

The Samsung logo is located in the top left corner of the blue background. It consists of the word "SAMSUNG" in white, bold, sans-serif capital letters, enclosed within a white oval shape.

SAMSUNG

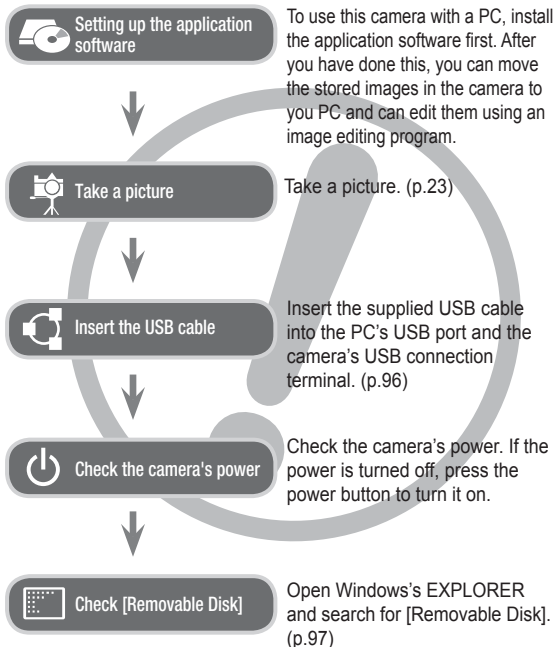
User Manual

AQ100

Thank you for buying a Samsung Camera. This manual will help you learn to capture images, share or print your photos, and edit photos with the accompanying software. Please read this manual thoroughly.

Instructions

Use this camera in the following order.



Getting to Know your camera

Thank you for buying a Samsung Digital Camera.

- Prior to using this camera, please read the user manual thoroughly.
- If you require After Sales service, please bring the camera and the cause of the camera malfunction (such as battery, Memory card etc.) to a Samsung Authorized Service Center.
- Please check that the camera is operating properly before you intend to use it (e.g. for a trip or an important event) to avoid disappointment. Samsung takes no responsibility for any loss or damage that may result from camera malfunction.
- Keep this manual in a safe place.
- 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.
- The contents and illustrations of this manual are subject to change without prior notice for upgrading the camera functions.
- It is advisable to replace waterproof components once a year to maintain the waterproof performance. Contact your nearest Samsung service center for the replacement of waterproof components.

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※ For Open Source License information, refer to the "OpenSourceInfo.pdf" in the provided CD-ROM.

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. To do so may result in fire, injury, electric shock, or severe damage to you or your camera. Internal inspection, maintenance and repairs should only be carried out by your dealer or Samsung Camera Service center.
- 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 center. 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 its 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.
- The battery and camera may become hot during prolonged use and it may result in camera malfunction. If the camera or battery becomes hot, 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 extremes 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 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 damaged battery could result in fire or injury.
 - Only use battery with the correct specifications for the camera.
 - Do not short circuit, heat or dispose of battery in fire.
 - Do not insert the battery with the polarities reversed.
- Remove the battery when not planning to use the camera for a long period of time. Otherwise the 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 adapter. 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 to avoid taking an unclear image and possibly causing camera malfunction.
- Avoid obstructing the lens or the flash when you capture an image.
- When using this camera in low temperatures, you may experience the following. These are not camera malfunctions. The camera usually recovers at normal temperature.
 - It takes longer to turn on the LCD screen and the color may differ from the subject.
 - After changing to a different subject or scene, there may be an after image on the LCD screen.
- Credit cards may be demagnetized if left near case. Avoid leaving magnetic strip cards near the case.
- Never connect the 20 pin connector to the USB port of a PC. This carries a high risk of computer malfunction.
- Do not open the battery cover or the USB cover in the sea, a lake or in similar underwater conditions. Do not open the battery cover or the USB cover with a wet hand either. It may cause electric shock or camera malfunction.

Contents

READY 007 System chart

007 Package Contents

007 Sold Separately

008 Identification of features

008 Front & Top

009 Back

010 Bottom

010 5 Function button

011 Self-timer lamp

011 Camera Status Lamp

011 Mode icon

012 Connecting to a Power Source

015 Inserting the memory card

016 Instructions on how to use the memory card

018 Waterproof management

020 When using the camera for the first time

RECORDING 021 LCD screen indicator

022 How to use the menu

023 Starting the recording mode

023 Selecting modes

023 How to use the Smart Auto mode

024 How to use the Program mode

025 How to use the Scene modes

027 How to use the Movie clip mode

028 Recording HD (High Definition) movie clips

028 Recording a movie clip without sound

029 Things to Watch Out for When Taking Pictures

030 Using the camera buttons to set the camera

030 POWER button

030 SHUTTER button

031 Zoom button

032 Info (DISP) / Up button

033 Macro / Down button

034 Focus lock

035 Flash / Left button

037 Self-timer / Right button

038 MENU button

038 OK button

038 Shooting

039 How to Enable Functions Using the MENU Button

040 Photo Size / Movie Size

040 Quality / Frame rate (Image Resolution)

041 Exposure compensation

041 ISO

042 White balance

043 Face Detection

046 Smart FR Edit

Contents

047	Face Tone
047	Face Retouch
047	Auto Focus type
048	Metering
048	Photo Style Selector
049	Smart Filter
050	Image Adjust
051	ACB
051	Drive mode
052	DIS
052	Movie Clip frame stabiliser
052	Smart Scene Detection
053	Voice Memo
053	Voice Recording
054	Recording a movie clip without voice
054	Setting movie recording

SETUP 055 Sound menu

055 Sound

055	Volume
055	Start up sound
055	Shutter sound
055	Beep sound
056	AF sound

056 Setup menu

056 Display

056	Language
056	Function Description
057	Start up image
057	Display Brightness
057	Quick view
057	Display Save

058 Settings

058	Formatting a memory
058	Initialization
059	Setting up the Date / Time / Date type
059	Time Zone
059	File name
060	Imprinting the recording date
060	Auto power off
061	Auto Focus lamp
061	Selecting Video out type
062	Setting the USB

PLAY 063 Starting play mode

063	Playing back a still image
063	Playing back a movie clip
064	Movie clip capture function
064	Playing back a recorded voice
065	Playing back a voice memo

Contents

065	LCD screen Indicator
066	Using the camera buttons to set the camera
066	Play mode button
066	Thumbnail / Enlargement button
066	Smart Album
069	Info (DISP) / Up button
069	Play & Pause / OK button
070	Left / Right / Down / MENU button
070	Delete button
071	Setting the playback functions using the LCD Screen
072	Setting the playback PictBridge function using the LCD screen
073	Edit
073	Resize
074	Rotating an image
074	Photo Style Selector
075	Smart Filter
076	Image Adjust
077	Starting the Multi Slide Show
077	Start the Multi Slide Show
078	Selecting Images
079	Setting play interval
079	Setting Background Music
079	Configure Multi Slide Show effects

080	File Options
080	Deleting images
080	Protecting images
081	Face List Edit
081	Voice memo
082	DPOF
084	Copy to Card

PICTBRIDGE	085	PictBridge
	086	PictBridge : Picture Selection
	086	PictBridge : Print Setting
	087	PictBridge : Reset

APPENDIX	087	Important notes
	089	Warning indicator
	090	Before contacting a service center
	092	Specifications

SOFTWARE	095	Transferring files to your computer for Windows
	095	For Windows users
	099	Transferring files to your computer for Mac
	099	For Mac users
	101	FAQ

System chart

Please make sure your package contains the contents listed below before using this product. The contents can vary depending on the sales region. To buy the optional equipment listed under Sold Separately, contact your nearest Samsung dealer or Samsung service center. The appearance of the parts and accessories in your package may differ from the illustrations below.

Package Contents



Camera



Rechargeable battery
AD43-00194A



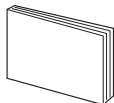
AC adapter / USB cable
**AD44-00143A /
AD39-00165A**



Camera strap
**AD63-02604A
AD63-02596A**



Software CD
(User manual included)
AD46-00331A



Quick Start Manual
AD68-04852A

Sold Separately



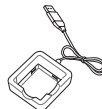
SD/SDHC memory card
(see p.17)



Camera case



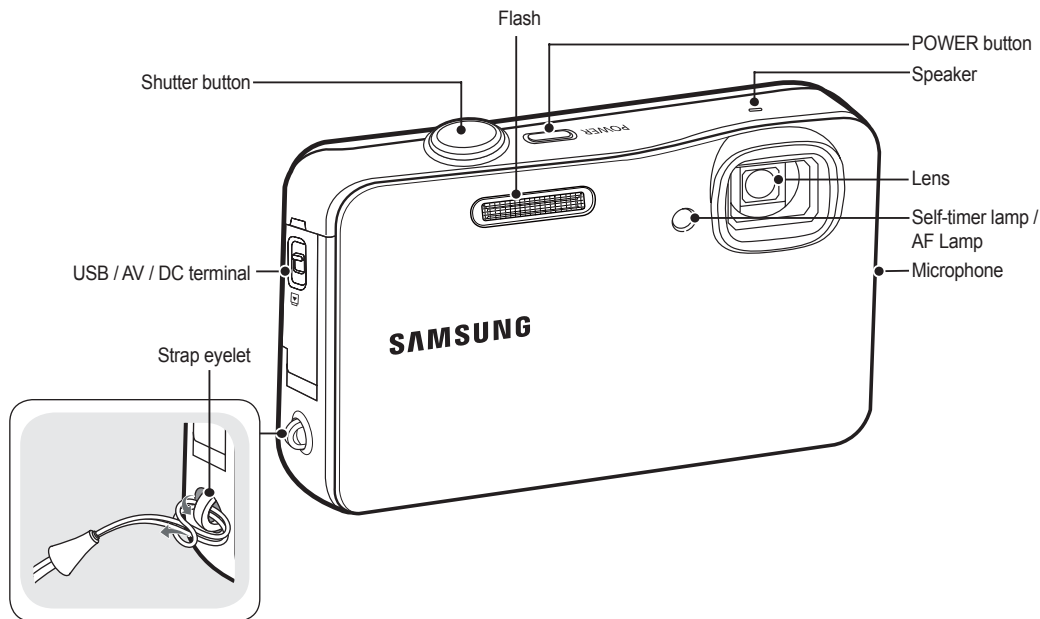
AV cable
AD39-00146A



Battery charger
AD44-00164A

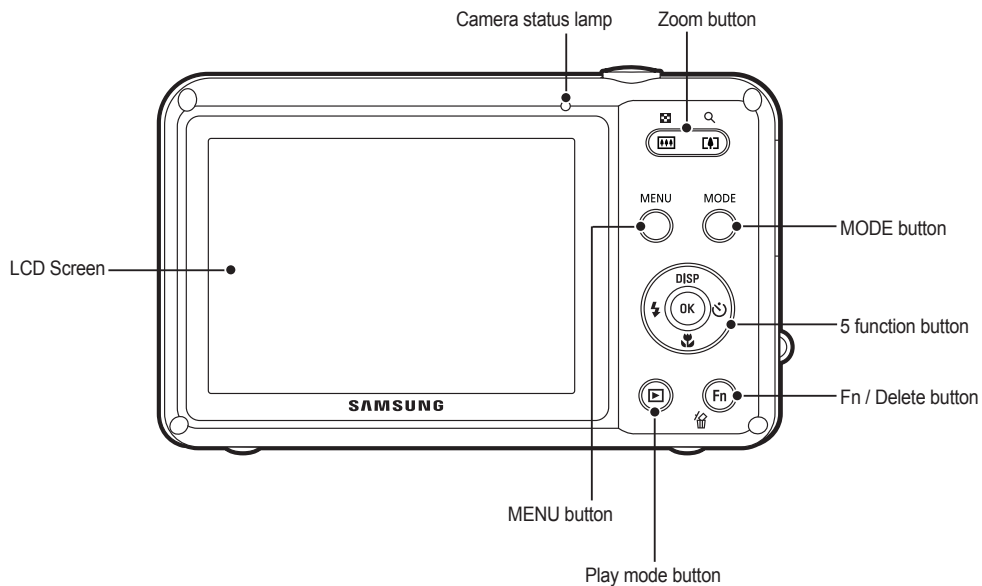
Identification of features

Front & Top



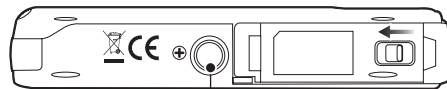
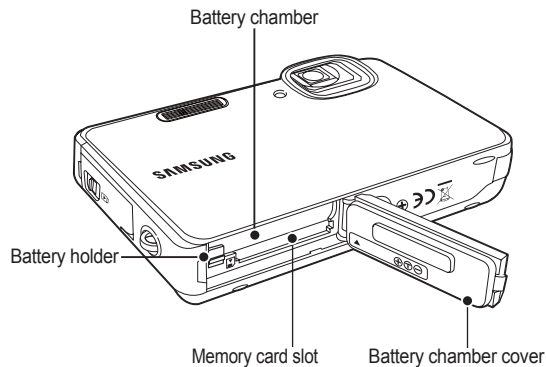
Identification of features

Back



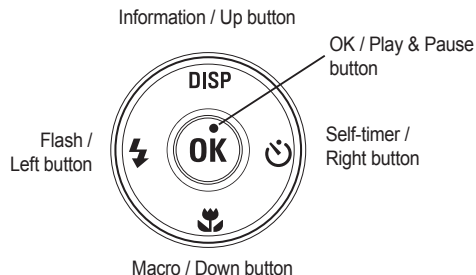
Identification of features

Bottom






※ To open the battery chamber cover, slide it in the direction shown above.

5 Function button



Identification of features

Self-timer lamp






Icon	Status	Description
	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.
	Blinking	For the 2 seconds, the lamp blinks quickly at 0.25-second intervals.
	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.
When flash battery is charging	The lamp blinks.
When the USB cable is inserted into a PC	The lamp lights up. (LCD screen turns off after initializing the device.)
Transmitting Data with a PC	The lamp blinks. (LCD screen turns off.)
When the USB cable is inserted into a printer	The lamp blinks.
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 23 for more information about the camera mode setting.

MODE	Smart Auto	Program	Scene
ICON			
MODE	Movie	Smart Movie	-
ICON			

MODE	SCENE		
	Aqua	Beauty Shot	Frame Guide
ICON			
MODE	Night	Portrait	Children
ICON			
MODE	Landscape	Close Up	Text
ICON			
MODE	Sunset	Dawn	Backlight
ICON			
MODE	Fireworks	Beach & Snow	-
ICON			

Connecting to a Power Source

You should use the rechargeable battery BP70A supplied with the camera. Be sure to charge the battery before using the camera.

■ BP70A rechargeable battery Specification

Model	BP70A
Type	Lithium Ion
Capacity	740mAh
Voltage	3.7V
Charging time	Approximately 150 Minutes

■ Number of images and battery life: Using the BP70A

	Battery life / Number of images	Conditions
Still image	Approx. 90 MIN / Approx. 180 shots	Using the fully charged battery, Default settings, Program mode, Shot to shot interval: 30Sec. Changing the zoom position between the Wide and the Tele after every shot. Using the flash on every second shot. Using the camera for 5 minutes and then powering it off for 1 minute.
Movie	Approx. 70 MIN	Using the fully charged battery 640x480 image size 30 fps frame rate

※ These figures are measured under Samsung's standard conditions and shooting conditions and may vary depending on the user's methods.



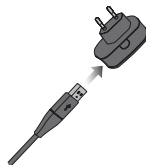
Important information about battery usage.

- When camera is not in use, turn off the power.
- Please remove the battery if the camera will not be used for long periods. Batteries can lose power over time and are prone to leaking if kept inside the camera.
- Low temperatures (below 0°C) can affect the performance of the battery and you may experience reduced battery life.
- Batteries will usually recover at normal temperatures.
- During extended use of the camera, the camera body may become warm. This is perfectly normal.

- If you connect the AC adapter to the USB cable, you can use it as an AC cable and recharge the spare battery with it.

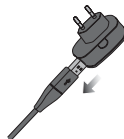
- Using an AC cable

: Connect the AC adapter to the USB cable. It can be used as a power cable.



- Using a USB cable

: Remove the AC adapter. You can download stored images to your PC (p.96) or supply the power to your camera through the USB cable.



Connecting to a Power Source



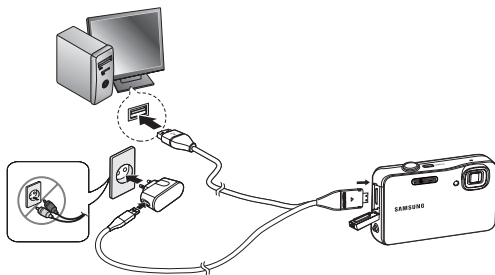
Important information about USB cable usage.

- Use a USB cable with the correct specification.
- Do not connect the camera to a PC through a USB hub. Connect the camera directly to the PC.
- Do not connect the camera and other devices to a PC at the same time. Connect the camera by itself.
- If your PC can not detect the camera when you use the front side USB port, use the back side USB port of computer.
- If the USB port of the PC doesn't meet the Power output standard (5V, 500mA), the battery may not charge.



- Before inserting any cables or the AC adapter, make sure the direction of the cable or adapter plug is correct. Do not insert by force. It may cause breakage of cable or camera.
- If the charging LED of the AC Charger does not turn on or blink after you have inserted the rechargeable battery, please make sure the battery is inserted correctly.
- If you charge the battery with the camera power on, the battery won't be fully charged. Turn the camera off while charging the battery to get a full charge.

■ How to charge the rechargeable battery



■ Charging LED of the AC charger

	Charging LED
Being Charged	Red LED is on
Charging is complete	Green LED is on
Charging error	Orange colored LED is off or blinking

- If you insert a fully discharged battery to charge it, do not turn on the camera at the same time. If you do, the camera may turn off unexpectedly. Charge the battery for more than 10 minutes before using the camera.
- Do not use the flash frequently or take a movie clip with the fully discharged battery that has been charged for only a short time. Even if the charger is inserted, the camera power may be turned off because the rechargeable battery is discharged again.

Connecting to a Power Source



When using the battery, please follow these guidelines. Failure to do so may cause heat, fire, or explosion.

- If you find the battery is bulging or distorted, contact a service center. It may present a physical danger.
- Use only the recommended battery charger.
- Do not place the product close to a fire or any high temperature source.
- Do not insert the product into a microwave oven.
- Do not leave the product inside a car during the summer.
- Do not place the product in a hot, humid environment.
- Do not place the camera on a carpet, comforter, or electronic mattress for a long time.
- Do not leave the camera turned on where there is no air circulation.
- Do not let accessories like necklaces, coins, keys, watches, and and so on come in contact with the battery chamber.
- Use Advanced Lithium Batteries with a guarantee from the manufacturing company.
- Do not try to disassemble or perforate the camera or battery with a sharp pin.
- Do not subject the camera to high pressure.
- Do not drop or strike the camera, or subject it to a harsh shock.
- Do not expose the product to temperatures over 60°C (140°F) degree.
- Do not expose the product to water or high humidity.
- Battery shall not be exposed to excessive heat such as sunshine, fire or the like.



Guidelines for disposal

- Do not throw away a battery that no longer charges.
- Do not dispose of a battery by throwing it in a fire.
- Dispose of the battery according to the environmental laws of your country, state, or area.



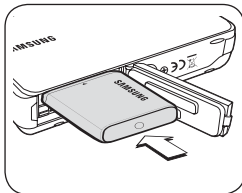
Guidelines for recharging a battery

- Do not recharge the battery using a method that differs from the method detailed in this users manual. Failure to follow these instructions may cause a fire or explosion.

Connecting to a Power Source

■ Insert the battery as shown

- If the camera does not turn on after you have inserted battery, please check whether the battery (+ / -) direction is right.
- When opening the battery chamber cover, do not use excessive force. You may damage it.



■ There are 4 battery status indicators displayed on the LCD screen.

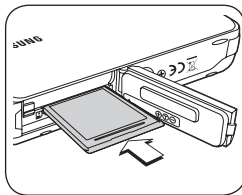
Battery indicator				
Battery status	The battery is fully charged	Low battery capacity (Prepare to recharge or use spare battery)	Low battery capacity (Prepare to recharge or use spare battery)	Battery empty. (Recharge or use spare battery)

※ When using the camera and the battery in a place that is excessively cold or hot, the battery status on the LCD may be different from the actual battery status.

Inserting the memory card

■ Insert the memory card as shown.

- Turn off the camera's power before inserting the memory card.
- Have the front label of the memory card facing toward the front of the camera (Lens) and the card pins toward the back of the camera (LCD screen).
- 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

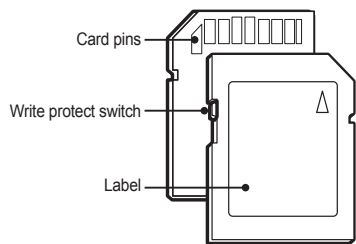
- Be sure to format the memory card (see p.58) if you are using a newly purchased memory card for the first time, if it contains data that the camera cannot recognize, or if it contains images captured with a different camera.
- Turn off the camera power whenever the memory card is being inserted or 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.
- The data on the memory card can be corrupted if:
 - The memory card is used incorrectly.
 - 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 optimize the amount of memory in the camera, replace the memory card or delete unnecessary images stored on the memory card.



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

Instructions on how to use the memory card

The camera can use SD/SDHC Memory Cards.



[SD (Secure Digital) memory card]

- The SD/SDHC memory card has a write protect switch that prevents image files from being deleted or formatted. When you slide the switch towards the bottom of the SD/SDHC memory card, the data is protected. When you slide the switch towards the top of the SD/SDHC memory card, the data protection is cancelled.
- Slide the switch to the top of the SD/SDHC memory card before taking a picture.

When using a 1GB SD 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	60 FPS	30 FPS	15 FPS
Still image	12m	About 134	About 220	About 329	-	-	-
	10m	About 152	About 249	About 371	-	-	-
	9m	About 181	About 296	About 438	-	-	-
	8m	About 200	About 328	About 487	-	-	-
	5m	About 313	About 510	About 751	-	-	-
	3m	About 494	About 789	About 1154	-	-	-
	1m	About 1731	About 2597	About 3463	-	-	-
*Movie clip	1280 HD	-	-	-	-	About 00:14'25"	About 00:28'17"
	640	-	-	-	-	About 00:41'31"	About 01:50'45"
	320	-	-	-	About 01:29'48"	About 02:38'14"	About 03:47'36"



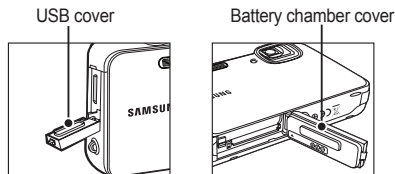
- The zoom button doesn't function during the movie recording.
- Movie recording times may decrease when you use the zoom function.
- Several videos were recorded in succession to determine the total recording time.

Waterproof management

You can use this camera underwater to a maximum depth of 9.8 feet (3m) in an ocean, lake, or similar underwater environment for one hour. To ensure the camera operates properly underwater, you must practice the correct waterproof management before and after using the camera, as follows.

■ Before using the camera

1. Make sure that there is no dirt, dust, or sand on the camera and that the lens is always kept clean.
 - If there is foreign matter or moisture on the battery chamber cover or the USB cover, wipe them with a smooth, lint free cloth. Also check if there are any scratches on the waterproof seal.



2. Make sure that the battery chamber cover and the USB cover make a clicking sound when closing them, so that they are firmly shut.



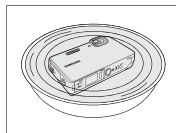
- Do not open the battery chamber cover or the USB cover underwater, with a wet hand, or in any environment that has a great deal of moisture and dirt.

■ While using the camera:

- Do not use the camera under water at a depth of more than 9.8 feet (3m).
- Do not use the camera continuously for over one hour under water.
- Do not open the battery chamber cover and the USB cover under water.
- Do not use the camera in hot water.
- Do not leave the camera on the sand. Sand may enter the speaker or the microphone, and the camera may get hot if it is exposed to direct sunlight for a prolonged time.
- The waterproof performance may deteriorate if the camera is struck, dropped, subjected to strong pressure or to strong vibration.
- The accessories that came with the camera are not waterproof.

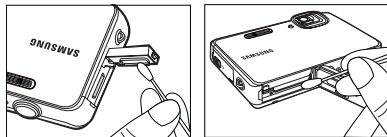
■ After using the camera

1. Make sure that any water and dirt on the camera are removed with a dry cloth after using the camera under water.
2. Ensure the battery chamber cover and the USB cover are closed, and then wash the camera with flowing water, making sure to remove all sand, foreign matter, and dirt. You can also submerge the camera in clean water for 2 to 3 minutes before washing it. See page 19 for details.
 - Do not wipe the camera with other liquids such as soapy water, neutral detergents, or alcohol.
3. Wipe the camera with a dry cloth, and then dry the camera in a well ventilated place.



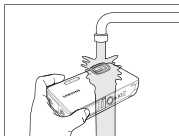
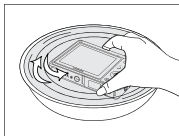
Waterproof management

4. Open the battery compartment and the USB compartment and look for water drops on the inside of the covers. If there are water drops on either, use cotton swab to remove the drops before storing the camera.



Since your camera may fail if you use the camera when foreign matter is on the camera lens, wash the camera using the following procedure:

1. Make sure that the battery chamber cover and the USB cover make a clicking sound when closing them, so that they are firmly shut.
2. Fill a bucket or a large bowl with water and submerge the camera in the water with the camera lens facing downwards, then shake the camera.
3. If the foreign matter is not removed in the above procedure, wash the camera directly under a strong flow of water.



■ Storage and maintenance

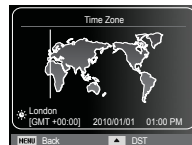
- Do not store the camera in an environment with high or low temperature. The waterproof function may be damaged.
- Do not use any chemicals to clean, to prevent rust, or to repair the camera. The waterproof function may be damaged.
- Replace waterproof components once a year to maintain waterproof performance, since they are consumable parts. Contact your nearest Samsung service center for the replacement of waterproof components.

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 on the LCD screen to set date, time, time zone and language. This menu will not be displayed again after you set up the date, time, time zone, and language. Set up the date, time, time zone, and language before using this camera.

■ Setting up the Time Zone

1. Select the [Time Zone] menu by pressing the Up/Down button, and then press the Right button.
2. Press the Left/Right button to select the Time Zone.



※ For more information about the World Time, refer to the page 59.

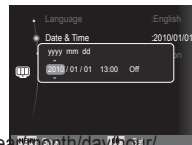
■ Setting up the language

1. Select the [Language] menu by pressing the Up/Down button, and then press the Right button.
2. Select the desired sub-menu by pressing the Up/Down button, and then press the OK button.



■ Setting up the date, time, and date type

1. Select the [Date&Time] menu by pressing the Up/Down button, and then press the Right button.
2. Select the desired sub menu by pressing the Up/Down/Left/Right button, and then press the OK button.

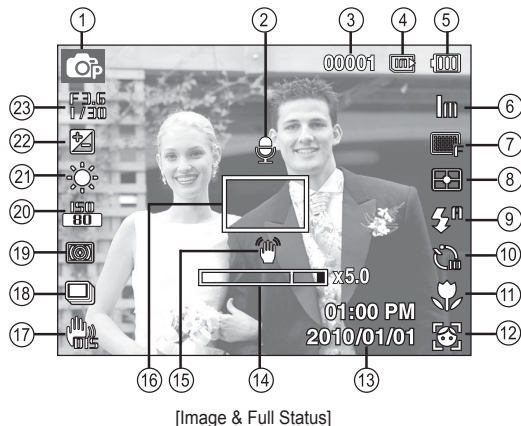


Left/Right button : Selects world time/year/month/day/hour/minute/date type

Up/Down button : Changes the value of each item.

LCD screen indicator

- The LCD screen displays information about the shooting functions and selections.

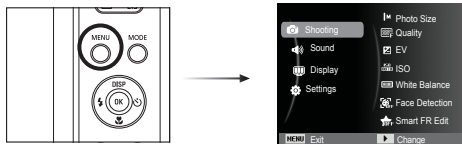


No.	Description	Icons	Page
1	Recording mode		p.23
2	Voice Memo		p.53
3	Number of available shots remaining	00001	p.17
	Remaining time	00:00:00	p.17
4	Memory card icon / Internal memory icon	/	-

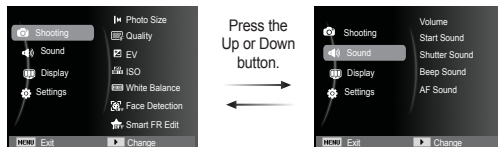
No.	Description	Icons	Page
5	Battery		p.15
6	Photo Size / Movie Size	12m 8m 5m 3m 1m /	p.40
7	Image Quality / Frame Rate	/	p.40
8	Metering		p.48
9	Flash		p.35
10	Self-timer		p.37
11	Macro		p.33
12	Face Detection		p.43
13	Date / Time	2010/01/01 01:00 PM	p.59
14	Optical / Digital Zoom bar / Digital Zoom rate	x5.0	p.31
15	Camera shake Warning		p.29
16	Auto Focus Frame		p.47
17	DIS		p.52
18	Drive mode		p.51
19	Smart Filter / Image Adjust / Photo Style Selector		p.49/50 /48
20	ISO / Voice	/	p.41/54
21	White Balance		p.42
22	Exposure compensation		p.41
23	Aperture Value / Shutter Speed	F3.6, 1/30	p.26

How to use the menu

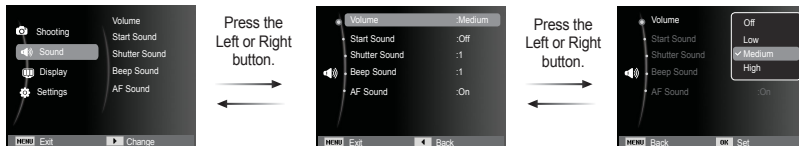
1. Turn on the camera, and then the MENU button. A menu for each camera mode appears.



2. Use the up or down button to navigate through the menus.



3. Use the left or right button to select a sub menu.

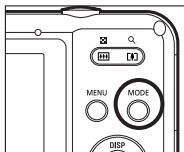


4. Select a submenu and click the OK button to save settings, and then return to the previous window.

Starting the recording mode

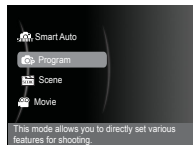
Selecting modes

You can select the shooting modes by using the MODE button on the back of your camera.



■ How to use the MODE button

1. Press the MODE button. A menu appears.
2. Select a desired mode by pressing the Up / Down button, and then press the OK button.



How to use Smart Auto mode ()

In Smart Auto mode, the camera automatically chooses the appropriate camera settings based on the type of scene (Night, Land-scape, etc.) it detects. Use Smart Auto mode if you are unfamiliar with the camera's settings and functions. Note that you can still manually configure all functions except the aperture value and shutter speed.

1. Press the POWER button to turn on the camera.
2. Select Smart Auto mode by using the MODE button.
3. The camera selects a scene automatically. An appropriate mode icon appears at the top left of the screen.
4. Press the Shutter button to capture an image.



- If the auto focus frame turns red when you press the shutter button down half way, it means that the camera cannot focus on the subject. If this occurs, the camera is unable to capture the image clearly.
- Avoid obstructing the lens or the flash when you capture an image.

Starting the recording mode



- If the camera does not recognize a proper scene mode, the default settings are used.
- Even if there is a face detected, the camera may not select a portrait mode depending on the subject's position or lighting.
- The camera may not select the correct scene depending on shooting conditions, such as camera shake, lighting, and distance to the subject.
- The [Night] mode recognizes scenes only when the flash is set to off. The camera operates the [Tripod] mode after checking the shooting conditions on the tripod for a certain length of time.
- Despite being on a tripod, the camera may not select [Tripod] mode depending on the subject's movement.



Each scene is recognized under the following conditions;

[Landscape]	()	: When shooting outdoor scenes
[White]	()	: When shooting a white background
[Nights]	()	: When shooting nighttime scenes
[Night Portrait]	()	: When shooting portraits or people in a dark outdoor place
[Backlight]	()	: When shooting a backlit scenery without a portrait
[Backlight Portrait]	()	: When shooting a backlit portrait
[Portrait]	()	: When shooting a portrait
[Macro]	()	: When shooting close-ups
[Macro Text]	()	: When shooting texts close up

[Tripod]



: When shooting a subject who doesn't move when the camera is mounted on a tripod. (Available only when the camera recognizes it as nighttime)

[Action]



: When shooting a subject making frequent movements

[Sunset]



: When shooting a sunset

[Blue Sky]



: When shooting blue sky

[Natural Green]



: When shooting nature such as a forest and leaves

[Macro Color]



: When shooting a close-up shot of a subject with multiple colors

[Macro Portrait]



: When shooting close-up portrait shot

How to use the Program mode ()

In the Program mode, you can manually configure all options except the shutter speed and aperture value, which the camera sets automatically to optimal settings.

1. Select the Program mode by using the MODE button. (p.23)
2. Press the Menu button to configure advanced functions.



See p.38 for further details.

Starting the recording mode

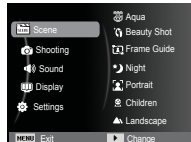
How to use the Scene modes ()

Using Scene modes, you can easily configure the camera so that it automatically uses the optimal settings for a given shooting situation.















1. Select Scene mode by using the MODE button. (p.23)
2. Point the camera towards the subject and compose the image using the LCD screen.
3. Press the shutter button to capture an image.



※ You can also change the Scene mode by pressing the MENU button, selecting Scene, and then selecting a Scene in the Scene menu.



The Scene modes are listed below.

- [Aqua] () : This mode is for underwater photography.
- [Beauty Shot] () : Use when shooting portraits. Clears most facial imperfections.
- [Frame Guide] () : Use when you want someone else to take a picture for you from the angle you choose.
- [Night] () : Use for shooting still images at night or in other dark conditions.
- [Portrait] () : To take a picture of a person.
- [Children] () : To take a picture of children, pets, and other subjects that don't stay still.
- [Landscape] () : To take pictures of distant scenery.
- [Close Up] () : Close-up shooting of small objects such as plants and insects.
- [Text] () : Use this mode to shoot a document.
- [Sunset] () : For taking pictures of sunsets.
- [Dawn] () : Daybreak scenes.
- [Backlight] () : For portraits without shadows caused by backlighting.
- [Firework] () : Firework scenes.
- [Beach&Snow] () : For ocean, lake, beach and snowscape scenes.

Starting the recording mode

■ How to use the [Frame Guide] mode

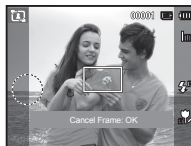
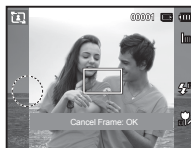
Set [Frame Guide] mode when you want someone else to take a picture for you from the angle you choose.

1. Take a picture from the angle you choose.
- A guide appears round the sides of the picture.

Guide



2. Then another person can take the picture by aligning the edge of the picture to be taken with the guide framing the sides of the window.

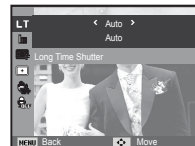


■ How to use the [Long Time Shutter] mode

This camera automatically adjusts the shutter speed and aperture values to the shooting environment. However, in Night scene mode, you can set the shutter speed and aperture values to your preference.

Changing the Shutter speed and Aperture value in Night scene mode.

1. Select the [Night] mode. (p.23)
2. Press the Fn button and the Long Time shutter menu appears.
3. Configure the Long Time shutter value with the 5 function button.
4. Press the Fn button again. The value you set is saved and the mode switches to Night scene mode.



Starting the recording mode

How to use the Movie clip mode ()

You can record a movie clip for as long as there is recording time available in the camera's memory.

1. Select the Movie mode by using the MODE button. (The camera displays the Movie Clip icon and the available recording time on the LCD screen.)
2. Point the camera towards the subject and compose the image using the LCD screen.
3. Press the shutter button once and movie clips are recorded for as long as the available recording time allows. The camera continues to record movie clips even if you release the shutter button. To stop recording, press the shutter button again.



※ Movie clip size and type are listed below.

- Movie clip size : 1280x720HQ, 640x480, 320x240 (Selectable) (1280x720HQ are the settings for recording high-quality videos.)
- Movie clip file type : MP4 (H.264)
- Frame Rate : 60 FPS, 30 FPS, 15 FPS (Selectable)
- You can select the frame rate when you select the following image sizes:
 - 1280x720HQ, 640x480: 30 FPS, 15 FPS selectable
 - 320x240: 60 FPS, 30 FPS, 15 FPS selectable
- The camera stops recording a movie clip automatically if the recording time exceeds the maximum available recording time. (You can record in 1280x720HQ for a maximum of 20 minutes.)



- For smart movie recording, set [Smart Scene Detection] to [On]. (p. 52)

Starting the recording mode

Recording HD (High Definition) movie clips

You can record HD (High Definition) movie clips (1280x720HQ, 30 fps) using H.264 (MPEG4.AVC) video compression. H.264 (MPEG4.AVC) is the standard for digital video codecs. It supports high quality video in small size files.

1. Select the Movie mode by using the MODE button. (p.23)
2. Press the MENU button to set the resolution to [1280 X 720 HQ].
3. Press the Shutter button to record video for the available recording time.



- What is H.264(MPEG4 part10/AVC)?
With its high-compression rate and the small file size, it is the standard for digital video codecs, supporting top quality recordings in high resolution.

Recording a movie clip without sound

You can record a movie clip without sound.

Steps from 1 through 3 are the same as those for MOVIE mode.

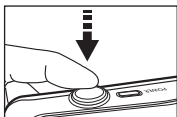
4. Press the Menu button.
5. Press the Up / Down button to select the [Movie] menu, and then press the Right button.
6. Select the [Voice] menu by pressing the Up / Down button, and then press the OK button.
7. Select the [Off] menu by pressing the Left / Right button.
8. Press the OK button. You can record a movie without sound.



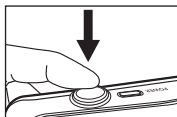
※ See p.54 for further details.

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]

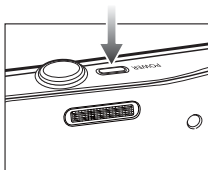
- The available memory capacity may vary depending on shooting conditions and camera settings.
- When the Flash Off, Slow synchro mode, or DIS mode is selected in a low lighting condition, the camera shake warning indicator () may appear on the LCD screen. In this case, use a tripod, support the camera on a solid surface or change to flash shot mode.
- It is best to take pictures with the sun behind you. Taking pictures with the sun behind the subject may make the picture come out dark. To take a picture against the light, please use [Backlight] in scene shooting mode (see page 25), fill-in flash (see page 36), spot metering (see page 48), exposure compensation (see page 41), or the ACB function (see page 51).
- Avoid obstructing the lens or the flash when you capture an image.
- Compose the image by using the LCD screen.
- 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 set the camera

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

POWER button

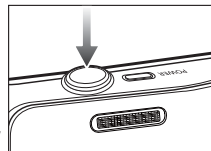
Used for turning the camera's power on / off. If there is no operation during a specified time, the the camera turns off automatically to save battery life. Refer to page 60 for more information about the auto power off function.



SHUTTER button

Used for taking an image or recording voice in the Recording mode.

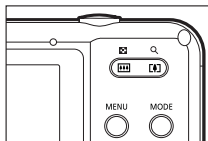
- In MOVIE CLIP mode
Press the shutter button down once fully to start a movie clip recording. Press the shutter button down fully again to stop recording.
- In Still image mode
Press the shutter button down halfway to activate the autofocus and check the condition of the flash. Press the Shutter button down fully to take and store an image. If you've selected voice memo recording, the recording starts after the camera has stored the image data.



Zoom button

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

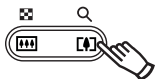
This camera has a 5X optical zoom and a 5X digital zoom function. Using both will offer a total zoom ratio of 25X.



■ TELE Zoom

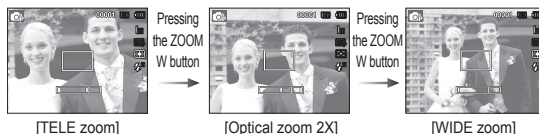
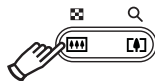
Optical zoom TELE : Press the ZOOM T button to zoom into the subject. The subject will appear nearer and larger.

Digital zoom TELE : After the maximum (5X) optical zoom is reached, 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 reached, pressing the ZOOM T button will have no effect.

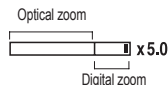


■ WIDE Zoom

Optical zoom WIDE : Pressing the ZOOM W button to zoom out from the subject. The subject will appear further away. Pressing the ZOOM W button continuously sets the camera to its minimum zoom setting. The subject appears at its farthest from the camera.



Digital zoom WIDE : When the digital zoom is in operation, pressing the ZOOM W button reduces digital zooming in steps. Releasing ZOOM W button stops the reduction. Pressing the ZOOM W button continuously reduces digital zoom, and then reduces optical zoom until the minimum setting is reached.



Zoom button



- Images taken using the digital zoom may take a little longer for the camera to process. Allow time for this to take place.
- You may notice a decrease in image quality when using the digital zoom.
- You can't activate the digital zoom in the [Movie] and some Scene modes.

Info (DISP) / Up button

While the menu is showing, the Up button operates as a direction button. In the recording modes or playback mode, pressing this button displays the image information.



[Filming screen]



[Information screen]

Macro (🌸) / Down button

While the menu is showing, the Down button operates as a direction button. 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 appears on the LCD screen.



[Auto Focus]



[Macro (🌸)]



[Auto Macro (🌸)]

■ Types of focus mode and focus range (W : Wide, T : Tele)

Unit: cm (inches)

Mode	Program (📷)	
Focus Type	Macro (🌸)	Normal
Focus range	W : 5 ~ 80 (2 ~ 31) T : 50 ~ 80 (20 ~ 31)	W : 80 ~ Infinity (31 ~ Infinity) T : 80 ~ Infinity (31 ~ Infinity)

Mode	Scene (🎬)		
Focus Type	Auto Macro (🌸)	Macro (🌸)	Normal
Focus range	W : 5 ~ Infinity (2 ~ Infinity) T : 50 ~ Infinity (20 ~ Infinity)	W : 5 ~ 80 (2 ~ 31) T : 50 ~ 80 (20 ~ 31)	W : 80 ~ Infinity (31 ~ Infinity) T : 80 ~ Infinity (31 ~ Infinity)



- When you select the macro mode, be particularly careful to avoid camera shake.
- When you take a picture within 40cm (16 inches) using Wide zoom or 50cm (20 inches) using Tele zoom in the Macro mode, select the Flash off mode.

Macro (🌱) / Down button

- Focusing methods you can select, by recording mode
(○ : Selectable, ∞ : Infinity focus range)

Mode	Auto Macro	Macro	Normal
		○	○
		○	○
Mode	SCENE		
	Auto Macro	Macro	Normal
	○		
	○		
	○		
			○
			○
			○
			○
		○	
	○		
			○
			○
			○
			∞
			○

Focus lock

To focus on a subject not positioned in the center of the picture, use the focus lock function.

■ Using the Focus Lock

1. Ensure the subject is in the center 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 screen, pressing the Left button makes the cursor shift to the left tab.

When the menu is not displayed on the LCD screen, the Left button operates as the Flash () button.



[Selecting the Auto flash]

■ Selecting the Flash mode

1. Select the desired Recording mode, except for the [Movie] mode. (p.23)
2. Press the Flash button until the desired flash mode indicator is displayed on the LCD screen (Fill-in, Red-eye Reduction, etc.).
3. A flash mode indicator will be displayed on the LCD screen.
Use the correct flash mode to suit the environment.

■ Flash range

Unit: m (inches)



ISO	Normal		Macro		Auto macro	
	WIDE	TELE	WIDE	TELE	WIDE	TELE
AUTO	0.8 ~ 3.0 (31 ~ 118)	0.8 ~ 2.0 (31 ~ 79)	0.2 ~ 0.8 (8 ~ 31)	0.5 ~ 0.8 (20 ~ 31)	0.2 ~ 3.0 (8 ~ 118)	0.5 ~ 2.0 (20 ~ 79)




- If you press the shutter button after selecting the flash, the first flash fires to check the shooting condition (Flash range and Power ratio of flash). Do not move the camera until the second flash fires.
- Using the flash frequently will reduce the life of the battery.
- Under normal operating conditions the re-charging time for the flash is usually within 4 seconds. If the battery is weak, the charging time will be longer.
- The camera flash does not operate in the [Movie] and some Scene modes.
- Take photographs within the flash range.
- The image quality can be degraded if the subject is too close or highly reflective.
- When taking an image in poorly lit conditions with the flash, there may be a white speck in the captured image. The speck is caused by the flash light reflecting off atmospheric dust.

Flash () / Left button

■ Flash mode indicator

Icon	Flash mode	Description
	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 the available light. The intensity of the flash will be automatically controlled to suit the prevailing conditions.
	Slow synchro	The flash operates with a slow shutter speed to obtain a balanced correct exposure. In poor lighting conditions the camera shake warning indicator () will display on the LCD screen.
	Red-eye reduction	When a shot with "red eye" is detected, this mode will reduce the red-eye effect automatically.
	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 poorly lit conditions, the camera shake warning indicator () will appear on the LCD screen.




- Smart Auto flash () icon will appear in [Smart Auto] mode.

■ Flash modes you can select, by recording mode

(o : Selectable)

Mode						
	o	o	o	o	o	o
						o
Mode	SCENE					
	o					o
		o			o	o
	o				o	o
				o	o	o
		o			o	o
		o				o
						o
						o
						o
						o
						o
			o			
						o
	o					


Self-timer () / Right button

When the menu is displayed on the LCD screen, pressing the Right button makes the cursor shift to the right tab.
When the menu is not displayed on the LCD screen, the Right button operates as the Self-timer () button. Use the Self-timer when you would also like to be in the picture.



- If you press the Self-timer button during the self-timer operation, the self-timer function is cancelled.
- Use a tripod to prevent the camera from shaking.
- In Movie Clip mode, only the 10SEC self-timer works.




■ Selecting the self-timer

1. Select a Recording mode with the exception of Voice recording mode. (p.23)
2. Press the Self-timer / Right () button until the desired mode indicator displays on the LCD screen. A 10 second, 2 second or Double Self-timer icon appears on the LCD screen.
3. After you press the shutter button, the picture is taken after the specified time has elapsed.



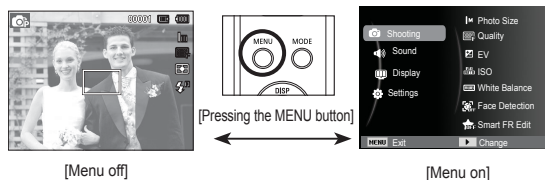
[Selecting the 10 SEC self-timer]

■ Self-timer mode indicator

Icon	Mode	Description
	10SEC self-timer	Pressing the shutter button provides an interval of 10 seconds before the image is taken.
	2SEC self-timer	Pressing the shutter button provides an interval of 2 seconds before the image is taken.
	Double self-timer	A picture is taken after about 10 seconds and 2 seconds later, a second picture is taken. When using the flash, the 2-second self-timer may be delayed for longer than 2 seconds depending on the flash charging time.

MENU button

- When you press the MENU button, a menu related to each of the camera's major functional areas is displayed on the LCD screen. Pressing it again returns the LCD to the initial display.
- The menu screen is available in the [Smart Auto], [Program], [Scene], [Movie] and [Smart Movie] modes, but it is not available if you select the voice recording function.


















OK button

- When the menu is displayed on the LCD screen, this button is used for shifting the cursor to the sub menu or for confirming data.



Shooting ()

To access a functional sub-menu, use the menu that contains the sub-menu, or press the FN key. A list of Shooting sub-menus is below:

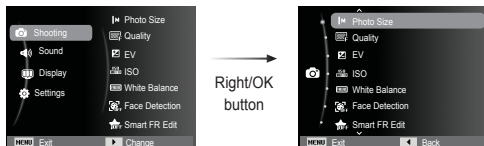
Mode	Sub-Menu	Available When Camera Set To	Page
 (Shooting)	Photo Size / Movie Size		p.40
	Quality / Frame Rate		p.40
	EV		p.41
	ISO		p.41
	White Balance		p.42
	Face Detection		p.43
	Smart FR Edit		p.46
	Face Tone		p.47
	Face Retouch		
	Focus Area		p.47
	Metering		p.48
	Photo Style Selector		p.48
	Smart Filter		p.49
	Image Adjust		p.50
	ACB		p.51

Shooting (📷)

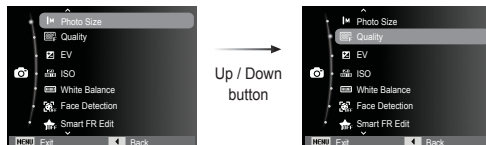
Mode	Sub-Menu	Available When Camera Set To	Page
📷 (Shooting)	Drive		p.51
	DIS		p.52
	Stabilizer		p.52
	Smart Scene Detection		p.52
	Voice		p.53
	Long Time Shutter		p.26

How to Enable Functions Using the MENU Button

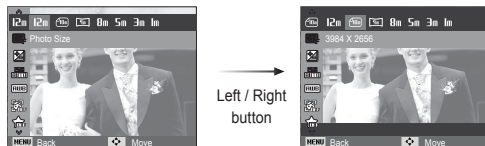
1. Press the MENU button in an available mode.
2. Press the Up / Down button to select the [Shooting] menu and press the Right/OK button.



3. Select a desired menu by pressing the Up / Down button and then press the OK button.



4. Select a desired menu by pressing the Left / Right button and then press the OK button.













Use the Fn button on the rear of the camera to bring up the menus that give you access to frequently used functions faster.

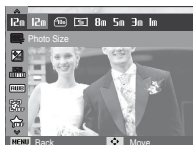
Shooting ()

Photo Size / Movie Size (Image Resolution)

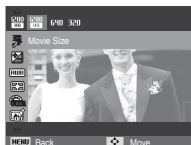
You can select the photo size / movie size appropriate for your application.
(Unit: pixel)

Still image mode							
Icon							
Size	4000X 3000	3984X 2656	3968X 2232	3264X 2448	2592X 1944	2048X 1536	1024X 768

Movie clip mode			
Icon			
Size	1280X720HQ	640X480	320X240



[Still image mode]









[Movie clip mode]

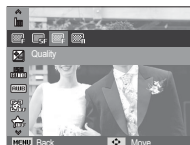


- The higher the resolution, the fewer the shots available because high resolution images require more memory.

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						
Sub menu	Super Fine	Fine	Normal	60 FPS	30 FPS	15 FPS
File Format	jpeg	jpeg	jpeg	MP4	MP4	MP4



[Still image mode]



[Movie clip mode]





- 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.

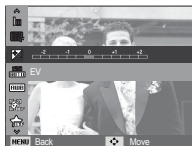
Shooting ()

Exposure compensation

This camera automatically adjusts the exposure according to the ambient lighting conditions. You can also select the exposure value by using the [EV] menu.

■ Compensating Exposure

1. Click the Up/Down button from the Shooting menu to select [EV] ().
2. Use the Left and Right buttons to set the desired exposure compensation factor.
3. Press the OK button. The value you set will be saved and the Exposure Compensation setup mode will be closed. If you change the exposure value, the exposure indicator () will be displayed on the Left of the LCD screen.



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

ISO

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

[Auto] : The camera's sensitivity is automatically changed by variables such as lighting value or subject brightness.



[ISO 80, 100, 200, 400, 800, 1600, 3200] :

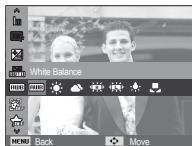
You can increase the shutter speed while the same amount of light is present, by increasing the ISO sensitivity. However, the image may be saturated in high luminance. The higher the ISO value, the higher the camera's sensitivity to light and therefore the greater its capacity to take pictures in dark conditions. However, the noise level in the image will increase as the ISO value increases, making the image appear coarse.

- ※ When [Motion Capture] is set, ISO speed will be set to Auto.
※ [ISO] is enabled only in [Program] mode.

Shooting (📷)

White balance

The white balance control allows you to adjust the colors to appear more natural.



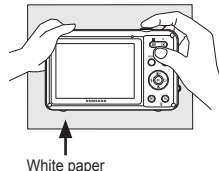
Mode	Icon	Description
Auto WB		The camera automatically selects the appropriate white balance settings, depending on the prevailing lighting conditions.
Daylight		For taking images outside.
Cloudy		For taking images under a cloudy and overcast sky.
Fluorescent_H		For shooting under daylight fluorescent lights or three-way fluorescent lighting.
Fluorescent_L		For shooting under white fluorescent lighting.
Tungsten		For shooting under tungsten (standard light bulb) lighting.
Custom Set		Lets you set the the most appropriate white balance for a given shooting environment.

※ Different lighting conditions may cause a color cast on your images.

■ 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 a custom white balance.

1. Select the Custom (📷) menu of the White Balance, and then place a sheet of white paper in front of the camera so that the LCD screen shows only white.

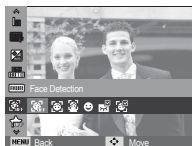


2. Do one of the following:
 - Press the Shutter button to save the new custom white balance.
 - Press the OK button to select the previous custom white balance.
 - The camera applies the custom white balance value, starting with the next picture you take.
 - Your custom white balance will remain in effect until it is overwritten.

Shooting (📷)

Face Detection

If you use face detection options, your camera can detect a human face. When focusing on a human face, the brightness of the face is also adjusted. You can also capture natural facial expressions by using self portrait, smile shot or blink detection.

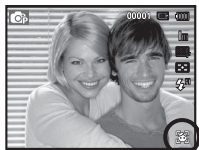


■ Normal

This mode detects the face of the subject automatically and then sets the focus and exposure. Select this mode for quick and easy pictures of faces.

※ Selectable modes: Program, Beauty Shot, Portrait, Children, Beach & Snow

1. The size and position of the auto focus frame is set around the face of the subject automatically.



2. Press the shutter button halfway.
The focus frame turns to green when the focus is activated.

3. Press the shutter button fully to take a picture.



- This function can detect up to 10 people.
- When the camera recognizes many people at the same time, it will focus on the nearest person.
- The Digital zoom is not activated in this mode.
- When the camera detects a target face, the white color focus frame is displayed over the target face and the grey color focus frame appears over the remaining faces. Press the shutter button halfway down to focus on the face and the white focus frame turns green.
- Under some conditions, this function cannot work properly.
 - When a person wears dark glasses or some part of the face is hidden.
 - When the person does not look at the camera.
 - If the face is too dark or too bright.
 - If the distance between the camera and object is too far.
- The maximum available Face Detection range is 2.2m or about 8 feet (Wide).
- The nearer the subject, the faster the camera can recognize the subject.
- In [Beauty Shot], [Portrait], and [Children] mode, the [Face Detection] function setting is set to its default value.

Shooting ()

■ Self Portrait

When taking pictures of yourself, the area of your face is automatically detected so that you can take self portraits easily and quickly.

※ Selectable modes: Program, Beauty Shot, Portrait, Children, Beach & Snow

1. For self-filming, point the camera lens towards your face. It automatically detects your face and emits a guiding sound.
2. Start filming by pressing the shutter button.



- When locating the face in the center of the screen, it repeatedly emits a faster sound unlike the sounds that are emitted when the face is not in the center.

■ Smile Shot

※ Selectable modes: Program, Beauty Shot, Portrait, Children, Beach & Snow

The camera automatically takes a picture by detecting the face of the subject although you don't press the shutter button. If you press the Shutter button, the picture is taken in the normal way. When you take a smile shot, having the subject show teeth or smile helps the camera to detect the subject correctly.



■ Blink Detection

※ Selectable modes: Program, Portrait, Children, Beach & Snow

If the eyes of the subject are closed when the shutter button is pressed, the camera takes 2 continuous shots and then saves the images. The camera takes only one picture if the eyes of the subject are open when the Shutter button is pressed.



- The camera may not be able to detect a smiling face or blinking eyes if any of the following situations occur:
 - The subject is wearing sunglasses.
 - The subject is not facing directly to the camera.
 - The ambient light is too bright or too dark for the camera to detect the face of the subject.
 - When the camera is far from the subject. (Orange colored focusing mark)
 - Reflections from the ambient light or back light are too bright.

Shooting ()




■ Smart Face Recognition

※ Selectable modes: Program, Beauty Shot, Portrait, Children, Beach & Snow

The camera automatically registers faces that you frequently photograph. This feature will automatically prioritize the focus on those faces and favorite faces. This feature is available only when you use a memory card.



The nearest face appears in a white focus frame and the rest of the faces appear in gray focus frames.

-   : Indicate favorite faces (To register favorite faces, see page 46).
-  : Indicate faces that the camera automatically registers.



- The same person can be recognized as a different person and vice versa depending on glasses, brightness, extreme change of pose or facial expressions.
- If you register a new face when 12 faces are already registered, the face with the lowest priority is replaced by the newly added face.
- The camera can recognize a maximum of 5 people in a scene.
- The camera can categorize pictures in the playback mode according to the priority of faces (p. 67).
- Even though the camera recognizes a face, it may not categorize the face in Smart Album according to priority.

Shooting ()

Smart FR Edit

You can register frequently shot faces or edit the registered face list prior to shooting. This feature is available only when you use a memory card.

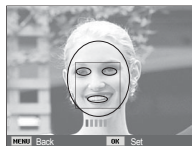


■ My Star

You can register your favorite faces to prioritize the focus and exposure on those faces.

1. Align your subject's face with the oval guideline and press [Shutter] to register the face.

- If the subject's face is not aligned with the oval guideline, the white frame will not appear.



- You can take photos of a subject's face directly from the front, to the left side, to the right side, from above, or from below.
- Take photos of one person at a time when registering faces.

2. Press the OK button to save after taking photos of the face.
 3. Press the MENU button when the registered face list appears.
- Your favorite faces are indicated with a (★) on the face list.

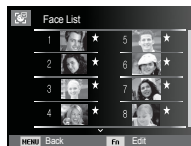


- You can register up to 8 favorite faces.
- The flash option will be set to Off.
- If you register the same face twice, you can delete one of the faces in the face list.

■ Face List

You can change the ranking of your favorite faces or delete them.

1. Press the Fn button.



2. Select a desired menu by pressing the Up / Down button and then press the OK button.



[Edit Ranking] : Change the rankings of people registered as My Star.

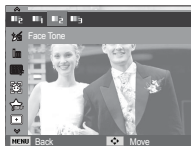
[Delete My Star] : Delete people from My Star.

Shooting (📷)

Face Tone

This menu lets you to control the skin tone in images in beauty shot mode. The higher the level you select, the brighter the skin tone.

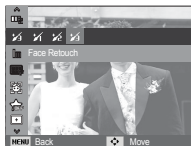
1. Select [Face Tone] by pressing the Up/Down button.
2. Select a desired face tone by pressing the Left / Right button, and then press the OK button.
3. Press the Shutter button to capture an image.



Face Retouch

This menu lets you make skin appear clear and beautiful before recording in beauty shot mode. The higher the level you select, the more effective the control.

1. Select [Face Retouch] by pressing the Up/Down button.
2. Select a desired face retouch by pressing the Left / Right button, and then press the OK button.
3. Press the Shutter button to capture an image.



Auto Focus type

You can select your preferred Focus Area according to the shooting conditions.




- [Center AF] (📏) : The camera focuses using the rectangular area in the center of the LCD screen.
- [Multi AF] (📐) : The camera focuses using all 9 of the available AF points.
- [Tracking AF] (👤) : The focus moves along with the movements of a subject.

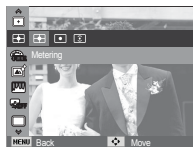
※ When the camera focuses on a subject, the auto focus frame turns green. When the camera doesn't focus on the subject, the auto focus frame turns red.


Shooting ()


Metering

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

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



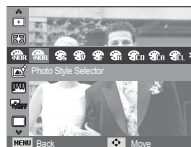
[Spot] () : Only the rectangular area in the center of the LCD screen is metered for light. This is suitable when the subject in the center is exposed correctly, regardless of the back lighting.

[Center-weighted] () : Exposure will be calculated based on an average of the available light in the image area. However, the calculation will be biased towards the center of the image area. This is suitable for taking a picture of small objects such as flowers or insects.












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

Photo Style Selector

You can add various effects to an image without using image editing software.



1. Select the desired Photo style selector by pressing the Left/Right button, and then press the OK button.
2. Press the Shutter button to take an image.

Style mode	Icon	Description
Normal		No style effect is applied.
Soft		Soft style is applied.
Vivid		Vivid style is applied.
Forest		Forest style is applied.
Retro		Sepia style is applied.
Cool		Cool style is applied.
Calm		Calm style is applied.
Classic		Black & white effect is applied.
Negative		Negative effect is applied.
Defog		Distinct style is applied.
Custom RGB		Define an RGB tone to create your own photo style.

Shooting ()

- Custom RGB : You can change the R (Red), G (Green) and B (Blue) values of the image.



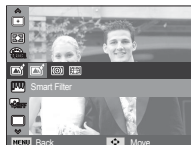
- Up/Down button : Selects R, G, B
- Left/Right button : Changes the values






- When you select any Photo style, Face detection is not available.
- When you select Photo Style Selector, the Image Adjust function is not available.

Smart Filter

You can apply various filter effects to your photos to create unique images.



1. Select the desired Smart Filter by pressing the Left/Right button, and then press the OK button.
2. Press the Shutter button to take an image.

Smart Filter	Icon	Description
Normal		No effect
Vignetting		Apply retro-looking colors, high contrast, and strong vignette effect.
Fish-eye		Distort close objects to imitate the visual effect of a Fisheye lens.



- When you apply a smart filter effect while recording a video, the video will be automatically resized to (640x320) or smaller.
- If you use this function, you cannot set the photo style and image adjustment options.

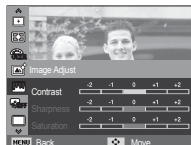
Shooting (📷)

Image Adjust

■ Contrast

You can change the contrast of the image.

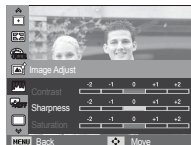
1. Select [Contrast] by pressing the Up/Down button.
2. Change the contrast by pressing the Left/Right button.
3. Press the Shutter button to capture an image.



■ Sharpness

You can adjust the sharpness of the picture you are about to take.

You cannot check the sharpness effect on the LCD screen before you take a picture, because this function is applied only when the captured image is stored in the memory.

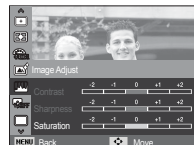


1. Select [Sharpness] by pressing the Up/Down button.
2. Change the Sharpness by pressing the Left/Right button.
3. Press the Shutter button to capture an image.

■ Saturation

You can change the saturation of the image.

1. Select [Saturation] by pressing the Up/Down button.
2. Change the saturation by pressing the Left/Right button.
3. Press the Shutter button to capture an image.



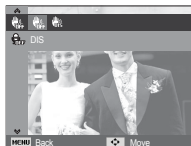
- When you select Image Adjust, Photo Style Selector function is not available.
- When you select Image Adjust, Face Detection is not available.

Shooting (📷)

DIS

Digital Image Stabilization (DIS)

This function helps minimize camera shake when capturing a still image.



[Off] (🛑) : Disables the DIS function when capturing a still image.

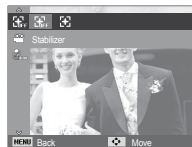
[On] (📷) : Enables the DIS function when capturing a still image.

■ Things to watch out for using the DIS function

- The digital zoom will not operate in the DIS function.
- If the lighting condition is brighter than fluorescent lighting conditions, the DIS will not activate.
- If the lighting condition is darker than fluorescent lighting conditions, camera shake warning indicator (📶) will display. For best results only take pictures in situations where the camera shake warning indicator (📶) is not displayed.
- If the subject is moving, the captured image may be blurred.
- As the DIS uses the camera's digital signal processor, it may take a little longer for the camera to process and save the images.

Movie clip frame stabiliser

This function helps stabilize images captured during movie recording. You can select this menu only in the Movie clip mode.



[Off] (🛑) : Movie clip frame stabilizer function is off.

[On] (📷) : Minimises camera shake during movie recording.

※ The recording frame range becomes narrow when you select this menu.

Smart Scene Detection

You can set the smart scene detection during movie recording.



[Off] (🛑) : Turn off the scene detection function.

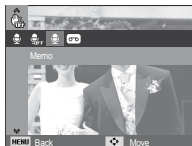
[On] (📷) : Turn on the scene detection function.

※ Select [On] for smart movie recording.

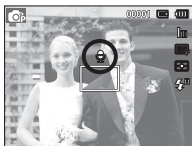
Shooting ()

Voice Memo

You can add your voice-over to a stored still image. (Max. 10 sec.)

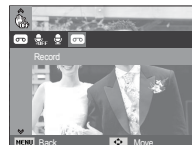


- Select Voice Memo in the menu. When the Voice Memo indicator is displayed on the LCD screen, the Voice Memo function is ready.
- Press the shutter button and take a picture. The picture is stored on the memory card.
- The Voice Memo function records for ten seconds from the moment the camera stores the picture. You can stop the recording in the middle by pressing the shutter button.



Voice Recording

With Voice Recording, the camera can record a voice for as long as the available recording time allows (Max. 10 hours).



Select Voice Recording in the menu. Press the shutter button to record a voice.

- Press the shutter button once and the camera records for as long as there is available recording time (Max.10 hours). The recording time is displayed on the LCD screen. The camera continues to record audio even if you release the shutter button.
- If you want to stop recording, press the shutter button again.
- File type : *.wav



[Voice recording mode]

Shooting ()

■ Pausing while recording a voice

Using this function, you can record your favorite voice clips into a voice recording file without having to create multiple voice recording files.



[Voice recording mode]


1. Press the OK button to pause recording.
2. Press the OK button again to resume the recording.
3. If you want to stop recording, press the shutter button again.

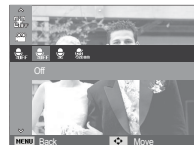


- For optimal voice recordings, place the camera about 25 cm (10 inches) from you.
- If the camera power is turned off while the voice recording is paused, the voice recording is cancelled.
- The zoom sound may be recorded if you use the zoom while recording a video.

Recording a movie clip without voice

You can record a movie without voice.

Select [Off] of [Voice] menu in the Movie clip mode. The () icon appears on the LCD screen. Press the Shutter button and the camera records a movie without sound for as long as there is memory capacity.



Setting movie recording

You can set the desired voice recording mode in Movie mode.

- [Voice] sub menus

[Off] : Record a video without sound.

[On] : Record a video with sound.

[Zoom Mute] : Record a video without sound while zooming.



Sound menu

In this mode, you can set up sound settings. You can use the setup menu in all camera modes, except the Voice Recording mode.

■ The items indicated by * are default settings.

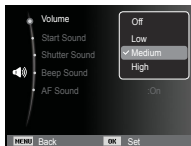
※ Menus are subject to change without prior notice.

Sound ()

Volume

You can select the loudness of the start up sound, shutter sound, beep sound, and AF sound.

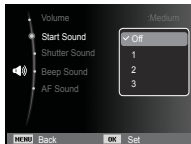
- [Volume] sub menus : [Off], [Low],
[Medium]*, [High]



Start up sound

You can select the sound the camera plays whenever you turn the camera on.

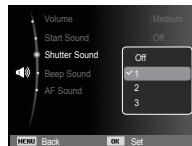
- Start up sound : [Off]*, [1], [2], [3]



Shutter sound

You can select the shutter sound.

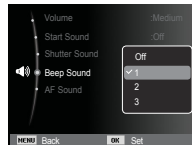
- Shutter sound : [Off], [1]*, [2], [3]



Beep sound

You can select the beep sound the camera plays when you press the buttons.

- [Beep Sound] sub menus : [Off], [1]*, [2], [3]

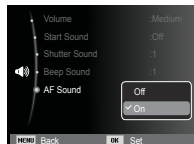


Sound ()

AF sound

If you set the AF (Automatic Focus) sound to On, the camera plays the AF sound when you press the shutter button down half way.

- [AF sound] sub menus : [Off], [On]*



Setup menu

In this mode, you can set up the basic settings. You can use the setup menu in all camera modes, except the Voice Recording mode.

■ The items indicated by * are default settings.

※ Menus are subject to change without prior notice.

Display ()

Language

You can choose the language the camera uses on the LCD screen. Even if the battery is removed and inserted again, the language setting is preserved.



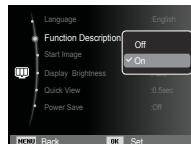
Function Description

You can choose whether the camera can display the function descriptions on the LCD screen in recording mode.

- Function Description sub menus

[Off] : The function description are not displayed.

[On]* : The names and descriptions of the functions are displayed.

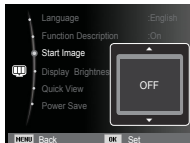


Display ()

Start up image

You can select the image that is first displayed on the LCD screen whenever you turn on the camera.

- Sub menus : [Off]*, [Logo], [User Image]
- Insert a saved image for the start-up image using [Start Image] in the [Resize] menu in play mode.
- The start-up image will not be deleted by [Delete] or [Format] menu.
- The user start up image can be deleted using [Reset].



Quick view

If you enable Quick View before capturing an image, you can view the image you just captured on the LCD screen for the time specified in the [Quick View] setup. You can use Quick view only with still images.

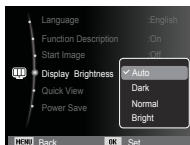
- Sub menus
[Off] : The Quick View function is off.
[0.5 sec]*, [1 sec], [3 sec]
: The captured image is briefly displayed during the selected time.



Display Brightness

You can adjust the LCD brightness.

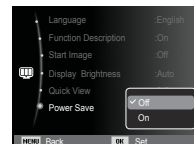
- Sub menus : [Auto]*, [Dark], [Normal], [Bright]



Display Save

If you set [Power Save] to On and the camera isn't operated during the specified time, the LCD screen turns off automatically.

- Sub menus
[Off]* : The camera will not turn off the LCD screen automatically.
[On] : If the camera isn't operated during the specified time (about 30 SEC.), the LCD screen turns off automatically. (Camera status lamp:Blinking)



※ You can't set [Power Save] menu in Playback Mode.

Settings (⚙)

- The items indicated by * are default settings.
- ※ Menus are subject to change without prior notice.

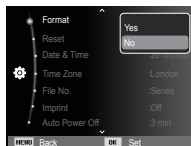
Formatting a memory

The [Format] function formats the camera's memory. When you run [Format] all images, including protected images, are deleted. Be sure to download important images to your PC before formatting the memory.

- Sub menus

[Yes] : A window for confirming the selection appears. If you Select [Yes], a [Formatting] message appears and the memory is formatted. When a [Format is completed] message appears, formatting is finished.

[No]* : The memory will not be formatted.



- Be sure to run [Format] on the following types of memory card:
 - A new memory card, or an unformatted memory card.
 - A memory card that has a file this camera can't recognize or a card that has been taken from another camera.
 - Always format the memory card using this camera. If you insert a memory card that has been formatted by another camera, a memory card reader, or a PC, you will get a [Card Error] message.

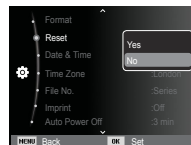
Initialization

Initialization restores all camera menu and function settings to their default values. However, values for Date & Time, Language, and Video Out are not changed.

- Sub menus

[Yes] : A window to confirm the selection is displayed. Select [Yes] and all settings are restored to their defaults.

[No]* : Settings are not restored to their defaults.

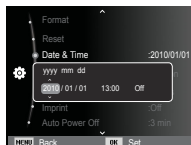


Settings (⚙)

Setting up the Date / Time / Date type

You can change the date and time that the camera displays on captured images and set up the date type. Setting [Time Zone] enables you to display the local date and time on the LCD screen when travelling overseas.

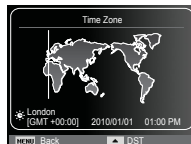
- Date type : [yyyy/mm/dd], [mm/dd/yyyy], [dd/mm/yyyy], [Off]*



Time Zone

■ Available cities/Time Zones:

London, Cape Verde, Mid-Atlantic, Buenos Aires, Sao Paulo, Newfoundland, Caracas, La Paz, NewYork, Miami, Chicago, Dallas, Denver, Phoenix, LA, San Francisco, Alaska, Honolulu, Hawaii, Samoa, Midway, Wellington, Auckland, Okhotsk, Guam, Sydney, Darwin, Adelaide, Seoul, Tokyo, Beijing, Hong Kong, Bangkok, Jakarta, Yangon, Almaty, Kathmandu, Mumbai, New Delhi, Tashkent, Kabul, Abu Dhabi, Teheran, Moscow, Athens, Helsinki, Rome, Paris, Berlin

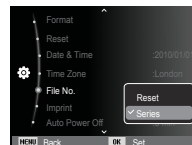


File name

This function allows you to select the file naming format.

[Reset] : After using the reset function, the next file name is started at 0001 even after you've formatted, deleted all, or inserted a new memory card.

[Series]* : New files are named using numbers that follow the previous sequence, even if you've installed a new memory card, formatted the memory, or deleted all pictures.



- The first stored folder name is 100PHOTO, and the first file name is SAM_0001.
- File names are assigned sequentially from SAM_0001 → SAM_0002 → to → SAM_9999.
- The folder number is assigned sequentially from 100 to 999 as follows: 100PHOTO → 101PHOTO → ~ → 999PHOTO.
- The maximum number of files in a folder is 9999.
- The files used with the memory card conform to the DCF (Design rule for Camera File systems) format. If you change the image file name, the image may not play back.

※ DST : Daylight Saving Time

Settings (⚙)

Imprinting the recording date

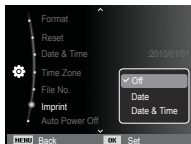
There is an option to include Date & Time on still images.

- Sub menus

[Off]* : The Date & Time is not imprinted on the image file.

[Date] : Only the Date is imprinted on the image file.

[Date & Time] : The Date & Time is imprinted on the image file.



※ The Date & Time are imprinted at the bottom right side of the still image.

※ The imprint function is applied only to still images.

※ Depending on the manufacturer and print mode, the date printed on an image may not be printed correctly.

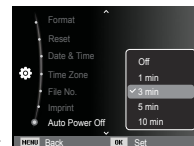
Auto power off

This function switches the camera off after a set amount of time to prevent unnecessary battery drainage.

- Sub menus

[Off] : The power off function does not operate.

[1 min], [3 min]*, [5 min], [10 min]
: The power turns off automatically if the camera is not used for the period of time specified.



- When you replace the battery, the power off setting will be preserved.

- Note that the automatic power off function will not operate if the camera is in the PC / Printer mode, running a slide show, playing back a voice recording, or playing back a movie clip.

Settings (⚙)

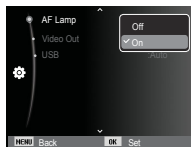
Auto Focus lamp

You can turn the Auto Focus lamp on and off.

- Sub menus

[Off] : The AF lamp does not light up in low light conditions.

[On]* : The AF lamp lights up in low light conditions.

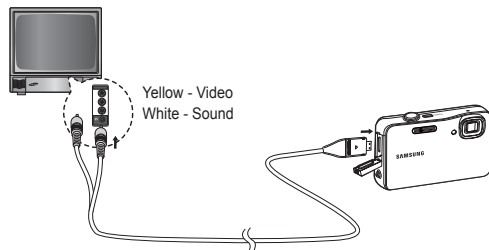


Selecting Video out type

The Video output signal from the camera can be NTSC or PAL. Your choice of output will be governed by the type of device (screen or TV, etc.) to which the camera is connected. PAL mode supports only PAL B, D, G, H, or I.

■ Connecting to an external screen

When the camera is connected to an external screen, the image and menus on the LCD screen will be visible on the external screen.



Settings ()

- NTSC : U.S.A, Canada, Japan, South Korea, Taiwan, Mexico etc.
- PAL : Australia, Austria, Belgium, China, Denmark, Finland, Germany, U.K., Holland, Italy, Kuwait, Malaysia, New Zealand, Singapore, Spain, Sweden, Switzerland, Thailand, Norway etc.
- When using a TV as an external screen, you need to select the external or AV channel of the TV.
- There will be digital noise on the external screen, but it is not a malfunction.
- If the image is not in the center of the screen, use the TV controls to center it.
- When the camera is connected to an external screen, some parts of the image may not be displayed.
- When the camera is connected to an external screen, the menu will be visible on the external screen and the menu functions are the same as those indicated on the LCD screen.

Setting the USB

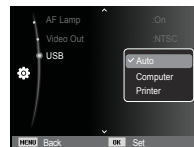
If the camera has failed to connect automatically with a PC or a printer through a USB cable, you can manually set [Computer] or [Printer].

-[USB] sub menus:


[Auto]* : Automatically enables an external device connected with a USB cable.

[Computer]: Sets the Computer connection mode if the camera does not recognize a connected computer automatically.

[Printer] : Sets the Printer connection mode if the the camera does not recognize a connected printer automatically.




Starting play mode

Turn the camera on and select Play mode by pressing the play mode button (). The camera can now play back the images stored on the memory.

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.

Playing back a still image

1. Select the Play mode by pressing the play mode button ().

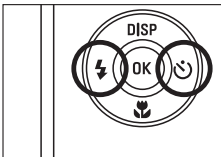


2. The last image stored in the memory is displayed on the LCD screen.



3. Select an image that you want to view by pressing the Left/ Right button.

※ Press and hold the Left or Right button to play back the images quickly.



Playing back a movie clip

1. Select the recorded movie clip that you want to play back by using the Left/Right button.



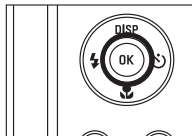
2. Press the OK button to play back a movie clip file.

- To pause a movie clip file while playing it back, press the OK button again.

- Press the OK button again to restart the movie clip.

- 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 OK button, and then press the Left or Right button.



Starting play mode

Movie clip capture function

You can capture still images from the movie clip.

■ Capturing a still image from a movie clip

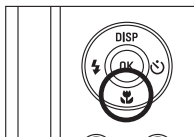
1. Press the OK button while playing the movie clip. Then press the Down button.
2. A still from the movie clip is saved under a new file name.

※ The captured movie clip still is the same size as the original movie clip (1280x720HQ, 640x480, 320x240).

※ When you press the down button at the beginning of the movie clip, the first frame of the movie clip is saved as a still image.



[Paused]



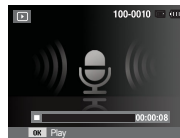
[Press the down button]

Playing back a recorded voice

1. Select the recorded voice file that you want to play back by using the Left/Right button.

2. Press the OK button to play back a recorded voice file.

- To pause a recorded voice file while playing it back, press the OK button again.
- To resume playback of the voice file, press the OK 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 Down button.



Starting play mode

Playing back a voice memo

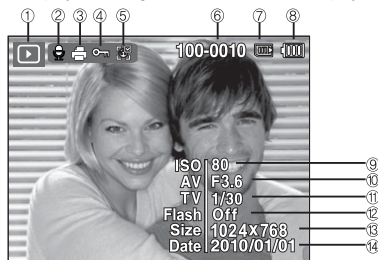
1. Select a still image that has a voice memo.
2. Press the OK button to play back the voice memo.
 - To pause the voice memo while playing it back, press the OK button again.
 - To resume playback of the voice memo, press the OK button.



- Still images with voice memos display a microphone icon on the top left side.

LCD screen Indicator

The LCD screen displays shooting information about the displayed image.



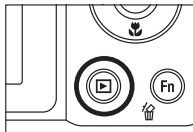
No.	Description	Icon	Page
1	Playback mode		p.63
2	Voice Memo		p.81
3	DPOF		p.82
4	Protect		p.80
5	Smart Face Recognition		p.45
6	Folder name & File name	100-0010	p.59
7	Memory indicator		-
8	Battery		p.15
9	ISO	80~3200	p.41
10	Aperture value	F3.6 ~ F4.8	p.26
11	Shutter speed	8 ~ 1/1,000	
12	Flash	On/Off	p.35
13	Image size	4000X3000 ~ 320X240	p.40
14	Recording date	2010/01/01	p.59

Using the camera buttons to set the camera

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

Play mode button

- 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 to turn off the camera.
- Manner mode: To select the Manner mode, press the Play mode button for more than 3 seconds. In the Manner mode, the camera does not generate Operating sound, Effect sound, Start-up sound, and Shutter sound. To cancel the Manner mode, turn on the camera by pressing the POWER button.

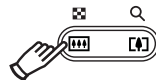


Thumbnail ([Grid]) / Enlargement ([Q]) button

Smart Album

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

1. Once a picture has been played back, press the Thumbnail button to run Smart Album mode.
2. Press the Left/Right button to move to a desired image.
3. Press the Digital Zoom button to return to the normal display mode.



[Highlighted image]

Pressing the thumbnail button ([Grid])

Pressing the enlargement button ([Q])



[Smart Album 1-Thumbnail Window]

Thumbnail () / Enlargement () button

■ To search for an image, follow these steps:

1. Press the Thumbnail button in Smart Album.

- Each time you press the Thumbnail button, you increase the number of thumbnails the camera displays, from 3 to 9 to 20. Pressing the button decreases the number of thumbnails the camera displays. See the illustrations below.



2. Use the Up/Down/Left/Right buttons to select an image.

■ To delete an image, follow these steps:

1. Follow Steps 1 and 2 above.
2. Press the Delete button. The Delete window appears.
3. Press the Up/Down button to select Yes, and then press the OK button.



[1-Thumbnail Window]



[9-Thumbnail Window]



[20-Thumbnail Window]



- In Smart Album, it may take a few seconds for images to appear, depending the number of images you've recorded. This is not a malfunction. Please wait until the Smart Album screen appears.

■ Smart Album Filter

1. Press the MENU button in Smart Album mode. A list of categories appears on the left of the screen.
2. Use the Up/Down button to move up or down the list.
3. Press the OK button to select a category. The camera selects the images that fit the category, then displays them in the Smart Album format.



■ Details of Each Category

Category	Description	File Format
Type	Categorized depending on the file type (e.g., picture, video, or voice)	Pictures, Videos, Voice
Date	Categorized depending on the sequence of recorded dates.	
Color	Categorized depending on the main color.	
Week	Categorized depending on the sequence of recorded weeks.	
Face	Categorized depending on the faces photographed in the Face Detection mode.	

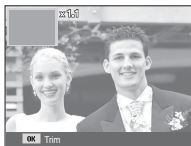
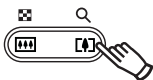


- The [Face] category appears only if there are faces that were photographed in the Face Detection mode.

Thumbnail () / Enlargement () button

■ Image enlargement

1. Select an image you want to enlarge, and then press the enlargement button.
2. Press the Digital Zoom button repeatedly to make the image larger.
3. Press the Up/Down/Left/Right sides of the 5 Function button to view different portions of the enlarged image.
4. Push the Thumbnail button repeatedly to decrease the size of the image.
 - You can tell whether the image displayed is an enlarged view by checking the image enlargement indicator shown at the top left of the LCD screen. 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.

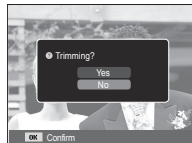


■ The maximum enlargement rate in proportion to the image size

Image size	12m	10m	9m	8m	5m	3m	1m
Maximum enlargement rate	X12.5	X10.4	X10.3	X10.2	X8.1	X6.4	X3.2

■ 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. Press the OK button and a message will be displayed.
2. Select a desired sub menu by pressing the Up / Down button, and then press the OK button.
 - [Yes] : The trimmed image is saved as a new file name, and appears on the LCD screen.
 - [No] : The trimming menu will disappears.

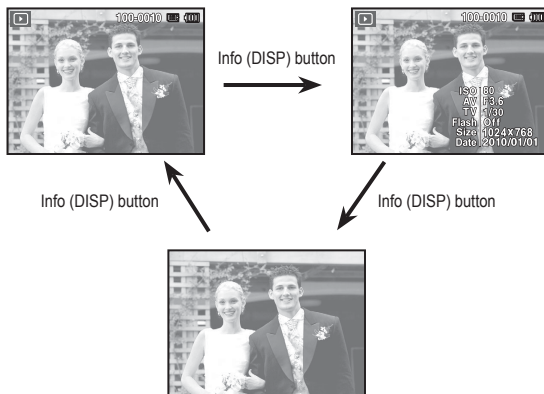


※ If there is not enough memory space to save the trimmed image, the image can't be trimmed.

Info (DISP) / Up button

When the menu is displayed on the LCD screen, the Up (DISP) button operates as a direction button.

When an image is displayed on the LCD screen, pressing the Up (DISP) button repeatedly displays image information on the LCD screen.



Play & Pause / OK button

In Play mode, the play & pause/ OK button works as follows:

- When the menu is displayed on the LCD screen, the OK button is used for confirming data that you have changed using the 5 function button.
- 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.



[Voice recording is stopped]

[Voice recording is playing]

[Voice recording is paused]

Left / Right / Down / MENU button

Left / Right / Down / MENU buttons activate the following.

- Left button : While the menu is showing, the Left button operates as a direction button. While the menu is not showing, press the Left button to select the previous image.
- Right button : While the menu is showing, the Right button operates as a direction button. While the menu is not showing, press the Right button to select the next image.
- Down button : While the menu is showing, the Down button operates as a direction button.
- MENU button: When you press the MENU button, the play mode menu is displayed on the LCD screen. Pressing it again will return the LCD to the initial display.

Delete () button

This deletes images stored in the memory.

■ To delete a single image, follow these steps:

1. Press the Play mode button to view images.
2. Press the Left/Right button to select an image you want to delete.
3. Press the Delete button. The camera displays the Delete File window.
4. Press the Up/Down button to select Yes, and then press the OK button.



[Single Image]

※ You can also delete images in Thumbnail mode. See page 67.



■ To delete multiple images, follow these steps:



1. Press the Play mode button to view images.
2. Press the Delete button. The camera displays the Delete File window.
3. Use the Up/Down button to select Multiple Delete, and then press the OK button.
4. Use the Left/Right button to move to an image you want to delete.
5. Press the OK button to mark an image for deletion. A check appears on the image.
6. After you've selected all the files you want to delete, press the Delete button. The camera displays a message asking if you want to delete.
7. Use the Up/Down button to select Yes, and then press the OK button.



Setting the playback functions using the LCD Screen


You can change Playback functions using menus displayed on the LCD screen. To display the Playback menus while in Playback mode, press the Menu button. To close the Playback menus, press the Play mode button or the Shutter button. The Playback menus are listed in the tables below.


Menu Tab	Main Menu	Sub Menu		Page
	Resize	2592X1944	2048X1536	p.73
		1024X768	2592X1728	
		1800X1200	2592X1456	
		1920X1080	Start Image	
	Rotate	Right 90°	Left 90°	p.74
		180°	-	
	Photo Style Selector	Normal	Soft	p.74
		Vivid	Forest	
		Retro	Cool	
		Calm	Classic	
		Negative	Sketch	
		Defog	Custom RGB	
	Smart Filter	Normal	Miniature	p.75
		Vignetting	Fish-eye	
	Image Adjust	Off	ACB	p.76
		Red-eye Fix	Face Retouch	
		Brightness	Contrast	
		Saturation	Add Noise	
Multi Slide Show 	Start	Play / Repeat	-	p.77
	Images	All	Date	p.78
		Select	-	

Menu Tab	Main Menu	Sub Menu		Secondary Menu	Page
Multi Slide Show 	Interval	1, 3, 5, 10 sec		-	p.79
	Music	Off	Mist	-	p.79
		Drops	Muse	-	
		Trip	Fall	-	
	Effect	Off	Calm	-	p.79
		Shine	Relax	-	
		Lively	Sweet	-	
File Options 	Delete	Select		-	p.80
		All		Yes / No	
	Protect	Select		-	p.80
		All		Unlock / Lock	
	Face List Edit	Edit Ranking		-	p.81
		Delete My Star		-	
	Voice memo	Off		-	p.81
		On		-	
	DPOF	Standard		Select / All / Reset	p.82 ~ p.83
		Index		Yes / No	
		Size		Select / All / Reset	
	Copy to Card	Yes		-	p.84
		No		-	

Setting the playback PictBridge function using the LCD screen

This menu is available while the camera is connected to a PictBridge supporting printer (direct connection to the camera, sold separately) with a USB cable.

Menu Tab	Main Menu	Sub Menu	Secondary Menu	Page
	Images	One Photo	-	p.86
		All Photos	-	
	Size	Auto	-	p.86
		Postcard	-	
		Card	-	
		4X6	-	
		L	-	
		2L	-	
		Letter	-	
		A4	-	
		A3	-	
	Layout	Auto	-	
		Full	-	
		1	-	
		2	-	
		4	-	
		8	-	
		9	-	
		16	-	
		Index	-	

Menu Tab	Main Menu	Sub Menu	Secondary Menu	Page
	Type	Auto	-	p.86
		Plain	-	
		Photo	-	
		Fast Photo	-	
	Quality	Auto	-	
		Draft	-	
		Normal	-	
		Fine	-	
	Date	Auto	-	
		Off	-	
		On	-	
	File Name	Auto	-	
		Off	-	
		On	-	
	Reset	Yes	-	p.87
		No	-	

※ Menus are subject to change without prior notice.

Edit ()

Resize

Change the resolution (size) of pictures taken. Select [Start image] to save an image to be the start-up image.


1. Press the Play mode button.
2. Press the Left/Right button to select an image.
3. Press the Menu button.
4. Press the Up/Down button (if necessary) to select Edit, and then press the OK button.
5. Press the Up/Down button (if necessary) to select Resize, and then press the OK button.
6. Press the Left/Right button to select a size or the Start Image icon to make this image the Start image, and then press the OK button.











■ Image Resize Tables

The current image sizes are on the left side of the table. The available resize dimensions are on the top.

(o : Sizes you can select)

	5m	3m	1m	
12m	o	o	o	o
8m	o	o	o	o
5m		o	o	o
3m			o	o
1m				o

			
	o	o	o

			
	o	o	o

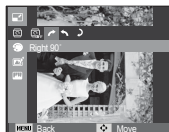
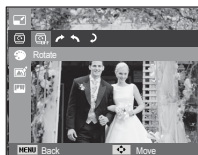
- You can resize a large sized image to a smaller size, but not vice versa.
- You can only resize JPEG images. Movie clip (MP4), Voice recording (WAV) files can't be resized.
- You can change the resolution of only those files compressed in the JPEG 4:2:2 format.
- The [Start Image] image is not stored in the memory card but in the internal memory.
- If you save a new Start Image, the original Start Image is deleted.
- If the memory capacity is insufficient to store the resized image, a [Memory Full] message appears on the LCD screen and the resized image is not stored.


Edit ()

Rotating an image


You can rotate stored images.

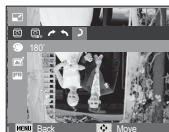
1. Press the Play mode button.
2. Press the Left/Right button to select an image.
3. Press the Menu button.
4. Press the Up/Down button (if necessary) to select Edit, and then press the OK button.
5. Press the Up/Down button to select Rotate, and then press the OK button.
6. Press the Left/Right button to select how much you want the picture rotated, and then press the OK button. The camera saves the rotated image as a new file.




[ : Right 90°]
: Rotate picture in a
clock-wise direction



[ : Left 90°]
: Rotate picture in a
counter-clock-wise direction



[ : 180°]
: Rotate picture 180
degrees













※ If you display the rotated image on the LCD screen, empty spaces may appear to the left and right of the image.

Photo Style Selector

You can apply various effects to your images by using this function.

1. Press the Play mode button.
2. Press the Left/Right button to select an image.
3. Press the Menu button.
4. Press the Up/Down button (if necessary) to select Edit, and then press the OK button.
5. Press the Up/Down button to select Photo Style Selector, and then press the OK button.
6. Press the Left/Right button to select a Photo Style, and then press the OK button. The camera saves the changed image as a new file.



Style mode	Icon	Description
Normal		No style effect is applied.
Soft		Soft style is applied.
Vivid		Vivid style is applied.
Forest		Forest style is applied.
Retro		Sepia style is applied.
Cool		Cool style is applied.
Calm		Calm style is applied.
Classic		Black & white effect is applied.
Negative		Negative effect is applied.
Sketch		Sketchy style is applied.
Defog		Distinct style is applied.
Custom RGB		Define an RGB tone to create your own photo style.

Edit ()

■ Custom RGB

If you select the Custom RGB Photo Style, you can change the Red (R), Green (G), and Blue (B) values of an image.

- OK button : Select / setup the Custom Color
- Up / Down button : Selects R, G, B
- Left / Right button : Change the R, G, or B value







Smart Filter

Apply various filter effects to your photos to create unique images.

1. Press the Play mode button.
2. Press the Left/Right button to select an image.
3. Press the Menu button.
4. Press the Up/Down button (if necessary) to select Edit, and then press the OK button.
5. Press the Up/Down button to select Smart Filter, and then press the OK button.
6. Press the Left/Right button to select a Smart Filter function, and then press the OK button. The camera saves the changed image as a new file.



Smart Filter	Icon	Description
Normal		No effect
Miniature		Make a photo of a life-size location or object look like a photo of a miniature scale model. Blurring parts of the photo makes the scene seem much smaller than it actually is.
Vignetting		Apply the retro-looking colors, high contrast, and strong vignette effect
Fish-eye 1		Distort close objects to imitate the visual effect of a fisheye lens.


Edit ()

Image Adjust

1. Press the Play mode button.
2. Press the Left/Right button to select an image.
3. Press the Menu button.
4. Press the Up/Down button (if necessary) to select Edit, and then press the OK button.
5. Press the Up/Down button to select Image Adjust, and then press the OK button.

■ ACB


You can automatically adjust the brightness of dark areas, caused by under exposure to the light exposure.

1. Select () by pressing the Left/Right button, and then press the OK button.
2. The [Making New Image] message is displayed and the camera saves the image as a new file.



■ Red eye Removal


You can remove the red eye effect from the captured image.

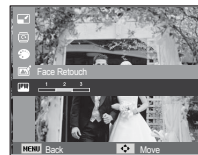
1. Select () by pressing the Left/Right button, and then press the OK button.
2. The [Making New Image] message is displayed and the camera saves the image as a new file.



■ Face Retouch


You can make the skin in an image appear clear and beautiful.

1. Select () by pressing the Left / Right button. The [Processing] message appears.
2. Press the OK button. The Face Retouch bar appears.
3. Use the Left / Right button to select 1, 2, or 3. The [Processing] message appears.
4. Press the OK button. The camera saves the adjusted image as a new file.



■ Brightness control

You can change the brightness of the image.


1. Select () by pressing the Left/Right button, and then press the OK button. A bar for selecting the brightness appears.
2. Change the brightness by pressing the Left/Right button.
3. Press the OK button and the camera saves the image as a new file.



Edit ()

■ Contrast control


You can change the contrast of the image.

1. Select () by pressing the Left/Right button, and then press the OK button. A bar for selecting the contrast will appear.
2. Change the contrast by pressing the Left/Right button.
3. Press the OK button and the camera saves the image as a new file.



■ Saturation control


You can change the saturation of the image.

1. Select () by pressing the Left/Right button, and then press the OK button. A bar for selecting the saturation appears.
2. Change the saturation by pressing the Left/Right button.
3. Press the OK button and the camera saves the image as a new file.



■ Noise effect

You can add noise to an image to add a more classic feel to your photo.

1. Select () by pressing the Left/Right button, and then press the OK button.
2. The [Making New Image] message appears and the camera saves the image to a new file.



Starting the Multi Slide Show ()

Images can be displayed continuously at pre-set intervals.

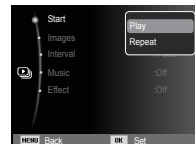
You can view the Multi Slide Show by connecting the camera to an external screen.

1. Press the play mode button and press the MENU button.
2. Press the Up / Down button and select the [Multi Slide Show] menu tab and press the OK button.

Start the Multi Slide Show

The Multi Slide Show can start only in the [Start] menu.

1. Use the Up / Down button to select the [Start] menu and press the Right button.
2. Select a desired function by pressing the Up / Down button.
[Play] : The Multi Slide Show is stopped after one cycle.
[Repeat] : The Slide show is repeated until cancelled.
3. Press the OK button and the slide show starts.
 - To pause the slide show while playing it back, press the OK button again.
 - Pressing the OK button again restarts the Multi Slide Show.
 - To stop playback of the Multi Slide Show, press the OK button, and then press the Left or Right button.

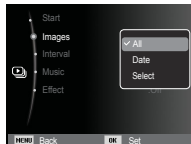


Starting the Multi Slide Show ()

Selecting Images

You can select images to view in a slide show.

1. Use the Up / Down button to select the [Images] menu, and then press the Right button.
2. Select a desired sub menu by pressing the Up / Down button.



- [All] : All images saved on the Memory are played back. Press the OK button to save the configuration.
- [Date] : Images taken on a specified date are played back. Press the OK button to save the configuration.
- [Select] : To play groups of selected images. [Select] lets you collect images into separate groups labeled [Select1], [Select2], or [Select3]. When you play a slide show, you select the group you want to play.



To collect images into a group, follow these steps:

1. In the Multi Slide Show menu, use the Up / Down button to select Images, and then press the OK button.
2. Use the Up / Down button to select [Select], and then press the OK button. The Select window appears.
3. Press the Up / Down button to select [New Select] (if necessary), and then press the OK button. The camera displays Processing, and then displays image thumbnails.
4. Press the Up / Down / Up / Down button to highlight an image. Press the OK button to select the image. A check mark appears on the image. (The images will appear in the order you select them.)
5. Repeat Step 4 for each image you want to included. Press the Fn button when done.

To play a slide show of a group of selected images, follow these steps:

1. On the Multi Slide Show menu, use the Up / Down button to select [Images], and then press the OK button.
2. Use the Up /Down button to select [Select] (or Select 1, 2, or 3, depending on what your camera is displaying), and then press the OK button. The Select window appears.
3. On the Select window, use the Up / Down button to select the group you want to play, [Select 1, 2, or 3]. The thumbnail screen for that group appears.
4. Press the Fn button. You are returned to the Main menu.
5. Select [Multi Slide Show] again, and then press the OK button.
6. Select [Start], and then press the OK button.
7. Select [Play] for single cycle play or [Repeat] for continuous, repetitive play, and then press the OK button. The slide show begins.

Notes:

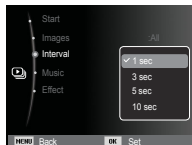
- When you save the first group, it is saved as [Select1]. When you save a second group, that group is saved as [Select1] and the previous group is saved as [Select2]. When you save a third group, that group is saved as [Select1], the previous [Select1] group is saved as [Select2], and the previous [Select2] group is saved as [Select3]. If you save a fourth group, the fourth group supplants the previous [Select1], the previous [Select1] group supplants the [Select2] group, and the [Select2] group supplants the [Select3].

Starting the Multi Slide Show ()

Setting play interval

To set the Multi Slide Show play interval:

1. Select the [Interval] sub menu by pressing the Up / Down button, and then press the Right button.
2. Use the Up / Down button to select the desired interval.
3. Press the OK button to save the configuration.

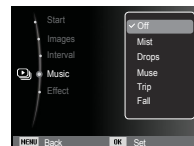


- The loading time depends on the image size and quality.
- While the Multi Slide Show is playing, Movie clips and voice recording file will not display.
- The interval menu functions only when Effect is set to [Off].

Setting Background Music

To set the Multi Slide Show music:

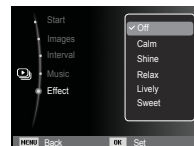
1. Select the [Music] sub menu by pressing the Up / Down button, and then press the Right button.
2. Use the Up / Down button to select the desired Music.
3. Press the OK button to save the configuration.



Configure Multi Slide show effects

You can apply unique screen effects to Multi Slide Shows.

1. Select the [Effect] sub menu by pressing the Up / Down button, and then press the Right button.
2. Use the Up / Down button to select the type of effect.
3. Press the OK button to confirm the setting.



File Options ()

1. Press the play mode button, and then press the menu button.
2. Press the Up / Down button, select the [File Options] menu tab, and then press the OK button.

Deleting images

Use this to delete images stored in the memory.

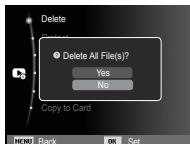
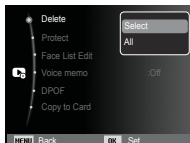
1. Press the Up / Down button, select the [Delete] menu tab, and then press the Right button.
2. Press the Up/Down button to select a desired sub-menu, and then press the OK button.

If you chose [Select], a thumbnail screen appears.

- Use Up/Down/Left/Right to select an image.
- Press the OK button to mark an image for deletion.
- Press the Fn button to display the Delete Confirmation window. Select [Yes], and then press the OK button to delete the marked images.

If you chose [All], the Delete Confirmation window appears. Select [Yes], and then press the OK button to delete all unprotected images. If there are no protected images, all images are deleted and the [No Image File] message appears.

3. After deletion, the screen will be changed to the play mode screen.



- The Delete function deletes unprotected images permanently. Before you run the Delete function, store all important shots on a computer. The startup image is stored on the camera's internal memory (i.e., not on the memory card) and it will not be deleted even if you delete all files in the memory.

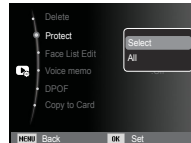
Protecting images

Use this to protect specific shots from being accidentally erased (Lock). It also unprotects images that have been previously protected (Unlock).

1. Press the Up / Down button, select the [Protect] menu tab, and then press the Right button.
2. Press the Up/Down button to select a desired sub-menu, and then press the OK button.

If you chose [Select], a thumbnail screen appears.

- Use Up/Down/Left/Right to select an image.
- Press the OK button to protect an image or remove protection from an image. When you protect an image, a key appears on the image. When you unprotect, the key is removed.
- Press the Fn button to save your changes.



File Options ()

If you chose [All], the Protect All window appears. Select [Lock] to protect all images. Select [Unlock] to remove protection from all images. Press OK to complete the process.



Face List Edit

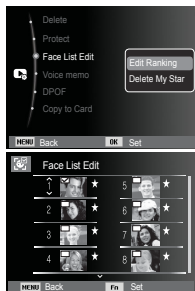
You can classify or delete portrait images in the Smart Album according to their ranking. This feature is available only when you use a memory card.

1. Press the Up / Down button to select the [Face List Edit] menu, and then press the Right/OK button.
2. Select a desired menu by pressing the Up / Down button, and then press the OK button.

[Edit Ranking] : You can change the rankings of registered images.

[Delete My Star] : You can delete selected images from the list.

3. Press the MENU button to switch to the Playback mode.



Voice memo

You can add your voice to a stored still image.



[Voice memo menu]

[Ready for recording]

[Voice is recording]

1. Select a picture.
2. Press the Menu button.
3. Use the Up / Down button to select File Options, and then press the OK button.
4. Use the Up / Down button to select Voice Memo, and then press the OK button.
5. Select On, and then press the OK button.
6. Press the Shutter button. The 10 second recording period begins momentarily.
7. To stop recording before the 10 seconds have elapsed, press the Shutter button again.

File Options ()

DPOF

- DPOF(Digital Print Order Format) allows you to embed printing information in your memory card's MISC folder. Select the pictures to be printed and how many prints to make.
- The DPOF indicator displays on the LCD screen when an image that has DPOF information plays back. Images can then be printed on DPOF printers, or at an increasing number of photo labs.
- This function is not available for Movie clips and Voice recording files.
- When the wide angle image is printed as a wide angle print, 8% of the left and right side of the image may not be printed. Check that your printer can support the wide angle image when you print the image. When you get the image printed at a photo lab, request that the image be printed as a wide angle image. (Some photo labs may not support the wide angle size print.)

■ Standard

This function allows you to embed printing quantity information on a stored image.

1. Press the Up / Down button, select the [DPOF] menu tab, and then press the Right button.
2. Press the Right button again and the [Standard] sub-menu appears.
3. Select a desired sub-menu by pressing the Up / Down button, and then press the OK button.

[Select] : The selection window appears. Lets you select photos to print.

- Up / Down / Left / Right : Select an image to print.


- Zoom button :

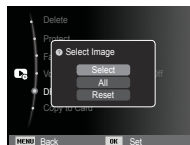
Select the number of prints. The number appears on the thumbnail. You can select the number of prints for multiple photos. Press the Fn button to confirm.

[All] : Configure number of prints for all pictures except movie and voice files.

- Up / Down button : Select a number of prints. The number appears on the LCD screen. Use the Up/Down button to select a number. Press the OK button to confirm.

[Reset] : Cancel the print setup.

4. Press the OK button to confirm the setting. If an image carries DPOF instruction, the DPOF indicator () appears on the image.



File Options ()

■ Index

Images (except for movie clips and voice files) are printed as index type.

1. Press the Up / Down button, select the [DPOF] menu tab, and then press the Right button.
2. Select the [Index] menu, and then press the Right button again. Sub menu will appear.
3. Select [Yes] or [No] by pressing the Up / Down button.
If [Yes] is selected : The image will be printed in index format.
If [No] is selected : Cancel the index print setting.
4. Press the OK button to confirm the setting.



■ Print size

You can specify the print size when printing images stored on the memory card. The [Size] menu is available only for DPOF 1.1 compatible printers.

1. Press the Up / Down button, select the [DPOF] menu tab, and then press the Right button.
2. Select the [Size] menu, and then press the Right button again. The Sub-menu appears.
3. Select a desired sub menu by pressing the Up / Down button and press the OK button.

[Select] : The selection window appears.

Lets you choose the print size of images to be printed.

- Up / Down / Left / Right : Select an image.
- Zoom button : Change the print size.
- Fn button : Press to save the sizes you chose. The menu will disappear. The size appears on the thumbnail.

[All] : Change print size of all saved images.

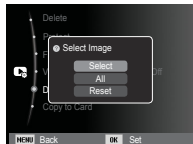
- Up / Down button : Select a print size.
- OK button : Press to confirm the size you chose. The size appears on the LCD screen.

[Reset] : Cancel all of the print size settings.

※ DPOF [Size] secondary menu : Cancel, 3X5, 4X6, 5X7, 8X10



- Depending on the manufacturer and printer model, cancelling the printing may take a little longer for the printer to process.

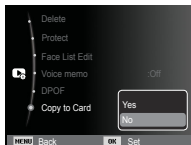


File Options ()

Copy to Card

This enables you to copy image files, movie clips and voice recording files to the memory card.

1. Select the [Copy to Card] menu tab by pressing the Up / Down button, and then press the Right button.
2. Press the Up/ Down button to select [Yes] or [No], and then press the OK button.
 - [Yes] : Copies all images, movie clips, and voice recording files saved in the internal memory to the memory card after the [Copying] message is displayed. After copying is complete, the screen returns to Playback mode.
 - [No] : Cancels "Copy to Card".



- If there is not enough space available on the memory card to copy saved images from the internal memory (About 20MB), the [Copy to Card] command copies only some of the images and then displays the [Memory Full] message. Then, the camera returns to the Playback mode. Please be sure to delete any unnecessary files on the memory card to free space before inserting the card into the camera.
- When you move the images that are stored in the internal memory to the card using [Copy to Card], the camera names the files in the following two ways to avoid duplicating file names:
 - When [File No.] in the Settings menu is set to [Reset], the copied file names start from after the last stored file name.
 - When [File No.] is set to [Series] in the Settings menu, the copied file names start from after the last captured image's file name. After completing [Copy to Card], the last stored image of the last copied folder is displayed on the LCD screen.

PictBridge

You can use the USB cable to connect this camera to a printer that supports PictBridge (sold separately) and print the stored images directly. Movie clips and voice files cannot be printed.

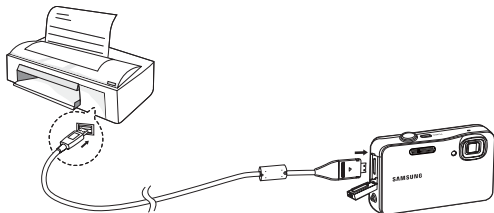
■ Connecting the camera to a Pictbridge compatible printer

1. Connect the camera to the printer with USB cable.
2. Once the camera is turned on, the camera automatically recognizes the printer and completes the connection.

※ If automatic connection fails, set the [USB] menu to [Printer].
(p.62)

※ For a printer that can enable a removable disk, set the [USB] menu to [Printer].

■ Connecting the Camera to a Printer

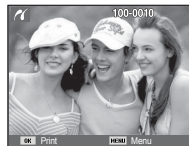


■ Easy printing

When you connect the camera in Playback mode to a Pictbridge compatible printer, you can print a picture easily.

- Pressing the Left / Right button :
Selects the previous / next image.
- Pressing the OK button :

Prints the currently displayed image using the printer's default settings.

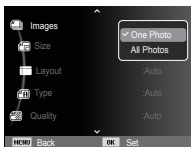


PictBridge : Picture Selection

You can select the images you want to print.

■ Setting the Number of Copies to Print

1. Press the MENU button and the PictBridge menu appears.
2. Use the Up / Down button to select the [Images] menu, and then press the Right button.
3. Use the Up / Down button to select a desired sub-menu, and then press the OK button.
 - Select [One Photo] or [All Photos]. A screen where you can set the number of copies to print will appear as shown below.



[When [One Photo] is selected]



[When [All Photos] is selected]

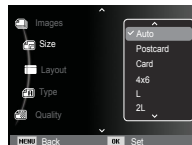
- Press the Up / Down button to select the number of prints.
- When [One Photo] is selected : Use the Left / Right button to select another picture. After selecting another picture, select the number of prints for the other picture.
- After setting the number of prints, press the OK button to save.
- Press the Shutter button to return to the menu without setting the number of prints.

4. Press the play mode button () and images will be printed.

PictBridge : Print Setting

You can select the Paper Size, Print Format, Paper Type, Print Quality, Date Print, and File Name Print menus for printed pictures.

1. Press the MENU button and the PictBridge menu appears.
2. Use the Up / Down button to select the desired menu, and then press the Right button.
3. Use the Up / Down button to select the desired sub-menu value, and then press the OK button.



Menu	Function	Sub menu
Size	Set the size of the printing paper.	Auto, Postcard, Card, 4X6, L, 2L, Letter, A4, A3
Layout	Set the number of pictures to be printed on a sheet of paper.	Auto, Full, 1, 2, 4, 8, 9, 16, Index
Type	Set the quality of the printing paper.	Auto, Plain, Photo, Fast Photo
Quality	Set the quality of the picture to be printed.	Auto, Draft, Normal, Fine
Date	Set whether to print the date.	Auto, Off, On
File Name	Set whether to print the file name.	Auto, Off, On

※ Some menu options are not supported on all printers.

If not supported, the menus are still displayed on the LCD, but are not selectable.

PictBridge : Reset

Resets user-changed configurations.

1. Use the Up / Down button to select the [Reset] menu tab, and then press the Right button.
2. Use the Up / Down button to select [Yes] or [No], and then press the OK button.



If [Yes] is selected : All print and image settings are reset.

If [No] is selected : Settings are not reset.

- ※ Default print settings vary depending on the printer manufacturer.
For your printer's default settings, refer to the user's guide that came with your printer.

Important notes

Be sure to observe the following precautions!

- This unit contains precision electronic components. Do not use or store this unit in the following locations.
 - Areas exposed to severe changes in temperature and humidity.
 - Areas exposed to dust and dirt.
 - Areas exposed to direct sunlight or the inside of a vehicle in hot weather.
 - Environments where there is high magnetism or excessive vibration.
 - Areas with high explosives or highly flammable materials.
- Do not leave this camera in places subject to dust, chemicals (like naphthalene and mothballs), high temperature and high humidity. Keep this camera with silica gel in a hermetically sealed box when not planning to use the camera for a long period of time
- Sand can be particularly troublesome to cameras.
 - Do not let sand get inside the camera when using it on beaches, coastal dunes, or other areas where there is lots of sand.
 - Doing so may result in failure or may permanently render the camera unusable.
- Handling the camera
 - Never drop the camera or subject it to severe shocks or vibrations.
 - Protect the large size LCD screen from an impact. When this camera is not used, keep it in the camera case.
 - Avoid obstructing the lens or the flash when you capture an image.

Important notes

- Extremes in temperature may cause problems.
 - If the camera is transferred from a cold to a warm and humid environment, condensation can form on the delicate electronic circuitry. If this occurs, turn the camera off and wait for at least 1 hour until all moisture is dispersed. Moisture build-up can also occur on the memory card. If this happens, turn off the camera and remove the memory card. Wait until the moisture has evaporated.
- Caution on Using the Lens
 - If the lens is subjected to direct sunlight, it could result in the discoloration and deterioration of the image sensor.
 - Take care not to get fingerprints or foreign substances on the surface of the lens.
- If the digital camera is not used for a long period, an electric discharge can occur. It is a good idea to remove the battery and the memory card if you do not intend to use the camera for an extended period of time.
- If the camera is exposed to electronic interference, it will turn itself off to protect the memory card.
- Camera Maintenance
 - Use a soft brush (available from photo stores) to gently clean the lens and LCD assemblies. If this does not work, lens-cleaning paper with lens cleaning fluid can be used.
Clean the camera body with a soft cloth. Do not allow this camera to come into contact with solvent materials such as benzol, insecticide, thinners etc. This may damage the body shell of the camera and also affect its performance. Rough handling can damage the LCD screen. Take care to avoid damage and keep the camera in its protective carry case at all times when not in use.
- Do not attempt to disassemble or modify the camera.
- Under certain conditions, static electricity can cause the flash unit to fire. This is not harmful to the camera and is not a malfunction.
- When images are uploaded or downloaded, the data transfer may be affected by static electricity. In this case, disconnect and re-connect the USB cable before trying the transfer again.
- Before an important event or going on a trip, you should check the camera condition.
 - Take a picture to test the camera's condition and prepare an extra battery.
 - Samsung cannot be held responsible for camera malfunctions.
- If the digital camera is not used for a long period, the date and time may return to the default settings because the battery has discharged. In this case, reset the date and time before the recording.

Warning indicator

There are several warnings that may appear on the LCD display.

[Card Error]

- Memory card error.
 - Turn off the camera power and turn it on again.
 - Insert the memory card again.
 - Insert and format the memory card. (p.58)

[Card Locked]

- The memory card is locked.
 - SD/SDHC memory card : Slide the write protect switch to the top of the memory card.

[Memory Full]

- The memory card or internal memory is full.
 - Insert new memory card.
 - Delete the unnecessary image files.

[No Image File]

- There are no images stored on the memory.
 - Take images.
 - Insert a memory card that is holding some images.

[File Error]

- File error.
 - Delete the file.
- Memory card error.
 - Contact a camera service center.

[Low Battery]

- There is low battery capacity.
 - Insert a fresh battery.
 - Charge the battery.

Before contacting a service center

Please check the following

The camera doesn't switch on.

- There is low battery capacity.
 - Insert a fresh battery. (p.15)
 - Charge the battery.
- Battery is inserted incorrectly with the polarities reversed.
 - Insert the battery according to the polarity marks. (+, -)

The camera power ceases while in use.

- The battery is exhausted.
 - Insert a fresh battery. (p.15)
 - Charge the battery.
- The Camera is turned off automatically.
 - Turn on the camera power again.
- The camera has stopped working in a cold environment.
 - Take the battery out of the camera and warm both by placing them in your pocket, etc. and then immediately before shooting, place the battery in the camera and then shoot.

Water got inside the camera.

- The battery chamber cover was accidentally opened under water.
- The camera was dropped into water while its battery chamber cover was not completely closed.
 - Turn the camera power off. Contact a Samsung service center for repair.

Camera does not take images when you press the Shutter button.

- There is insufficient memory capacity.
 - Delete unnecessary image files.
- The memory card has not been formatted.
 - Format the memory card. (p.58)
- The memory card is exhausted.
 - Insert a new memory card.
- The memory card is locked.
 - Refer to the [Card Locked] error message.
- The camera's power is off.
 - Turn the camera power on.
- The battery is exhausted.
 - Insert a charged battery or recharge the battery. (p.15)
- The battery is inserted incorrectly with the polarities reversed.
 - Insert the battery according to the polarity marks. (+, -)

The camera suddenly stops working while in use.

- The camera stopped due to a malfunction.
 - Remove /re-insert battery and switch the camera on.

The images are unclear.

- A picture was taken of the subject without setting an appropriate macro mode.
 - Select an appropriate macro mode to take a clear image.
- The picture was taken beyond the flash's range.
 - Take a picture within the flash's range.
- The lens is smudged or dirty.
 - Clean the lens.

Before contacting a service center

The flash does not fire.

- Flash off mode has been selected.
→ Disengage flash off mode.
- The camera mode can't use the flash .
→ Refer to the FLASH instructions (p.35).

Incorrect date and time is displayed.

- The date and time have been set incorrectly or the camera has adopted the default settings.
→ Reset the date and time.

The camera buttons do not operate.

- The camera has malfunctioned.
→ Remove/re-insert battery and switch the camera on.

A card error has occurred while the memory card is in the camera.

- The memory card format is incorrect.
→ Re-format the memory card. (p.58)

The images don't play back.

- Incorrect file name (Violation of DCF format).
→ Do not change the image file name.

Color of image is different to the original scene.

- White balance or effect setting is incorrect.
→ Select the appropriate White balance and effect.

Images are too bright.

- Exposure is excessive.
→ Reset exposure compensation.

No image on external screen.

- The external screen has not been connected properly to the camera.
→ Check the connection cables.
- There are incorrect files on the memory card.
→ Insert a memory card that has correct files.

The [Removable Disk] file does not appear in my computer's file system.

- The cable connection is incorrect.
→ Check the connection.
- The camera is off.
→ Turn the camera on.
- The operating system is not Windows XP, Vista, 7 / Mac OS 10.4. Alternatively the PC does not support USB.
→ Install Windows XP, Vista, 7 on a PC or Mac OS 10.4 or later on a computer that supports USB.

A part of the LCD screen does not occasionally turn on or a spot appears.

- Although the LCD screen is manufactured with high precision technology, the precision pixels occasionally do not light or red, white, and blue spots appear.
→ This phenomenon does not affect the quality of the recorded image and it is not a malfunction.

A vertical line appears on the LCD screen when taking a picture of a bright object.

- If a subject is reflecting a very bright light, a gray, black, red, or purple vertical line may appear.
→ This is a phenomenon called smear and it does not affect the quality of the recorded image. This is not a malfunction.

Specifications

Image Sensor

Type : 1/2.33" CCD

Effective Pixel : Approx. 12.2 Mega-pixel

Total Pixel : Approx. 12.4 Mega-pixel

Lens

Focal Length : SAMSUNG Lens f = 6.3 ~ 31.5mm
(35mm film equivalent : 35 ~ 175mm)

F No. : F3.6(W) ~ F4.8(T)

Digital Zoom : Still Image mode : 1.0X ~ 5.0X
Play mode : 1.0X ~ 12.5X
(depends on image size)

LCD screen

2.7" color TFT LCD (230,000 dots)

Waterproof Specification

Max. 3 m underwater (IEC IPX8)

Dustproof Specification

IEC IP6X

Focusing

Type : TTL auto focus (Multi AF, Center AF, Face Detection AF, Tracking AF)

Range

	Normal	Macro	Auto Macro
Wide	80cm ~ Infinity	5cm ~ 80cm	5cm ~ Infinity
Tele		50cm ~ 80cm	50cm ~ Infinity

Shutter

Smart Auto : 1/8 ~ 1/1,000 sec.,

Program : 1 ~ 1/1,000 sec., Night : 8 ~ 1/1,000 sec.

Exposure

Control : Program AE

Metering : Multi, Spot, Center-weighted, Face Detection AE

Compensation : $\pm 2\text{EV}$ (1/3EV steps)

ISO : Auto, 80, 100, 200, 400, 800, 1600, 3200



Flash	- Modes : Auto, Auto & Red-eye reduction, Fill-in flash, Slow sync, Flash off, Red Eye Fix - Range : Wide : 0.2m ~ 3.0m (ISO Auto), Tele : 0.5m ~ 2.0m (ISO Auto) - Recharging Time : Approx. 4 sec		
Sharpness	- Soft+, Soft, Normal, Vivid, Vivid+		
White Balance	- Auto, Daylight, Cloudy, Fluorescent_H, Fluorescent_L, Tungsten, Custom		
Voice Recording	- Voice Recording (max. 10 hours) - Voice Memo in Still Image (max. 10 sec.)		
Date Imprinting	- Date, Date & Time, Off (user selectable)		
Shooting	- Still Image - Mode : Smart Auto, Program, Scene (Aqua, Beauty Shot, Frame Guide, Night, Portrait, Children, Landscape, Close Up, Text, Sunset, Dawn, Backlight, Fireworks, Beach & Snow) - Smart Auto : Portrait, Night Portrait, Night, Backlight Portrait, Backlight, Landscape, White, Macro, Macro Text, Tripod, Action, Sunset, Blue Sky, Natural Green, Macro Color, Macro Portrait - Shooting : Single, Continuous, Motion Capture, AEB - Self-timer : 10 sec., 2 sec., Double		

Specifications



- Movie Clip
 - With Audio or without Audio (user selectable)
 - Recording time : max 20 min. (1280x720HQ)
max 1 hours (640x480, 320x240)
 - Size : 1280x720HQ (30 fps & 15 fps),
640x480 (30 fps & 15 fps),
320x240 (60 fps & 30 fps & 15 fps)
 - Frame rate : 60 fps, 30 fps, 15 fps
 - 5X Optical Zoom and Mute in Zooming,
sound recording on/ off selectable
 - Movie Editing (Embedded): Movie Stabilization,
Still Image Capture, Time Trimming

Storage

- Media
 - Internal memory : About 20MB flash memory
 - External Memory (Optional) :
SD card (Up to 2GB guaranteed)
SDHC card (Up to 32GB guaranteed)
- File Format
 - Still Image : JPEG (DCF), EXIF 2.21, DPOF 1.1,
PictBridge 1.0
 - Movie Clip : MP4 (H.264)
 - Audio : WAV
- Image Size

12m			8m	5m	3m	1m
4000X 3000	3984X 2656	3968X 2232	3264X 2448	2592X 1944	2048X 1536	1024X 768

- Capacity (1GB Size)

	12m			8m	5m	3m	1m
Super Fine	About 134	About 152	About 181	About 200	About 313	About 494	About 1731
Fine	About 220	About 249	About 296	About 328	About 510	About 789	About 2597
Normal	About 329	About 371	About 438	About 487	About 751	About 1154	About 3463

※ These figures are measured under Samsung standard conditions and may vary depending on shooting conditions and camera settings.

Effect

- Effect : Photo Style Selector, Smart Filter, Image Adjust (Sharpness, Contrast, Saturation)
- Editing : Resize, Rotate, Photo Style Selector, Smart Filter, Image Adjust (ACB, Face Retouch, Red Eye Fix, Brightness, Contrast, Saturation, Add Noise)

Image Play

- Type : Single image, Thumbnails, Multi slide show, Movie Clip, Smart Album
- ※ Multi slide show : Slide show with Effect & Music

Interface

- Digital output connector : USB 2.0
- Audio : Mono
- Video output : NTSC, PAL (user selectable)
- DC power input connector : 4.2 V

Specifications

Power Source	- Rechargeable battery : BP70A ※ Included battery may vary depending on sales region.
Dimensions (WxHxD)	- 93.8 x 61 x 18.5 mm (excluding protrusions)
Weight	- Approx. 121 g (without battery and card)
Operating Temperature	- 0 ~ 40°C
Operating Humidity	- 5 ~ 85%
Software	- Intelli-studio, Adobe Reader

※ Specifications are subject to change without prior notice.

※ All trademarks are the property of their respective owners.

Transferring files to your computer (for Windows)

For Windows users

Transfer files by connecting your camera to your PC.

■ Installing programs

Hardware and software requirements

Item	Requirements
CPU	Intel® Pentium®4 3.2 GHz or higher AMD Athlon™ FX 2.6 GHz or higher
RAM	512 MB or more (1 GB or more recommended)
OS	Windows XP/Vista/7
Others	- USB port - CD-ROM drive - nVIDIA Geforce 7600GT or higher Ati X1600 series or higher - 1024 X 768 pixels, 16-bit color display compatible screen (1280 X 1024 pixels, 32-bit color display recommended) - Microsoft DirectX 9.0c or later



- Using a self-assembled PC or a PC and OS that are not supported may void your warranty.
- The programs may not work properly on 64-bit Edition of Windows XP, Vista, and 7.
- Intelli-studio may not perform correctly on some computers, even when the computer meets the requirements.
- If your computer does not meet the requirements, videos may not play correctly or it may take longer to edit videos.
- Install DirectX 9.0c or above before you use the program.

Transferring files to your computer (for Windows)

1. Insert the installation CD into a compatible CD-ROM drive.
2. When the setup screen is displayed, click Samsung Digital Camera Installer to start installation.



3. Select the programs to install, and then follow the on-screen instructions.
4. Click Exit to complete the installation, and then restart your computer.

■ Transferring files to your PC

Once you connect the camera to your PC, the camera will be recognized as a removable drive.

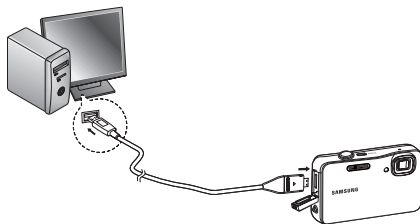


- The battery is be charged while the camera is connected to a PC with the USB cable.

1. Connect your camera to your PC with the USB cable.



- You must plug the end of the cable with the indicator light (▲) into your camera. If the cable is reversed, it may damage your files. The manufacturer is not responsible for any loss of data.



Transferring files to your computer (for Windows)

2. Turn on the camera.

- The computer recognizes the camera automatically.



- If the camera fails to connect, a pop-up window will appear. Select Computer.


3. On your PC, select [My Computer → Removable Disk → DCIM → 100PHOTO].

4. Select the files you want, and then drag or save them to your PC.

■ Disconnecting the camera (for Windows XP)

The way to disconnect the USB cable for Windows Vista / 7 is similar.

1. If the status lamp on your camera is blinking, wait until it stops.

2. Click () on the tool bar at the bottom right of your PC screen.




3. Click the pop-up message.

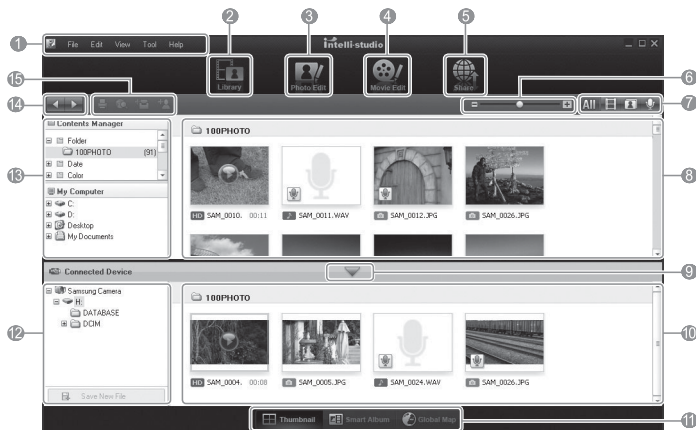
4. Remove the USB cable.

Transferring files to your computer (for Windows)

■ Using Intelli-studio

Once you have installed Intelli-studio on your PC, Intelli-studio starts automatically when a camera is connected to your PC. If Intelli-studio does not start after you have connected the camera to your PC, double-click the Intelli-studio icon on your Windows desktop. Intelli-studio allows you to play back and edit files. You can also upload files to websites, such as Flickr or YouTube. For details, select [Menu → Help] in the program.

-  • You cannot edit files directly on the camera. Transfer files to a folder on your computer before editing.
- You cannot copy files in your computer to the camera.
- Intelli-studio supports the following formats
 - Videos: AVI(MJPEG), MP4 (Video: H.264, Audio: AAC), WMV (WMV 7/8/9)
 - Photos: JPG, GIF, BMP, PNG, TIFF



Transferring files to your computer (for Windows)

Icon	Description
1	Open menus
2	Display files in the selected folder
3	Change to the Photo edit mode
4	Change to the Video edit mode
5	Change to the Sharing mode (You can send files by email or upload files to websites, such as Flickr or YouTube.)
6	Enlarge or reduce the thumbnails in the list
7	Select a file type
8	View files of the selected folder on your computer
9	Show or hide files of the connected camera
10	View files of the selected folder on the camera
11	View files as thumbnails, in Smart Album, or on a map
12	Browse folders in the connected device
13	Browse folders in your computer
14	Move to the previous or next folder
15	Print files, view files on a map, store files in My Folder, or register faces

Transferring files to your computer for Mac

For Mac users

When you connect the camera to a Macintosh computer, the computer will recognize the device automatically. You can transfer files directly from the camera to the computer without installing any programs.

■ Installing programs

Hardware and software requirements

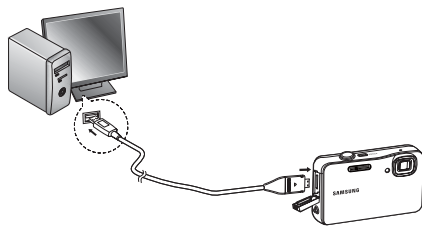
Item	Requirements
CPU	Power Mac G3 or later
RAM	Minimum 256MB RAM
OS	Mac OS 10.4 or higher
Others	- USB port - CD-ROM drive

Transferring files to your computer for Mac

1. Connect your camera to a Macintosh computer with the USB cable.



- You must plug the end of the cable with the indicator light (▲) into your camera. If the cable is reversed, it may damage your files. The manufacturer is not responsible for any loss of data.



2. Turn on the camera.
 - The computer recognizes the camera automatically and a removable disk icon will be displayed.
3. Double-click the removable disk icon.
4. Transfer photos or videos to the computer.

FAQ

Please check the following if the USB connection malfunctions.

- Case 1** USB cable is not connected or it is not the supplied USB cable.
→ Connect the supplied USB cable.
- Case 2** The camera is not recognized by your PC.
Sometimes, the camera may appear under [Unknown Devices] in Device Manager.
→ Turn off the camera, remove the USB cable, plug in the USB cable again, and then turn on the camera.
- Case 3** There is an unexpected error during file transfer.
→ Turn the camera power off and on again. Transfer the file again.
- Case 4** When using a USB hub.
→ There may be a problem with connecting the camera to the PC through the USB hub if the PC and the hub are not compatible. Wherever possible, connect the camera to the PC directly.
- Case 5** Are other USB devices connected to the PC?
→ The camera may malfunction when it is connected to the PC at the same time as another USB device. If this occurs, disconnect the other USB device, and connect only the camera to your PC.

- Case 6** When I open the Device Manager (by clicking Start → (Settings) → Control Panel → (Performance and Maintenance) → System → (Hardware) → Device Manager), there are Unknown Devices or Other Devices entries with a yellow question mark(?) beside them or devices with an exclamation mark(!) beside them.
→ Right-click the entry with the question (?) or exclamation (!) mark, and then select "Remove". Restart the PC and connect the camera again.
- Case 7** In some security programs (Norton Anti Virus, V3, etc.), the computer may not recognize the camera as a removable disk.
→ Stop the security programs and connect the camera to the computer. Refer to the security program instructions about how to temporarily disable the program.
- Case 8** The camera is connected to the USB port located on the front of the computer.
→ When the camera is connected to the USB port located on the front of the computer, the computer may not recognize the camera. Connect the camera to the USB port located on the back of the computer.

FAQ

- If a movie clip doesn't play back on your PC
 - ※ When a the movie clip recorded by the camera doesn't play back on your PC, the problem is most likely caused by the video codec installed on the PC.
- If DirectX 9.0c or later is not installed
 - Install DirectX 9.0c or later.
 - 1) Insert the CD provided with the camera
 - 2) Run Windows Explorer. Select the [CD-ROM drive:\ DirectX] folder, and then click the DXSETUP.exe file.
Windows installs DirectX. To download and install DirectX, from the Internet, visit the Microsoft website.
- If a PC connected to the camera stops responding while Windows is starting.
 - Disconnect the PC and the camera and Windows will start. If the problem happens continuously, set the Legacy USB Support to disable, and then re-start the PC. The Legacy USB Support is in the BIOS setup menu. (The BIOS setup menu differs between PC manufacturers. Some BIOS menus don't have Legacy USB Support) If you can't change the menu by yourself, contact to the PC manufacturer or BIOS manufacturer.



Samsung Eco-mark

It is Samsung's own symbol mark is used to effectively communicate Samsung's environmental friendly product activities to the consumers. The mark represents Samsung's continuous effort on development of environmental conscious products.

FCC notice

■ NOTE :

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

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

■ CAUTION :

Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

■ Declaration of Conformity

Trade Name : SAMSUNG ELECTRONICS AMERICA, INC.
Model No. : SAMSUNG AQ100
Responsible Party : SAMSUNG ELECTRONICS AMERICA, INC.
Address : 105 Challenger Road Ridgely Park NJ
Telephone No. : 1-800-SAMSUNG(726-7864)

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



Please refer to the warranty that came with the product you purchased,
or go to our website <http://www.samsung.com/> for after-sales service or inquiries.

