6263	12601	25279
2MP 1600 x 1200	🔲	Fine	24	1006	2047	4019	8180	16460	33019
	🔲	Standard	34	1437	2923	5740	11683	23506	47154
	🔲	Economy	52	1887	3838	7537	15339	30863	61910
VGA 640 x 480	🔲	Fine	73	3020	6143	12063	24549	49394	99083
	🔲	Standard	105	4316	8777	17234	35073	70568	99999
	🔲	Economy	142	5810	11817	23202	47217	95002	99999
16:9 4608 x 2592	🔲	Fine	7	341	694	1363	2775	5584	11203
	🔲	Standard	10	461	938	1843	3751	7549	15143
	🔲	Economy	13	582	1185	2328	4738	9533	19125

Possible recording time / sec (video clip)

Size	Quality	internal memory	SD/SDHC memory card capacity					
			1GB	2GB	4GB SDHC	8GB SDHC	16GB SDHC	32GB SDHC
HD 1280 x 720	🎞 Fine	0:00:08	0:06:04	0:12:21	0:24:16	0:49:23	1:39:22	3:19:20
	▣ Standard	0:00:10	0:06:49	0:13:53	0:27:16	0:55:31	1:51:42	3:44:05
VGA 640 x 480	🎞 Fine	0:00:11	0:07:35	0:15:25	0:30:17	1:01:38	2:04:01	4:08:48
	▣ Standard	0:00:20	0:13:34	0:27:36	0:54:12	1:50:58	3:41:57	7:25:13
⊶ VGA 320 x 240	🎞 Fine	0:00:33	0:22:25	0:45:36	1:29:33	3:02:15	6:06:42	12:15:36
	▣ Standard	0:00:49	0:33:16	1:07:40	2:12:53	4:30:26	9:04:08	18:11:31

* The table above shows the approximate maximum recording times. These are the total times for all clips. A video recording will stop automatically when a video clip becomes approx. 4GB or 25 minutes.
* We recommend a memory card of at least 10MB/Sec write speed to prevent auto stop or unexpected results. If you experience an error using a slower SD/SDHC memory card, you can set your camera's video recording to QVGA (320 x 240) and standard quality.
* SDHC Class6 or above is required for HD movie recording.

Troubleshooting

Refer to the symptoms and solutions listed below before sending the camera for repairs. If the problem persists, contact your local reseller or service center.

Symptom	Cause	Solutions / Corrective Actions
The power does not come on.	The battery is not inserted.	Insert the battery correctly.
	The battery is exhausted.	Recharge the battery.
The battery runs out quickly.	The battery is not fully charged. The battery is not used for an extended period of time after being charged.	Fully charge the battery and use it until it is discharged before you recharge it again. This maximize the performance and lifetime of the battery.
The battery or camera feels warm.	Long period of continuous use of the camera or the flash.	----
Even if press the shutter button, the camera does not take a picture.	The shutter button is not pressed all the way down.	Press the shutter button all the way down.
	The memory card does not have any free capacity.	Insert a new memory card, or delete unwanted files.
	The memory card is write-protected.	Remove the write-protection.
Photos do not appear on the LCD monitor.	LCD monitor is dark.	Adjust the brightness of the LCD monitor in the menu.

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Symptom	Cause	Solutions / Corrective Actions
Although it is set to auto focus, it does not focus.	The lens is dirty.	Wipe clean with a soft, dry cloth or lens paper.
	The distance to the subject is smaller than the effective range.	Get your subject within the effective focus range.
The contents on the memory card cannot be played back.	You played back a memory card that was not formatted by this camera.	Insert a memory card that was formatted on this camera.
Files cannot be deleted.	The file is protected.	Cancel protection.
	The memory card is write-protected.	Remove the write-protection.
Even when the camera's buttons are pressed, it does not operate.	The battery is running low.	Recharge the battery.
The date and time are wrong.	The correct date and time is not set.	Set the correct date and time.
Cannot download photos or videos	The free space on the hard disk in your computer may be insufficient.	Check whether the hard disk has space for running Windows, and if drive for loading image files has a capacity at least that of the memory card inserted in the camera.
	No power supply.	Recharge the battery.

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