SAMSUNG

just a **Click** away

Digimax S500 **User's Manual**

Thank you for buying a Samsung Camera.
This manual will guide you through using the camera, including
capturing images, downloading images and using the application software.
Please read this manual carefully before using your new camera.

ENGLISH

Instructions

■ Use this camera in the following order

| Set up the camera driver | Before connecting the camera to a PC, via the USB cable, you will need to set up the camera driver. Install the camera driver that is contained in Application software CD-ROM. (p.66) |

↓

| Take a picture | Take a picture. (p.14) |

↓

| Insert the USB cable | Insert the supplied USB cable into the PC's USB port and the camera's USB connection terminal. (p.67) |

↓

| Check the camera's power | Check the camera's power. If the power is turned off, press the camera button to turn it on. |

↓

| Check [Removable Disk] | Open Window's EXPLORER and search for [Removable Disk]. (p.68) |

● If you use a card reader to copy the images on the memory card to your PC, the images could be damaged. When transferring the images taken with the camera to your PC, be sure to use the supplied USB cable to connect the camera to your PC. Please note that the manufacturer holds no responsibility for loss or damage of images on the memory card due to the use of a card reader.

Getting to know your camera

Thank you for buying a Samsung Digital Camera.

● Prior to using this camera, please read the user manual thoroughly.
● When you require After Sales service, please bring the camera and the cause of the camera malfunction (such as battery, Memory card etc.) to the A/S centre.
● Please check that the camera is operating properly prior to when you intend to use it (e.g. for a trip or an important event) to avoid disappointment. Samsung camera takes no responsibility for any loss or damages that may result from camera malfunction.
● Keep the manual in a safe place.
✻ Microsoft, Windows and Windows logo are registered trademarks of Microsoft Corporation incorporated in the United States and/or other countries.
✻ All brand and product names appearing in this manual are registered trademarks of their respective companies.

Danger

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

- Do not attempt to modify this camera in any way. This may result in fire, injury, electric shock or severe damage to you or your camera. Internal inspection, maintenance and repairs should be carried out by your dealer or Samsung Camera Service centre.
- Please do not use this product in close proximity to flammable or explosive gases, as this could increase the risk of explosion.
- Should any form of liquid or a foreign object enter the camera, do not use it. Switch off the camera, and then disconnect the power source. You must contact your dealer or Samsung Camera Service centre. Do not continue to use the camera as this may cause a fire or electric shock.
- Do not insert or drop metallic or inflammable foreign objects into the camera through access points e.g. the memory card slot and battery chamber. This may cause a fire or electric shock.
- Do not operate this camera with wet hands. This could pose a risk of electric shock.

Warning

WARNING indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.

- Do not use the flash in close proximity to people or animals. Positioning the flash too close to your subject's eyes, may cause eyesight damage.
- For safety reasons keep this product and accessories out of reach of children or animals to prevent accidents e.g.:
  - Swallowing battery or small camera accessories. If an accident should occur, please consult a doctor immediately.
  - There is the possibility of injury from the camera's moving parts.
- battery and camera may become hot during prolonged use and it may result in camera malfunction. Should this be the case, allow the camera to sit idle for a few minutes to allow it time to cool.
- Do not leave this camera in places subject to extremely high temperatures, such as a sealed vehicle, direct sunlight or other places of extreme variances in temperature. Exposure to extreme temperatures may adversely affect the camera's internal components and could cause a fire.
- When in use, do not cover the camera or Charger. This and distort the camera body or cause a fire. Always This may cause heat to build up and distort the camera body or cause a fire. Always use the camera and its accessories in a well-ventilated area.

Caution

CAUTION indicates a potentially hazardous situation, which, if not avoided, may result in a minor or moderate injury.

- Leaking, overheating, or burst battery could result in fire or injury.
  - Use battery with the correct specification for the camera.
  - Do not short circuit, heat or dispose of battery in fire.
  - Do not insert the battery with the reverse polarities.
- Remove the battery when not planning to use the camera for a long period of time. Battery may leak corrosive electrolyte and permanently damage the camera's components.
- Do not fire the flash while it is in contact with hands or objects. Do not touch the flash after using it continuously. It may cause burns.
- Do not move the camera while it is switched on, if you are using the AC Charger. After use, always switch off the camera before unplugging the cable from the wall socket. Then make sure that any connector cords or cables to other devices are disconnected before moving the camera. Failure to do so may damage the cords or cables and cause a fire or electric shock.
- Take care not to touch the lens and where the lens cover is to avoid taking an unclear image and possibly causing camera malfunction.
- Avoid obstructing the lens or the flash when you capture an image.

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Contents

System chart

Please check that you have the correct contents before using this product. The contents can vary depending on the sales region. To buy the optional equipment, contact your nearest Samsung dealer or Samsung service centre.

< Included items >

Camera case

User manual, Product warranty

Camera strap

Software CD (see p.65)

Computer (see p.67)

PictBridge compatible printer(see p.49)

DPOF compatible printer (see p.46)

SD memory card/MMC (see p.9)

USB/ AV cable

Rechargeable battery (SBP-2524)

Rechargeable battery (SNB-2512)

AA Alkaline Batteries

AC cord

Cradle

Charger(SBC-N1)

External monitor
Yellow colour - Video
White colour - Voice
(see p.57)

System Requirements

For Windows
• Windows 98/ 98SE/ 2000/ ME/ XP
• PC with processor better than Pentium II 450MHz (Pentium 700MHz or better is recommended)
• 200MB of available hard-disk space (Over 1GB is recommended)
• Minimum 64MB RAM (XP : 128MB)
• 1024x768 pixels, 16-bit colour display compatible monitor (24-bit colour display recommended)
• CD-ROM drive
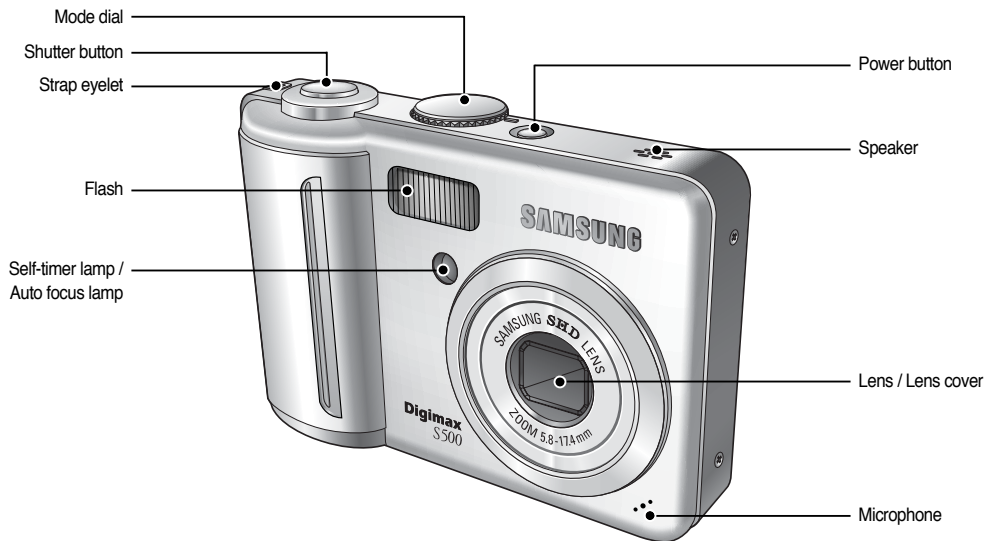• DirectX 9.0 or later
• USB port

For Macintosh
• Power Mac G3 or later
• Mac OS 9.2 ~ 10.3
• Minimum 64MB RAM
• 110MB of available hard-disk space
• USB port
• CD-ROM drive

CAUTION

When you connect the camera to a computer, printer or external monitor, you have to use the USB/ AV cable supplied with the camera, or the external devices can't recognise the camera.
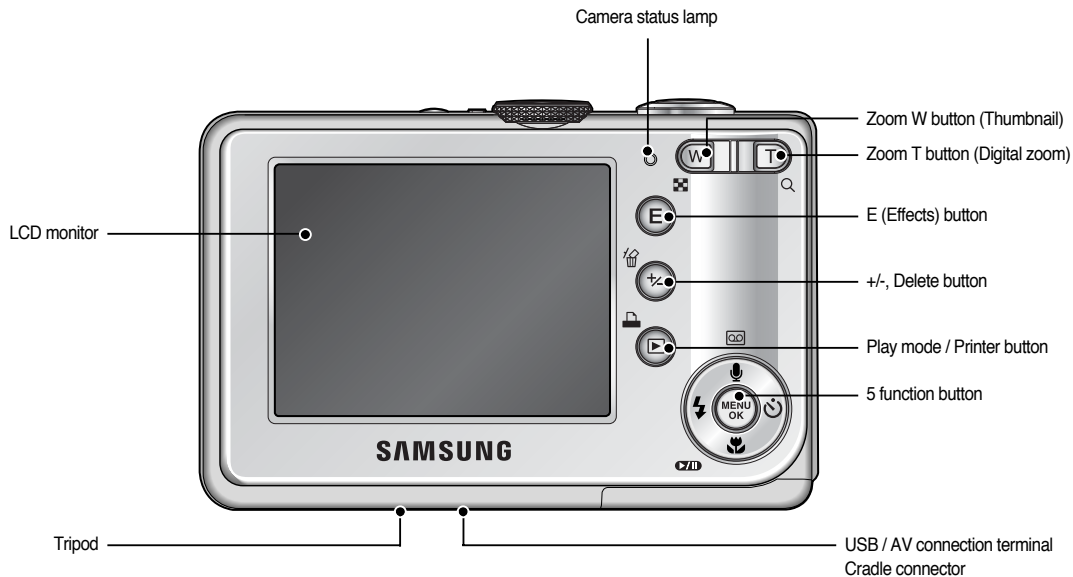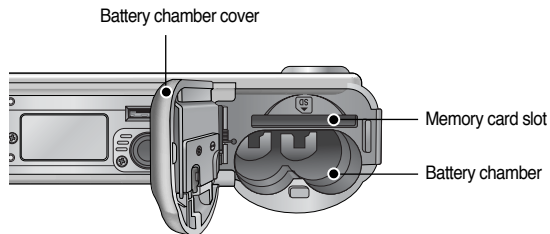
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Identification of features

Mode dial

Shutter button

Strap eyelet

Flash

Self-timer lamp /
Auto focus lamp

Power button

Speaker

Lens / Lens cover

Microphone

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SAMSUNG SHD LENS

ZOOM 5.8-17.4 mm

Digimax
S500

Back & Bottom

Camera status lamp

Zoom W button (Thumbnail)

Zoom T button (Digital zoom)

E (Effects) button

+/-, Delete button

Play mode / Printer button

5 function button

LCD monitor

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Tripod

USB / AV connection terminal
Cradle connector

Identification of features

Bottom / 5-function button

Battery chamber cover

Memory card slot

Battery chamber

Voice memo / Voice Recording / Up button

Menu / OK button

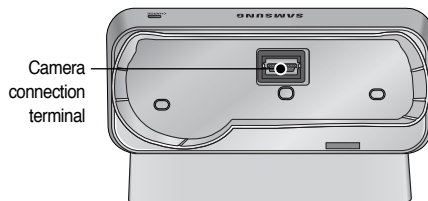Flash / Left button

Self-timer / Right button
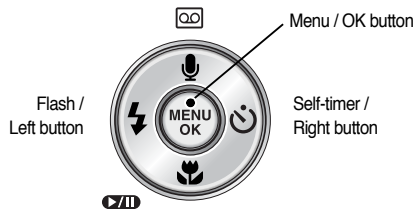
Macro / Down button
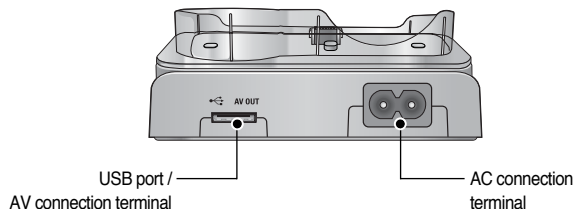Play & Pause button

Cradle(Optional)

■ You can recharge your rechargeable battery(SBP-2524), transfer a captured image to print, and download images with the cradle. (Refer to page 49, 67~69)

● Top

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Camera connection terminal

● Back

USB port / AV connection terminal

AC connection terminal

Identification of features

■ Self-timer lamp

Icon	Status	Description
$\circlearrowleft^{2S}$	Blinking	For the 2 seconds, the lamp blinks quickly at 0.25-second intervals.
$\circlearrowleft$	Blinking	For the first 8 seconds, the lamp blinks at 1 second intervals. For the final 2 seconds, the lamp blinks quickly at 0.25-second intervals.
$\circlearrowleft^{\circ}$	Blinking	A picture will be taken after about 10 seconds and 2 seconds later a second picture will be taken.

■ Camera Status Lamp

Status	Description
Power on	The lamp turns on and off when the camera is ready to take a picture
After taking a picture	The lamp blinks while saving the image data and turns off when the camera is ready to take a picture
While voice memo recording	The lamp blinks
While voice recording	The lamp blinks
Transmitting Data with a PC	The lamp turns on (LCD monitor turns off)
When the USB cable is inserted to a printer	The lamp is off
When the printer is printing	The lamp blinks
When the AF activates	The lamp turns on (The camera focus on the subject)
	The lamp blinks (The camera doesn't focus on the subject)

■ Mode icon Refer to page 14~17 for more information about the camera mode setting.

MODE	AUTO	PROGRAM	MANUAL	NIGHT	PORTRAIT	CHILDREN	MOVIE	PLAY
Icon	🄾	🄶	M	🄲	🄾	🄰	🄼	▶
MODE	SCENE							
	LANDSCAPE	CLOSE UP	SUNSET	DAWN	BACKLIGHT	FIREWORKS	BEACH & SNOW	
Icon	▲	🄲	🄴	🄴	🄲	🄾	🄵	

Connecting to a Power Source

Using the batteries

● We recommend using batteries for a digital camera (Within a year from the date of manufacture). The batteries are listed below.
  - Non rechargeable batteries : 2 X AA Alkaline(High Capacity)
  - Rechargeable batteries   : SNB-1512(Ni-MH)
                                 SBP-2524(Ni-MH)
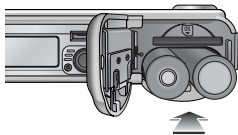
Connecting to a Power Source

■ There are 4 indicators for battery condition that are displayed on the LCD monitor.

Battery indicator	〔ⅠⅠⅠ〕	〔ⅠⅠ〕	〔Ⅰ〕	〔　〕
Battery status	The battery is fully charged	Low battery capacity (Prepare to recharge or use spare battery)	Low battery capacity (Prepare to recharge or use spare battery)	Low battery capacity (Prepare to recharge or use spare battery)

■ Insert the battery as shown
  - If the camera does not turn on after you have inserted battery, please check whether the battery are inserted with the correct polarity (+/-).
  - When the battery chamber cover is opened, do not press the battery chamber cover by force. This may cause the battery chamber cover modification or breakage.

Inserting the memory card

■ Insert the memory card as shown.
  - Turn off the camera's power before inserting the memory card.
  - Have the front of the memory card facing toward the front of the camera (lens) and the card pins toward the back of the camera (LCD monitor).
  - Do not insert the memory card the wrong way round. Doing so may damage the memory card slot.
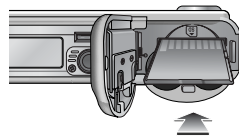
Instructions on how to use the memory card

● Be sure to format the memory card (see p.55) if you are using a newly purchased memory for the first time, if it contains data that the camera cannot recognise, or if it contains images captured with a different camera.
● Turn off the camera power whenever the memory card is being inserted or removed.
● Repeated use of the memory card will eventually reduce the memory card's performance. Should this be the case, you will need to purchase a new memory card. Wear and tear on the memory card is not covered by the Samsung warranty.
● The memory card is an electronic precision device.
  Do not bend, drop or subject the memory card to any heavy impact.
● Do not store the memory card in an environment with strong electronic or magnetic fields, e.g. near loud speakers or TV receivers.
● Please do not use or store in an environment where there are extremes in temperature.
● Do not allow the memory card to become dirty or to come into contact with any liquid. Should this happen, clean the memory card with a soft cloth.
● Please keep the memory card in its case when not in use.
● During and after periods of extended use, you may notice that the memory card is warm. This is perfectly normal.
● Do not use a memory card that is used in another digital camera.
  To use the memory card in this camera, format the memory card using this camera.
● Do not use a memory card formatted by another digital camera or memory card reader.

● If the memory card is subjected to any of the following, the recorded data may become corrupted :
  - When the memory card is used incorrectly.
  - If the power is switched off or the memory card is removed while recording, deleting (formatting) or reading.
● Samsung cannot be held responsible for lost data.
● It is advisable to copy important data onto other media as back-up e.g. floppy disks, hard disks, CD etc.
● If there is insufficient memory available
  : A [Memory Full!] message will appear and the camera will not operate. To optimise the amount of memory in the camera, replace the memory card or delete unnecessary images stored on the memory.

Instructions on how to use the memory card

INFORMATION

● Don't remove the memory card when the camera status lamp is blinking as this may cause damage to data in the memory card.

■ The camera can use SD Memory Cards and MMC (Multi Media Cards). Please consult the enclosed manual for using the MMC Cards.

Card pins ———
Write protect ——— switch
Label ———
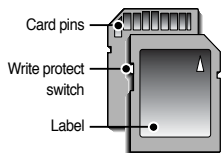
[SD (Secure Digital) memory card]

The SD memory card has a write protect switch that prevents image files from being deleted or formatted. By sliding the switch to the bottom of the SD memory card, the data will be protected. By sliding the switch to the top of the SD memory card, the data protection will be cancelled.
Slide the switch to the top of the SD memory card before taking a picture.

■ When using a 20MB internal memory, the specified shooting capacity will be as follows. These figures are approximate as image capacities can be affected by variables such as subject matter and memory card type.

Recorded image size		Super Fine	Fine	Normal	30FPS	15FPS
Still image	5M	7	14	21	-	-
	4M	10	18	24	-	-
	3M	12	22	32	-	-
	2M	19	34	43	-	-
	1M	52	83	89	-	-
	VGA	114	125	157	-	-
* Movie clip	640				About 17"	About 30"
	320				About 59"	About 1' 48"
	160				About 2' 53"	About 4' 42"

※ The recording times can be changed by the zoom operation.
The zoom button doesn't use during the movie recording.

When Using the Camera for the First Time

■ Charge the rechargeable battery fully before using the camera for the first time.

■ When the camera is turned on for the first time, a menu will be displayed to set date / time, language and battery type in the LCD monitor. This menu will not be displayed after setting up. Set up the date / time, language and battery type before using this camera.

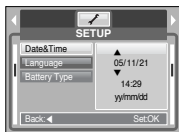● Setting up the date, time and date type
  1. Select the [Date&Time] menu by pressing the UP/DOWN button and press the RIGHT button.
  2. Select the desired sub menu by pressing the UP / DOWN / LEFT / RIGHT button and press the OK button.

    RIGHT button : Selects YEAR / MONTH / DAY / HOUR / MINUTE / DATE TYPE
    LEFT button : Moves the cursor to the [Date&Time] main menu if the cursor is at the first item of the date and time setup. In all other instances, the cursor will be shifted to the left of its current position.
    UP/ DOWN button : Changes the value of each item.

● Setting up the language
  1. Select the [Language] menu by pressing the UP/DOWN button and press the RIGHT button.
  2. Select the desired sub menu by pressing the UP / DOWN button and press the OK button. When the settings are complete, press the MENU button twice to exit the menu screen.

INFORMATION

● You can select 22 languages. These are listed below :
  - English, Korean, French, German, Spanish, Italian, S.Chinese, T.Chinese, Japanese, Russian, Portuguese, Dutch, Danish, Swedish, Finnish, Thai, BAHASA(MALAY/ INDONESIAN), Arabic, Hungarian, Czech, Polish and Turkish.
● Even if the camera is restarted, the language setting will be maintained.
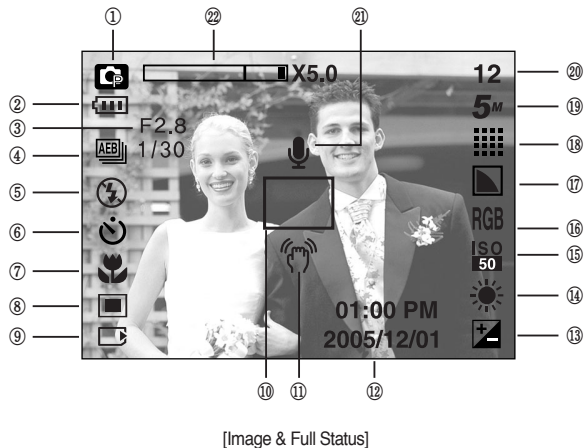
● Setting up the battery type
  1. Select the [Battery Type] menu by pressing the UP / DOWN button and press the RIGHT button.
  2. Select the desired sub menu by pressing the UP / DOWN button and press the OK button.

LCD monitor indicator

■ The LCD monitor displays information about the shooting functions and selections.

[Image & Full Status]

No.	Description	Icons	Page
1	Recording mode	🅾️ 🅶 🅼 🅲 🅾️ 🅾️ 🅰️ 🅰️ 🅰️ 🅰️ 🅰️ 🅰️	p.14~17
2	Battery	▯▯▯ ▯▯ ▯ ▯	p.9
3	Aperture Value / Shutter Speed	F2.8, 1/30s	p.14

No.	Description	Icons	Page
4	Continuous shot	▢ ▢ AEB	p.33
5	Flash	⚡ 👁 ⚡ ⚡ᔆ ⚡	p.21~23
6	Self-timer	⏱²ᔆ ⏱ ⏱	p.23
7	Macro	🌷 🌷	p.20~21
8	Metering	▣ ▣	p.33
9	Card inserted indicator	▯ INT	-
10	Auto focus frame	▢	-
11	Camera shake warning	⦗⦘	p.17
12	Date / Time	2005/12/01 01:00 PM	p.55
13	Exposure compensation	☒	p.30
14	White Balance	AWB ☀ ☁ 💡 💡 ☀ ▮	p.29~30
15	ISO	ISO AUTO ISO 50 ISO 100 ISO 200 ISO 400	p.29
16	RGB	RGB	p.28
17	Sharpness	▮ ▮ ▮	p.34
18	Image quality / Frame rate	▦ ▦ ▦ 30 15	p.32
19	Image size	5ᴹ 4ᴹ 3ᴹ 2ᴹ 1ᴹ VGA 640 320 160	p.32
20	Number of available shots remaining	12	p.11
	Remaining time (Movie clip/ Voice recording)	00:01:30/ 01:00:00	p.12
21	Voice memo	🎤	p.20
22	Optical/ Digital Zoom bar/ Digital Zoom rate	▭ X5.0	p.18~19

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Starting the recording mode

■ How to use the AUTO mode (**AUTO**)

1. Insert the batteries (p.9). Insert the batteries taking note of the polarity (+ / -).
2. Insert the memory card (p.9). As this camera has a 20MB internal memory, you do not need to insert the memory card. If the memory card is not inserted, an image will be stored in the internal memory. If the memory card is inserted, an image will be stored on the memory card.
3. Close the battery chamber cover.
4. Press the power button to turn on the camera. (If the date/ time that is displayed on the LCD monitor is incorrect, reset the date / time before taking a picture.)
5. Select the AUTO mode by rotating the mode dial.
6. Point the camera towards the subject and compose the image by using the LCD monitor.
7. Press the shutter button to capture an image.

[AUTO mode]

INFORMATION

● If the auto focus frame turns to red when you press the shutter button down half way, It means that the camera cannot focus on the subject. Should this be the case, the camera is unable to capture an image clearly.

■ How to use the PROGRAM mode (**PROG**)
Selecting the automatic mode will configure the camera with optimal settings. You can still manually configure all functions except the aperture value and shutter speed.
1. Select the PROGRAM mode by rotating the mode dial.
2. Press the menu button to configure advanced functions such as image size (p.32), quality (p.32), metering (p.33), continuous shooting (p.33) and special effects (p.24).

[PROGRAM mode]

■ How to use the MANUAL mode (**M**)
You can manually configure all functions with the aperture value and shutter speed.
1. Select the MANUAL mode by rotating the mode dial.
2. Press the + / - button and menu for the shutter speed and aperture value will display.
   Up / Down button : changes aperture value
   Left / Right button : changes shutter speed.
3. Press the + / - button twice and take an image.

[MANUAL mode]

* When the aperture value is changed, the camera will change the shutter speed automatically to get proper exposure.
  When the shutter speed is changed, the camera will change the aperture value automatically to get proper exposure.
* Smaller Aperture values make the object sharp but blur the background. Larger Aperture values make both the object and background sharp.
* High Shutter speeds can capture a moving object in a still image as if the object is not moving. Low Shutter speeds can capture a moving object with an 'active' effect.

Starting the recording mode

■ How to use the MOVIE CLIP mode (🎥)
1. Select the MOVIE CLIP mode by rotating the mode dial.
2. The MOVIE CLIP mode icon and available recording time will display on the LCD monitor.
3. Point the camera towards the subject and compose the image by using the LCD monitor. Press the shutter button and movie clips are recorded for as long as the available recording time. Movie clips will still be recorded if the shutter button is released.
   * If you wish to stop recording, press the shutter button again.
   * Image size and type are listed below.
   - Image size : 640X480, 320X240, 160X120 (Selectable)
   - File type : *.avi (MJPEG)

[MOVIE CLIP mode]

■ Recording the movie clip without voice
You can record the movie clip without voice.
1. Press the Up button and the (🔇) icon will display on the LCD monitor.
2. Press the shutter button and movie clip is recorded for as long as the available recording time without voice.
3. To stop the recording, press the shutter button again.

[MOVIE CLIP mode]

■ Pausing while recording a movie clip (Successive Recording)
This camera allows you to temporarily stop during unwanted scenes, while recording a movie clip. Using this function, you can record your favourite scenes into a movie clip without having to create multiple movie clips.

● Using Successive Recording
1. Press the shutter button and movie clips are recorded for as long as the available recording time. Movie clips will still be recorded if the shutter button is released.
2. Press the Pause button (▶❚❚) to pause recording. Press the Pause button (▶❚❚) again to resume the recording.
3. If you wish to stop recording, press the shutter button again.

[Successive recording of a movie clip]

Starting the recording mode

■ Night / Portrait / Children mode
Rotate the mode dial to select a desired mode. Each mode suit the following environment.
- Night mode : Use this for still images at night or in other dark conditions
- Portrait mode : To take a picture of a person
- Children mode : To take a still picture of moving children

[Night mode]   [Portrait mode]   [Children mode]

■ How to use the SCENE mode (**SCENE**)
Use the menu to easily configure optimal settings for a variety of shooting situations. These include LANDSCAPE, CLOSE UP, SUNSET, DAWN, BACKLIGHT, FIREWORKS and BEACH & SNOW scenes.

1. Select the SCENE mode by rotating the mode dial.
2. Press the menu button and select a desired scene menu.

[Scene mode]

[Landscape]	( )	: To take pictures of distant scenery.
[Close up]	( )	: Close-up shooting for small objects such as plants and insects.
[Sunset]	( )	: For taking pictures of sunsets.
[Dawn]	( )	: Daybreak scenes..
[Backlight]	( )	: Portrait without shadows caused by backlight.
[Flirework]	( )	: Firework scenes.
[Beach&Snow]	( )	: For ocean, lake, beach and snowscape scenes.

Starting the recording mode

■ How to use the VOICE RECORDING mode (🔲)
A voice recording can be recorded for as long as the available recording time of the memory capacity allows. (Max: 1 hour)

1. In any mode with the exception of Movie clip mode, select the VOICE RECORDING mode by pressing the Voice recording button twice.

2. Press the shutter button to record a voice.
   - Press the shutter button once and voice is recorded for as long as the available recording time (Max : 1 hour) allows. The recording time will be displayed on the LCD monitor. Voice will still be recorded if the shutter button is released.
   - If you wish to stop recording, press the shutter button again.
   - File type : *.wav

   * A distance of 40cm between you and the camera (microphone) is the best distance to record sound.

[VOICE RECORDING mode]

```
                          00:14:52

           🎤

    REC:Shutter    Exit
    ▮             00:00:00
```

Things to Watch Out for When Taking Pictures

■ Pressing the shutter button down half way.
Lightly press the shutter button to confirm focus and flash battery charge.
Press the shutter button all way down to take the picture.
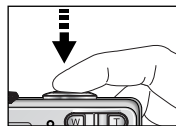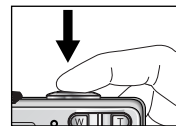
[Lightly press the shutter button]   [Press the shutter button]

■ The available recording time may vary depending on shooting conditions and camera settings.

■ When the Flash Off or Slow synchro mode is selected in a low lighting condition, the camera shake warning indicator (〽) may appear on the LCD monitor. In this case, use a tripod, support the camera on a solid surface or change the flash mode to flash shot mode.

■ Compensated shooting against the light :
Please do not take pictures to the sunlight direction. Taking a picture against the sun may make the picture dark. To take a picture against the sun, please use the [Backlight] in the scene shooting mode (see page 16), fill-in flash (see page 22), spot metering (see page 33), or exposure compensation (see page 30).

■ Avoid obstructing the lens or the flash when you capture an image.

■ Compose the image by using the LCD monitor.

■ Under certain conditions the auto focus system may not perform as expected.
   - When photographing a subject that has little contrast.
   - If the subject is highly reflective or shiny.
   - If the subject is moving at high speed.
   - When there is strong reflected light, or when the background is very bright.
   - When the subject matter has only horizontal lines or the subject is very narrow (such as a stick or flagpole).
   - When the surroundings are dark.

Using the camera buttons to adjust the camera

■ The recording mode function can be set up by using the camera buttons.

POWER button

● Used for turning the camera's power on / off.
● If there is no operation during the specified time, the camera's power will be turned off automatically to save battery life.
Refer to page 54 for more information about the auto power off function.

Shutter button

● Used for taking an image or recording voice in the RECORDING mode.
● In MOVIE CLIP mode :
Pressing the shutter button down fully starts the process for recording a movie clip. Press the shutter button once and the movie clip is recorded for as long as the available recording time in the memory allows. If you wish to stop recording, press the shutter button again.
● In STILL IMAGE mode
Pressing the shutter button down halfway activates the autofocus and checks the condition of the flash. Pressing the shutter button down fully takes the image and stores the relevant data regarding the shot. If you select voice memo recording, the recording will start after the camera has finished storing the image data.
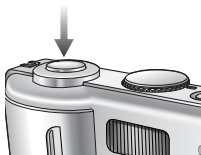
ZOOM W / T button

● If the menu is not displayed, this button works as the OPTICAL ZOOM or DIGITAL ZOOM button.

● This camera has a 3X optical zoom and a 5X digital zoom function. Using both will offer a total zoom ratio of 15X.

● TELE Zoom
Optical zoom TELE : Pressing the ZOOM T button. This will zoom into the subject i.e. the subject will appear nearer.
Digital zoom TELE : When the maximum (3X) optical zoom is selected, pressing the ZOOM T button activates the digital zoom software. Releasing ZOOM T button stops the digital zooming at the required setting. Once the maximum digital zoom (5X) is achieved, pressing the ZOOM T button will have no effect.
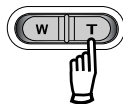
Pressing the ZOOM T button →

Pressing the ZOOM T button →

[WIDE zoom] [TELE zoom] [Digital zoom 5.0X]

ZOOM W / T button

● WIDE Zoom

Optical zoom WIDE : Pressing the ZOOM W button. This will zoom out from the subject i.e. the subject will appear further away. Pressing the ZOOM W button continuously will set the camera to its minimum zoom setting i.e. the subject appears at its furthest from the camera.

[TELE zoom]　　Pressing the ZOOM W button →　[Optical zoom 2X]　　Pressing the ZOOM W button →　[WIDE zoom]
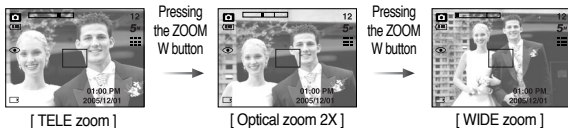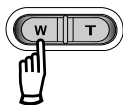
Digital zoom WIDE : When the digital zoom is in operation, pressing the ZOOM W button will reduce the digital zooming in steps. Releasing ZOOM W button stops digital zooming. Pressing the ZOOM W button will reduce the digital zoom and then it will continue to reduce the optical zoom until the minimum setting is reached.

Optical zoom
X5.0
Digital zoom

[Digital zoom 5.0X]　　Pressing the ZOOM W button →　[TELE zoom]　　Pressing the ZOOM W button →　[WIDE zoom]
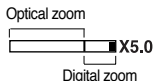
INFORMATION

● Images taken using the digital zoom may take a little longer for the camera to process. Allow time for this to take place.
● The digital zoom cannot be used in movie clip shots.
● You may notice a decrease in image quality when using the digital zoom.
● To view more clear digital zoom image, press the shutter button halfway at the maximum (3X) optical zoom position and press the zoom T button again.
● The digital zoom can't be activated in the Nightscene mode, Children mode and two scene modes(Close up, Fireworks).
● Take care not to touch the lens to avoid taking an unclear image and possibly causing camera malfunction. If the image is dim, turn the camera power off and on again to modify the lens position.
● Take care not to press the lens as this may cause a camera malfunction.
● When the camera is turned on, take care not to touch the camera's moving lens parts as this may cause the resulting image to be dim and unclear.
● Take care not to touch the lens during zoom operation as this may cause damage.

Voice recording(🔲) / Voice memo(🎤) / UP button

■ While the menu is showing, press the UP button to move up the submenu cursor. When the menu is not displayed on the LCD monitor, the UP button operates as the voice recording or voice memo (🎤) button. You can add your voice-over to a stored still image. Refer to page 17 for more information about the voice recording.

● Recording a voice memo
   1. Rotate the MODE DIAL to select a RECORDING mode with the exception of MOVIE CLIP mode.
   2. Press the VOICE MEMO (🎤) button. If the voice memo indicator is displayed on the LCD monitor, the setting is completed.

[Preparing for Voice Memo] [Recording Voice Memo]

   3. Press the shutter button and take a picture. The picture is stored on the memory card.
   4. Voice memo will be recorded for ten seconds from the moment the picture is stored. In the middle of the sound recording, pressing the shutter button will stop the voice memo.

INFORMATION

● A distance of 40cm between you and the camera (microphone) is the best distance to record sound.

Macro(🌷) / Down button

■ While the menu is showing, press the DOWN button to move from the main menu to a submenu, or to move down the submenu cursor. When the menu is not showing, you can use the MACRO / DOWN button to take macro pictures. The distance ranges are shown below. Press the Macro button until the desired macro mode indicator displays on the LCD monitor.

[Auto focus - No icon]   [Macro (🌷)]   [Auto macro (🌺)]

■ Types of focus modes and focus ranges (W: Wide, T: Tele)   (Unit : cm)

Mode	Auto (📷)		Program (📷)	
Focus Type	Auto macro (🌺)	Normal	Macro (🌷)	Normal
Focus range	W : 5~Infinity T : 40~Infinity	W : 80~Infinity T : 80~Infinity	W : 5~80 T : 40~80	W : 80~Infinity T : 80~Infinity

INFORMATION

● When the macro mode is selected, it is possible that camera shake will occur. Take care not to shake the camera.
● When you take a picture within 30cm in the Macro mode, select the FLASH OFF mode.

Macro(❀) / Down button

- Available focusing method, by recording mode

  (O: Selectable , X: Not selectable, ∞: Infinity focus range)

Mode	📷	📷	🅜	🌙	🌊	👤	📹
Normal	O	O	O	O	O	O	O
Macro	X	O	O	X	X	X	O
Auto macro	O	X	X	X	X	X	X

Mode	SCENE						
	🏔	🌷	🍴	🌅	🎆	❄	🎇
Normal	∞	X	∞	∞	O	∞	O
Macro	X	O	X	X	X	X	X
Auto macro	X	X	X	X	X	X	X

Focus lock

- To focus on the subject positioned outside of the centre, use the focus lock function.
- Using the Focus Lock
  1. Ensure the subject is in the centre of the autofocus frame.
  2. Press the SHUTTER button halfway. When the green auto focus frame lights up, it means the camera is focused on the subject. Be careful not to press the SHUTTER button all the way down to avoid taking an unwanted picture.
  3. With the SHUTTER button still pressed down only halfway, move the camera to recompose your picture as desired, and then press the SHUTTER button completely to take the picture. If you release your finger from the SHUTTER button, the focus lock function will be cancelled.

1. The image to be captured.

2. Press the SHUTTER button halfway and focus on the subject.

3. Recompose the picture and fully depress the SHUTTER button.

Flash (⚡) / Left button

- When the menu is displayed on the LCD monitor, pressing the LEFT button makes the cursor shift to the left tab.
- When the menu is not displayed on the LCD monitor, the LEFT button operates as the FLASH (⚡) button.

[Selecting the Auto flash]

- Selecting the flash mode
  1. Rotate the MODE DIAL to select a RECORDING mode with the exception of MOVIE CLIP mode.
  2. Press the Flash button until the desired flash mode indicator displays on the LCD monitor.
  3. A flash mode indicator will be displayed on the LCD monitor. Use the correct flash to suit the environment.

- Flash range   (Unit : m)

ISO	Normal		Macro		Auto macro	
	WIDE	TELE	WIDE	TELE	WIDE	TELE
AUTO	0.8 ~ 3.0	0.8 ~ 2.5	0.2 ~ 0.8	0.4 ~ 0.8	0.2 ~ 3.0	0.4 ~ 2.5

《21》

Flash (⚡) / Left button

INFORMATION

- If you press the shutter button after selecting the Auto, Fill-in, Slow sychro flash, the first flash fires to check the shooting condition (Flash range and Power ratio of flash).
  Do not move until the second flash fires.
- Using the flash frequently will reduce the life of the battery.
- Under normal operating conditions the charging time for the flash is normally within 6 seconds. If the battery is weak, the charging time will be longer.
- During the continuous shot, AEB and movie clip mode, the flash function will not operate.
- Take photographs within the flash range.
- The image quality is not guaranteed if the subject is too close or highly reflective.

● Flash mode indicator

Menu tab	Flash mode	Description
⚡ᴬ	Auto flash	If the subject or background is dark, the camera flash will operate automatically.
👁	Auto & Red eye reduction	If a subject or background is dark, the camera flash will work automatically and will reduce the red-eye effect by using the red-eye reduction function.
⚡	Fill in flash	The flash fires regardless of available light. The intensity of the flash will be controlled, according to the prevailing conditions. The brighter the background or subject is, the less intense the flash will be.
⚡ˢ	Slow synchro	The flash will operate in conjunction with a slow shutter speed in order to obtain the correct exposure. When you take an image in a condition with poor light, the camera shake warning indicator (🖑) will display on the LCD monitor. We recommend using a tripod for this function.
⚡̃	Flash off	The flash does not fire. Select this mode when capturing images in a place or situation where flash photography is prohibited. When you capture an image in a poorly lit condition, the camera shake warning indicator (🖑) will display on the LCD monitor. We recommend using a tripod for this function.

Flash (⚡) / Left button

● Available flash mode, by recording mode

	📷	⚪	🎬	Ⓜ	🌙	🌃	👤	🏔	🎇	🍴	🍷	🎆	🎆	🎆
⚡ᴬ	X	X	O	X	X	X	X	X	X	X	X	X	X	O
👁	X	O	O	X	X	O	O	X	X	X	X	X	X	X
⚡	X	X	O	O	X	X	X	X	X	X	X	O	X	X
⚡ˢ	X	X	O	X	O	X	X	X	X	X	X	X	X	X
🚫	O	O	O	O	O	O	O	O	O	O	O	O	X	O

Self-timer(⟳) / Right button

■ When the menu is displayed on the LCD monitor, pressing the Right button makes the cursor shift to the right tab.
■ When the menu is not displayed on the LCD monitor, the RIGHT button operates as the Self-timer(⟳) button. This function is used when the photographer would also like to be in the image.

Self-timer (⟳) / Right button

● Selecting the self-timer
1. Rotate the MODE DIAL to select a RECORDING mode with the exception of VOICE RECORDING mode.
2. Press the SELF-TIMER button until the desired mode indicator displays on the LCD monitor. A 2 second, 10 second or double self-timer icon appears on the LCD monitor. In Movie Clip mode, only the 10-second self-timer will work.
   . 2SEC self-timer (⟳²ˢ)
   : Pressing the shutter button will allow an interval of 2 seconds before the image is taken.
   . 10SEC self-timer (⟳)
   : Pressing the shutter button will allow an interval of 10 seconds before the image is taken.

[Selecting the 10 SEC self-timer]

   . Double self-timer (⟳°)
   : A picture will be taken after about 10 seconds and 2 seconds later a second picture will be taken. When using the flash, the 2-second self-timer may be delayed for longer than 2 seconds depending on the flash charge time.
3. When you press the SHUTTER button, the picture will be taken after the specified time has elapsed.

INFORMATION

● If you operate the Self-timer and Play mode button during the self-timer operation, the self-timer function is canceled.
● Use a tripod to prevent the camera from shaking.
● In Movie Clip mode, only the 10s self-timer and remote will work.

MENU / OK button

■ MENU button
  - When you press the MENU button, a menu related to each camera mode will be displayed on the LCD monitor. Pressing it again will return the LCD to the initial display.
  - A menu option can be displayed when the following are selected : MOVIE CLIP and STILL IMAGE mode. There is no menu available when the VOICE RECORDING mode is selected.

Pressing the MENU button

[Menu off]   [Menu on]

SIZE	
5ᴹ	2592X1944
4ᴹ	2272X1704
3ᴹ	2048X1536
2ᴹ	1600X1200
1ᴹ	1024X768
VGA	640X480
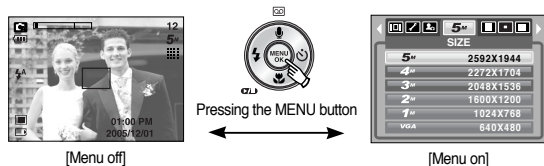
■ OK button
  - When the menu is displayed on the LCD monitor, this button is used for shifting the cursor to the sub menu or for confirming data.

E (Effect) button

■ It is possible to add special effects to your images by using this button.
■ Still image mode : You can select the colour, outfocus, composite and frame menus.
■ Movie clip mode : You can select the colour menu.

■ Available Effects, by recording mode (O : Selectable X : Not selectable)

	🎥	🄾	🄲	Ⓜ	🄽	🄿	🄰	🅆	🅇
😎	O	O	O	O	O	O	O	O	O
▦	X	X	O	O	O	O	O	O	O
▱	X	X	O	O	O	O	O	O	O
🄰	X	X	O	O	O	O	O	O	O

※ This button will not operate in the Voice recording mode and some scene modes (Night, Sunset, Dawn, Backlight, Firework).
  If a special effect is selected, the rest special effect (Preset focus frames, Composite shooting, Photo frame) functions set before are cancelled automatically.
■ Even if the camera is turned off, the special effect setting will be preserved. To cancel the special effect, select the (NOR) sub in the Colour menu and select the (OFF) sub menu in the rest special effect menu.

Special Effect : Colour

■ By using the camera's digital processor, it is possible to add special effects to your images
  1. Press the E button in the still image mode or Movie clip mode.
  2. Select the (🔵) menu tab by pressing the Left / Right button.
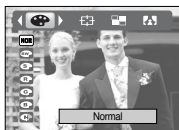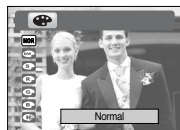
[Still image mode]   [Movie clip mode]

  3. Select a desired sub menu by pressing the Up / Down button and press the OK button.
     - 🔲 : No effect is added to the image
     - ⚫ : Captured images will be stored in black and white.
     - ⚫ : Captured images will be stored in a sepia tone (a gradient of yellowish brown colours).
     - ⚫ : Captured images will be stored in a red tone.
     - ⚫ : Captured images will be stored in a green tone.
     - ⚫ : Captured images will be stored in a blue tone.
     - ⚫ : Save the image in negative mode.
  4. Press the shutter button to capture an image.

Special Effect : Preset focus frames

■ You can make the subject stand out from its surroundings. The subject will be sharp and in focus while making the rest out of focus.
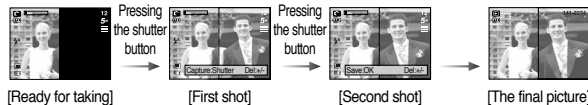 1. Press the E button in the program mode.
  2. Select the (🔲) menu tab by pressing the Left / Right button.
  3. Select a desired sub menu by pressing the Up / Down button and press the OK button.
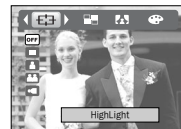
[Range 1]   [Range 2]   [Range 3]   [Range 4]

  4. The preset focus frame will appear. Press the shutter button to capture an image
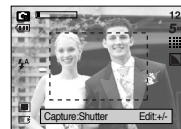
Special Effect : Preset focus frames

● Moving and changing the focus frame

You can change the focus frame after selecting a Range menu.

1. Point the camera towards the subject and compose the image by using the LCD monitor.
2. Press the + / - button.
3. The colour of focus frame turns white. Press the Up / Down / Left / Right button to moves the focus frame position.
4. To select the focus frame position, press the + / - button again and you can take a picture.

Capture:Shutter   Edit:+/-

Pressing the + / - button

Capture:Shutter   Move:◄►▲▼

[The frame is activated]

Pressing the Up / Down / Left / Right button

Capture:Shutter   Edit:+/-

Pressing the + / - button

Capture:Shutter   Move:◄►▲▼

[After changing the frame position]
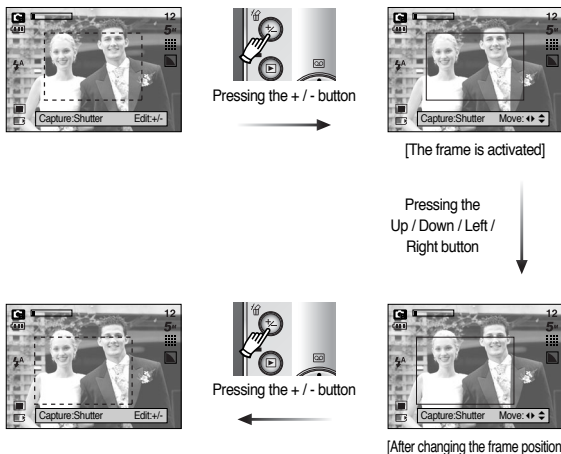
Special Effect : Composite shooting

■ You can combine 2 ~ 4 different shots in a still image.

1. Press the E button in the program mode.
2. Select the ▦ menu by pressing the Left / Right button.
3. Select a desired sub menu by pressing the Up / Down button and press the OK button.

Composite

- OFF : cancels the composite shooting
- ▭ : 2 different shots are combined in a still image.
- ▥ : 3 different shots are combined in a still image.
- ▦ : 4 different shots are combined in a still image.
- ▭ : 2 different panorama shots are combined in a still image.

4. The number of frames you selected in step 3 is displayed on the LCD monitor. Press the shutter button to start the composite shooting

※ Selecting 2 composite shooting

[Ready for taking]   Pressing the shutter button

Capture:Shutter   Del:+/-
[First shot]   Pressing the shutter button

Save:OK   Del:+/-
[Second shot]

[The final picture]

5. After taking the last shot, the image will be saved.

Special Effect : Composite shooting

INFORMATION

- You can use the flash button, self-timer button, macro button, voice memo button and the Zoom W / T button during the composite shooting.
- If you press the Play mode button or press the Voice recording button twice during the composite shots, each camera working mode is executed.
  When the Menu or E button is pressed, a confirmation window will display.
  The images captured before will be deleted.
- The voice memo will start after taking the last composite shooting.

● Changing a part of composite shot before taking the last shot
Before taking the last composite shot, you can change a part of composite shot.
1. During the composite shots, press the + / - button.
2. A previous image will be deleted and new frame will display.
   If there is an image taken before, press the + / - button again and a previous image will be deleted again.

Pressing the + / - button

[Before taking the 3rd shot]   [Moving backward to the 2nd shot]
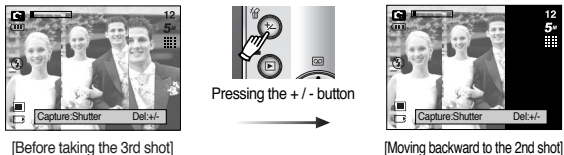
3. Press the shutter button to capture a new image.

● Changing a part of composite shot after taking the last shot
After taking the last composite shot, you can change a part of composite shot.
1. After taking the last shot , a cursor to select a frame will display. Press the Up / Down / Left / Right button to select the frame.
2. Press the + / - button and an image will be deleted. Composite frame will be activated.
3. Press the Shutter button. You can take another images again by using the Up / Down / Left / Right button and + / - button.
4. Press the OK button again to save the captured image.

Pressing the Up button

[After taking the 4th shot]   [Moving backward to the 2nd shot]

Pressing the Shutter button.   Pressing the + / - button

[Deleting the 2nd shot]

Pressing the OK button

[After taking the 2nd shot again]   [The final picture]
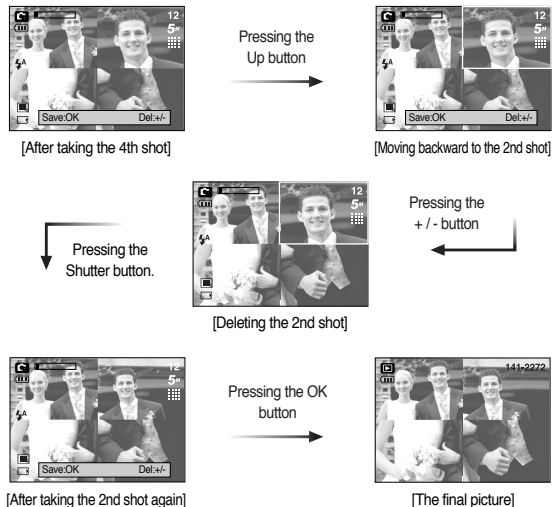
Special Effect : Photo Frame

■ You can add 9 types of frame-like borders to a still image you want to capture.

1. Press the E button in the program mode.
2. Select the [📷] menu by pressing the Left / Right button.
3. Select a desired sub menu by pressing the Up / Down button and press the OK button.

- OFF : The photo frame will not be added.

[F1] [F2] [F3]

[F4] [F5] [F6]

[F7] [F8] [F9]
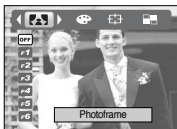
4. The photo frame will appear.
   Press the shutter button to capture an image

※ Before taking a picture, you can change the frame by pressing the + / - button. Change the frame type by pressing the Up / Down / Left / Right button.
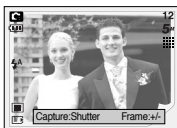
+ / - button

■ You can use the + / - button to adjust the values for the RGB, ISO, white balance and exposure compensation.

Main menu	Sub menu	Available camera mode
RGB	R (Red), G (Green), B (Blue)	📹 📷 M
ISO	AUTO, 50, 100, 200, 400	📷 M
WHITE BALANCE	AUTO, DAYLIGHT, CLOUDY, FLUORESCENT H, FLUORESCENT L, TUNGSTEN, CUSTOM.	📹 📷 M
Exposure compensation	-2.0~0.0~+2.0 (0.5EV steps)	📷

■ RGB : Allows the user to adjust the R (Red), G (Green), and B (Blue) values of the images to be captured.

● Setting RGB Values
1. Press the + / - button, and then use the UP and DOWN buttons to select the RGB icon (RGB). The RGB menu bar will appear as shown.
2. Use the UP / DOWN / LEFT and RIGHT buttons to select the desired RGB value.
   - Up / Down Button : Navigates between R, G, and B icons.
   - Left / Right Button : Changes value of each icon.
3. When you press the + / - button again, the value you set will be saved and RGB setup mode will end.

※ When special effect (colour) from the icon other than NOR is selected, it will not be able to select the RGB.

+ / - button

■ ISO : You can select the ISO sensitivity when taking pictures.
　　　　 The speed or specific light-sensitivity of a camera is rated by ISO numbers.

● Selecting an ISO Sensitivity
  1. Press the + / - button, and then use the UP and
     DOWN buttons to select the ISO icon( ).
     The ISO menu bar will appear as shown.
  2. Use the LEFT and RIGHT buttons to select the
     desired ISO sensitivity value.
     - AUTO : The camera's sensitivity is
       automatically changed by variables
       such as lighting value or subject brightness.
     - 50, 100, 200, 400 : You can increase the shutter speed while the same
       amount of light is present, by increasing the ISO
       sensitivity. However, the image may be saturated in high
       luminance. The higher the ISO value, the higher the
       camera's sensitivity to light is and therefore the greater
       its capacity to take pictures in dark conditions. However,
       the noise level in the image will increase as the ISO
       value increases, making the image appear coarse.
  3. When you press the + / - button again, the value you set will be saved and
     ISO setup mode will end.
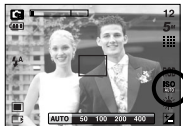
■ White balance : The white balance control allows you to adjust the colours to
　　　　　　　　　　 appear more natural looking.

● Selecting a White Balance
  1. Press the + / - button, and then use the UP and
     DOWN buttons to select the white balance icon
     (AWB).
     The white balance menu bar will appear as
     shown.
  2. Use the LEFT and RIGHT buttons to set the
     white balance to the desired value. The value
     you set wil be displayed on the LCD monitor.
     AUTO   AWB : The camera automatically selects the appropriate white
                        balance settings, depending on the prevailing lighting
                        conditions.
     DAYLIGHT   ☼ : For taking images outside.
     CLOUDY   ☁ : For taking images under a cloudy and overcast sky.
     Fluorescent H ☴ : For shooting under daylight fluorescent types of three-
                        way fluorescent lighting.
     Fluorescent L ☴ : Shooting under white fluorescent lighting.
     TUNGSTEN   ☀ : For shooting under tungsten (standard light bulb) lighting.
     CUSTOM   ▄ : Allows the user to set the white balance according to the
                        shooting condition.
     Different lighting conditions may cause a colour cast on your images.
  3. Press the + / - button again. The value you set will be saved and White
   Balance setup mode will end.

+ / - button

● Using the Custom White Balance
White balance settings may vary slightly depending on the shooting environment.
You can select the most appropriate white balance setting for a given shooting environment by setting up the custom white balance.

1. Select the CUSTOM (▃▅▃) menu of the White Balance.
2. Place a sheet of white paper in front of the camera so that the LCD monitor shows only white, and then press the SHUTTER button.
3. Your custom white balance value is stored.
   - The custom white balance value will be applied, starting with the next picture you take.
   - The user configured white balance will be remain effective until it is overwritten.
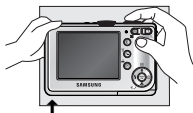
[White paper]

■ Exposure compensation : This camera automatically adjusts the exposure according to the ambient lighting conditions. You can also select the exposure value by using the + / - button.

● Compensating Exposure
1. Press the + / - button, and then use the UP and DOWN buttons to select the exposure compensation icon (⊞).
The exposure compensation menu bar will appear as shown.
2. Use the LEFT and RIGHT buttons to set the desired exposure compensation factor.
3. Press the + / - button again. The value you set will be saved and the Exposure Compensation setup mode will close.
If you change the exposure value, the exposure indicator (⊞) will be displayed on the bottom of the LCD monitor.

※ A negative exposure compensation value reduces the exposure.
Note that a positive exposure compensation value increases the exposure and the LCD monitor will appear white or you may not get good pictures.

Using the LCD monitor to adjust the camera settings

- You can use the menu on the LCD monitor to set up recording functions. In any mode with the exception of VOICE RECORDING mode, pressing the MENU button displays the menu on the LCD monitor.

※ The menu will not be displayed on the LCD monitor in the following circumstances:
  - When another button is being operated.
  - While image data is being processed.
  - When there is no battery capacity.

- The following functions are available, depending on the mode you have selected. The items indicated by ▭ are default settings.

Menu tab	Main menu	Sub menu		Camera working mode	Page
5ᴹ	SIZE (Still image)	2592X1944	2272X1704	▭▭▭▭▭▭▭▭ ▭▭▭▭▭▭	p.32
		2048X1536	1600X1200		
		1024X768	640X480		
640	SIZE (Movie clip)	640X480	320X240	▭	p.32
		160X120	-		
▦	QUALITY	Super Fine	Fine	▭▭▭▭▭▭▭▭ ▭▭▭▭▭▭	p.32
		Normal	-		
39	FRAME RATE	30 FPS	15 FPS	▭	p.32
▭	METERING	Multi	Spot	▭ ▭ ▭	p.33
▭	SHOOTING	Single	Continuous	▭ ▭	p.33
		AEB	-		
▭	SHARPNESS	Soft	Normal	▭ ▭	p.34
		Vivid	-		
▣	OSD INFORMATION	Full	Basic	▭▭▭▭▭▭▭▭ ▭▭▭▭▭▭	p.34
		LCD Save	-		

Menu tab	Main menu	Sub menu		Camera working mode	Page
▲	MODE	Landscape	Close up	▭▭▭▭▭▭▭▭	p.16
		Sunset	Dawn		
		Backlight	Firework		
		Beach&Snow	-		

※ Menus are subject to change without prior notice.

How to use the menu

1. Turn on the camera and press the MENU button. A menu for each camera mode appears. However, there is no menu for Voice Recording mode (🔲).
2. Use the LEFT and RIGHT buttons to navigate through the menus.

Press the LEFT or RIGHT button.

Press the LEFT or RIGHT button.

3. Use the UP and DOWN buttons to select a sub menu.

Press the UP or DOWN button.

Press the UP or DOWN button.
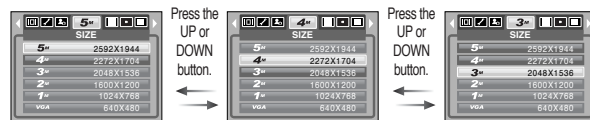
4. Select a sub menu, and then the value you set will be saved. Press the MENU button and the menu will disappear.

《31》

Size

■ You can select the image size appropriate for your application.

Mode	Still image mode						Movie clip mode		
Icon	**5ᴹ**	**4ᴹ**	**3ᴹ**	**2ᴹ**	**1ᴹ**	**VGA**	**640**	**320**	**160**
Size	2592X 1944	2272X 1704	2048X 1536	1600X 1200	1024X 768	640X 480	640X 480	320X 240	160X 120
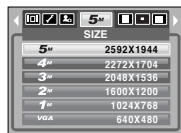
[STILL IMAGE mode]
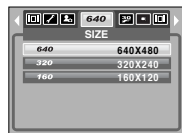
[MOVIE CLIP mode]

INFORMATION

● The higher the resolution, the lower the number of available shots will be because high resolution images require more memory than lower resolution images.

Quality / Frame rate

■ You can select the compression ratio appropriate for your application of the captured images.
The higher the compression ratio, the lower the picture quality.

Mode	STILL IMAGE mode			MOVIE CLIP mode	
Icon	▦	▦	⸬	**30**	**15**
Sub menu	Super Fine	Fine	Normal	30FPS	15FPS
File Format	jpeg	jpeg	jpeg	avi	avi

[STILL IMAGE mode]

[MOVIE CLIP mode]

INFORMATION

● This file format complies with the DCF (Design rule for Camera File system).
● JPEG (Joint Photographic Experts Group) : JPEG is the image compression standard developed by the Joint Photographic Experts Group. This type of compression is most commonly used for compressing photos and graphics because it can compress the files efficiently without damaging the data.

Metering

■ If you cannot obtain suitable exposure conditions, you can change the metering method to take brighter pictures.

[Multi] : Exposure will be calculated based on an average of the available light in the image area. However, the calculation will be biased towards the centre of the image area. This is suitable for general use.

[Spot] : Only the rectangular area in the centre of the LCD monitor will be metered for light. This is suitable when the subject in the centre is exposed correctly, regardless of the back lighting.

```
┌──────────────────┐
│  METERING        │
│  ■        Multi  │
│  ▣        Spor   │
└──────────────────┘
```
[PROGRAM mode]

※ If the subject is not the centre of the focus area, do not use the spot metering as this may result in an exposure error. In this circumstance, It is better to use exposure compensation.

Continuous shot

■ You can select continuous shot, and AEB (Auto Exposure Bracketing).
  - [Slingle] : Take one picture only
  - [Continuous] : Images will be taken continuously until the shutter button is released. The shooting capacity depends on the memory.

```
┌──────────────────┐
│  SHOOTING        │
│  ■         Single│
│  ▣     Continuous│
│  AEB         AEB │
└──────────────────┘
```
[PROGRAM mode]

  - [AEB] : Take three pictures in a series in different exposures: short exposure (-0.5EV), standard exposure (0.0EV) and over exposure (+0.5EV). Use the mode if it is hard to decide exposure of the object.
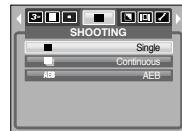
※ High resolution and picture quality increases file saving time, which increases stand-by time.
※ If the [Continuous] or [AEB] sub menu is selected, the flash will be off automatically.
※ If less than 3 pictures are available in the memory, the AEB shooting is not available.
※ It is best to use a tripod for the AEB shooting as the time to save each image file is longer and the blurring caused by camera shake may occur.

《33》

Sharpness

■ You can adjust the sharpness of the picture you want to take. You cannot check the sharpness effect on the LCD monitor before you take a picture, because this function is applied only when the captured image is stored on the memory.

[PROGRAM mode]

Sub menu	Icon	Description
Soft	�◣	The edges of the image are softened. This effect is suitable for editing images on your PC.
Normal	◪	The edges of the image are sharp. This is suitable for printing.
Vivid	▣	The edges of the image are emphasized. The edges will appear sharp, but noise may occur in the recorded image.

OSD (On Screen Display) information

■ In any mode with the exception of VOICE RECORDING mode, you can check the recording status in the LCD monitor.

■ Idle mode : If you select the [LCD Save] and the camera isn't operated during the specified time(about 30 SEC.), the camera power will be idle (LCD monitor : OFF, Camera status lamp : Blinking) automatically.

- To use the camera again, press any of the camera buttons except the power button.

- If there is no operation during the specified time, the camera power will be turned off automatically to save battery life. Refer to page 54 for more information about the auto power off function.

[Full information mode]   [Basic information mode]

Starting play mode

- If the memory card is inserted in the camera, all the camera functions apply only to the memory card.
- If the memory card is not inserted in the camera, all the camera functions apply only to the internal memory.
- If you have turned on the camera by pressing the POWER button, you can press the PLAY MODE button once to switch to Play mode and press it again to switch to Recording mode.
- You can turn the power on with the play mode button. The camera is turned on in play mode. Press the play mode button again and the camera will be turned off.
- You can set up the PLAY mode function by using the camera buttons and LCD monitor.

● Playing back a still image

1. Select the PLAY mode by pressing the play mode button (▶).

2. The last image stored on the memory is displayed on the LCD monitor.

3. Select an image that you want to play back by pressing the LEFT / RIGHT button.

※ Press and hold the Left or Right button to fast forward the images played.

INFORMATION

- Manner mode : Pressing the play mode button for more than 3 seconds changes the buzzer and start-up sound setting to OFF, even though you may have set these to ON.
- Lightly press the shutter button in Play mode to switch to the currently set shooting mode.

● Playing back a movie clip

Steps from 1-2 are the same as those to play back a still image.

3. Select the recorded movie clip and press the Play & Pause button (▶/❚❚) to play back.
  - To pause a movie clip file while playing it back, press the play & pause button again.
  - Pressing the play & pause button again will cause the movie clip file will restart.
  - To rewind the movie clip while it is playing, press the LEFT button. To fast forward the movie clip, press the RIGHT button.
  - To stop playback of the movie clip, press the play & pause button, and then press the LEFT or RIGHT button.

- Movie clip capture function : capture still images from the movie clip.

● How to capture the movie clip

Steps 1-3 are the same as those for playing back a movie clip.

4. Press the Play / Pause button while playing the movie clip. Then press the E button.
5. The paused movie clip is saved in a new file name.
  ※ The captured movie clip file has same size as the original movie clip (640X480, 320X240, 160X120).
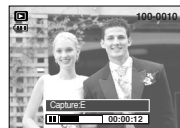
[Paused]

[Pressing the E button]

Starting play mode

● Playing back a recorded voice
  Steps from 1-2 are the same as those to play
 back a still image.

3. Select the recorded voice file and press the
   Play & Pause button ( ) to play back a
   recorded voice file.
   - To pause a recorded voice file, while playing
     it back, press the play & pause button again.
   - To resume playback of the voice file, press the play & pause button.
   - To rewind the voice file while it is playing, press the LEFT button.
     To fast forward the voice file, press the RIGHT button.
   - To stop playback of the voice file, press the play & pause button, and then
     press the LEFT or RIGHT button.

LCD monitor Indicator

■ The LCD monitor displays shooting information about the displayed image.
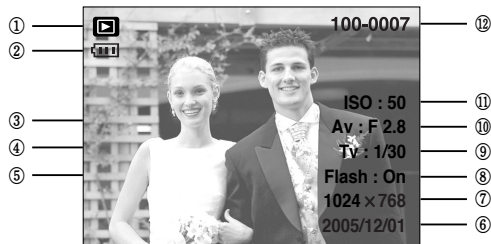
No.	Description	Icon	Page
1	Play mode icon	▣	-
2	Battery	⨅ ⨅ ⨅ ⨅	p.9
3	Voice Memo	♪	p.20
4	Protect	⊶	p.44
5	DPOF	⧫	p.46
6	Recording date	2005/12/01	-
7	Image size	2592X1944 ~ 256X192	p.32
8	Flash	On / Off	p.21
9	Shutter speed	8~1/1,500	p.14
10	Aperture Value	F2.8 ~ F12.4	p.14
11	ISO	50, 100, 200, 400	p.29
12	Folder name & File name	100-0007	p.53

Using the camera buttons to adjust the camera

■ In Play mode, you can use the buttons on the camera to conveniently set up the Play mode functions.

Thumbnail (▦) / Enlargement (🔍) button

● You can view multiple pictures, enlarge a selected picture, and crop and save a selected area of an image.

● Thumbnail display
  1. While an image is displayed full screen, press the thumbnail button.
  2. The thumbnail display will highlight the image that had been showing at the time the thumbnail mode was selected.
  3. Press the 5 function button to move to a desired image.
  4. To view an image separately, press the enlargement button.

[Normal display mode]

Pressing the thumbnail
button (▦)

Pressing the enlargement
button (🔍)

Highlighted image

[Thumbnail display mode]

Thumbnail(▦) / Enlargement (🔍) button

● Image enlargement
  1. Select an image that you want to enlarge and press the enlargement button.
  2. Different parts of the image can be viewed by pressing the 5 function button.
  3. Pressing the thumbnail button will zoom back to the original full sized image.
     - You can tell whether the image displayed is an enlarged view by checking the image enlargement indicator shown at the bottom left of the LCD monitor. (If the image is not an enlarged view, the indicator will not be displayed.) You can also check the area of enlargement.
     - Movie clips and WAV files can't be enlarged.
   - If an image is enlarged, a loss of quality may occur.

Thumbnail (▦) / Enlargement (⊕) button

● The maximum enlargement rate in proportion to the image size.

Image size	5M	4M	3M	2M	1M	VGA
Maximum enlargement rate	X10.1	X8.9	X8.0	X6.3	X4.0	X2.5

● Trimming : You can extract part of the image that you want and save it separately.

1. Select an image that you want to enlarge and press the enlargement button.
2. Different parts of the image can be viewed by pressing the 5 function button.
3. Press the MENU button and a message will be displayed as shown alongside.
4. Select a desired sub menu by pressing the UP / DOWN button and press the OK button.

[Yes] : The trimmed image will save as a new file name, and display on the LCD monitor.

[No] : The trimming menu will disappear.
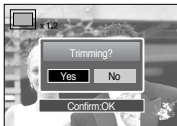
※ If there is little memory space to save the trimmed image, the image can't be trimmed.

※ To delete the enlarged image during the trimming function, press the delete button.

Voice (🎤) memo / Up button

■ When the menu is displayed on the LCD monitor, pressing the UP button makes the menu cursor move up.

■ When the menu is not displayed on the LCD monitor, the UP button operates as the voice memo button. You can add your voice to a stored still image.

● Adding a Voice Memo to a Still Image
1. Press the LEFT / RIGHT button to select an image that you wish to add sound to.
2. Press the voice memo button (🎤) and the voice memo indicator will display. The camera is now ready to record a voice memo.

3. Press the shutter button to start recording and voice will be recorded to the still image for 10 seconds.
   While the voice is recording, the recording status window will be displayed as shown alongside.

4. The recording can be stopped by pressing the shutter button again.

5. The (♪) icon will be displayed on the LCD monitor after voice memo recording has finished.
   - Voice memos can't be recorded onto movie clip and voice recording files.
   - A distance of 40cm between you and the camera (microphone) is the best distance to record sound.
   - The voice memo will be saved in ＊.wav format, but has the same file name as the still image to which it corresponds.
   - If you add a new voice memo to the still image that already has a voice memo, the existing voice memo will be erased.

Play & Pause (▶/❚❚) / Down button

■ In Play mode, the play & pause/ down button works as follows:
  - If the menu is displayed
    Press the DOWN button to move from the main menu to a sub menu, or to move down the sub menu cursor.
  - If a still image with a voice memo, a voice file, or a movie clip is playing
    In Stop mode : Plays a still image with a voice memo, a voice file, or a movie clip.
    During playback : Temporarily stops playback.
    In Pause mode : Resumes playback

100-0009	100-0009	100-0009
PLAY: ▶ ❚❚	Pause: ▶ ❚❚ STOP:OK	PLAY: ▶ ❚❚ Exit:OK
00:00:35	REW ◀ 00:00:07 ▶ FF	00:00:11
[Voice recording is stopped]	[Voice recording is playing]	[Voice recording is paused]

E (Effect) button

■ It is possible to add special effects to your images by using this button.

1. Select a still image or movie clip and press the E button.
2. Select a desired sub menu and press the OK button.

Exit:E

- ⓑⓦ : Captured images will be stored in black and white.
- ⓢ : Captured images will be stored in a sepia tone (a gradient of yellowish brown colours).
- ⓡ : Captured images will be stored in a red tone.
- ⓖ : Captured images will be stored in a green tone.
- ⓑ : Captured images will be stored in a blue tone.
- ⓝ : Save the image in negative mode.

※ The changed image is saved in a new file name.