

SAMSUNG

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GX 10 User Manual

Thank you for buying a Samsung Camera.

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

ENGLISH

For Safe Use of Your Camera

Thank you for buying a Samsung Digital Camera.

- Prior to using this camera, please read this user manual thoroughly.
- When you require After Sales service, please bring the camera and the cause of the camera malfunction (such as battery, Memory card etc.) to the After Sales centre.
- To avoid disappointment please ensure that your camera is operating properly well before you intend to use it (e.g. for a trip or an important event). Samsung Cameras take no responsibility for any loss or damages that may result from camera malfunction.
- Keep the manual in a safe place.
- * Microsoft, Windows and Windows logo are registered trademarks of Microsoft Corporation incorporated in the United States and/or other countries.
- * All brand and product names appearing in this manual are registered trademarks of their respective companies.
- ※ Specifications are subject to change without prior notice.

This manual contains instructions that will help you to use this camera safely and correctly.
This will help prevent danger and injury to others.



DANGER

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



WARNING

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



CAUTION

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

Danger

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

DANGER

Warning

- 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.
- When taking photographs, never point the lens of the camera directly into very strong light. This may result in permanent damage to your eyesight.
- For safety reasons keep this product and accessories out of reach of children or animals to prevent accidents e.g.:
 - Swallowing batteries 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.
- Batteries and camera may become hot during prolonged use which may result in camera malfunction. Should this be the case, allow the camera to sit idle for a few minutes to allow it time to cool.
- Do not leave this camera in places subject to extremely high temperatures, such as a sealed vehicle, direct sunlight or other places of extreme variations 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 AC Power Adapter. 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

- Leaking, overheating, or burst batteries could result in fire or injury.
 - Use batteries with the correct specification for the camera.
 - Do not short circuit, heat or dispose of battery in fire.
 - Do not insert the batteries with polarities reversed.
- 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.
- If you are using the AC power adaptor be careful when moving the camera. After use, always switch off the camera before unplugging the adapter 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.
- Only D-XENON lenses can be used with this camera.



CAUTION

Precautions for Battery Usage

- Only use specified batteries (SLB-1674) with this camera. Use of other batteries can cause overheating or explosion.
- Do not allow metallic or inflammable foreign objects to come into contact with the battery.
- 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.
- Cover the battery with the battery cap to prevent the short circuit.
- Do not disassemble the battery. It may cause leakage or breakage.
- If liquid from the battery enters the eyes, wash it away immediately with fresh water and consult a doctor. It may cause loss of eyesight.
- If any of the battery leakage should come in contact with skin or clothes, wash the affected areas thoroughly with water.
- If there is overheating in, or smoke from, the battery chamber, remove the battery from the camera as soon as possible. When doing so, take care to avoid burns. And then contact your dealer or Samsung Camera Service Centre.
- The battery is expendable and its life is shortened through use. If the battery capacity is reduced by half, purchase new one.
- After removing the batteries for about 110 hour (4-5 days), the camera may be reset.

Caution

Precautions for Charger Usage

- Only use specified charger (SBC-L6) with this camera.
- Other chargers can cause fire or electric shock. Observe the power specification (100-240V only) and only charge the specified rechargeable batter (SLB-1674). Do not disassemble the charger. It may cause fire, electric shock or malfunction.
- If the charger smokes or overheats, stop using it immediately and contact your dealer or Samsung Camera Service Centre as soon as possible.
- If water gets inside the camera, stop using the camera and contact your dealer or Samsung Camera Service Centre. It may cause fire or electric shock.
- If the lightning flashes or thunder fills the air, disconnect the power plug. It may cause breakage, fire or electric shock.
- If there is dirt on the plug, clear the dirt or it may cause fire.

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Contents of the Operating Manual

This operating manual contains the following chapters.

1. Before Using Your Camera

Explains camera characteristics, accessories and the names of various parts.

2. Getting Started

Explains your first steps from purchasing the camera to taking pictures. Be sure to read it and follow the instructions.

3. Basic Operations

Explains the basic procedures for taking, playing back, and printing still pictures.

4. Menu Reference

Understand how to use and access the buttons and menus of the GX-10.

5. Function Reference

Introduces functions to further enhance your GX-10 experience.

6. Software information

Explains software installation and how to use the program.

7. Appendix

Explains troubleshooting, introduces optional accessories and provides various resources.

1 Before Using Your Camera

Check the package contents and names of working parts before use.

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GX-10 Camera Characteristics

- Features a 23.5x15.7 mm CCD with 10.14 million effective pixels for superior definition and a wide dynamic range.
- Coupled CCD shift type OPS (Optical Picture Stabilization) function. This feature will minimise camera shake.
- Features an Auto-Focus sensor with 11 focusing points. The central 9 are wide cross area sensors.
- Improved manual focusing using a viewfinder similar to a conventional 35 mm SLR camera, with 0.95x magnification. Also features a superimpose function in which the focus points on the viewfinder illuminate red.
- Features a Digital Preview function for checking the image to ensure that the desired result is achieved.
- Features a large 2.5-inch LCD monitor with 210,000 pixels and a brightness adjusting function for high-precision viewing performance.
- The large, high-resolution LCD monitor and clear menus make the camera easy to operate.
- The SP coated CCD minimises dust. Any remaining dust can be removed with CCD clear function.
- You can select JPEG or RAW image format. Or you can select JPEG and PAW at the same time.
- This is a dustproof and damp proof camera for safe outdoor shooting.

GX-10 Camera Characteristics

The captured area (view angle) will differ between the GX-10 and 35 mm SLR cameras even if the same lens is used because the format size for 35 mm film and the CCD are different.

Sizes for 35 mm film and CCD

35 mm film : 36x24 mm

GX-10 CCD : 23.5x15.7 mm

Angles of view being equal, the focal length of a lens used with a 35 mm camera must be approximately 1.5 times longer than that of GX-10. To obtain a focal length framing the same area, divide the focal length of the 35 mm lens by 1.5.

Example) To capture the same image as a 150 mm lens attached to a 35 mm camera

$$150 \div 1.5 = 100$$

Use a 100 mm lens with the GX-10.

Conversely, multiply the focal length of the lens used with GX-10 by 1.5 to determine the focal length for 35 mm cameras.

Example) If 300 mm lens is used with GX-10

$$300 \times 1.5 = 450$$

Focal length is equivalent to 450 mm lens on a 35 mm camera.

Checking the Contents of the Package

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



Hot shoe cover
(Installed on camera)



Eyecup
(Installed on camera)



Viewfinder cap



Body mount cover
(Installed on camera)



USB cable



Video cable



Software (CD-ROM)



Strap



Rechargeable battery
(SLB-1674)



Charger (SBC-L6)



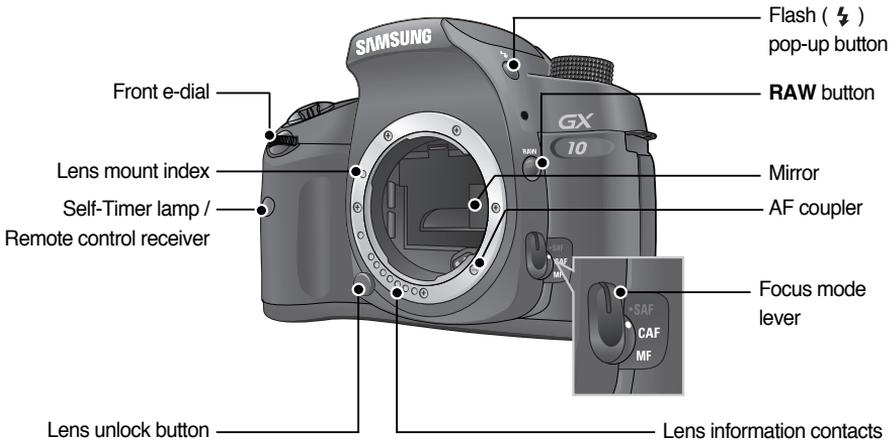
AC cord



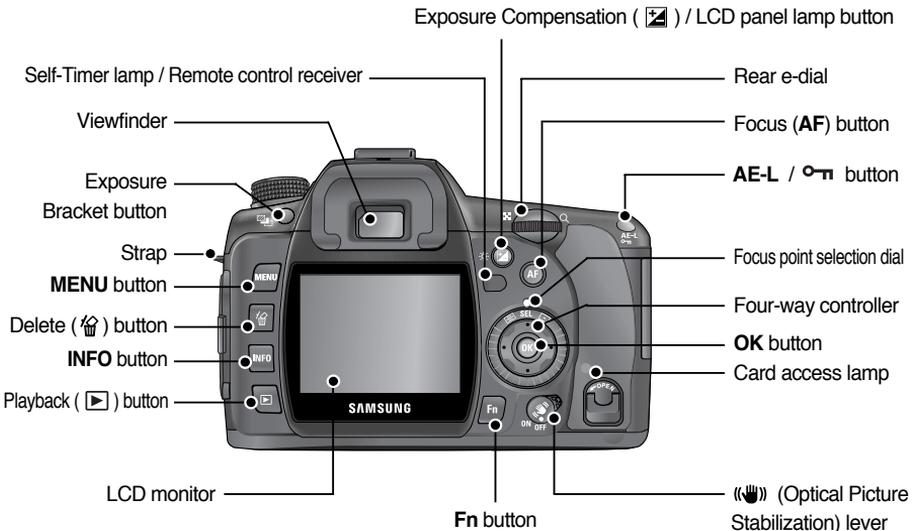
Operating Manual
(this manual)

Names of Working Parts

Front

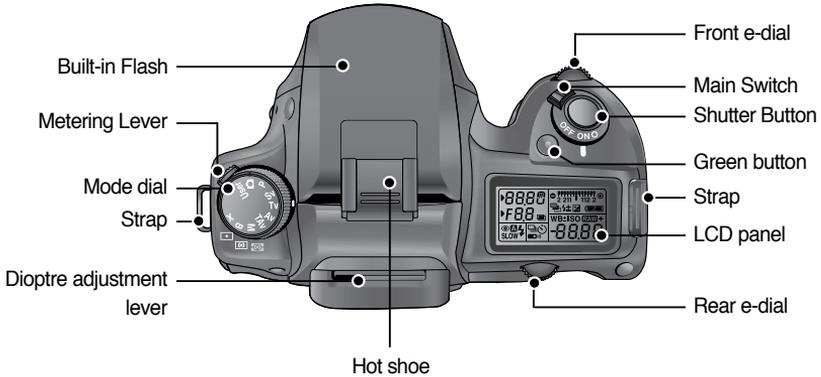


Back



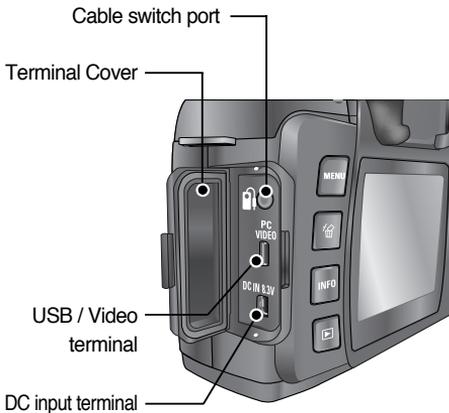
Names of Working Parts

Top

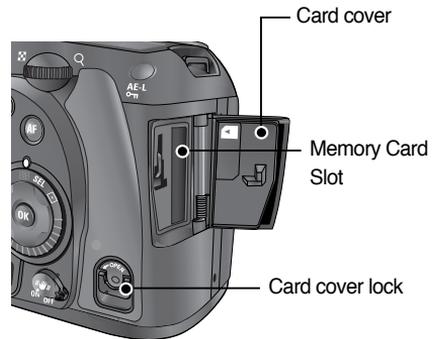


Side

Connection ports

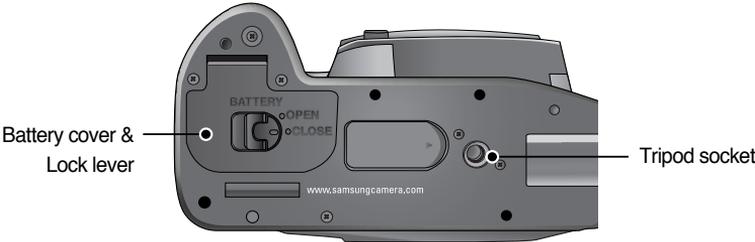


Memory Card Slot

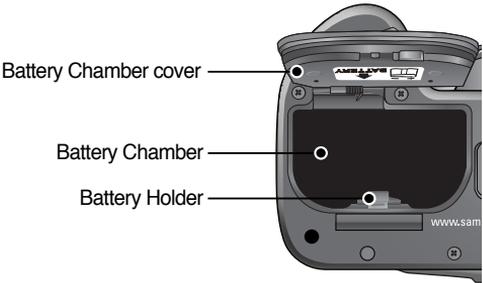


Names of Working Parts

Bottom



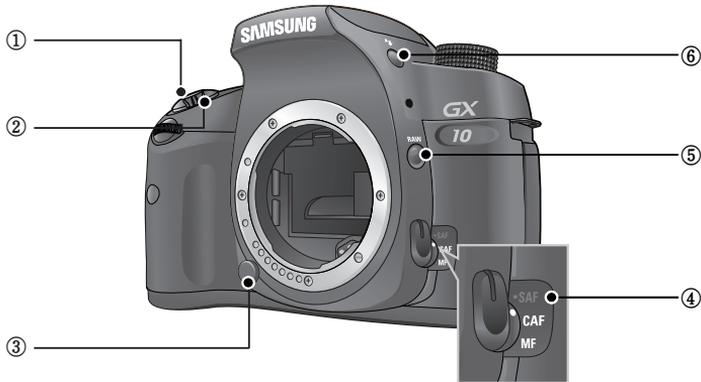
Battery Chamber



Using the Button Functions

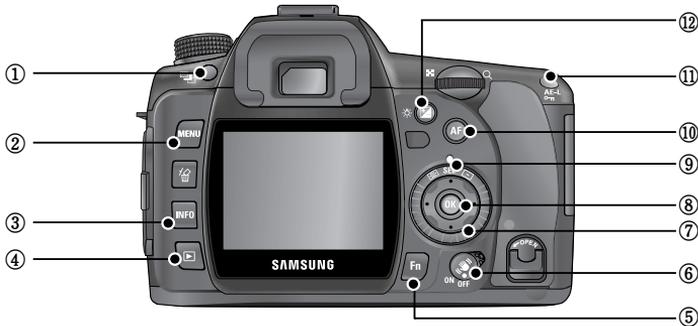
Capture Mode

- Functions of buttons used during shooting.



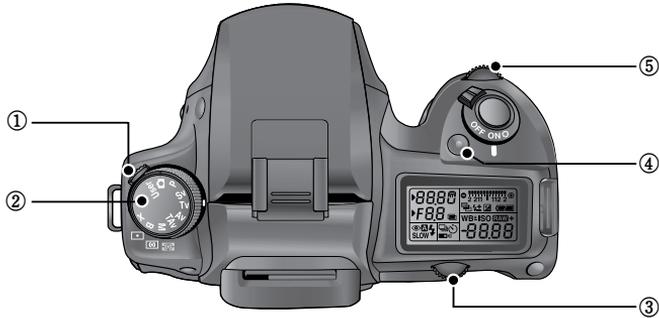
- ① Shutter release button
Press to capture images. (p.53)
- ② Main switch
Move to turn the power on/off (p.41) and confirm the depth of field (Preview) (p.190).
- ③ Lens unlock button
Press to detach lens. (p.47)
- ④ Focus mode lever
Switches between Autofocus mode (p.192) and Manual focus mode (p.197).
- ⑤ **RAW** button
Press to capture a JPEG and RAW file at the same time. (p.59)
- ⑥ Flash pop-up button ()
Press to pop up the built-in flash. (p.72)

Using the Button Functions



- ① Exposure bracket button
Sets the Exposure bracket. (p.206)
- ② **MENU** button
Displays the [CAPTURE MENU], [CUSTOM1 MENU], [CUSTOM2 MENU], [SETUP MENU] and [PLAYBACK MENU] menu. (p.118)
- ③ **INFO** button
Press to show shooting information on the LCD monitor. (p.24)
- ④  button
Switches to the Playback mode. (p.84)
- ⑤ **Fn** button
Press to display the Fn menu. Press the four-way controller (▲▼◀▶) to choose the next operation. (p.169)
- ⑥ Optical Picture Stabiliser () button
Switches on or off the OPS function. (p.55)
- ⑦ Four-way controller (▲▼◀▶)
Uses it to move cursor or change items in menus and Fn menu.
- ⑧ **OK** button
Saves the setting you selected in the menu.
- ⑨ Focus position dial
Press to select a focus position. (p.194)
- ⑩ **AF** button
Focuses on the subject and get the proper metering. (p.132)
- ⑪ **AE-L** button
Locks the exposure before shooting. (p.205)
- ⑫ EV () / LCD panel lamp button
Holding this button, rotate the front e-dial to compensate the exposure. (p.204)
Press this button to turn on the LCD panel lamp.

Using the Button Functions

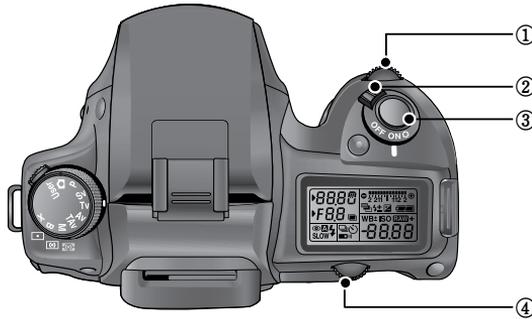


- ① Metering mode lever
Changes the metering modes. (p.202)
- ② Mode dial
Changes the camera modes. (p.171)
- ③ Rear e-dial
Sets aperture ISO sensitivity values.
- ④ Green button
Resets exposure settings and automatically adjusts the appropriate exposure in a **M** (Manual) mode.
- ⑤ Front e-dial
Sets shutter speed and EV compensation values.

Using the Button Functions

Playback mode

- Functions of buttons used during playback.



- ① Front e-dial
Use it to display the previous or next image in magnified playback (p.86) or adjust the digital filter. (p.93)
- ② Main switch
Move to turn the camera on and off. (p.41)
- ③ Shutter release button
Press to switch to capture mode.
- ④ Rear e-dial
Sets the Exposure values.
Use it to enlarge an image or display multiple images at the same time. (p.86)
Use to select a digital filter. (p.93)

Using the Button Functions



① **MENU** button

Press to display the [CAPTURE MENU], [PLAYBACK MENU], [CUSTOM1 MENU], [CUSTOM2 MENU] and [SETUP MENU] menu. (p.118)

②  button

Press to delete images. (p.98)

③ **INFO** button

Press to show shooting information on the LCD monitor. (p.84)

④  button

Press to switch to capture mode.

⑤ **Fn** button

Press to display the Fn menu. Press the four-way controller (▲▼◀▶) to choose your next operation. (p.170)

⑥ Four-way controller (▲▼◀▶)

Uses it to move cursor or change items in menus, Fn menu and playback screen.

⑦ **OK** button

Saves the setting you selected in the menu or playback screen.

⑧ **AE-L / ** button

Locks the exposure of the shooting conditions. (p.205)

Press to protect images from being accidentally erased. (p.103)

LCD Monitor Indications

- The following indicators appear on the LCD monitor depending on the status of the camera.



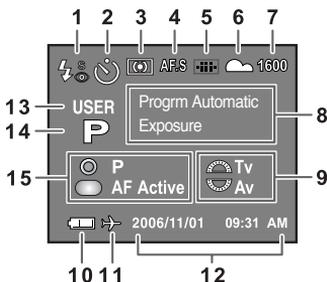
LCD monitor

While Power is On or Operating Mode Dial

- Guides appear on the LCD monitor for 3 seconds when powered on or setting dial mode.

INFORMATION

- Select [Off] for [Guide Display] in [SETUP MENU] to hide indicators. (p.156)



- Flash mode (Active mode appears) (p.70)
- Drive mode / Auto Bracket / Multi Exposure (p.60)
- Metering type (p.202)
- AF mode (p.192)
- Focus Point Information (p.194)
- White balance (p.76)
- Sensitivity (p.82)
- Shooting mode (Mode dial position) (p.171)
- e-dial information (p.142)
- Battery Status (p.36)
- World time warning display (p.153)
- Date and time (p.152)
- Custom mode (p.187)
- Exposure mode (p.171)
- Button Guide

* Indicators 3, 4, 5, 6 and 7 only appear when the setting other than the default setting is selected. 11 only appears when World Time is On.

LCD Monitor Indications

Capture Mode

- Press the **INFO** button in capture mode to display the capture function settings on the LCD monitor for 15 seconds.

Detailed Information

TAv	USER	[ON]	[Flash]	[AF]	AF.C
1/2000	[+]	+ 1.0	[WB]	AUTO	
F 5.6	[±]	- 1.0	[OZ]	100 mm	
ISO AUTO	100 - 1600	[+]	[+]		
10000K	G2A1	Adobe	[+]		
RAW+	10M	[+]	[+]		
[Battery]	[Signal]	2006/11/01	09:31 AM		

1	2	3	4	5	23
				10	24
6		8		11	
7		9		12	25
13		14			26
15	16	17	18		
19	20	21	22		27
					28
29	30	31			

1. Shooting mode (p.171)
2. Custom mode (p.187)
3. Metering mode (p.202)
4. Flash mode (p.70)
5. Drive mode (p.60)
6. Shutter Speed (p.199)
7. Aperture Value (p.200)
8. Exposure Compensation Value (p.204)
9. Flash Exposure Value (p.75)
10. Exposure Bracket / Multi Exposure (p.206, 127)
11. Extended Bracket (p.127)
12. Image tone (p.121)
13. ISO sensitivity (p.82)
14. ISO range (Auto) (p.83)
15. White balance (p.76)
16. GM compensation value (p.80)
17. BA compensation value (p.80)
18. Colour space (p.126)
19. File type (p.122)
20. Recorded pixels (p.122)
21. Quality level (p.123)
22. Optical Picture Stabilization (OPS) (p.55)
23. AF mode (p.192)
24. Focus point location (p.194)
25. Lens focal length (p.57)
26. Saturation (p.124)
27. Sharpness (p.124)
28. Contrast (p.124)
29. Battery Status (p.36)
30. World time (p.153)
31. Date and time (p.152)

LCD Monitor Indications

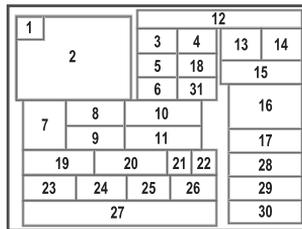
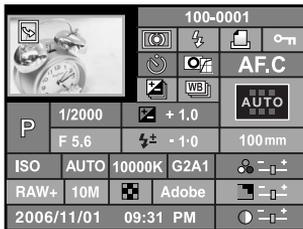
Playback Mode

- Press the **INFO** button in playback mode to display the image information on the LCD monitor. Whenever pressing the **INFO** button, Basic information, Histogram, Detail information and no information will display in that order.

INFORMATION

- You can change the information initially displayed by pressing the  button. (p.84)

Detailed Information



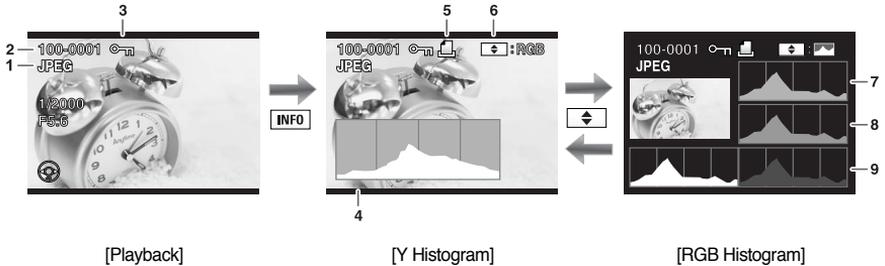
- | | | |
|--------------------------------------|--|--------------------------|
| 1. Rotate icon (p.85) | 11. Flash Compensation Value | 21. WB compensation (GM) |
| 2. Captured images | 12. Folder name and Stored image number (p.126, 160) | 22. WB compensation (BA) |
| 3. Metering mode | 13. DPOF settings (p.105) | 23. File type |
| 4. Flash mode | 14. Protect icon (p.103) | 24. Image size |
| 5. Drive mode | 15. AF mode | 25. Quality |
| 6. Exposure Bracket / Multi Exposure | 16. Focus point information | 26. Colour Space |
| 7. Exposure mode | 17. Lens focal length | 27. Date & Time |
| 8. Shutter Speed | 18. Image tone | 28. Saturation |
| 9. Aperture Value | 19. Sensitivity | 29. Sharpness |
| 10. Exposure Compensation Value | 20. White Balance / Colour Temperature | 30. Contrast |
| | | 31. Extended Bracket |

* Indicators 4 (Flash mode) and 11 (Flash compensation Value) only appear when the image was taken with flash.

LCD Monitor Indications

Histogram Display

- Brightness Histogram that distributes brightness of the image and RGB Histogram that distributes colour of the image are selectable by using the Up and Down (▲, ▼) button.



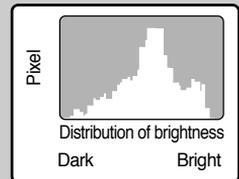
1. Capture quality (Image file type)
2. Image folder number and file number
3. Protect icon (p.103)
4. Histogram (Brightness)
5. DPOF settings (p.105)
6. Indicator for Brightness Histogram and RGB Histogram
7. Histogram (R)
8. Histogram (G)
9. Histogram (B)

INFORMATION

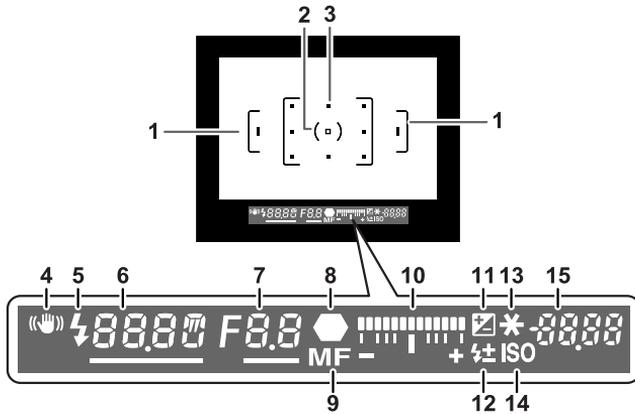
- DPOF icon () will display only when a DPOF set image is played back.
- Areas where blooming occurred blink if [Exposure Warning] warning is on. (p.165)
- Histogram shows you the distribution of brightness in recorded images. If the bars in the histogram are higher towards the right, the image may be too bright.

If the bars are higher on the left, the image may be too dark.

If the lighting conditions are too bright to check the subject by using the LCD, checking the histogram will enable more precise exposure control for the shots.



Viewfinder Indications



1. Autofocus frame
2. Spot metering frame
3. Focus point (p.194)
4. (☞) indicator
: Blinks when OPS is operating (p.55)
5. Flash status
: Appears when flash is available and blinks when flash is recommended but not set. (p.70)
6. Shutter speed
: Shutter speed when capturing or adjusting (underlined when shutter speed can be adjusted with front e-dial). (p.199)
7. Aperture
: Aperture when capturing or adjusting (underlined when aperture can be adjusted with rear e-dial). (p.200)
8. Focus indicator
: Appears when image is focused.
9. Manual Focus
: Appears when the Manual Focus is selected.
10. Exposure Bar
: Displays the Exposure Compensation Value. (p.184)
The differences between Current Exposure Value and Proper Exposure Value in the **M** mode.

Viewfinder Indications

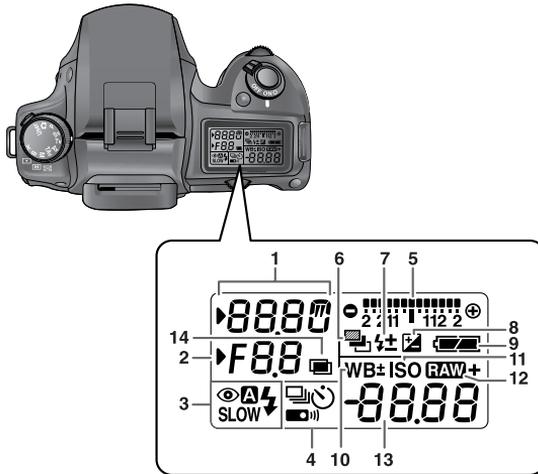
11. EV compensation
: Appears when EV compensation is available or in use.
12. Flash Exposure Compensation
: Appears when Flash Exposure is compensated.
13. AE Lock indicator
: Appears when AE is locked.
14. ISO sensitivity warning
: Appears when warning value is exceeded.
15. Number of recordable images / EV compensation
: Show the number of recordable images with current quality and recorded pixel setting. (p.122, 123)
Show the number of continuous shooting recordable images. (p.144)
The differences between the compensated Exposure and proper exposure will display.
In the **M** mode, the exposure value can be different.
In the Sensitivity priority mode / Shutter & Aperture Priority mode, ISO sensitivity will display.

INFORMATION

- The red indication of the focus point used for autofocus lights up and is superimposed on the view when the shutter release button is pressed halfway.
- When [AF Button Function] of the [CUSTOM1 MENU] menu is set to [Cancel AF], **MF** icon will display while AF button is pressed. (p.132)
- In any mode with the exception of Sensitivity priority mode and Shutter & Aperture priority mode, ISO sensitivity will display on No. 14 position while the **OK** button is pressed.

LCD Panel Indications

- The following information appears in the LCD panel on top of the camera.



- | | |
|--|---|
| <p>1. Shutter speed (p.199)</p> <p>2. Aperture (p.200)</p> <p>3. Flash mode (p.70)</p> <p>⚡ : Built-in flash is ready
(when blinking, flash should be used; or incorrect lens is mounted)</p> <p>👁️ : Red-eye reduction flash on</p> <p>⚡ : Flash off</p> <p>🔋 : Auto discharge</p> <p>SLOW : First curtain synchro</p> <p>4. Drive mode (p.60)</p> <p>📷 : Single frame</p> <p>📷 : Continuous Shot</p> <p>🕒 : Self-timer</p> <p>📡 : Remote control mode</p> | <p>5. Exposure Bar (p.184)</p> <p>6. Auto Bracket (p.206)</p> <p>7. Flash Exposure Compensation indicator (p.75)</p> <p>8. Exposure compensation (p.204)</p> <p>9. Battery status (p.36)</p> <p>10. White Balance (If Auto WB is selected, no icon will display) (p.76)</p> <p>± : White Balance Compensation</p> <p>11. ISO sensitivity warning (p.138)</p> <p>12. RAW + button : RAW + (p.144)</p> <p>13. Number of recordable images / EV compensation value / PC (Pb) (PC=Personal Computer (mass storage)) (Pb=PictBridge)</p> <p>14. Multi exposure (p.127)</p> |
|--|---|

MEMO

A large, empty rectangular box with rounded corners, intended for writing a memo. The box is white with a thin gray border and occupies most of the page below the header.

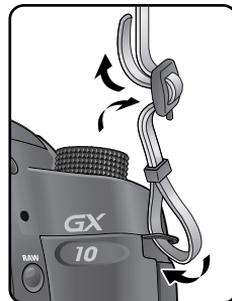
2 Getting Started

This chapter explains your first steps from purchasing the camera to taking pictures. Be sure to read it and follow the instructions.

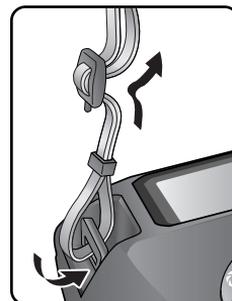
Attaching the Strap	32
Connecting to a Power Source	33
Using the memory card	38
Turning the Camera On and Off	41
Initial Settings	42
Attaching the Lens	46
Adjusting the Viewfinder Dioptre.....	48

Attaching the Strap

1. Pass the end of the strap through the strap lug, then secure on the inside of the clasp.



2. Pass the other end of the strap through the other strap lug on the camera, then secure on the inside of the clasp.



Connecting to a Power Source

Inserting the Battery

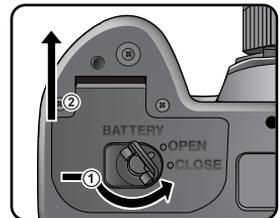
- Use the supplied rechargeable battery (SLB-1674). When the battery is used for the first time or is not used for a long time, a [Low Battery] message will display.

Model Name	SLB-1674
Battery Type	Lithium-ion
Capacity	1620mAh
Voltage	7.4V
Charging time (When the camera power is off)	About 150-180 Min.

INFORMATION

- Use the specified battery. Problems caused by using the other battery are not covered by the Samsung warranty.
- Do not open the battery cover or remove the batteries while the power is on.
- Remove the batteries when you will not use the camera for a long while. The batteries may leak.
- If the date and time settings have been reset when you insert new batteries after a long while, follow the procedure for “Setting the Date and Time”.
- Insert batteries correctly. Batteries inserted incorrectly may cause a camera breakdown. Wipe the electrodes of the batteries before inserting.
- When the battery is removed, turn off the camera first or the stored data may be deleted.

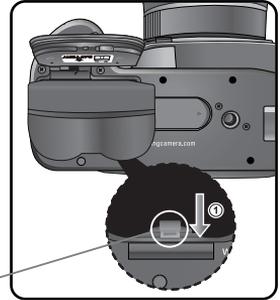
1. Rotate the Battery cover unlock lever as shown in the illustration (①) and open the cover (②).



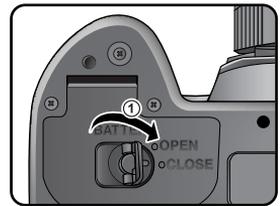
Connecting to a Power Source

2. Insert the batteries according to the + / - indicators in the battery cover. Have the ▲ mark on the battery facing toward the LCD monitor and insert the battery by pressing the battery lock lever as shown (①). Insert the battery until the battery lock is locked. To remove the battery press the battery lock lever as shown (②). When the battery pops up slightly, remove the battery.

Battery lock lever



3. Close the Battery cover and rotate the battery cover lock lever as shown (①).

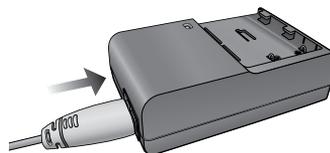
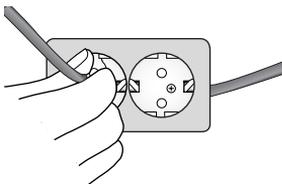


INFORMATION

- We recommend using AC adapter when the camera is used for a long time or is connected to a computer.

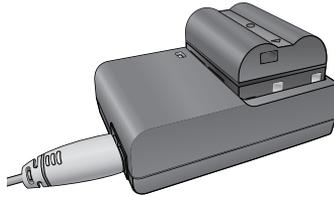
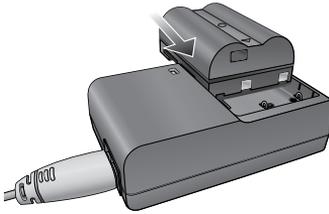
How to charge the exclusive rechargeable battery

1. Insert the supplied AC cord to the power outlet and DC input port of the charger.



Connecting to a Power Source

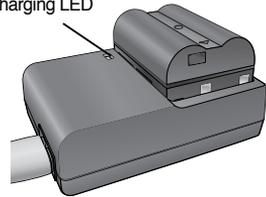
2. Put the battery on the charger as shown.



※ If the charging LED of the AC Charger does not turn on or blink after inserting the rechargeable battery, please check whether the battery is inserted correctly.

※ You must check the battery charging status with the Charging LED.

Charging LED



Charging LED	Status
Being Charged	Red LED is on
Charging is complete	The LED is off
Charging error	Red LED is blinking

INFORMATION

- Proper operating temperatures of the Charger are 0°C ~ 40°C. The battery may not be charged under or over the operating temperature (Red LED is blinking). This is not the camera malfunction.
- The period of quality guarantee of charger is 1 year and Lithium ion rechargeable battery is 6 months.

Charger (SBC-L6)

Rated input	AC100-240V (50Hz-60Hz)
Rated output	DC 8.4 V/700 mA
Dimensions	60 × 90 × 30.2 mm
Weight	86 g

- A Lithium ion battery is expendable. If the working duration of a fully charged battery decreases sharply, purchase a new one.

Connecting to a Power Source

Battery Level Indicator

- You can confirm remaining battery level by checking the  displayed on the LCD panel.

	lit	: Battery is full.
↓		
	lit	: Battery is running low.
↓		
	lit	: Battery is almost empty.
↓		
	blink	: The camera turns off after displaying a message.

Approximate Playback Time (new batteries)

Battery	Operating Temperature	Normal recording	Flash photography		Playback time
			50% use	100% use	
Rechargeable battery (SLB-1674)	23°C	Approx. 510 Min.	Approx. 440 Min.	Approx. 320 Min.	Approx. 300 Min.

- The still picture storage capacity is based on measuring conditions in accordance with CIPA standards and the playback time is based on SAMSUNG measuring conditions. Some deviation from the above figures may occur in actual use depending on shooting mode and shooting conditions.

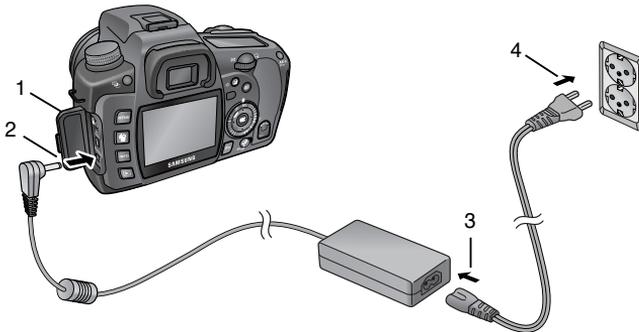
INFORMATION

- Battery performance temporarily decreases while being used in cold conditions. When using the camera in cold climates, have extra batteries on hand and keep them warm in your pocket. Battery performance will return to normal when returned to room temperature.
- Have extra batteries ready when travelling overseas, taking pictures in cold climates, or when you will be taking a lot of pictures.

Connecting to a Power Source

Using the Optional AC Adapter

- AC adapter (SAC-82, optional) for PENTAX DSLR cameras can be used with SAMSUNG DSLR cameras.



1. Make sure the camera is turned off before opening the terminal cover.
2. Connect the DC terminal on the AC adapter to the DC input terminal on the camera.
3. Connect the AC plug cord to the AC adapter.
4. Plug the AC cord into the power outlet.

INFORMATION

- Make sure the camera is turned off before connecting or disconnecting the AC adapter.
- Make sure connections are secure between the camera, AC adapter, AC plug cord terminal and the power outlet. Memory Card and data will be corrupted if disconnected while camera is recording or reading data.
- Be sure to read the AC adapter SAC-82 operating manual when using the AC adapter.
- The rechargeable batteries in your camera will not charge when connected to the AC adapter.

Using the memory card

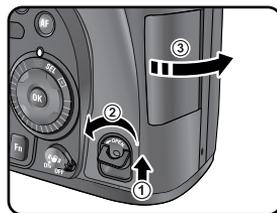
Inserting / Removing the Memory Card

- SD / SDHC memory card and Multi Media Card can be used with this camera.
- Captured images are recorded on the Memory Card. Make sure the camera is turned off before inserting or removing the Memory Card.

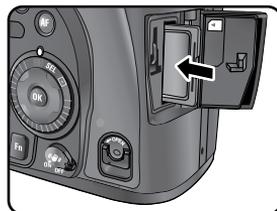
INFORMATION

- Do not remove the Memory Card while card access lamp is lit.
- Always format new Memory Cards before use. Also format Memory Cards used with other cameras. Refer to "Formatting the Memory Card" (p.150) for details on formatting.

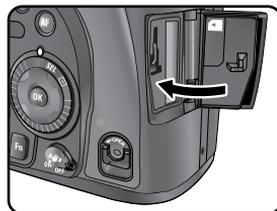
1. Lift up the Card Cover Lock as shown (①) and rotate it to the **OPEN** direction (②) (Card cover opens ③).



2. Have the front of the memory card facing toward the LCD monitor and insert the memory card.
※ To remove the card, push it as shown.



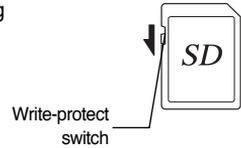
3. Close the Card cover.
※ Close the Card cover firmly or the camera will not turn on.



Using the memory card

Precautions When Using the Memory Card

- The Memory Card is equipped with a write-protect switch. Setting the switch to LOCK protects the existing data by preventing the recording of new data, deletion of existing data or formatting of the card.
- Care should be taken when removing the Memory Card immediately after using the camera because the card may be hot.
- Do not remove the Memory Card or turn the camera off while data is being saved to the card, images are being played back, or the camera is connected to a computer with the USB cable. This may cause the data to be lost or the card to be damaged.
- Do not bend the Memory Card or subject it to violent impact. Keep it away from water and store away from high temperatures.
- Do not remove the Memory Card during formatting. The card may be damaged beyond use.
- Data on the Memory Card may be deleted in the following circumstances.
Samsung Camera does not accept any liability for data that is deleted if
 - (1) the Memory Card is mishandled by the user.
 - (2) the Memory Card is exposed to static electricity or electrical interference.
 - (3) the card has not been used for a long time.
 - (4) the card is ejected or the battery is removed while the data on the card is being recorded or accessed.
- The Memory Card has a limited service life. If it is not used for a long time, the data on the card may become unreadable. Be sure to regularly make a backup of important data on a computer.
- Avoid using or storing the card where it may be exposed to static electricity or electrical interference.
- Avoid using or storing the card in direct sunlight or where it may be exposed to rapid changes in temperature or to condensation.
- For information on compatible Memory Cards, visit the Samsung Camera website or contact your nearest Samsung Camera customer service centre.
- Always format new Memory Cards. Also format Memory Cards used with other cameras.
☞ Formatting the Memory Card (p. 150)



Using the memory card

Recorded Pixels and Quality Level

- Choose the number of pixels (size) and quality level (data compression rate) of pictures according to how you intend to use the pictures you have taken.

Pictures with larger recorded size or the more  are clearer when printed.

The number of pictures that can be taken (the number of pictures that can be recorded on an Memory Card) becomes less with larger file sizes.

The quality of the captured photo or printed picture depends on the quality level, exposure control, resolution of the printer and a variety of other factors so you do not need to select more than the required number of pixels. For example, to print in postcard size, **2M** (1824X1216) is adequate. Set the appropriate recorded size and quality level depending on purpose.

Choose the appropriate number of recorded pixels and quality level for images on the [CAPTURE MENU] menu.

☞ Setting the Recorded Pixels (p.122)

☞ Setting the Quality Level (p.123)

- Recorded Pixels, Quality Level and Approximate Image Storage Capacity

Recorded Pixels	Quality Level	RAW	 Best	 Better	 Good
	10M	(3872x2592)	30	-	-
		-	104	178	306
6M	(3008x2000)	-	174	297	512
2M	(1824x1216)	-	474	802	1360

- The above table shows the approximate image storage capacity and recording time when using a 512 MB SD Memory Card.

- The above figures may vary depending on the subject, shooting conditions, shooting mode, Memory Card and other factors.

INFORMATION

- Any images in excess of 500 on a single card will be saved in a new folder. But, in the Auto Bracket mode, folders are not made though the numbers of images are over 500 until the Auto Bracket shots are finished.

Turning the Camera On and Off

- Move the main switch to the **[ON]** position.
The camera will turn on. Move the main switch to the **[OFF]** position to turn off the camera.



INFORMATION

- Always turn the camera off when not in use.
- The power will automatically turn off when you do not perform any operations within a set period of time. (Default setting is 1 minute) You can change the setting on the [Auto Power Off] menu of the [SETUP MENU] menu.

To turn on the camera again, rotate the main switch or refer to the followings.

- Press the shutter button halfway down
- Press the Playback mode button
- Press the **INFO** button

Initial Settings

- The first time the camera is turned on after purchasing, the “Initial Settings” screen appears on the LCD monitor. Follow the procedure below to set the language displayed on the LCD monitor and the current date and time. Once setting is done, these will not need to be set again when turning your camera on.

Setting the Display Language

- You can choose the language in which the menus, error messages, etc. are displayed from the following :
English, Korean, Chinese (traditional / simplified), French, German, Spanish, Portuguese, Italian, Swedish, Dutch, Danish, and Russian.

1. Language selection menu displays.



2. Select a menu by using the four way controller (▲▼◀▶).
The default setting is English.



3. Press the **OK** button.

4. Press the ▼ button. The menu cursor will shift to  menu.



5. Press the ◀▶ button to select a city.

Initial Settings

6. Press the ▼ button. The menu cursor will shift to Summer Time menu.



7. Select (on) or (off) menu by pressing the four way controller.
8. Press the **OK** button. The screen for setting the date and time will be displayed.

- When the Date / Time is not set :

If an incorrect language is selected, you can change the language on the initial menu.

1. Press the **Menu** button and cancel the City, Date and Time menu.
2. Turn on the camera again.
3. The initial menu will display. Select a desired language by pressing the four way controller (▲▼◀▶) and press the **OK** button.

- When the Date / Time is set :

You can not set the initial settings again after the Date / Time was set.

In this case, do the followings to reset the initial settings.

1. Turn on the camera again.
2. Select the [SETUP MENU] menu by pressing the Menu button.
3. Select [Language/ 言語] menu by pressing the four way controller (▲▼).
Select a desired language by pressing the four way controller (▲▼◀▶) and press the **OK** button.
Sub menu for selecting the language displays. The language is changed.
To change the City and Date / Time, refer to the following pages.
 - Refer to page 153 for changing the City
 - Refer to page 152 for changing the Date / Time

Initial Settings

INFORMATION

- If you press the Menu button during the initial settings, the menu set at the moment is cancelled. In this case, the [Language/言語] menu will display when the camera is turned on.

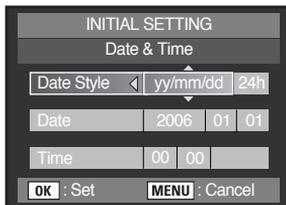
Setting the Date and Time

- Set the current date and time and the display style.

1. Press the four-way controller (▶).

The frame moves to [yy/mm/dd].

2. Use the four-way controller (▲▼) to choose the date style.



3. Press the four-way controller (▶).

The frame moves to [24h].

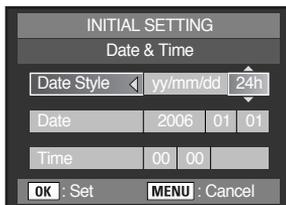
4. Use the four-way controller (▲▼) to select 24h (24 hour display) or 12h (12-hour display).

5. Press the four-way controller (▶).

The frame returns to [Date Style].

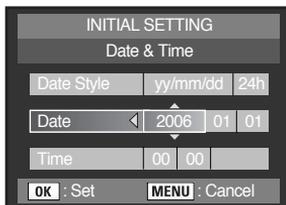
6. Press the four-way controller (▼).

The frame moves to [Date].



7. Press the four-way controller (▶).

The frame moves to the year.

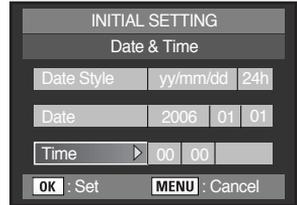


Initial Settings

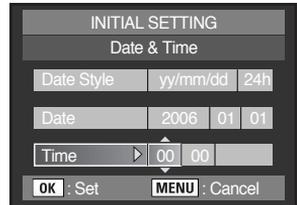
8. Use the four-way controller (▲▼) to set the year. Set the month and year in the same manner.

9. Press the ► button. The frame returns to the [Date] menu.

10. Press the ▼ button. The frame returns to the [Time] menu.



11. Press the ► button. Use the ▲▼ buttons to set the time.



12. Press the **OK** button. The camera is ready to take pictures. If you set the date and time with the menu operations, the screen will return to the [SETUP MENU] menu. Press the **OK** button again.

INFORMATION

- You can cancel the setting operation and switch to Capture mode during initial settings by pressing the **MENU** button. In this case, the Initial Settings screen will appear again the next time you turn the camera on.
- When you finish the settings and press the **OK** button, the camera clock is reset to 00 seconds.
- To set the exact time, press the **OK** button when the time signal (on the TV, radio, etc.) reaches 00 seconds.
- You can change the language and date and time settings with the menu operations. (p.152, 156)

Attaching the Lens

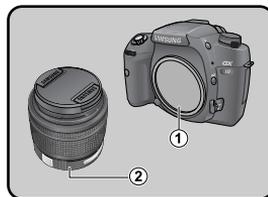
- Only D-XENON, D-XENOGON lenses can be used with this camera.

Some functions are restricted when lenses are not set to Aperture A (Auto). Also see “Notes on [Using Aperture Ring]”. Other lenses and accessories will not be available with factory default settings. To allow shutter release, set [Use Aperture Ring] in [CUSTOM2 MENU] menu.

INFORMATION

- Turn the camera off before attaching or removing the lens to prevent unexpected lens problems.

1. Check that the camera is off.
2. Remove the body mount cover (①) and lens mount cover (②).
Be sure to put the lens down with the lens mount side facing upward to avoid damage.



3. Align the red dots on the camera and the lens, and secure by turning the lens clockwise until it clicks.
After attaching, check that the lens is secure. Also check that the red dots of the lens are on top and the attached portion does not move sideways.



Attaching the Lens

4. Remove the front lens cap by pushing the indicated portions inward.



To detach the lens, hold down the lens unlock button (③) and turn the lens counterclockwise.



INFORMATION

- The body mount cover (①) is a cover to prevent damage during shipping.
- We assume no responsibility nor liability for accidents, damages and malfunctions resulting from the use of lenses made by other manufacturers.
- The camera body and lens mount incorporate lens information contacts and an AF coupler. Dirt, dust, or corrosion may damage the electrical system. Clean the contacts with a soft dry cloth.

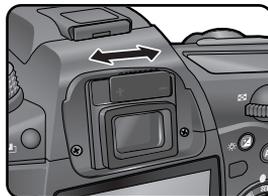
Adjusting the Viewfinder Dioptre

- Adjust the viewfinder to suit your eyesight.

If it is difficult to see the viewfinder image clearly, slide the diopter adjustment lever sideways.

You can slide the diopter from -2.5 m^{-1} to $+1.5\text{ m}^{-1}$.

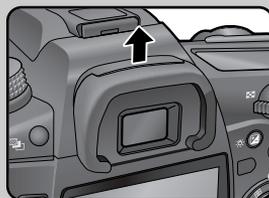
1. Look through the viewfinder and point the camera at a well-lit scene. Slide the diopter adjustment lever left or right. Adjust the lever until the AF frame in the viewfinder is focused.



AF Frame

INFORMATION

- Eyecup is attached to the viewfinder portion when camera leaves the factory. Diopter adjustment is available with the eyecup attached. However, adjustment is easier with the eyecup removed as shown above. To remove the eyecup, pull upward and remove as shown on the right.
- If it is difficult to see the viewfinder image clearly even if you set the diopter adjustment lever, use the diopter correction lens adapter (optional). However, the eyecup must be removed.



3 Basic Operations

This chapter explains basic operations. For information about advanced functions and settings for taking pictures, refer to chapter 4 and onward.

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Basic Shooting Operation

Holding the Camera

- How you hold the camera is important when taking pictures.
 - Hold the camera firmly with both hands.
 - Press the shutter release button gently when taking a picture.



[Horizontal position]



[Vertical position]

INFORMATION

- To reduce camera shake, support your body or the camera on a solid object such as a table, tree, or wall.
- Although there are individual differences among photographers, the slowest recommended shutter speed for a handheld camera is generally $1/(\text{focal length} \times 1.5)$.
For example, it is $1/75$ of a second for a focal length of 50 mm and $1/150$ of a second for 100 mm. A tripod or OPS function should be used for shutter speeds slower than this.
- When using a telephoto lens, a tripod that is heavier than the total weight of the camera and lens is recommended to avoid camera shake.
- When using the tripod, do not use the OPS function as the image may be blurred due to the oscillation of the OPS sensor.

Basic Shooting Operation

3. Look through the viewfinder to view the subject.

A zoom lens can be used to change the size of the subject in the viewfinder.



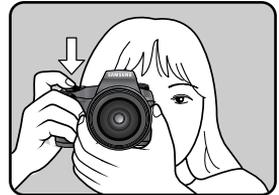
4. Position the subject inside the autofocus frame and press the shutter release button halfway.

The autofocus system operates.

The focus indicator  appears in the viewfinder when the subject is in focus.

The flash pops up automatically when necessary.

- Operating the shutter release button (p.53)
- Hard-to-Autofocus Subjects (p.54)
- Using the Built-in Flash (p.70)
- Selecting the Focusing Area (AF Point)



Focus indicator

INFORMATION

- You can preview the image in the LCD monitor and check the composition, exposure, and focus before taking the picture. (p.191)
- The flash doesn't pop up. To pop up the flash manually, press the flash pop up button ().

5. Press the shutter release button fully.

The picture is taken.



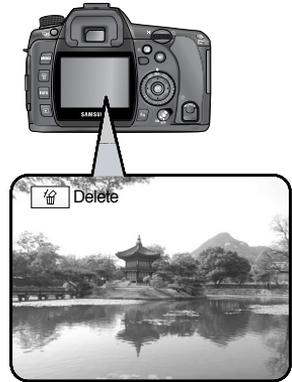
Basic Shooting Operation

6. Review captured images on the LCD monitor.

Image displays for 1 second on the LCD monitor after capturing (Instant Review.)

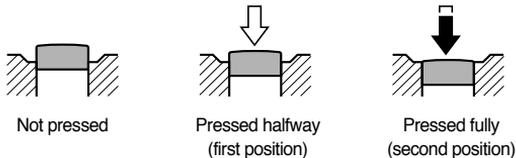
You can delete the image during Instant Review by pressing the  button.

- Setting the Display Time (p.166)
- Deleting Images (p.98)
- Displaying Bright Portion Warning (p.165)



Operating the shutter release button

- The shutter release button has two positions.



Pressing the shutter release button down halfway (first position) turns on the viewfinder and LCD panel indicators and the autofocus system operates. Pressing it down fully (second position) takes the picture.

INFORMATION

- Squeeze the shutter release button gently when taking a picture to prevent camera shake.
- Practice pressing the shutter release button halfway to learn where the first position is.
- The viewfinder indicators stay on while shutter release button is pressed. The indications stay on for about 10 seconds (default setting) after the button is released.

Basic Shooting Operation

Hard-to-Autofocus Subjects

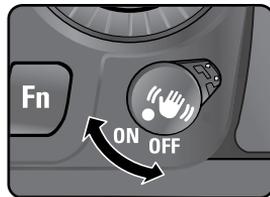
- The autofocus mechanism is not always precisely accurate. Focusing may be difficult when taking pictures under the following conditions ((a) to (f) below). These also apply to manual focusing using the focus indicator  in the viewfinder. If the subject cannot be focused automatically, set the focus mode lever to **MF** and use the manual focus mode to focus on the subject with the aid of the matte field in the viewfinder.
 - (a) Extremely low-contrast subjects such as a white wall in the focus points range.
 - (b) Subjects which do not reflect much light within the focus points range.
 - (c) Fast moving objects.
 - (d) Strongly reflected light or strong backlighting (bright background).
 - (e) If vertical or horizontal line patterns appear within the focus points range.
 - (f) Multiple subjects in the foreground and background within the focus points range.

INFORMATION

- Subject may not be focused even when  (focus indicator) is displayed when (f) above applies.

OPS (Optical Picture Stabilisation)

- You can easily take sharp pictures using the Optical Picture Stabilisation by simply turning on the OPS switch.



Optical Picture Stabilisation

- The OPS function reduces camera shake that occurs when the shutter release button is pressed. This is useful for taking pictures in situations where camera shake is likely to occur. The OPS function allows you to take pictures at approximately 2 to 3.5 steps slower shutter speed without the risk of the camera shake.
The OPS function is ideal when taking pictures in the following situations.
 - When taking pictures in dimly lit locations, such as indoors, at night, on cloudy days and in the shade
 - When taking telephoto pictures



[Blurred picture]



[Picture taken with the OPS function]

INFORMATION

- The OPS function does not compensate for blurring caused by movement of the subject. To take pictures of a moving subject, increase the shutter speed.
- The OPS function may not fully reduce camera shake when taking close-up shots. In this case, it is recommended that the OPS function be turned off and the camera be used with a tripod.
- The OPS function will not fully work when shooting with a slower shutter speed, for example when shooting a moving subject or night scenes. In this case, it is recommended that the OPS function be turned off and the camera be used with a tripod.

OPS (Optical Picture Stabilisation)

Shake Reduction Function and Lens Focal Length

- The OPS function operates by acquiring the lens information such as focal length. If a lens that information is automatically acquired is used, the [ OPS] setting menu appears but can't be selected.
If another type of lens is used, the lens information cannot be automatically acquired. In this case, set the focal length by using the [ OPS] menu.

Turning On the OPS Function

- Turn on the OPS switch. When the shutter release button is pressed halfway,  appears in the viewfinder and the OPS function turns on.

INFORMATION

- Turn the Shake Reduction switch off if you will not use the Shake Reduction function. (OFF)
- The Shake Reduction function will not fully work (for about 2 seconds) right after turning on the camera or restoring from Auto Power Off. Wait for the Shake Reduction function to become stable before gently pressing the shutter release button to take a picture. Press the shutter release button halfway. The camera is ready to take pictures when  icon appears in the viewfinder.
- Be sure to turn off the OPS switch when using the camera with a tripod.
- The Shake Reduction function automatically turns off in the following situations.
When using self-timer, remote control shooting, bulb shooting, or wireless mode with an external flash.

OPS (Optical Picture Stabilisation)

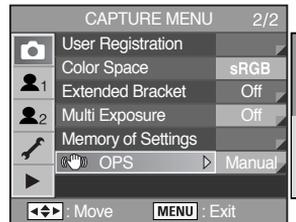
Setting the OPS Function

- The [ OPS] setting menu appears when the camera is turned on with the Shake Reduction switch on and a type of lens that does not support automatic acquisition of lens information such as focal length is mounted. Use the [ OPS] setting menu to set the Focal Length.

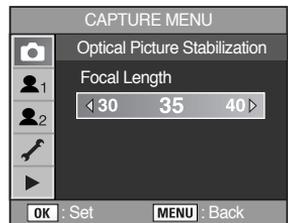
INFORMATION

- The [ OPS] setting menu may appear but is not selected when using a lens that supports automatic acquisition of lens information such as focal length because the Focal Length is set automatically.
- When using a lens without the A (Auto) position on the aperture or with the aperture set to a position other than the s position, set [Use Aperture Ring] on the [CUSTOM2 MENU] menu to [On].

- To change the Focal Length and OPS settings, use [ OPS] on the [CAPTURE MENU] menu.



1. Use the four-way controller () to set the Focal Length. Select from the following focal length values. (The default setting is 35.)



Focal Length	8	10	12	15	18	20	24	28	30	35
	40	43	50	55	65	70	77	85	100	120
	135	150	180	200	250	300	350	400	450	500
	550	600	700	800	-	-	-	-	-	-

OPS (Optical Picture Stabilisation)

INFORMATION

- If the focal length for your lens is not listed above, select the value closest to the actual focal length.
- When using a zoom lens, select the actual focal length at the zoom setting in the same manner.

Using the RAW button

- When you press the RAW button, the images are taken as RAW and JPEG file type. You can set the type of shooting with the **RAW** button. (p.144)



When you press the **RAW** button, **RAW +** will display on the LCD panel. Press the Shutter button to take a picture.



INFORMATION

- When rotating the Mode dial and pressing the **RAW** button again, the RAW function will be cancelled.
- When using the RAW+ function, it may take a time to save the image as the images are saved as RAW and JPEG file type.
- When the Image taken with the RAW+ function is displayed on the LCD monitor, only a JPEG image is displayed. To view the RAW image, use the supplied Software.

Other Shooting Modes

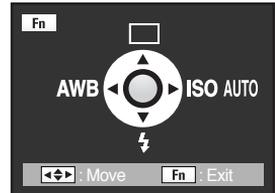
Continuous Shooting

- Pictures can be taken continuously while the shutter release button is held down. When you select [RAW] menu in the [File Format] menu, the maximum number of continuous shots are 9.

1. Press the **Fn** button.



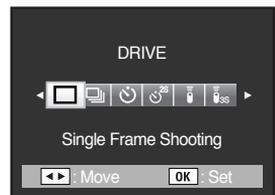
The Fn menu appears.



2. Press the four-way controller (▲).



The Drive Mode options screen appears.
The Default is [Single Frame Shooting].



Other Shooting Modes

3. Use the four-way controller (◀▶) to select  .



4. Press the **OK** button twice.
The camera is ready to take pictures.



5. Press the shutter release button halfway. The autofocus system operates. The focus indicator  appears in the viewfinder when the subject is in focus.

※ Set [Continuous] in [Remaining Count] of the [CUSTOM2 MENU] menu. The number of continuously recordable images (buffer space) appears when shutter is pressed halfway. (p.144)

6. Press the shutter release button fully.

Pictures are taken continuously while the shutter release button is fully pressed. Take your finger off the shutter release button to stop.

Continuous shooting settings are retained when the power is turned off.

Display the Fn menu again and set to  (Single frame shooting) to stop Continuous shooting.

Other Shooting Modes

INFORMATION

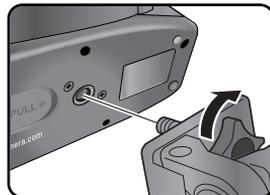
- The focus is adjusted each time the shutter is released while exposure metering timer is set (shutter release button is pressed halfway) if the focus mode is set to **SAF** (Single mode). (p.192)
- Focusing is continuously active when the focus mode is set to **CAF** (Continuous mode).
- Note that in **CAF**, the shutter will release when the shutter release button is pressed fully even if focusing is not complete.
- The shutter cannot be released until charging is complete when using the built-in flash. Use a custom function to enable shutter release before the built-in flash is ready.

Self-Timer Shooting

- This camera has two types of self-timers :  and .

	Shutter will be released after about 12 seconds. Use this mode to include the photographer in the picture.
	After pressing the shutter button Mirror will pop up directly. Shutter is released after about 2 seconds. Use this mode to avoid camera shake when the shutter release button is pressed.

1. Mount the camera to a tripod.

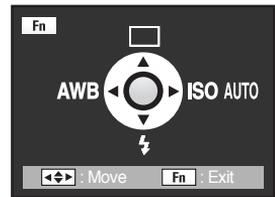


Other Shooting Modes

2. Press the **Fn** button.



The Fn menu appears.



3. Press the four-way controller (▲).

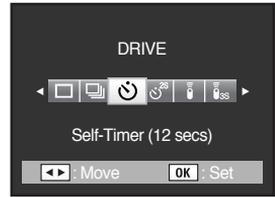


The Drive Mode options screen appears.



Other Shooting Modes

4. Use the four-way controller (◀▶) to select  or .



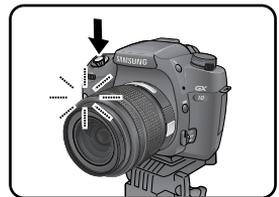
5. Press the **OK** button twice.
The camera is ready to take pictures.



6. Confirm in the viewfinder that the subject you wish to shoot is in the display and press the shutter release button halfway.
The focus indicator  appears when the subject is in focus.



7. Press the shutter release button fully.
, the self-timer lamp starts blinking slowly at first and then blinks rapidly for 2 seconds before the shutter is released.
The beep is heard and the rate increases.
The shutter will be released about 12 seconds after the shutter release button is pressed fully.
, the shutter will be released about 2 seconds after the shutter release button is pressed fully.



8. Turn the camera off after shooting.
※ You can cancel the self-timer. Press the MENU, Fn, Playback button or rotate the Mode dial While the self-timer is operating.



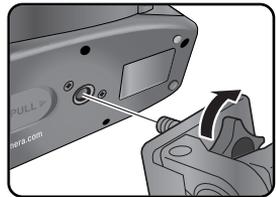
Other Shooting Modes

Remote Control Shooting (Remote Control F : Sold Separately)

- Remote Control for PENTAX DSLR (Remote Controller F) can be used with SAMSUNG DSLR.
- The shutter can be released with the optional remote control unit. You can select from  (remote control) and  (three-second delay) for remote control shooting.

	The shutter will be released immediately the shutter release button on the remote control unit is pressed.
	The shutter will be released 3 seconds after the shutter release button on the remote control unit is pressed.

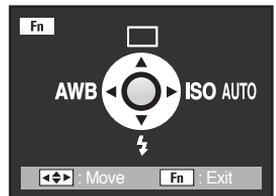
1. Mount the camera on to a tripod.



2. Press the **Fn** button.



The Fn menu appears.



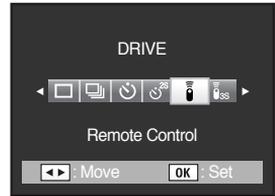
3. Press the four-way controller ()
The Drive Mode options screen appears.



Other Shooting Modes

4. Use the four-way controller (◀▶) to select  or .

The self-timer lamp will blink to let you know that the camera is in remote control wait status.



5. Press the **OK** button twice. The camera is ready to take pictures.

6. Press the shutter release button halfway.

The autofocus system operates. The focus indicator  appears in the viewfinder when the subject is in focus.

INFORMATION

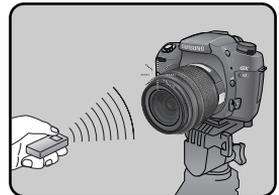
- You cannot focus with the remote control unit in default settings. Focus on the subject first before operating with the remote control. You can set [AF in Remote Control] to [On] in the custom function. (p.132)

7. Point the remote control unit towards the front of the camera and press the shutter release button on the remote control.

The maximum operating distance of the remote control unit is about 5 m from the front of the camera.

- , the shutter will be released immediately after the shutter release button is pressed.
- , the shutter will be released approximately 3 seconds after the shutter release button is pressed.

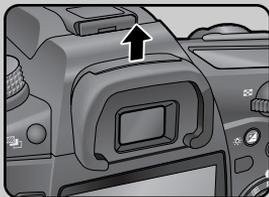
When the picture is taken, the self-timer lamp lights and will then resume blinking.



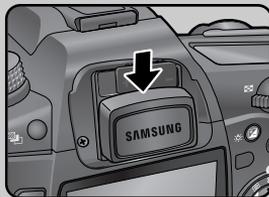
Other Shooting Modes

INFORMATION

- The beep can be turned off (p.151).
- Exposure may be affected if light enters the viewfinder. Attach the provided viewfinder cap or use the AE lock function (p.205). (Ignore the light entering the viewfinder when the exposure mode is set to the Manual mode (p.182).)
- Remove the Eyecup by pulling one side out and toward you when using accessories such as the viewfinder cap.



[Removing the Eyecup]



[Attaching the Viewfinder cap]

- Turn the power off to stop the remote control operation after it has been activated.
- The remote control may not operate in backlit conditions.
- The remote control does not work while the flash is being charged.
- When using the built-in flash, raise the flash into position first.
- The remote control unit battery can send a remote control signal about 30,000 times.

Other Shooting Modes

Using Mirror Lock Up Function to Prevent Camera Shake

- Use the Mirror Lock Up function if camera shake is evident even when Cable Switch (optional) or Remote Control Unit (optional) is used.

When the shutter release button is pressed, the mirror pops up and the shutter is fired 2 seconds later if the 2 second Self-Timer setting is selected. Avoid camera shake when mirror pops up by using this method. Follow the procedure below to take a picture with the mirror lock up.

1. Mount the camera to a tripod.
2. Use the **Fn** button and the four-way controller (▲) to select  (2 sec. Self-Timer). (p.62)
3. Focus on the subject.
4. Press the shutter release button fully.

The mirror pops up and the picture is taken 2 seconds later. AE lock is enabled with the exposure value set immediately before the mirror goes up.

Using the Zoom Lens

- Enlarge the subject (telephoto) or capture a wider area (wide angle) with a zoom lens. Adjust it to the desired size and take the picture.

1. Turn the zoom ring to the right or left.

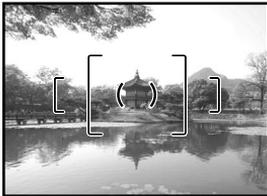
Turn the zoom ring clockwise for telephoto and counterclockwise for wide angle.



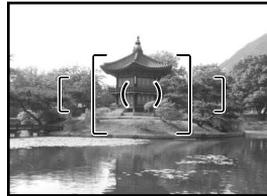
INFORMATION

- Look through the viewfinder to compose your picture at the focal length that looks right for your purpose. Turn the zoom ring right or left until you see the composition you want.

Wide Angle



Telephoto



Using the Built-in Flash

- If you wish to discharge the flash in a dark or backlit location, press the Flash Pop-up button to pop up the flash. Select a flash mode to suit your purpose from the Flash options screen in the Fn menu. You can adjust the flash output with the rear e-dial in any Exposure mode other than Auto mode. The built-in flash is optimum from about 0.7 m to 4 m from the subject. Exposure will not be properly controlled and vignetting may occur when used at a distance closer than 0.7 m (this distance varies slightly depending on the lens being used and set sensitivity).

※ Compatibility of built-in flash and lens

Vignetting (darkening of the corners of the image due to a lack of light) may occur depending on the lens being used and the capture conditions. We recommend taking a test shot to confirm this.

INFORMATION

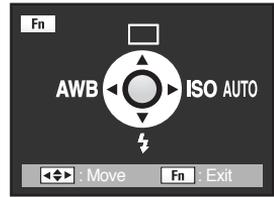
- When using the built-in flash, remove the lens hood before shooting.
- The built-in flash fully discharges for lenses without a function to set aperture lens ring to A (Auto).

 Auto discharge	Discharges the flash automatically in dark or backlit locations.
 Fill-in Flash	The built-in flash discharges manually. When the pop-up flash is closed, the flash doesn't discharge. When the flash is opened, the flash will discharge.
 Auto flash+Redeye reduct	Lights a red-eye reduction light before automatic flash.
 Fill-in Flash+Red-eye	The built-in flash discharges manually. Lights a red-eye reduction light before manual flash.
 Slow-speed sync	Sets the shutter speed to capture the background clearly.
 Slow-speed sync+Red-eye	Sets the shutter speed to capture the background clearly and also lights a red-eye reduction light before automatic flash.
 Trailing curtain sync	Discharges flash immediately before closing the shutter curtain.

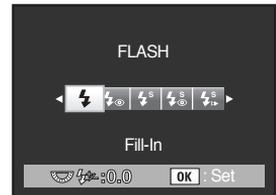
Using the Built-in Flash

Selecting Flash Mode

1. Press the **Fn** button.
The Fn menu appears.



2. Press the four-way controller (▼).
The flash options screen appears.



● Available flash mode, by recording mode

(O : Selectable, X : Not selectable)

	A	P	Sv	Tv	Av	TAv	M	B	X	USER
⚡ ^A Auto discharge	O	X	X	X	X	X	X	X	X	O
⚡ Fill-in Flash	X	O	O	O	O	O	O	O	O	O
⚡ ^A Auto flash+Redeye reduct	O	X	X	X	X	X	X	X	X	O
⚡ [⊕] Fill-in Flash+Red-eye	X	O	O	O	O	O	O	O	O	O
⚡ ^S Slow-speed sync	X	O	O	X	O	X	X	X	X	O
⚡ ^S ⊕ Slow-speed sync+Red-eye	X	O	O	X	O	X	X	X	X	O
⚡ ^S ⊖ Trailing curtain sync	X	O	O	O	O	O	O	O	X	O

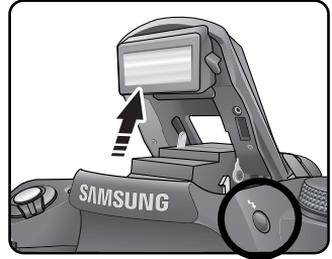
* In the USER mode, the available flash may be changed by the exposure mode.

3. Use the four-way controller (◀▶) to choose a flash mode.
 - ※ When not in Auto mode, turn the rear e-dial to perform Flash Compensation. The compensation range is -2.0 to +1.0. (p.75)
4. Press the **OK** button twice. The camera returns to a capture mode.

Using the Built-in Flash

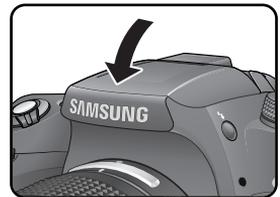
Using Auto Discharge ⚡^A, ⚡^AⓂ

1. Set the mode dial to Auto mode.
2. Press the ⚡ button.
The built-in flash pops up if necessary and begins charging. When the flash is fully charged, ⚡ appears in the LCD panel and viewfinder. (p.27, 29)



3. Press the shutter release button halfway. The focus indicator ● appears in the viewfinder when focused.
4. Press the shutter release button fully. The picture is taken.

5. Push down on the portion indicated in the illustration to retract the flash.



Using the Built-in Flash

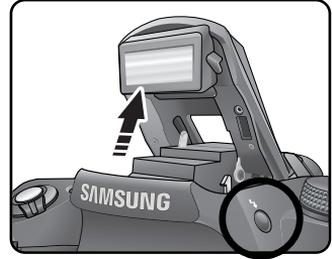
Using Fill-in Flash ⚡ , ⚡Ⓞ

1. Set the mode dial to any recording mode except for the Auto mode.

2. Press the ⚡ button.

The built-in flash pops up if necessary and begins charging. Regardless of the Flash mode, the Fill-in flash will be selected.

When the flash is fully charged, ⚡ appears in the LCD panel and viewfinder.

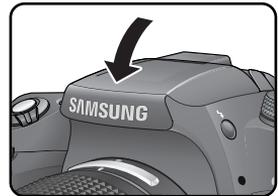


3. Press the shutter release button halfway.

The focus indicator ● appears in the viewfinder when focused.

4. Press the shutter release button fully. The picture is taken.

5. Push down on the portion indicated in the illustration to retract the flash.



Using the Built-in Flash

Using Red-eye Reduction Flash

- “Red-eye” is the phenomenon where eyes look reddish in photographs taken in dark environments with a flash. This is caused by the reflection of the electronic flash from the retina of the eye. Red-eye occurs because pupils are dilated in dark environments. This phenomenon cannot be averted but the following measures can be used to combat it.
 - Brighten the surroundings when shooting.
 - If using a zoom lens, set it to wide-angle and move in closer to your subject.
 - Use a flash that supports red-eye reduction.
 - Position the flash as far away from the camera as possible when using an external flash.The red-eye reduction function on this camera reduces red-eye by discharging the flash twice. With the red-eye reduction function, the pre-flash is discharged just before the shutter is released. This reduces pupil dilation. The main flash is then discharged while the pupils are smaller, reducing the red-eye effect.
To use the red-eye reduction function, set  (Auto+Red-eye reduction) in Auto mode and  (Fill-in Flash+Red-eye reduction) or  (Slow speed sync+Red-eye reduction in other modes).

Daylight-Sync Shooting

- In daylight conditions, the flash will eliminate shadows when a portrait picture is taken with a person's face cast in shadow. Use of the flash in this way is called Daylight-Sync Shooting. Flash is discharged manually when shooting with Daylight-Sync Shooting.
- Taking pictures (Hyper program)
 1. Confirm that the flash has popped up and the flash mode is set to Fill-in Flash. (p.70)
 2. Confirm that the flash is fully charged.
 3. Take the picture.
- ※ The picture may be over-exposed if the background is too bright.



[Without Daylight-Sync]



[With Daylight-Sync]

Using the Built-in Flash

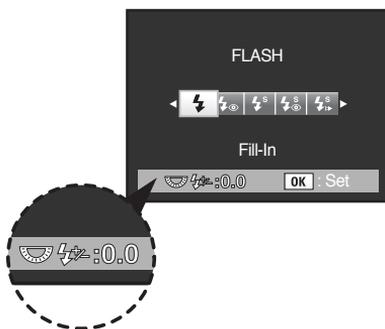
Compensating Flash Output

- You can change the flash output in a range of -2.0 to +1.0. The Flash Compensation values are as follows for 1/2 EV and 1/3 EV.

Step interval	Flash Compensation
1/2 EV	-2.0, -1.5, -1.0, -0.5, 0.0, +0.5, +1.0
1/3 EV	-2.0, -1.7, -1.3, -1.0, -0.7, -0.3, 0.0, +0.3, +0.7, +1.0

※ Set interval of steps in [EV Steps] in the [CUSTOM1 MENU] menu. (p.133)

- Set in Flash item of Fn menu by using the Rear e-dial.



INFORMATION

-  blinks in the viewfinder when the flash pops up during Flash Compensation. (p.27)
- If the maximum flash output is exceeded when corrected to the plus (+) side, no compensation will be effective.
- Compensating to the minus (-) side may not effect the image if the subject is too close, aperture is low or sensitivity is high.

Using the White Balance

Setting the White Balance

- The colour of the subject changes with the light source. For example, the same white object will be a different shade of white in daylight than under a light bulb. In cameras using film, this is adjusted by changing the film or using filters. In digital cameras, the whiteness is adjusted using white balance. The default setting is **AWB** (Auto).

AWB	Auto	Automatically adjusts the white balance. (About 4000 to 8000K)
	Daylight	For use when taking pictures in sunlight. (About 5200K)
	Shade	For use when taking pictures in the shade. It reduces the bluish color tones in a picture. (About 8000K)
	Cloudy	For use when taking pictures on cloudy days. (About 6000K)
	Fluorescent Light	For use when taking pictures under fluorescent lighting. Select the type of fluorescent light, from W (white) (About 4200K), N (neutral white) (About 5000K), and D (daylight) (About 6500K).
	Tungsten Light	For use when taking pictures under light bulb or other tungsten light. It reduces the reddish colour tones in a picture. (About 2850K)
	Flash	For use when taking pictures using the built-in flash. (About 5400K)
	Manual	Use this to manually adjust the white balance according to the lighting so that white objects appear as a natural white.
K	Color Temperature 1, 2, 3	Use this to set the colour temperature in figures. You can save three settings.

※ The colour temperature (K) is an estimate. This does not indicate precise colours.

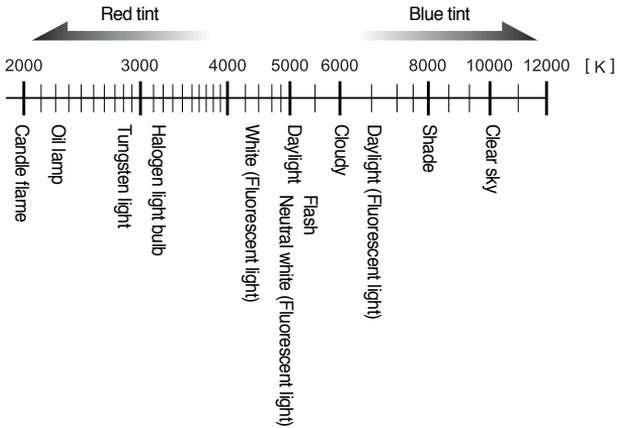
※ The colour temperature step can be set in the [Color Temp. Unit] of the [CUSTOM1 MENU]. (p.137)

Using the White Balance

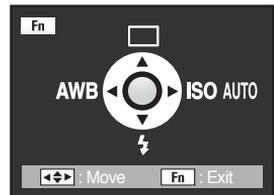
Colour Temperature

The colour of light shifts towards blue as the colour temperature rises, and towards red as the colour temperature falls. Colour temperature describes this change in light colour in terms of absolute temperature (K: Kelvin).

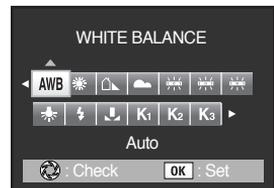
This camera is capable of setting the white balance to enable taking pictures with natural colouring under a variety of lighting conditions.



1. Press the **Fn** button.
- The Fn menu appears.



2. Press the four-way controller (◀).
- The White Balance screen appears.



3. Use the four-way controller (▲▼◀▶) to select a desired white balance.

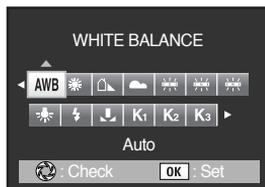
※ After selecting a desired White Balance rotate the main switch to (🔄). You can check the previous White Balance.

Using the White Balance

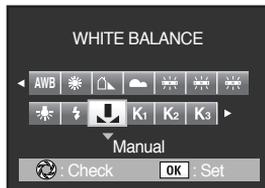
Adjusting the White Balance Manually

- You can adjust the white balance depending on the light source when taking pictures. With Manual White Balance, the camera can store delicate shades that cannot be precisely adjusted with the white balance preset values provided in the camera. This provides the optimum white balance for your surroundings.

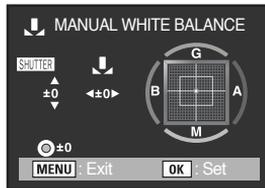
1. Press the **Fn** button.
 - The Fn menu appears.
2. Use the four-way controller (◀).
 - The white balance menu appears.



3. Use the four-way controller (▲▼◀▶) to select  (Manual).



4. Press the four-way controller (▼).
 - The message screen appears.



5. Fully display a white or gray sheet of paper in the viewfinder under the light to adjust white balance.
6. Press the shutter release button fully.
 - Slide the focus mode lever to **MF** if the shutter cannot be released.

Using the White Balance

7. The menu as shown will display.



※ The position of Custom white balance can be changed by the real e-dial. You can select a desired white balance by using the four way controller (▲▼◀▶).



8. Press the **OK** button and the White Balance adjustment menu will display. Press the **OK** button again to save the setting.

INFORMATION

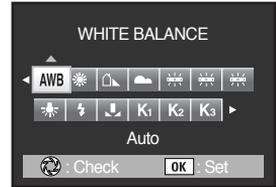
- No image is recorded when the shutter release button is pressed to adjust the white balance.
- Press the **Fn** button when adjustment is unsuccessful to set again.
- If picture is extremely overexposed or underexposed, white balance may not be adjusted. In this case, set an appropriate exposure and re-adjust the white balance.

Using the White Balance

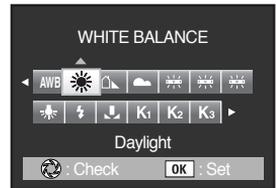
Fine-Tuning the White Balance

- You can fine tune the White Balance setting.

1. Press the **Fn** button.
 - The Fn menu appears.
2. Use the four-way controller (◀▶).
 - The white balance menu appears.



3. Use the four-way controller (▲▼◀▶) to select a desired white balance.

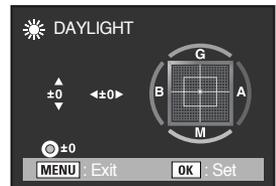


[Selecting Daylight WB]

- ※ After selecting a desired White Balance rotate the main switch to (🔄). You can check the previous White Balance.



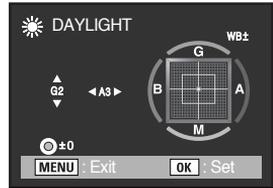
4. Press the four-way controller (▲▼).
 - The White Balance fine tune screen appears.



Using the White Balance

5. Use the four-way controller (▲▼◀▶) to fine tune the White Balance. Seven levels and 196 patterns are available on the G-M and B-A axes.

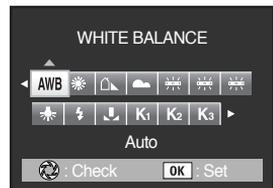
- G : Green
- M : Magenta
- B : Blue
- A : Amber



GM compensation	Adjusts the tone of the colours between green and magenta.	◀▶
BA compensation	Adjusts the tone of the colours between blue and amber.	▲▼

6. Press the **OK** button.

The camera returns to the White Balance screen.

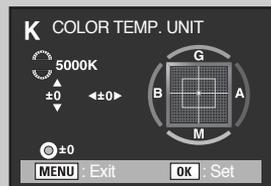


7. Press the **OK** button twice.

The camera is ready to take a picture with the set White Balance.

INFORMATION

- If the Green button is pressed during the White Balance setting, the White Balance value is set to default (± 0).
- When the colour temperature is change after selecting the colour temperature, the following menu will display. Change the menu with the Front and Rear e-dial.
- Set [Fine tune when AWB] in [CUSTOM1 MENU] to [On] when fine-tuning in AWB. (p.136)

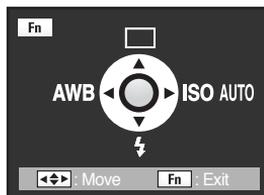


Using the ISO sensitivity

Setting the Sensitivity

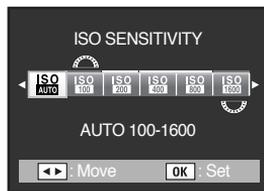
- You can set the sensitivity to suit the brightness of the surroundings. The sensitivity can be set to [Auto] or within a sensitivity range equivalent to ISO 100 to 1600.

1. Press the **Fn** button.
 - The Fn menu appears.



2. Use the four-way controller (▶).
 - The ISO sensitivity menu appears.

3. Use the four-way controller (◀▶) to select a desired sensitivity.



INFORMATION

- Captured images can show more noise if higher Sensitivity is set.
- Set this menu in [CUSTOM1 MENU] > [ISO Steps]. (p.139)

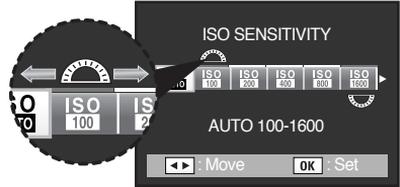
Using the ISO sensitivity

Setting the Range of Automatic Correction in AUTO

- Set range to automatically correct sensitivity when Sensitivity is set to [Auto].

The sensitivity is automatically corrected in the range of [ISO 100-400] by default.

Turn the front or rear e-dial to set [ISO SENSITIVITY] in the Fn menu.



Front e-dial	Sets the lower sensitivity limit.
Rear e-dial	Sets the upper sensitivity limit.

INFORMATION

- When the camera is set to the following conditions, the sensitivity cannot be set to auto.
 - The exposure mode is set to **Sv** (Sensitivity Priority), **M** (Hyper-manual), **B** (Bulb) or **X** (flash synchro) mode.
- ISO Sensitivity Warning appears in the viewfinder when a sensitivity value of your choice is reached or exceeded. (p.138)

Playing Back Still Pictures

Playing Back Images

- You can play back captured still pictures with the camera.

INFORMATION

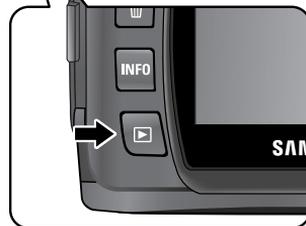
- Use the included “Digimax Master” software to play back using a PC.
Refer to the software instructions for details. (p.218)

1. Press the  button after taking a picture.
The most recently captured image (image with the largest file number) is displayed on the LCD monitor.

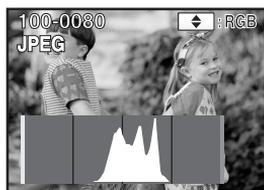


※ **INFO** button

- When an image is played back, press the **INFO** button.
The recording information will be changed as followings.



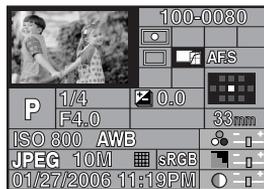
INFO button



INFO button



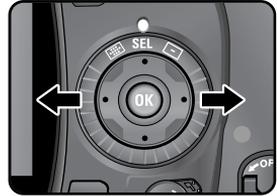
INFO button



Playing Back Still Pictures

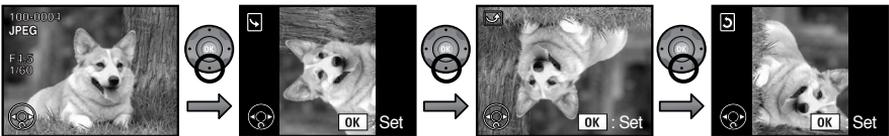
2. Press the four-way controller (◀▶).

- ◀ : The previous image appears.
- ▶ : The next image appears.



Rotating Images

- To make images shot vertically easier to view you can rotate images 90° counterclockwise.



1. Press the  button after taking a picture.

The most recently captured image (image with the largest file number) is displayed on the LCD monitor.



2. Press the four-way controller (▼).

The image is rotated 90° counterclockwise each time the button is pressed.



Playing Back Still Pictures

3. Press the **OK** button.
Image rotation information is saved.

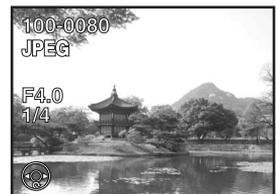


Enlarging Playback Images

- You can magnify images up to 20 times when displaying them on the LCD monitor.



1. Press the **INFO** button and use the four-way controller (◀▶) to select an image.
The most recently captured image (image with the largest file number) is displayed first on the LCD monitor.



Playing Back Still Pictures

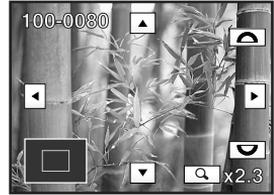
2. Turn the e-dial to the right (toward ).

Image enlarges at each calibration and can be enlarged to 20 times the original.

※ The following buttons act as :

- Four way controller () : change the enlargement position.
- Rear e-dial (Right) : enlarges the image (Max. 20 times)
- Rear e-dial (Left) : reduce the image (Max. 1.2 times)
- **OK** button : displays the original size image
- **INFO** button : display the information of image
- Front e-dial : holding the image enlargement scale, the previous or the next image is displayed

※ The first calibration on the Rear e-dial is 1.2 times. You can change this in [CUSTOM2 MENU] > [Initial Zoom] menu.



INFORMATION

- You can enlarge the image by following the same procedure during Instant Review (p.166) or Digital Preview (p.167).

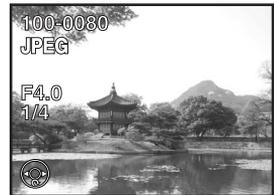
Playing Back Still Pictures

Displaying Multiple Images

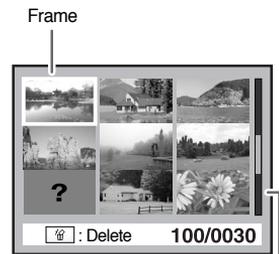
- You can display 4, 9 or 16 images on the LCD monitor at the same time.



1. Press the  button. The most recently captured image (image with the largest file number) is displayed on the LCD monitor.



2. Turn the rear e-dial to the left (toward ). The multi-image display screen appears. Up to 16 thumbnail images will be displayed at once. Use the four-way controller (, , , ) to select an image. A scroll bar appears at the right of the screen. [?] appears for an image that cannot be displayed.



Scroll bar

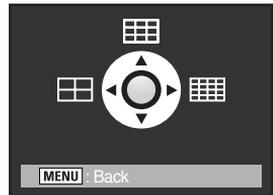
Playing Back Still Pictures

3. Turn the rear e-dial to the right (towards Q) or press the **OK** button. A full screen display of the selected image appears.



Selecting the Number of Images to Display

1. In the multi-image display screen, press the **Fn** button.
The multi-image options screen appears.
2. Use the four-way controller (◀▶) to select the number of images to display at once.
- 4, 9, 16 images
3. The selected number of images display at once.



Displaying a Folder

- You can display the contents of folders in the multi-image display screen.
1. Turn the rear e-dial to the left in the multi-image display screen.
 2. Select the folder you want to display and press the **OK** button.
The images in the folder are displayed.



Folder name

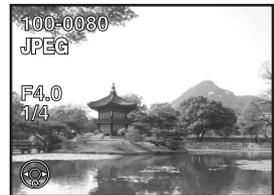
Playing Back Still Pictures

Slideshow

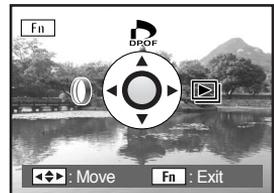
- You can play back all images recorded on your Memory Card successively. To start continuous playback, use the menu screen displayed on the LCD monitor.



1. Press the  button and use the four-way controller ( ) to select an image to be displayed first.
The most recently captured image (image with the largest file number) is displayed first on the LCD monitor.



2. Press the **Fn** button.
The Fn menu appears.



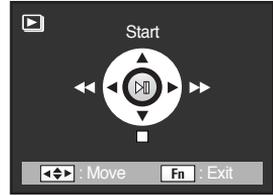
Playing Back Still Pictures

3. Press the four-way controller (▶).

Start screen is displayed and slideshow begins.

※ Operations available during a slideshow

- OK button : Pause
- Four-way controller (◀) : Shows previous image
- Four-way controller (▶) : Shows next image
- Four-way controller (▼) : Stop



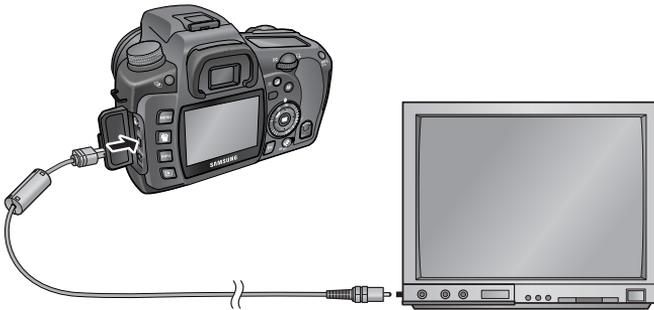
INFORMATION

- Set the display time for slideshow in the [▶] PLAYBACK MENU] menu. Alternatively, start the slideshow from the [▶] PLAYBACK MENU] menu. (p.168)
- Slideshow ends when one of the following is performed during playback or when paused.
 - ① Four-way controller (▼) is pressed
 - ② Shutter release button is pressed halfway or fully
 - ③ AF button is pressed
 - ④ Playback button is pressed
 - ⑤ Main switch is turned to the  position
 - ⑥ Mode dial is turned
 - ⑦ Menu button is pressed
- ※ ① After slideshow ends, the camera switches to Playback mode.
 - ②, ③, ④, ⑤, ⑥ After slideshow ends, the camera switches to Capture mode.
 - ⑦ After slideshow ends, the Playback menu appears.

Playing Back Still Pictures

Connecting the Camera to AV Equipment

- By using the video cable, you can play back images using a TV or other device with a video IN jack as your monitor. Make sure that both the TV and the camera are turned off before connecting the cable.
 - Selecting the Video Output Format (p.158)



1. Open the terminal cover and connect the video cable to the USB / Video terminal on your camera.
2. Connect the other end of the video cable to the video IN jack on the AV device.
3. Turn on the AV device and the camera.

INFORMATION

- If you intend to use the camera continuously for a long period, use of the AC adapter (SAC-82, optional) is recommended. (p.37)
- For AV equipment with multiple video IN jacks (such as TVs), check the operating manual of the AV device, and select the video IN jack to which the camera is connected.
- Ensure that the video output format setting is the correct one for your country or region. (p.158)
- The camera LCD monitor turns off while the camera is connected to the AV device.

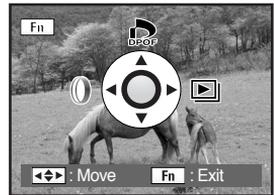
Playing Back Still Pictures

Digital Filters

- You can edit shot images using digital filters. Processed images are saved under a different name.



1. Press the **Fn** button in Playback mode.
The Fn menu appears.

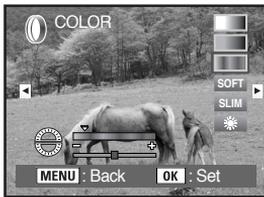


2. Press the four-way controller (◀).
The screen for selecting the filter appears.

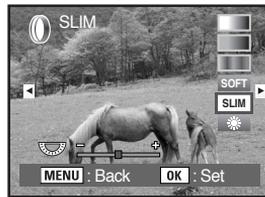


Playing Back Still Pictures

3. Use the four-way controller (◀▶) to select an image.
4. Use the four-way controller (▲▼) to select a filter.
Select a filter and preview the effects on the image.
5. Set a desired filter by using the front and rear e-dial.



[Colour Filter]



[Slim Filter]

6. Press the **OK** button.
The save confirmation screen appears.
7. Use the four-way controller (▲) to select [Save as].



8. Press the **OK** button.
The filtered image is saved under a different name.

Playing Back Still Pictures

● Digital Filters

Filter name	Function	Front e-dial	Rear e-dial
B&W	Converts to a black and white image. Changes the contrast to appear as if a B&W colour filter was used.	-	B&W/R/G/B
Sepia	Adds a vintage touch to photos by converting them to sepia color.	-	Density (3 levels)
Color	Adds a colour filter to the image. Selects from 18 filters (6 colors x 3 tones).	Red/Green/Blue/ Yellow/Magenta/ Cyan	Density of each color (3 levels)
Soft	Creates a soft image by lightly fading the entire image.	-	Softness (3 levels)
Slim	Changes the horizontal and vertical ratio of images. Adjusts height or width up to two times the original size.	-	Left : Wide Right : Slim
Brightness	Changes the brightness of images. Adjusts in a range of ± 8 levels.	-	Left : Dark Right : Light

※ When another image is selected with the four-way controller (◀▶), the image appears in the set filter.

INFORMATION

- RAW images cannot be processed using the digital filter.
- Additionally, set digital filters from the [ PLAYBACK MENU] menu.

Playing Back Still Pictures

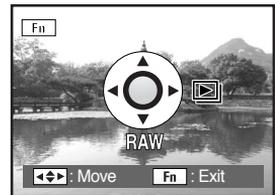
Editing RAW Images

- You can convert captured RAW files into JPEG files.

1. Select a RAW file in Play mode.



2. Press the **Fn** button. The Fn menu appears.



3. Press the four-way controller (▼).



4. Press the **OK** button.

The parameters recorded in the image file appear.

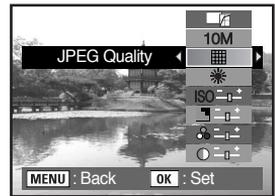
- ※ If you do not want to change the current parameters, press the **OK** button again.



Playing Back Still Pictures

Image Tone	(Bright) / (Natural)
Recorded Pixels	10M (3872x2592) / 6M (3008x2000) / 2M (1824x1216)
Quality Level	(Best) / (Better) / (Good)
White Balance	AWB (Auto) / (Daylight) / (Shade) / (Cloudy) / (Daylight colors fluorescent lights) / (Daylight white fluorescent lights) / (White light fluorescent lights) / (Tungsten Light) / (Flash) / (Manual) / K (Color Temperature)
Sensitivity	-2.0 ~ +2.0
Sharpness	-3.0 ~ +3.0
Saturation	-3.0 ~ +3.0
Contrast	-3.0 ~ +3.0

5. Press the **Fn** button and then use the four-way controller (▲▼◀▶) to change the parameter.



6. After changing the parameter, press the **OK** button.
The save confirmation screen appears.



7. Use the four-way controller (▲) to select [Save as].
8. Press the **OK** button. The edited image is saved under a different name.

Deleting Images

Deleting a Single Image

- You can delete one image at a time.

INFORMATION

- Deleted images cannot be restored.
- Protected images cannot be deleted.

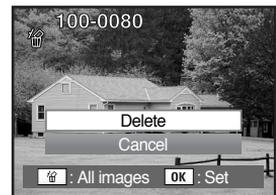
1. Press the  button and use the four-way controller ( ) to select an image to delete.



2. Press the  button.
The Delete screen appears.



3. Use the four-way controller () to select [Delete].



4. Press the **OK** button.
The image is deleted.

Deleting Images

Deleting All Images

- You can delete all saved images at once.

INFORMATION

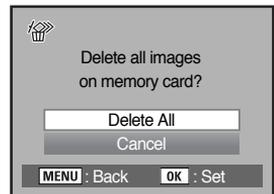
- Deleted images cannot be restored.
- Protected images cannot be deleted.

1. Press the  button.

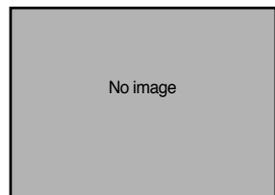
2. Press the  button twice.
The Delete All screen appears.



3. Use the four-way controller () to select [Delete All].



4. Press the **OK** button.
All images are deleted.



Deleting Images

Deleting Selected Images (from Nine-Image Display)

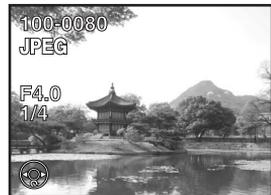
- You can delete multiple images from the nine-image display at once.

INFORMATION

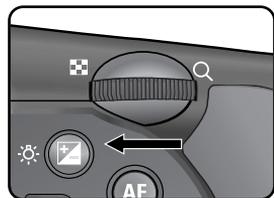
- Deleted images cannot be restored.
- Protected images cannot be deleted.
- Only files in the same folder can be selected at once.

1. Press the  button.

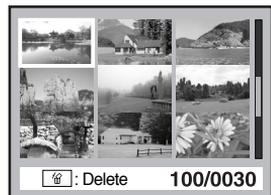
The most recently captured image (image with the largest file number) is displayed first on the LCD monitor.



2. Turn the e-dial to the left (toward ).



Nine thumbnail images appear.

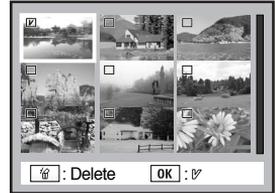


Deleting Images

3. Press the  button.
 appears above the images.



4. Use the four-way controller () to move to the images to delete and press the **OK** button.
Image is selected and appears.
Press **Fn** button to select all images (the selection of images may take time to complete depending on the number of images).



5. Press the  button.
The Delete confirmation screen appears.

6. Use the four-way controller () to select [Select&Delete].



7. Press the **OK** button.
The selected images are deleted.

Deleting Images

Deleting images taken with the RAW button

- You can delete JPEG, RAW images taken with the RAW button.

1. Press the  button and use the four-way controller (◀▶) to select **RAW** images to delete.



2. Press the  button.
The Delete screen appears.



3. Use the four-way controller (▲▼) to select deletion type.
- [Delete JPEG] : only JPEG format images among the selected images are deleted.
 - [Delete RAW] : only RAW format images among the selected images are deleted.
 - [Delete RAW+JPEG] : RAW and JPEG format images among the selected images are deleted.

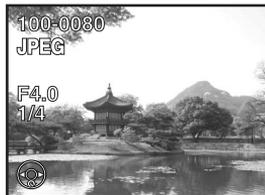


Protecting Images

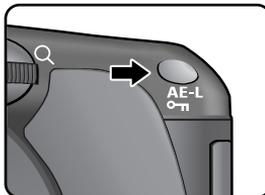
Protecting Images from Deletion (Protect)

- You can protect images from being accidentally deleted.
- ※ Even protected images are deleted if the Memory Card is formatted.

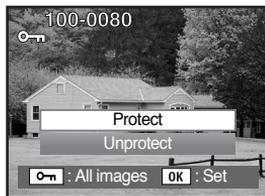
1. Press the  button and use the four-way controller ( ) to select an image.
The most recently captured images (image with the largest file number) are displayed first on the LCD monitor.



2. Press the  button.
The Protect screen appears.



3. Use the four-way controller () to select [Protect].



4. Press the **OK** button.
The selected image is protected.

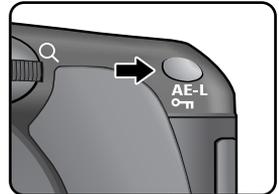
INFORMATION

- Select [Unprotect] in Step 3 to cancel the Protect setting.
- The  symbol is displayed when playing back protected images. (p.25, 26)

Protecting Images

Protecting All Images

1. Press the  button.
2. Press the  button twice.
The Protect all images screen appears.



3. Press the four-way controller () to select [Protect] and press the **OK** button.
All images saved in the Memory Card are protected.



※ Select [Unprotect] in Step 3 to cancel the Protect setting on all of the images.

Setting the Printing Service (DPOF)

- You can order conventional photograph prints by taking the Memory Card with recorded images to any store offering this printing service.
DPOF (Digital Print Order Format) settings allow you to specify the number of copies or to imprint the date.
- ※ DPOF settings cannot be applied to RAW images.

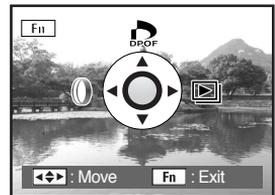
Printing Single Images

- Set the following items for each image.

Copies	Selects the number of copies. You can print up to 99 copies.
Date	Specifies whether you want the date inserted on the print or not.

1. Press the  button and use the four-way controller () to select an image.

2. Press the **Fn** button.
The Fn menu appears.



3. Press the four-way controller ().
The DPOF screen appears.
If DPOF settings have already been made for an image, the previous number of prints and date setting ((on) or (off)) will be displayed.



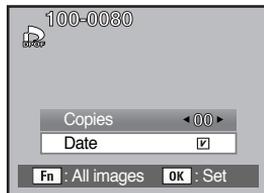
Setting the Printing Service (DPOF)

4. Use the four-way controller (◀▶) to choose the number of copies and press the four-way controller (▼). The frame moves to [Date].

5. Use the four-way controller (◀▶) to choose whether to insert the date () or not ().

- () : The date will be imprinted.

- () : The date will not be imprinted.



6. Press the **OK** button.

The DPOF settings are saved and the camera returns to playback status.

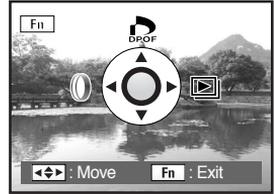
INFORMATION

- Depending on the printer or printing equipment at the photo processing lab, the date may not be imprinted on the pictures even if the DPOF setting was made.
- To cancel DPOF settings, set the number of copies to [00] in Step 4 and press the **OK** button.

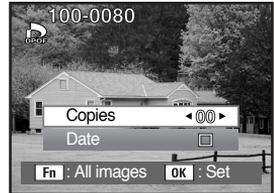
Setting the Printing Service (DPOF)

Settings for All Images

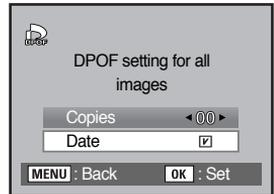
1. Press the **Fn** button in Playback mode.
The Fn menu appears.



2. Press the four-way controller (▲).
The DPOF screen appears.



3. Press the **Fn** button.
The screen for making DPOF settings for all images appears.



4. Use the four-way controller (◀▶) to choose the number of copies and whether to insert the date () or not ().
Refer to Steps 4 and 5 in "Printing Single Images" (p.105) for details of how to make the settings.

5. Press the **OK** button.
The DPOF settings for all the images are saved and the camera returns to playback status.

INFORMATION

- The number of copies specified in settings for all images applies to all the images.
Before printing, check that the number is correct.
- Settings for single images are cancelled when settings are made for all images.

Printing Using PictBridge

- This function lets you print images directly from the camera without using a PC (direct printing).
Connect the camera and PictBridge compatible printer with the included USB cable to print directly.
After connecting the camera to the printer, select the images you want to print, the number of copies and whether to insert the date or not.
Direct printing is performed in the following steps.

Set [USB] on camera to [Printer]



Connect the camera to the printer (p.110)

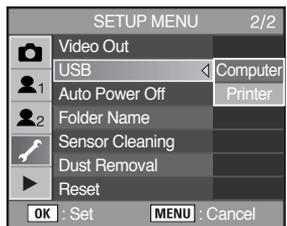


Set the printing options

Print single images (p.111)

Print all images (p.113)

Print with DPOF settings (p.115)



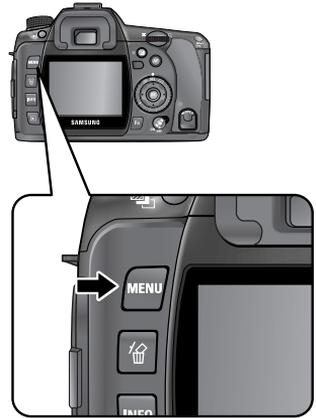
INFORMATION

- Use of the AC adapter (SAC-82, optional) is recommended when connecting the camera to a printer. If the AC adapter is not used, the printer may not work properly or the image data may be lost if the batteries run out of power while the camera is connected to the printer.
- Do not disconnect the USB cable during data transfer.
- Depending on the type of printer, not all the settings made on the camera (such as print settings and DPOF settings) may be valid.
- A printing error may occur if the selected number of copies exceeds 500.
- You cannot use the camera to select multiple images for printing on a single sheet.
Make the settings on the printer. For details, refer to the operating manual for your printer.
- RAW images cannot be printed directly. Use a PC to print RAW images.
- See the software instructions when connecting to a PC. (p.222)

Printing Using PictBridge

Setting USB

1. Press the **MENU** button.
The [CAPTURE MENU] menu appears.



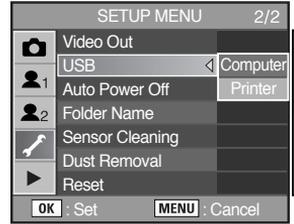
2. Use the four-way controller (▲▼) to select the [SETUP MENU] menu. Press the four-way controller (▶).



3. Use the four-way controller (▲▼) to select [USB].
4. Press the four-way controller (▶).
A pop-up menu appears.

Printing Using PictBridge

5. Use the four-way controller (▲▼) to select [Printer].

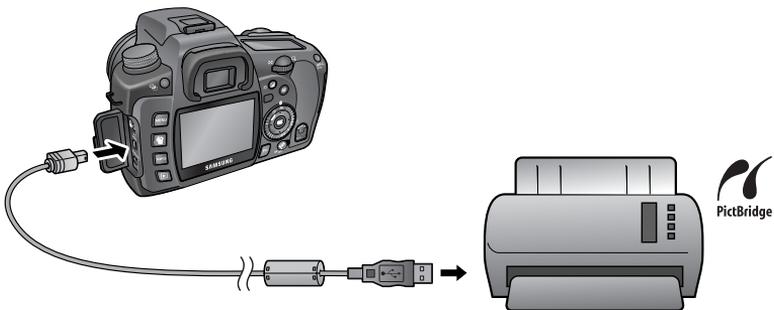


6. Press the **OK** button.
The setting is changed.

7. Press the **MENU** button.

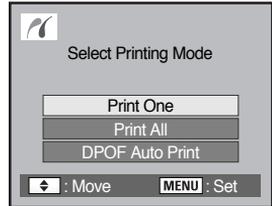
Connecting the Camera to the Printer

1. Turn the camera off.
2. Connect the camera and a PictBridge compatible printer using the USB cable supplied with the camera.



Printing Using PictBridge

3. Turn the printer on.
4. After printer start-up is complete, turn the camera on.
The PictBridge menu appears.

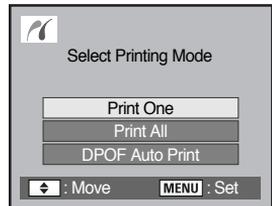


INFORMATION

- PictBridge menu is not displayed if [USB] is set to [Computer].

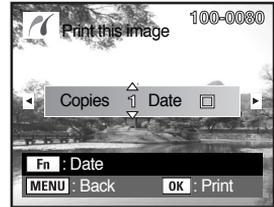
Printing Single Images

1. Use the four-way controller (▲▼) to select [Print One] on the PictBridge menu.
2. Press the **OK** button.
The Print one screen appears.



Printing Using PictBridge

3. Use the four-way controller (◀▶) to choose an image to print.



4. Use the four-way controller (▲▼) to choose the number of copies. You can print up to 999 copies.

5. Use the **Fn** button to choose whether to insert the date () or not ().

() : The date will be printed.

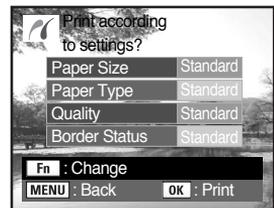
() : The date will not be printed.

6. Press the **OK** button.

The print settings confirmation screen appears.

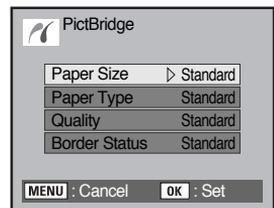
Proceed to Step 12 to print the images by default.

To change the print settings, go to Step 7.



7. Press the **Fn** button.

The screen for changing print settings appears.

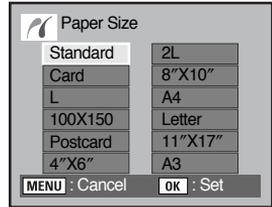


8. Select [Paper Size] and press the four-way controller (▶).

The Paper Size screen appears.

Printing Using PictBridge

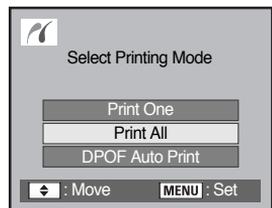
9. Use the four-way controller (▲▼◀▶) to choose the paper size.
You can only choose a size that is supported by your printer.
When the Paper Size is set to [Standard], images are printed according to the printer settings.



10. Press the **OK** button.
11. Repeat Steps 8 to 10 to set [Paper Type], [Quality] and [Border Status].
The print settings change screen appears after each item has been set.
When the Paper Size is set to [Standard], images are printed according to the printer settings.
- [Paper Type] : Standard, ■■■ (Best), ■■■ (Better), ■■■ (Good)
- [Quality] : Standard, ■■■ (Super fine), ■■■ (Fine), ■■■ (Normal)
12. Press the **OK** button twice.
The image is printed according to the settings.
Press the **MENU** button to cancel printing.

Printing All Images

1. Use the four-way controller (▲▼) to select [Print All] on the PictBridge menu.

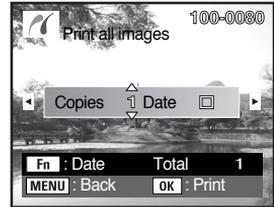


2. Press the **OK** button.
The Print all images screen appears.

Printing Using PictBridge

3. Choose the number of copies and whether to imprint the date or not. The number of copies and the date setting that you choose apply to all of the images.

Refer to Steps 4 and 5 of “Printing Single Images” (p.112) for details on how to change the settings.



4. Press the **OK** button.

The print settings confirmation screen appears.

Refer to Steps 7 and 11 of “Printing Single Images” (p.112 and 113) for details on how to change the settings.

5. Press the **OK** button on the print settings confirmation screen.

All the images are printed according to the settings.

Press the **MENU** button to cancel printing.



Printing Using PictBridge

Printing Images Using the DPOF Settings

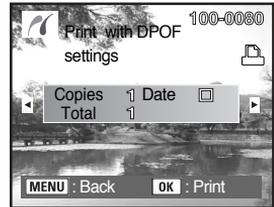
1. Use the four-way controller (▲▼) to select [DPOF Auto Print] on the PictBridge menu.

2. Press the **OK** button.

The Print w/ DPOF settings screen appears.

Use the four-way controller (◀▶) to check the number of copies for each image, whether the date is imprinted or not, and total number of copies.

Print settings are set with the Print Service. (p.105)



3. Press the **OK** button.

The print settings confirmation screen appears.

Refer to Steps 7 and 11 of "Printing Single Images" (p.112 and 113) for details on how to change the settings.

4. Press the **OK** button on the print settings confirmation screen.

The images are printed according to the settings.

Press the **MENU** button to cancel printing.

Disconnecting the Cable from the Printer

■ When you have finished printing, turn off the camera.

1. Turn off the camera.

2. Disconnect the USB cable from the camera and printer.

MEMO

4 Button, Menu, Mode dial Reference

Explains the functions of the GX-10 buttons and menus.

Using the Menu.....	118
Using the Fn Menu	169
Using the Mode Dial	171

When using menus and Fn menu, items which cannot be changed due to camera settings appear gray and cannot be selected.

Using the Menu

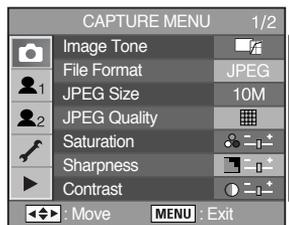
How to Operate the Menu

- This section explains operation methods for [CAPTURE MENU], [CUSTOM1 MENU], [CUSTOM2 MENU], [SETUP MENU], and [PLAYBACK MENU] menu.

- Displaying the Menu screen

1. Press the **MENU** button in Capture mode.

- The [CAPTURE MENU] menu appears on the LCD monitor.



2. Press the four-way controller (◀).

- [CUSTOM1 MENU], [CUSTOM2 MENU], [SETUP MENU] and [PLAYBACK MENU] menu appear in order each time the four-way controller (▼) is pressed.

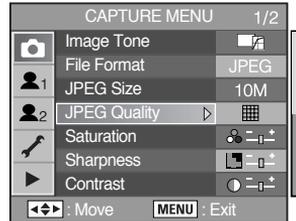


Using the Menu

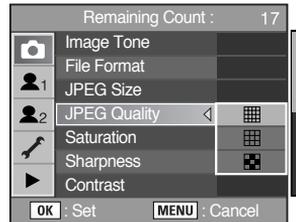
Select a menu item and set

- Procedure to set the [JPEG Quality] on the [CAPTURE MENU] menu is explained as an example.

1. Use the four-way controller (▲▼) to choose an item.
 - Press the front e-dial to move the menu page by page.



2. Press the four-way controller (▶).
 - Available [JPEG Quality] options appear.
 - Press the four-way controller (▶) to move to the pop-up menu if there is one.



3. Use the four-way controller (▲▼) to select a setting.
4. Press the **OK** button.
 - The camera returns to the menu screen. Next, set other items.
 - Press the **MENU** button to return to Capture or Playback mode.

INFORMATION

- Even after you press the **MENU** button and close the menu screen, your settings will not be saved if the camera is turned off improperly (such as by removing the batteries while the camera is on).
- You can use the front e-dial to move the menu page and the rear e-dial to switch between the [CUSTOM1, 2 MENU], [SETUP MENU] and [PLAYBACK MENU] menu when no pop-up menu is displayed.

Using the Menu

[CAPTURE MENU] Menu Settings

- Perform settings related to capturing in the [CAPTURE MENU] menu.

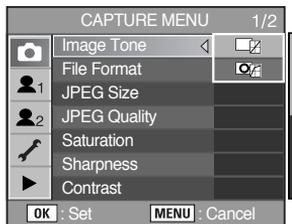
Item	Function	Page
Image Tone	Sets the colour tone of pictures.	p.121
File type	Sets the image file type.	p.122
Recorded Pixels	Sets the recording size of images.	p.122
Quality Level	Sets the image quality.	p.123
Saturation	Sets the colour saturation.	p.124
Sharpness	Makes the image outlines sharp or soft.	p.124
Contrast	Sets the image contrast.	p.124
User set	Registers current camera settings on the User mode.	p.125
Colour space	Sets the colour space.	p.126
Extended Bracket	Sets Extended Bracket shooting.	p.127
Multi-exposure	Sets Multi-exposure shooting.	p.127
Memory	Sets the settings to save when the power is turned off.	p.128
Shake Reduction (OPS)	Sets the [Focal Length] and [Sensitivity] when using a lens for which focal length information cannot be acquired.	p.129
Exposure mode	Registers current exposure mode on the User mode.	p.129

Using the Menu

Setting the Image Tone

- Set the basic colour tone of pictures. The default setting is Bright.

	Natural	Images are finished naturally and suitable for retouching.
	Bright	Images are finished brightly, with high contrast and sharp focus.



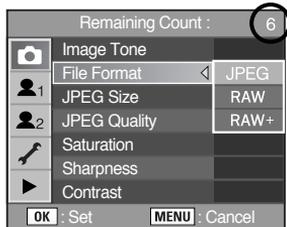
INFORMATION

- Different saturation, sharpness and contrast values can be set for  (Bright) and  (Natural).

Using the Menu

Setting the File Format

- You can set the format of image files.
The default setting is JPEG.
- When the file format is changed, the number of recordable images appears at the top right of the screen.



JPEG	Captures images in JPEG format. You can change the number of recorded pixels from [JPEG Size] in the [CAPTURE MENU] menu, and the image quality level from [JPEG Quality] in the [CAPTURE MENU] menu. The file size varies according to the settings.
RAW	RAW data is CCD output data saved without processing. Effects such as White Balance, Contrast, Saturation and Sharpness are not applied to the image but such information is saved. Use Raw Display or transfer to a PC, apply effects with the enclosed software and create JPEG and TIFF images.
RAW +	Images are captured in both RAW and JPEG formats.

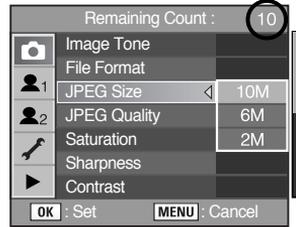
Setting the JPEG Recorded Pixels

- You can select the number of recorded pixels from 10M, 6M and 2M. The more pixels there are, the larger the picture and the bigger the file size. The file size will also differ according to the [JPEG Quality] setting. The default setting is **10M** (3872x2592).

10M	3872x2592 (RAW) (JPEG)	For A3 paper
6M	3008x2000	For A4 paper
2M	1824x1216	For A5 paper

Using the Menu

- You can set the JPEG recorded pixels in [JPEG Size] in the [CAPTURE MENU] menu. When the number of recorded pixels is changed, the number of recordable images appears at the top right of the screen.

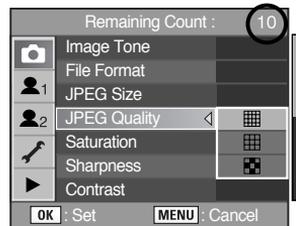


Setting the JPEG Quality Level

- You can set the image quality level. The file size will also differ according to the [JPEG Quality] setting. The default setting is  (Best).

	Best	Lowest compression rate, suited for printing large pictures such as A4 size. Image is saved in JPEG format.
	Better	Standard compression rate, suited for viewing as photographs or on your computer screen. Image is saved in JPEG format.
	Good	Highest compression rate, suitable for attaching to e-mail or posting on websites. Image is saved in JPEG format.

- When the quality level is changed, the number of recordable images at that quality level appears at the top right of the screen.



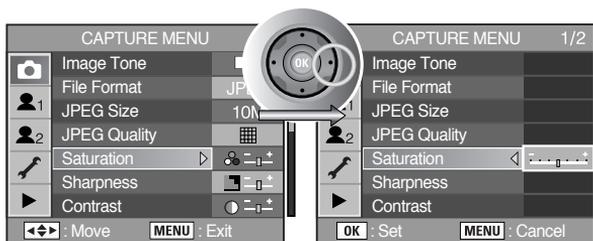
Using the Menu

Setting the Saturation / Sharpness / Contrast

- Select from six levels of Saturation, Sharpness and Contrast. The default setting is [0 (Standard)] for all.

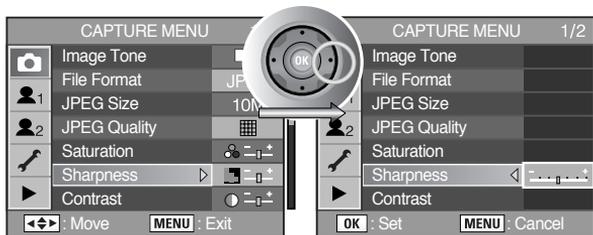
Saturation	Sets the colour saturation.
Sharpness	Makes the image outlines sharp or soft.
Contrast	Sets the image contrast.

● Saturation



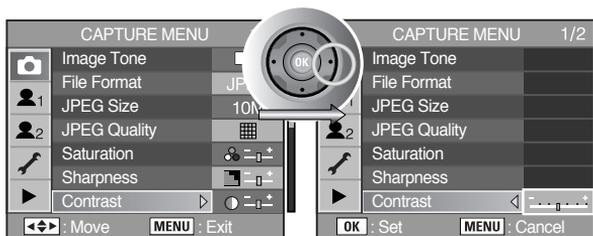
Towards + : Higher saturation
Towards - : Lower saturation

● Sharpness



Towards + : Higher sharpness
Towards - : Lower sharpness

● Contrast

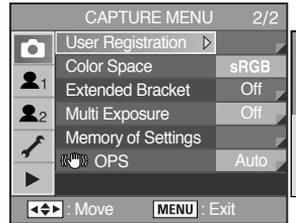


Towards + : Higher contrast
Towards - : Lower contrast

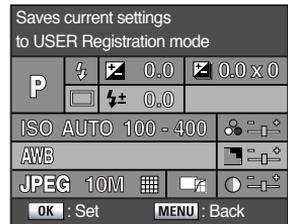
Using the Menu

Storing User Settings

- You can store the current camera settings and easily retrieve them simply by setting the mode dial to USER.



- Press the four way controller (▶) and the current camera information will display. Press the **OK** button and the information is saved on the User mode.



- The following settings can be stored.

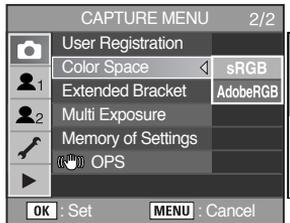
Exposure mode	Sharpness
EV Compensation	White Balance
Flash mode	Saturation
Drive mode	File Format
Extended Bracketing Steps & Type	JPEG Size
Flash Exposure Compensation	JPEG Quality
Exposure Bracketing Steps & No. of Frames	Image Tone
Sensitivity	Contrast
Auto Sensitivity Adjustment Range	

Using the Menu

Setting the Colour Space

- You can set the colour space to use. The default setting is [sRGB].

1	sRGB	Sets to sRGB colour space.
2	AdobeRGB	Sets to AdobeRGB colour space.



Colour Space

Colour ranges for various input/output devices, such as digital cameras, monitors, and printers, differ. This colour range is called the colour Space.

To recreate different colour spaces in different devices, standard colour spaces have been proposed. This camera supports sRGB and AdobeRGB.

sRGB is mainly used for devices such as a PC.

AdobeRGB covers a wider area than sRGB and is used for occupational uses such as industrial printing. An image created in AdobeRGB may appear lighter than an image created in sRGB when output from a sRGB compatible device.

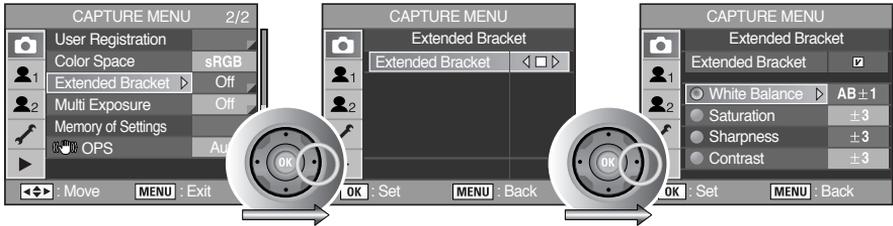
INFORMATION

- File names differ depending on the colour space setting as shown below.
 - For sRGB : SG10XXXX.JPG
 - For AdobeRGB : _G10XXXX.JPG[XXXX] is the file number and numbering continues from the last stored file number.

Using the Menu

Shooting in Extended Bracket Mode

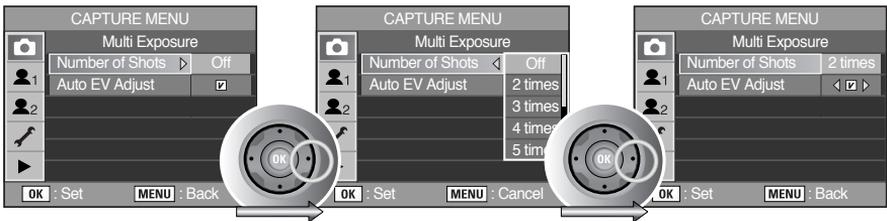
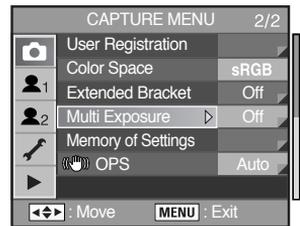
- You can save pictures with three different white balance, saturation, sharpness and contrast levels. Three pictures are saved with each shot.



White Balance	MG ±3, MG ±2, MG ±1, AB ±3, AB ±2, AB ±1
Saturation	±3, ±2, ±1
Sharpness	±3, ±2, ±1
Contrast	±3, ±2, ±1

Shooting in Multi-exposure Mode

- You can take multiple frames while creating a single picture.



Available Number of images	2 - 9 images
Auto Exposure Adjustment	the exposure is adjusted automatically according to the number of shots.

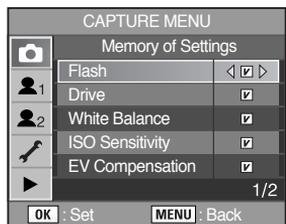
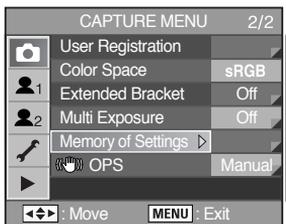
Using the Menu

INFORMATION

- If the **RAW** button or **MENU** button is pressed, or the (Extended) Exposure Bracket is set during Multi-exposure shooting, the pictures that have already been taken are saved and Multi-exposure is exited.
- Extended Bracket and Multi-exposure cannot be used together. The last mode selected is set.
- Press the Delete button () during Instant Review to discard pictures created to that point and create again from the first picture.
- After completing the Multi Exposure shooting, the settings for Multi Exposure will be canceled.

Memory setting

- You can select which settings to save when the camera is turned off.

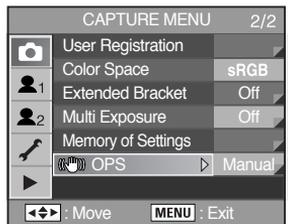


Settings	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flash	The settings are maintained when the camera is turned off.	The settings are reset when the camera is turned off.
Drive		
White Balance		
Sensitivity		
Exposure Compensation		
Auto Bracket		
Playback Information		
File name	New files are named using numbers that follow the previous sequence, even when a new memory card is used, or after formatting, or after deleting all pictures.	After using the reset function, the next file name will be set from 0001 even after formatting, deleting all or inserting a new memory card.

Using the Menu

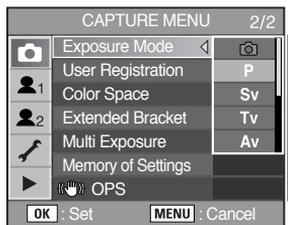
Optical Picture stabilisation (OPS)

- If a lens is used that does not support automatic acquisition of lens information, such as focal length, the [ OPS] menu appears. Set [Focal Length] manually on the [ OPS] menu. For more information, see “Setting the Shake Reduction Function (p.55)”.



Exposure mode

- You can store the current camera settings and easily retrieve them simply by setting the mode dial to USER. Exposure mode only can be selected in the User mode.



Using the Menu

[CUSTOM1 MENU] Menu Setting Items

- Set custom functions to fully use the functions of a SLR camera with the Custom Function Menu.

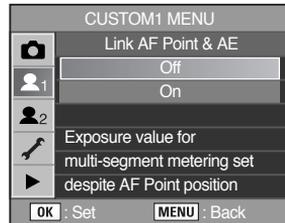
Item	Function	Page
Link AF Point and AE	Sets whether to adjust AE and Focusing Area in multi-segment metering based on AF point.	p.131
Superimpose AF Area	Sets whether to display the selected AF point (focus position) in the viewfinder.	p.131
AF in remote control	Sets whether to use Autofocus when shooting with remote control.	p.132
AF Button Function	Sets whether to perform AF while the AF button is pressed or not perform AF while the AF button is pressed.	p.132
AF by Press Halfway	Sets whether to perform AF when the shutter release button is pressed halfway.	p.133
EV Steps	Sets the adjustment steps for exposure.	p.133
Meter Operating	Time Sets the exposure metering time.	p.134
AE-L with AF locked	Sets whether to lock exposure value when focus is locked.	p.134
Program line	Set the type of Program line.	p.135
Auto EV Compensation	Sets whether to compensate automatically when proper exposure cannot be determined.	p.135
Fine tune when AWB	Sets whether fine tune is available when white balance is set to Auto.	p.136
WB when using flash	Sets whether to fix white balance when flash is discharged.	p.136
Color temp. Unit	Sets the adjustment steps for colour temperature.	p.137
Noise Reduction	Sets whether to use Noise Reduction in slow speed shooting.	p.137
ISO warning	Sets the maximum sensitivity level. ISO warning appears when exceeded.	p.138
Sensitivity Steps	Sets the adjustment steps for ISO sensitivity.	p.139
Reset Custom Function	Resets all the settings in the Custom Function menu to the defaults.	p.139

Using the Menu

Linking AF Point and AE

- You can link the exposure and AF point in the focusing area during multi-segment metering. The default setting is [Off].

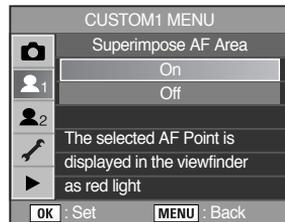
Off	Exposure is set separately from AF point.
On	Exposure is set in accordance with AF point.



Superimpose

- You can set whether to display selected AF point (Focus position) in the viewfinder. The default is [On].

On	The exposure sets according to the AF point.
Off	The exposure sets regardless of the AF point.

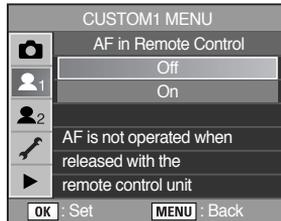


Using the Menu

AF in remote control

- Sets whether to use Autofocus when shooting with remote control. The default is [Off].

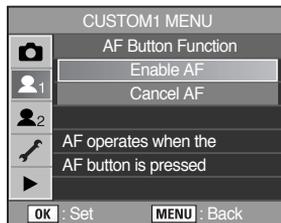
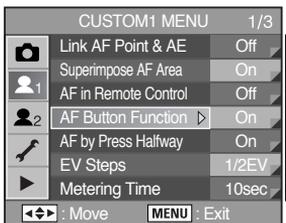
Off	AF does not activate at shutter release from remote control when [Off].
On	AF activates if shutter is released from remote control when [On].



AF Button Function

- Set whether to perform AF while the AF button is pressed or not perform AF while the AF button is pressed. The default is [Enable AF].

Enable AF	Performs Autofocus when pressing the AF button.
Cancel AF	Does not perform Autofocus when pressing the AF button.

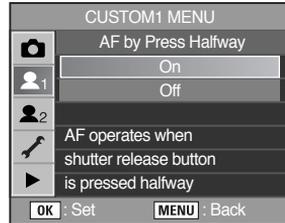
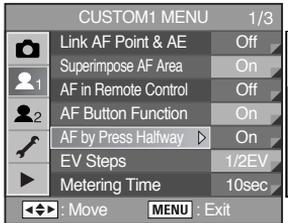


Using the Menu

AF by Press Halfway

- Sets whether to perform AF when the shutter release button is pressed halfway. The default is [On].

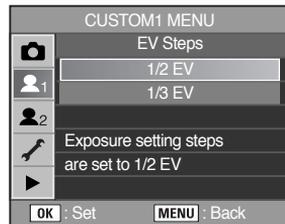
On	Performs AF when the shutter release button is pressed halfway.
Off	Does not perform AF when the shutter release button is pressed halfway.



EV Steps

- Sets the adjustment steps for exposure. The default setting is [1/2 EV step].

1/2 EV	Sets the EV step to 1/2 EV.
1/3 EV	Sets the EV step to 1/3 EV.

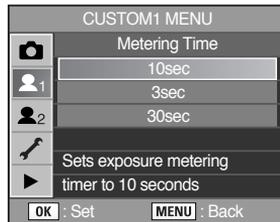


Using the Menu

Meter Operating Time

- Sets the exposure metering time. The default setting is [10 sec].

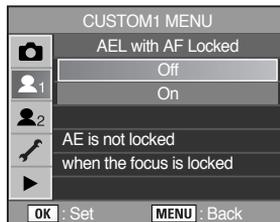
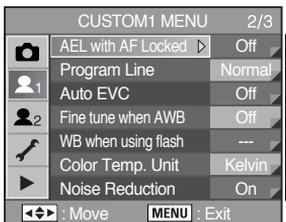
10 sec	Sets the exposure metering time to 10 seconds.
3 sec	Sets the exposure metering time to 3 seconds.
30 sec	Sets the exposure metering time to 30 seconds.



AE-L with AF locked

- Locks the exposure value when the focus is locked. The default setting is [Off].

Off	Does not lock the exposure when focus is locked.
On	Locks the exposure when the focus is locked.

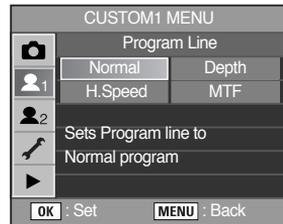
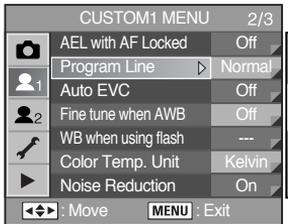


Using the Menu

Program Line

- In Auto mode and Program mode, exposure is regulated according to the set Program line. Choose normal Program line or one of the following. The default is [Normal].

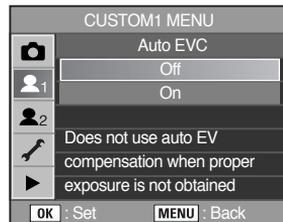
Normal	Normal program is the basic Automatic Exposure Program.
H.Speed	Hi-speed priority program is an Automatic Exposure Program that selects higher shutter speeds.
Depth	Depth-of-field priority program is an Automatic Exposure Program that selects smaller aperture settings to maximise depth-of-field.
MTF	MTF priority program is an Automatic Exposure Program that selects the best aperture settings for the attached lens.



Auto EV Compensation

- Sets whether to compensate automatically when proper exposure cannot be determined. The default is [Off].

Off	The exposure does not compensate when the exposure cannot be accurately calculated automatically.
On	The exposure compensates automatically when the automatic exposure function is unable to set the exposure accurately.

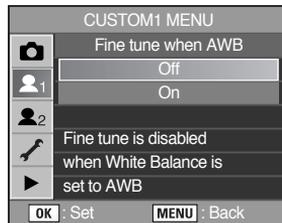
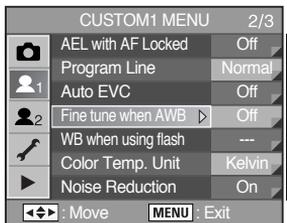


Using the Menu

Fine tune when AWB

- Sets whether fine tune is available when white balance is set to Auto. The default is [Off].

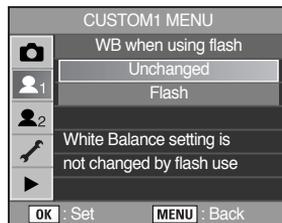
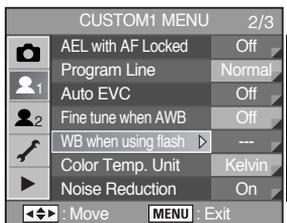
Off	AWB fine tuning is not available.
On	The AWB fine tuning is available.



WB when using flash

- Sets whether to fix white balance when flash is discharged. The default is [Unchanged].

Unchanged	The WB is not changed when flash is discharged.
Flash	The WB is changed when flash is discharged.

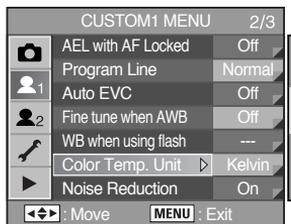


Using the Menu

Adjusting the White Balance with Colour Temperature

- Use figures to set the colour temperature. The default is [Kelvin].

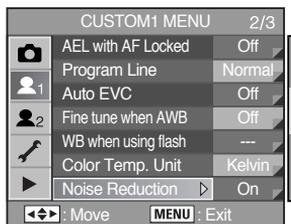
Kelvin	Sets the colour temperature by 100K.
Mired	Sets the Colour temperature by 20 Mired. The figures are converted to Kelvin and displayed.



Noise Reduction

- Sets whether to use Noise Reduction in slow speed shooting. The default is [On].

On	Uses Noise Reduction in slow speed shooting.
Off	Does not use Noise Reduction in slow speed shooting.

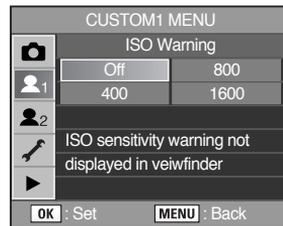


Using the Menu

ISO Warning

- ISO warning appears in the viewfinder when a sensitivity value of your choice is reached or exceeded. Set a sensitivity that is not regularly used to avoid forgetting to reset when sensitivity is raised. ISO warning is not displayed by default.

Off	ISO warning is not displayed.
ISO 400	ISO warning is displayed when ISO 400 is set or exceeded.
ISO 800	ISO warning is displayed when ISO 800 is set or exceeded.
ISO 1600	ISO warning is displayed when ISO 1600 is set.



- ISO (ISO warning) appears in the viewfinder when the set sensitivity is set or exceeded.

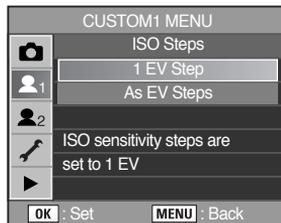


Using the Menu

ISO sensitivity step

- Set the sensitivity step. The default is [1 EV Step].

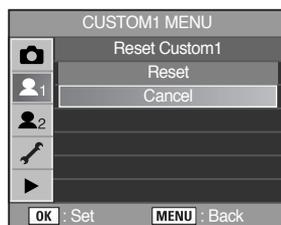
1 EV Step	Set the sensitivity step to 1 EV.
As EV Steps	Set the sensitivity according to the EV setting.



Reset Custom Function 1

- Resets all the settings in the Custom Function 1 menu to the defaults. The default is [Cancel].

Reset	Resets the settings.
Cancel	Does not reset the settings.



Using the Menu

[CUSTOM2 MENU] Menu Setting Items

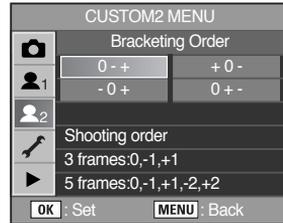
Item	Function	Page
Bracketing Order	Sets the order for bracket shooting.	p.141
Green Button in M	Selects the exposure adjustment method when the Green mode button is pressed in an M mode.	p.141
Use Aperture Ring	Sets to enable shutter release when lens aperture ring is set at other than A (Auto).	p.142
E-Dial in Program	Sets the Front and Rear e-dials in P (Program) mode.	p.142 ~ 143
E-Dial in Sv	Sets the Front and Rear e-dials in Sv (Sensitivity Priority) mode.	p.142 ~ 143
E-Dial in Tv	Sets the e-dials in Tv (Shutter Priority) mode.	p.142 ~ 143
E-Dial in Av	Sets the e-dials in Av (Aperture Priority) mode.	p.142 ~ 143
Set RAW Button	Sets whether to capture RAW+JPEG once or retain settings when the RAW button is pressed.	p.144
Remaining Count	Sets to switch number of recordable images in the LCD panel and viewfinder to number of continuous shooting recordable images when shutter release button is pressed halfway.	p.144
Release in Charging	Sets to release shutter while the built-in flash is charging.	p.145
Preview Method	Sets to use Digital Preview or Optical Preview when the main switch is turned to the preview position (). Digital Preview lets you check the composition, exposure and focus on the LCD monitor before taking the picture. Optical Preview lets you check the depth of field with the viewfinder.	p.145
Initial Zoom	Sets the initial magnification of the zoom playback.	p.146
Auto Rotation	Sets to automatically rotate images when playing back.	p.146
Saving Rotation Info.	Sets whether to save rotation information when shooting.	p.147
Light of Top LCD	Sets whether to illuminate the LCD panel.	p.147
Reset Custom2	Resets all the settings in the Custom Function menu to the defaults.	p.148

Using the Menu

Auto Bracketing order

- Sets the order for bracket shooting. The default is [0, -, +].

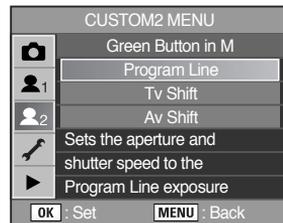
Order	0 → - → +, - → 0 → +, + → 0 → -, 0 → + → -
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Green Button in Manual mode

- Selects the exposure adjustment method when the Green mode button is pressed in M (Manual) mode. The default is [Program Line].

Program Line	The aperture and shutter speed are adjusted automatically.
Tv Shift	The aperture is locked and the shutter speed is adjusted automatically.
Av Shift	The shutter speed is locked and the aperture is adjusted automatically.

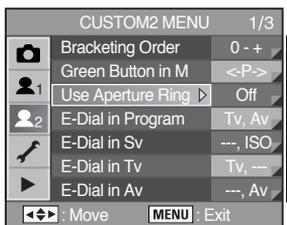


Using the Menu

Aperture Ring Use

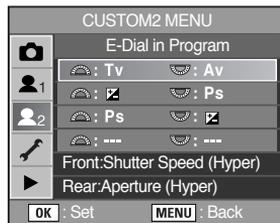
- Sets the shutter so it can be released even if the aperture ring is not set to the A (Auto) position. The default is [Off].

Off	The aperture is locked and the shutter speed is adjusted automatically.
On	The shutter can be released even if the aperture ring is not set to the A (Auto) position.



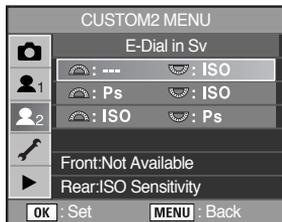
e-dial functions on the P / Sv / Tv / Av mode

- You can set the functions of the front and rear e-dials on the P / Sv / Tv and Av modes.

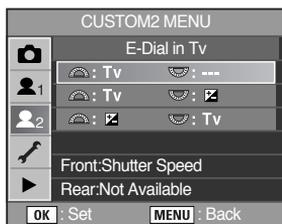
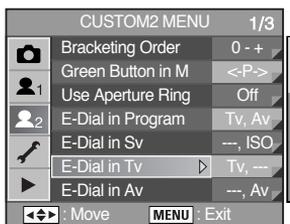


[e-dial menu of the P mode]

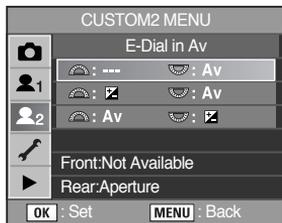
Using the Menu



[e-dial menu of the Sv mode]



[e-dial menu of the Tv mode]



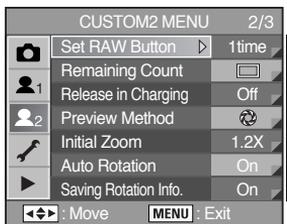
[e-dial menu of the Av mode]

Using the Menu

One-touch RAW +

- Sets whether to capture RAW+JPEG images once, or retain same settings whenever the RAW button is pressed. The default is [1time].

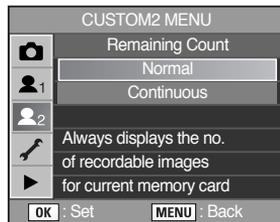
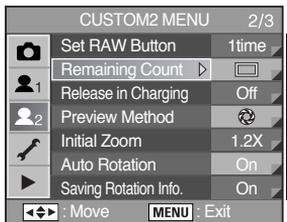
1time	The setting is reset after taking a picture.
Continue	The setting is retained when the RAW button is pressed again.



Recordable Image No.

- Sets to switch number of recordable images in the LCD panel and viewfinder. The default is [Normal].

Normal	Displays the number of recordable images in the LCD panel and viewfinder.
Continuous	The number of continuous recordable images is displayed when the shutter release button is pressed halfway.

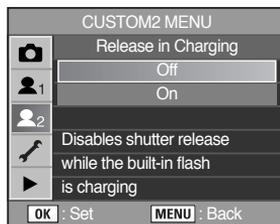
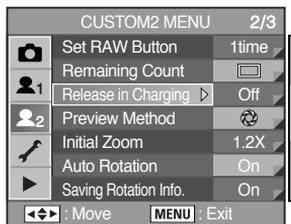


Using the Menu

Allowing Shooting while Charging Flash

- You can set to allow shooting while the flash is re-charging. The default is [Off].

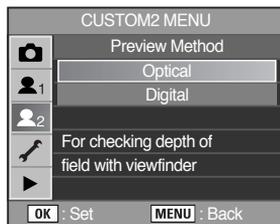
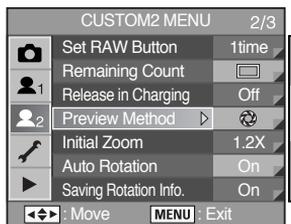
Off	Pictures cannot be taken while the flash is re-charging.
On	Pictures can be taken while the flash is re-charging.



Selecting the Preview Method

- Choose the preview method to use when the main switch is turned to the preview position ().

Optical	You can check the depth of field in the viewfinder.
Digital	You can check the composition, exposure and focus on the LCD.

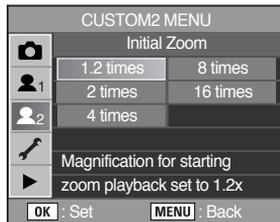
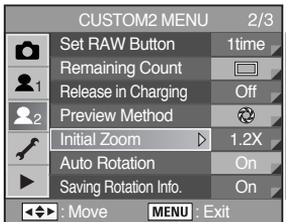


Using the Menu

Initial zoom display

- Sets the initial magnification of the zoom playback. The default is [1.2 times].

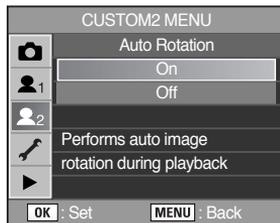
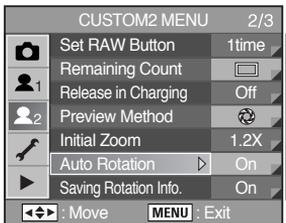
Initial magnification of the zoom playback	[1.2 times], [2 times], [4 times], [8 times] and [16 times].
--	--



Auto Image Rotation

- Sets to automatically rotate images taken vertically when playing back. The default is [On].
If the [Saving Rotation Info.] is not set to [On], the image will not be rotated automatically.

On	The images taken vertically rotate automatically.
Off	The images taken vertically do not rotate automatically.

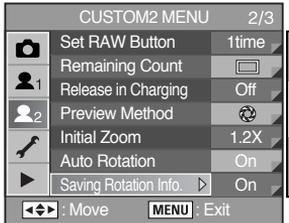


Using the Menu

Saving rotation information

- Sets whether to save rotation information when shooting. The default is [On].

On	Saves the rotation information when shooting.
Off	Does not save the rotation information when shooting.



Illuminating LCD panel

- Sets whether to illuminate the LCD panel. The default is [On].

On	The LCD panel will illuminate when pressing the LCD panel lamp button.
Off	The LCD panel will not illuminate when pressing the LCD panel lamp button.

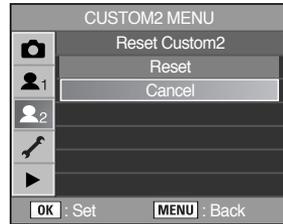


Using the Menu

Reset Custom Function2

- Resets all the settings in the Custom Function 2 menu to the defaults. The default is [Cancel].

Reset	The settings will reset.
Cancel	The settings will not reset.



Using the Menu

[SETUP MENU] Menu Setting Items

- Perform various settings related to the camera in the [SETUP MENU] menu.

Item	Function	Page
Format	Formats the Memory Card.	p.150
Beep	Switches the beep tone on/off.	p.151
Date/Time	Sets the date format and time.	p.152
World Time	Allows the display of local time when traveling abroad.	p.153 ~ 155
Language/ 言語	Changes the language in which menus and messages appear.	p.156
Guide display	Sets to display indicators in LCD monitor.	p.156
LCD Brightness	Changes the brightness of the LCD monitor.	p.157
Video Out	Sets the output format to the TV monitor.	p.158
USB*	Sets the USB cable connection (PC or printer).	p.159
Auto Power Off	Sets the time to turn off automatically.	p.159
Folder Name	Sets the method used to add file numbers.	p.160
Sensor Cleaning	Locks the mirror in the up position for cleaning the CCD.	p.161 ~ 162
Dust Removal	Remove the dust of the CCD sensor.	p.163
Reset	Resets all settings other than Date Adjust, Language, Video Out and World Time.	p.164

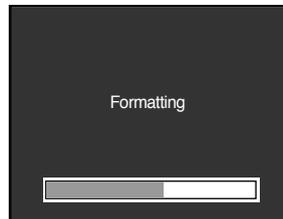
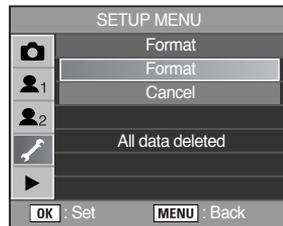
* Refer to the software instructions for details on connecting the camera to a PC. (p.218)

Using the Menu

Formatting the Memory Card

- Be sure to format new Memory Card with the camera before using the card. Formatting will delete all the data on the Memory Card.

Format	A [Formatting] message appears and the memory will be formatted.
Cancel	The memory will not be formatted.



- ※ When formatting is completed, camera mode is changed to the Capture or Playing back mode.

INFORMATION

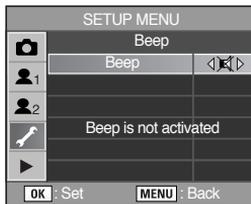
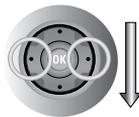
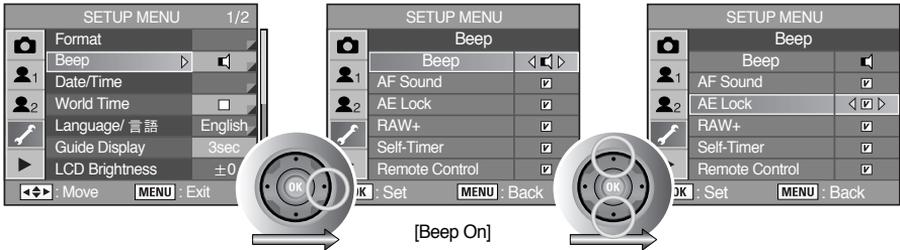
- Do not open the card cover while formatting Memory Card. The card may be damaged beyond use.
- Formatting will delete protected data. Be aware.

Using the Menu

Turning the Beep On and Off

- You can turn the camera operation beep on or off. The default setting is [On].

	There are five items that you can set : - AF sound, AE Lock, RAW button, Self-timer and Remote Control.
	No beep sound



[Beep Off]

Using the Menu

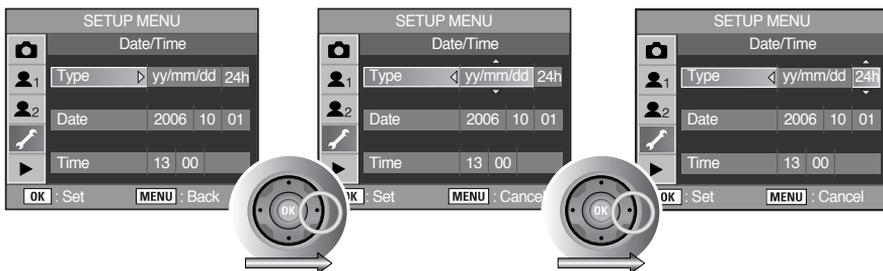
Changing the Date and Time and the Display Style

- You can change the initial date and time settings.
You can also set the display style.

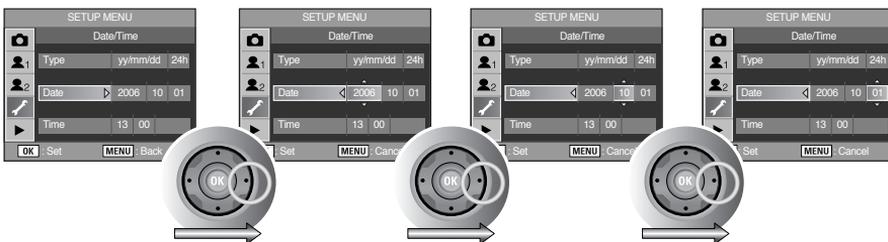
Date Display Style	[mm/dd/yy], [dd/mm/yy], [yy/mm/dd]
Time Display Style	[12h (12 hour)], [24h (24 hour)]



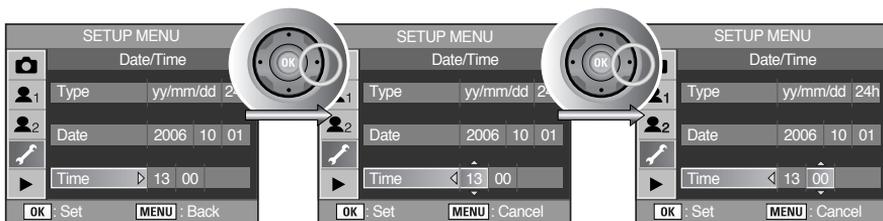
● Setting the Date / Time



● Date Setting



● Time Setting



Using the Menu

Setting the World Time

- The date and time selected in “Initial Settings” (p.42) serve as the date and time of your present location. Setting [World Time] enables you to display the local date and time on the LCD monitor when travelling overseas.

1. Select [World Time] on the [SETUP MENU] menu.



2. Press the four-way controller (▶).
The World Time screen appears.



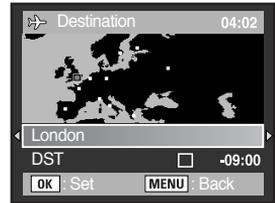
3. Use the four-way controller (◀▶) to select (On) or (Off).

<input checked="" type="checkbox"/>	Applies time of city set in → (Destination)
<input type="checkbox"/>	Applies time of city set in ↗ (Hometown)

4. Press the four-way controller (▼).
The selection frame moves to →. The city with → blinks.
5. Press the four-way controller (▶).
The screen for magnifying the Destination region appears.
Use the four-way controller (◀▶) to magnify the region.
6. Press the four-way controller (▼).
The frame moves to city.

Using the Menu

7. Use the four-way controller (◀▶) to select the Destination city.
The current time, location and time difference of the selected city appears.



8. Use the four-way controller (▼) to select [DST].
9. Use the four-way controller (◀▶) to select (On) or (Off).
Select (On) if the Destination city uses daylight saving time (DST).

10. Press the **OK** button.
The World Time setting is saved.



11. Press the **MENU** button twice.
The camera is ready to take pictures.

INFORMATION

- See “List of World Time Cities” (p.155) for cities that can be specified as a destination.
- Select  in Step 4 to set the city and DST setting.
-  appears on the guide display screen if World Time is On (). (p.23, 24)

Using the Menu

List of World Time Cities

Region	City
North America	Honolulu
	Anchorage
	Vancouver
	San Francisco Dubai
	Los Angeles
	Calgary
	Denver
	Chicago
	Miami
	Toronto
	New York
	Halifax
	Central and South America
Lima	
Santiago	
Caracas	
Buenos Aires	
Sao Paulo	
Rio de Janeiro	
Europe	Lisbon
	Madrid
	London
	Paris
	Amsterdam
	Copenhagen
	Rome
	Berlin
	Stockholm
	Athens
	Helsinki
Moscow	
Africa/ West Asia	Dakar
	Algiers
	Johannesburg
	Istanbul
	Cairo
	Jerusalem

Region	City
Africa/ West Asia	Nairobi
	Jeddah
	Tehran
	Dubai
	Karachi
	Kabul
	Male
	Delhi
	Colombo
	Katmandu
Dacca	
East Asia	Yangon
	Bangkok
	Kuala Lumpur
	Vientiane
	Singapore
	Phnom Penh
	Ho Chi Minh
	Jakarta
	Hong Kong
	Beijing
	Shanghai
	Manila
	Taipei
	Seoul
Tokyo	
Guam	
Oceania	Perth
	Adelaide
	Sydney
	Noumea
	Wellington
	Auckland
Pago Pago	

Using the Menu

Setting the Display Language

- You can change the language in which the menus, error messages, etc. are displayed.

Language / 言語

You can choose from eleven languages: English, Korean, Chinese (Traditional/ Simplified), French, German, Spanish, Portuguese, Italian, Swedish, Dutch, Danish and Russian.



Guide Display Time

- Set to display time of guides on the LCD monitor when main switch is on or Exposure mode is changed. The default is [3Sec].

Guide Display Time

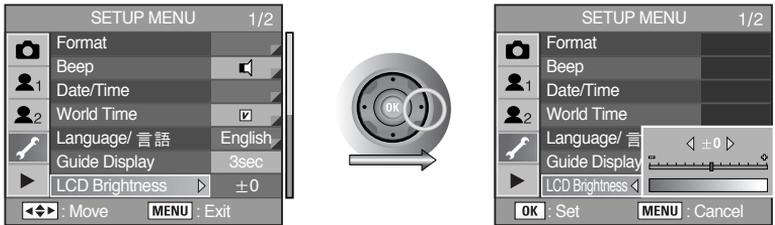
Off, 3Sec. 10Sec. 30Sec.



Using the Menu

Adjusting the Brightness of the LCD Monitor

- You can adjust the brightness of the LCD monitor.
Adjust settings when the LCD monitor is hard to see.

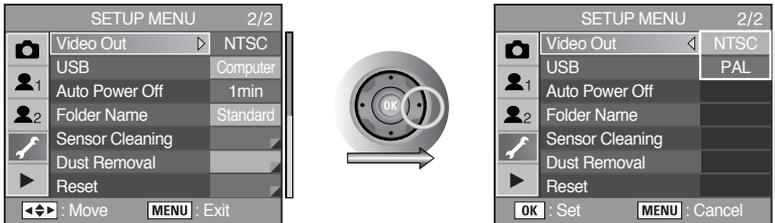


- You can select -7 ~ 0 ~ +7 steps of LCD brightness.

Using the Menu

Selecting the Video Output Format

- When you connect the camera to AV equipment such as a TV, choose the appropriate video output format (NTSC or PAL) for playing back images.



INFORMATION

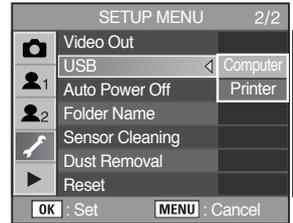
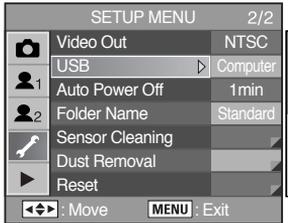
- NTSC : U.S.A, Canada, Japan, South Korea, Taiwan, Mexico.
- PAL : Australia, Austria, Belgium, China, Denmark, Finland, Germany, U.K., Holland, Italy, Kuwait, Malaysia, New Zealand, Singapore, Spain, Sweden, Switzerland, Thailand, Norway.
- When using a TV as an external monitor, you will need to select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

Using the Menu

USB (Selecting an external device)

- This menu sets the USB cable connection (PC or printer).

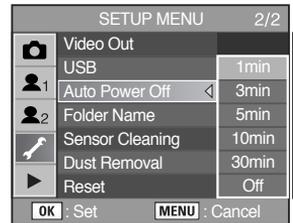
Computer	Select this menu when connecting to a computer.
Printer	Select this menu when connecting to a printer.



Setting Auto Power Off

- You can set the camera to turn off automatically if unused after a certain length of time. The default is [1Min].

Length of time	1Min, 3Min, 5Min, 10Min, 30Min, Off
----------------	-------------------------------------



INFORMATION

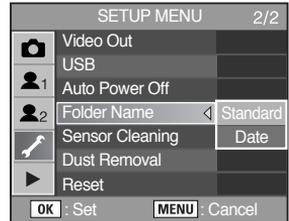
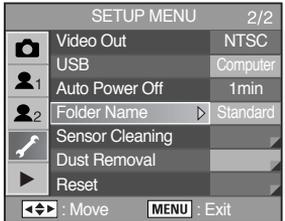
- Auto Power Off will not work during slideshow playback, a USB connection, Remote control shooting or while displaying menu or Fn menu.

Using the Menu

Selecting the Folder Name

- You can select the method for assigning the folder names for storing images.
The default setting is [Std.].

Standard	The folder name is assigned in the form of [XXXSSCAM]. [XXX] is a sequential number from 100 to 999.
Date	The two digits of the [month] and [day] on which the picture was taken are assigned as the folder name in the form of [XXX_MMDD]. (Example) 101_0101 : for folders with pictures taken on January 1st



Using the Menu

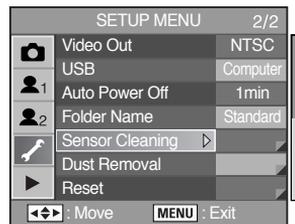
Cleaning the CCD

- Shadows may appear in the image for white backgrounds and other shooting conditions if the CCD becomes dirty or dusty. This indicates that the CCD must be cleaned. Please contact Samsung Camera service center for professional cleaning because the CCD is a precision part.

INFORMATION

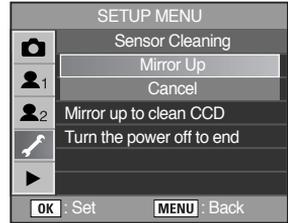
- Do not use a spray type blower.
- Do not clean the CCD when the exposure mode is set to **B** (Bulb) mode.
- Always cap the lens mount area to prevent dirt and dust from accumulating on the CCD when no lens is on the camera.
- It is recommended to use the AC adapter (SAC-82, optional) when cleaning the CCD.
- When the battery level is low, a warning message [Not enough battery remaining to clean sensor] is displayed on the LCD monitor.
- If you are not using the AC adapter, please use batteries with ample capacity remaining. A warning beep will sound if the battery capacity becomes low during cleaning. Please stop cleaning immediately.
- Do not put the tip of the blower inside the lens mount area. If the power is turned off, this could cause damage to the shutter or the CCD sensor.
- The self-timer lamp blinks and [CIn] appears on the LCD panel while cleaning the CCD.

1. Turn the camera off and remove the lens.
2. Turn the camera on.
3. Select [Sensor Cleaning] on the [SETUP MENU] menu.
4. Press the four-way controller (▶).
 - The Sensor Cleaning screen appears.



Using the Menu

5. Use the four-way controller (▲) to select [Mirror Up].



6. Press the **OK** button.
 - The mirror is locked in the up position.

7. Clean the CCD.
 - Use a brush-less blower to remove dirt and dust from the CCD. Using a blower with a brush may scratch the CCD. Do not wipe the CCD with a cloth.



8. Turn the camera off.
9. Attach the lens after the mirror returns to its original position.

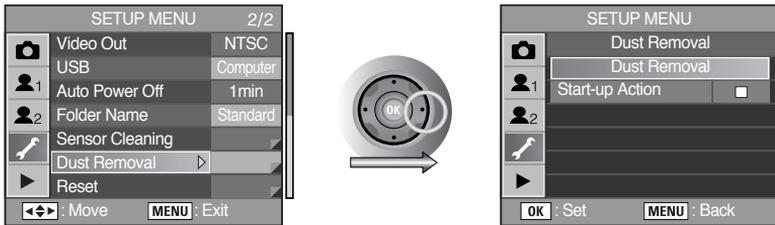
Using the Menu

Removing the dust

- The dust can be removed by shaking the CCD.

Dust Removal	Removes the dust by shaking the CCD.
Start-up Action	Shakes the CCD to remove the dust.

● Removing Dust



Press the **OK** button to remove the dust.

- Removing the dust when turning on the camera : select by using the four-way controller (◀▶).

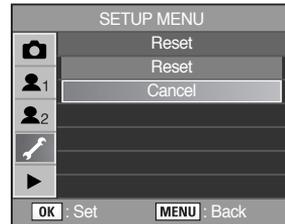
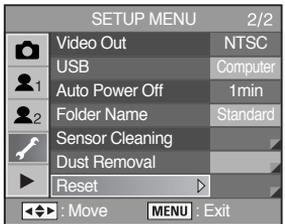


Using the Menu

Reset

- Resets all settings other than Date Adjust, Language, Video Out, User set1 and User set2.

Reset	Resets all settings.
Cancel	Does not reset camera settings.



Using the Menu

[PLAYBACK MENU] Menu Setting Items

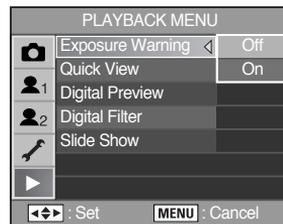
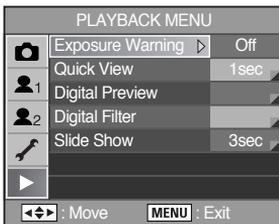
- Perform settings related to playback and editing images in the [PLAYBACK MENU] menu.

Item	Function	Page
Exposure Warning	Sets to display over exposed area warning during Instant Review or Playback.	p.165
Quick View	Sets how long to display Instant Review and whether to display Bright/Dark area warning and histogram.	p.166
Digital Preview	Sets whether to display Bright/Dark area warning and histogram during Digital Preview.	p.167
Digital filter	Changes the color tone of captured images, adds softening and slimming effects, or adjusts the brightness.	p.167
Slide Show	Plays back recorded images one after another.	p.168

Exposure warning

- Sets to display over exposed area warning during Instant Review or Playback. The default is [Off].

Off	Exposed area does not blink.
On	Over exposed area during Instant Review or Playback blinks.

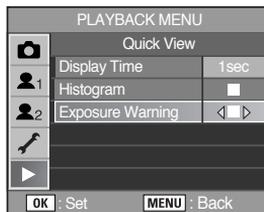
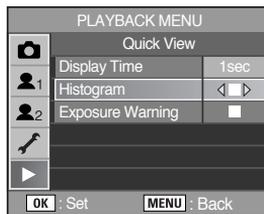


Using the Menu

Instant View

- Sets Display time, Exposure warning and Histogram.

Display time	1, 3, 5 Sec, Off (The default is 1 Sec.)
Histogram	Use the four-way controller (◀▶) to select On (on) or Off (off).
Exposure Warning	The default is Off (Off).

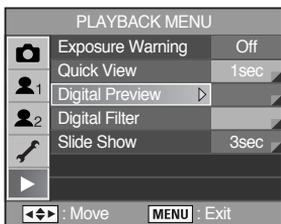


Using the Menu

Digital Preview

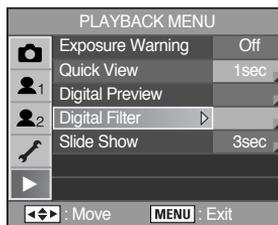
- You can set whether or not to display the histogram and Bright/Dark area warning during Digital Preview. The default setting is [Off].

Histogram	Use the four-way controller (◀▶) to select On (on) or Off (off).
Exposure Warning	The default is Off (Off).



Digital Filter

- You can edit shot images using digital filters. Refer to page 93 for more information about the menus.

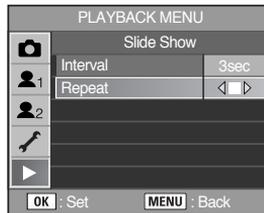


Using the Menu

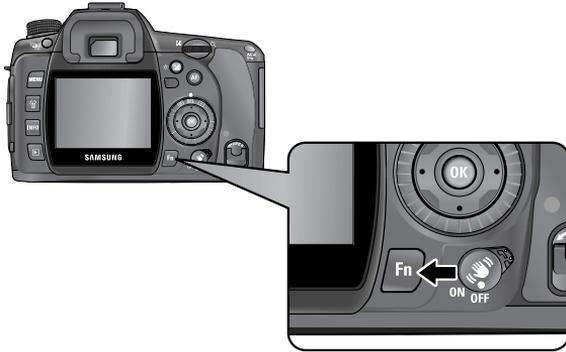
Slide show

- You can play back all images recorded on your Memory Card successively. To start continuous playback, use the menu screen displayed on the LCD monitor. Refer to page 90 for more information about the menus.

Interval	Set image display interval to [3sec], [5sec], [10sec] or [30sec].
Repeat	Set whether or not to play back repeatedly.

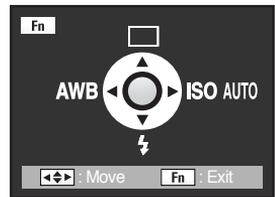


Using the Fn Menu



Capture Mode

- Press the **Fn** button while taking a picture. The Fn menu appears.



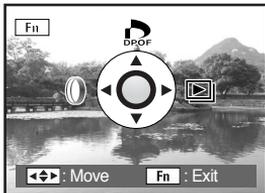
- Press the four-way controller (▲▼◀▶) to set the operation.

Four-way controller	Item	Function	Page
▲	Drive Mode	Selects Continuous shooting, Self-Timer or Remote control.	p.60 ~ 68
▼	Flash Mode	Adjusts the method of flash discharge.	p.70 ~ 75
◀	White Balance	Adjusts the colour for the colour of the light source illuminating the subject.	p.76 ~ 81
▶	Sensitivity	Sets the sensitivity.	p.82 ~ 83

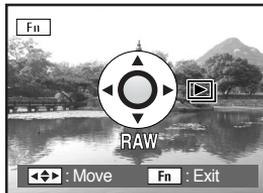
Using the Fn Menu

Playback Mode

- Press the **Fn** button during playback. The Fn menu appears.



[Playing back a JPEG file]



[Playing back a RAW file]

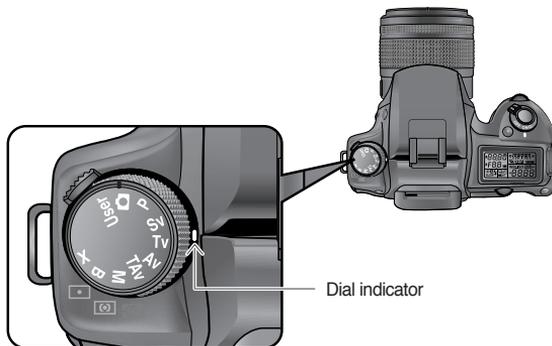
- Press the four-way controller (▲▼◀▶) to set the operation.

Four-way controller	Item	Function	Page
▲	DPOF Settings	Sets the DPOF settings.	p.105
◀	Digital Filter	Edits captured images to black and white or sepia tint, or adds softening and slimming effects.	p.93 ~ 95
▶	Slideshow	Plays back recorded images one after another.	p.90 ~ 91
▼	RAW converting	Converts the RAW file to the JPEG file.	p.96 ~ 97

※ When a JPEG file is played back, [Converting RAW file] menu can not be set.

※ When a RAW file is played back, [DPOF] and [Digital Filter] menu can not be selected.

Using the Mode Dial



- You can change the Shooting mode by setting the icons on the mode dial to the dial.

Item	Function	Page
 (Auto Scene)	Automatically sets shutter speed and aperture to the proper exposure according to Program line when taking pictures.	p.173
P (Program)	Automatically sets shutter speed and aperture to the proper exposure according to Program line when taking pictures. Use the front e-dial and rear e-dial to change the shutter speed and aperture while maintaining the proper exposure.	p.174
Sv (Sensitivity Priority)	Automatically sets the shutter speed and aperture to the proper exposure according to the set sensitivity.	p.176
Tv (Shutter Priority)	Lets you set the desired shutter speed for expressing moving subjects. Take pictures of fast moving subjects that look still or subjects that give a sense of movement.	p.177
Av (Aperture Priority)	Lets you set the desired aperture for controlling the depth of field. Use it to obtain a blurred or sharp background.	p.179

Using the Mode Dial

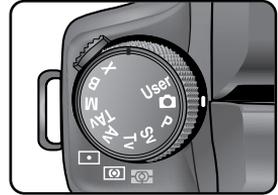
Item	Function	Page
TA_v (Shutter & Aperture Priority)	Automatically sets the sensitivity so that shutter speed and aperture give the proper exposure according to the brightness of the subject.	p.181
M (Manual)	Lets you set shutter speed and aperture to capture the picture with creative intent.	p.182
B (Bulb)	Lets you capture images that require slow shutter speeds such as fireworks and night scenes.	p.186
X (Flash X-sync speed)	Locks shutter speed at 1/180 second. Use this when using an External flash that does not automatically change the shutter speed.	p.187
User (USER)	Lets you capture images with settings that you set.	p.187

Using the Mode Dial

Using the (AUTO) mode

- Automatically sets shutter speed and aperture to the proper exposure according to Program line when taking pictures.

1. Rotate the Mode dial to .



2. Check the Shutter speed and Aperture value on the viewfinder and LCD panel.



INFORMATION

- Shutter speed, Aperture value, AE Lock, Exposure value, Auto bracket, Multi-exposure and Flash compensation are not set in the  (Auto) mode.
- Set the aperture to the A position while holding down the auto-lock button when using a lens with an aperture ring.

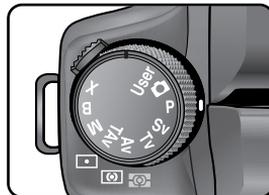


Using the Mode Dial

Using the P (Program) mode

- Automatically sets shutter speed and aperture to the proper exposure according to Program line when taking pictures.

1. Rotate the Mode dial to **P**.



2. Check the Shutter speed and Aperture value on the viewfinder and LCD panel.



INFORMATION

- You can change the program line. Set the [Program Line] in the [CUSTOM1 MENU] menu. (p.135)
- You can automatically correct the sensitivity if appropriate exposure cannot be set with the set criteria. Set [ISO Sensitivity] to [Auto] in the Fn menu. (p.82)
- Set the aperture to the A position while holding down the auto-lock button when using a lens with an aperture ring.



Using the Mode Dial

Using the Hyper-program Mode (P)

■ To change the shutter speed

You can switch to Shutter Priority automatic exposure by turning the front e-dial in **P** (Hyper-program) mode.

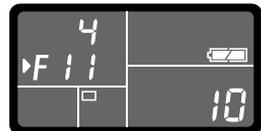
- You can only set the shutter speed to a value that is in relation to aperture.
- If the brightness changes and the aperture value is outside the relative range, the aperture will blink in the viewfinder and on the LCD panel.
- Press the Green button to return to Hyper-program automatic exposure.



■ To change the aperture

You can switch to Aperture Priority automatic exposure by turning the rear e-dial in **P** (Hyper-program) mode.

- You can only set the aperture to a value that is in relation to shutter speed.
- If the brightness changes and the shutter speed is outside the relative range, the shutter speed will blink in the viewfinder and on the LCD panel.
- Press the Green button to return to Hyper-program automatic exposure.

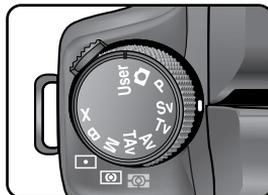


Using the Mode Dial

Using the Sv (Sensitivity Priority) Mode

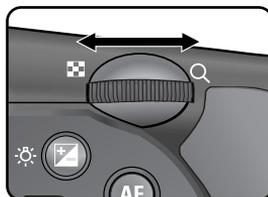
- You can set the sensitivity to suit the brightness of the subject.
The shutter speed and aperture are automatically set according to the selected sensitivity to obtain the appropriate exposure.

1. Set the mode dial to **Sv**.



2. Turn the rear e-dial and adjust the sensitivity.

The shutter speed, aperture value and sensitivity are displayed in the viewfinder and on the LCD panel.



INFORMATION

- Turn the front e-dial while pressing the  button and change the EV Compensation value.
- Set the sensitivity in increments of 1/2 EV or 1/3 EV. Set in [ISO Steps] in the [CUSTOM1 MENU] menu. (p.139)
- You cannot set the sensitivity in [ISO Sensitivity] in the Fn menu.
- Set the aperture to the A position while holding down the auto-lock button when using a lens with an aperture ring.

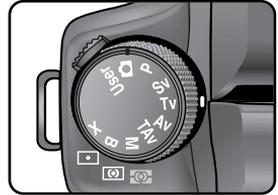


Using the Mode Dial

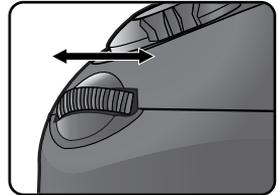
Using the Tv (Shutter Priority) Mode

- Set the shutter speed faster and capture fast moving subjects as if they are still or slow down the shutter speed and capture images emphasizing subject movement.
Aperture value is automatically set to give the appropriate exposure depending on the shutter speed.
- ※ Effect of Aperture and Shutter Speed (p.199)

1. Set the mode dial to **Tv**.



2. Turn the front e-dial and adjust the shutter speed.



- The shutter speed and aperture value are displayed in the viewfinder and on the LCD panel.



Using the Mode Dial

INFORMATION

- Turn the front e-dial while pressing the  button to change the EV Compensation value.
- Set the shutter speed in increments of 1/2 EV or 1/3 EV. Set in [EV Steps] in the [CUSTOM1 MENU] menu. (p.133)
- You can automatically correct the sensitivity if appropriate exposure cannot be set with the set criteria. Set [ISO Sensitivity] to [Auto] in the Fn menu. (p.82)
- Set the aperture to the A position while holding down the auto-lock button when using a lens with an aperture ring.



Exposure Warning

If the subject is too bright or too dark, the aperture value will blink in the viewfinder and on the LCD panel. If the subject is too bright, choose a faster shutter speed. If it is too dark, choose a slower shutter speed. When the aperture value indication stops blinking, you can take the picture with proper exposure. Use an ND (Neutral Density) filter if the subject is too bright. Use a flash if it is too dark.

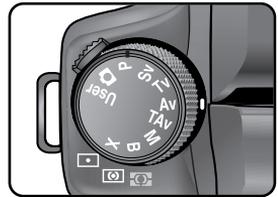


Using the Mode Dial

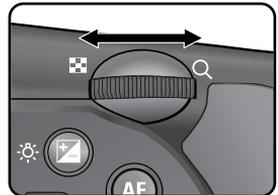
Using the Av (Aperture Priority) Mode

- Set aperture for controlling the depth of field. The depth of field is deeper and the front and back of the focused object is clear when aperture is set to a large value. The depth of field is shallower and the front and back of the focused object is blurred when aperture is set to a small value. Shutter speed is automatically set to appropriate exposure depending on the aperture value.
- ※ Effect of Aperture and Shutter Speed (p.199)

1. Set the mode dial to **Av**.



2. Turn the rear e-dial and adjust the aperture value.



- The shutter speed and aperture value are displayed in the viewfinder and on the LCD panel.



Using the Mode Dial

INFORMATION

- Turn the front e-dial while pressing the  button to change the EV Compensation value.
- Set the aperture value in increments of 1/2 EV or 1/3 EV. Set in [EV Steps] in the [CUSTOM1 MENU] menu. (p.133)
- You can automatically correct the sensitivity if appropriate exposure cannot be set with the set criteria. Set [ISO Sensitivity] to [Auto] in the Fn menu. (p.82)
- Set the aperture to the A position while holding down the auto-lock button when using a lens with an aperture ring.



Exposure Warning

If the subject is too bright or too dark, the shutter speed will blink in the viewfinder and on the LCD panel. If the subject is too bright, set the aperture smaller (larger number), and when too dark, open the aperture further (smaller number). Once blinking stops, you can take the picture. Use an ND (Neutral Density) filter if the subject is too bright. Use a flash if it is too dark.

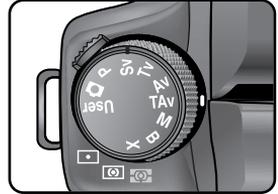


Using the Mode Dial

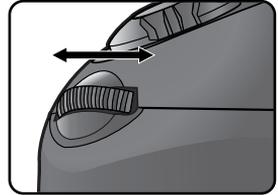
Using the TAv (Shutter & Aperture Priority) Mode

- You can set both the desired shutter speed and aperture to take the picture. Automatically sets the sensitivity so that shutter speed and aperture will give the proper exposure according to the brightness of the subject.

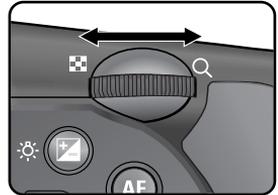
1. Set the mode dial to **TAv**.



2. Turn the front e-dial and adjust the shutter speed.



3. Turn the rear e-dial and adjust the aperture value.



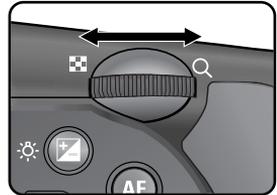
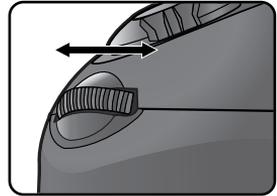
- The shutter speed, aperture value and sensitivity are displayed in the viewfinder and on the LCD panel.



Using the Mode Dial

2. Press the Green button.

- Automatically switches shutter speed and aperture to the proper exposure.
- Turn the front or rear e-dial to change to the exposure to your liking and take a picture. Adjust the shutter speed with the front e-dial and aperture with the rear e-dial.



INFORMATION

- When the sensitivity is set to [Auto] and exposure mode is set to **M** (Manual) mode, the sensitivity is the lowest sensitivity.
- The viewfinder indicator blinks when the difference from appropriate exposure is over ± 3.0 .
- Set the shutter speed and aperture values in increments of 1/2 EV or 1/3 EV. Set in [EV Steps] in the [CUSTOM1 MENU] menu. (p.133)
- Set the aperture to the A position while holding down the auto-lock button when using a lens with an aperture ring.



Using the Mode Dial

EV Bar

- The EV bar appears in the LCD panel and viewfinder in **M** (Manual) mode. The appropriate exposure is set when V is in the middle of the EV bar. If it is towards -, it is underexposed. If it is towards +, it is overexposed. If the value exceeds the range of the EV bar, the "+" or "-" blinks.



Exposure Warning

If the subject is too bright or too dark, "+" or "-" in the EV bar will blink in the viewfinder and on the LCD panel. Use an ND (Neutral Density) filter if the subject is too bright. Use a flash if it is too dark.



AE-L in M mode

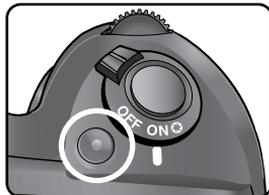
Press the **AE-L** button to record the exposure value in **M** (Manual) mode. If the shutter speed or aperture is then changed, the combination of shutter speed and aperture changes while exposure is retained.

Example) If the shutter speed is 1/125 sec and aperture is F5.6 and is recorded with the **AE-L** button, and the shutter speed is changed to 1/30 sec with the front e-dial, the aperture automatically changes to F11.

Using the Mode Dial

About the Green Button

The aperture and shutter speed are automatically adjusted to the appropriate exposure at that moment if the Green button is pressed in **M** (Manual) mode. You can choose from the following three adjustment methods in [Green Button in M] in the [CUSTOM2 MENU] menu.



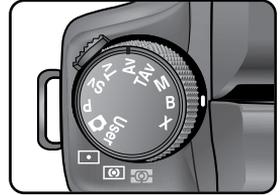
1	Program Line	The aperture and shutter speed are adjusted automatically.
2	Tv Shift	The aperture is locked and the shutter speed is adjusted automatically.
3	Av Shift	The shutter speed is locked and the aperture is adjusted automatically.

Using the Mode Dial

Using the B (Bulb) Mode

- This mode is useful for the long exposures required for shooting night scenes and fireworks. The shutter remains open as long as the shutter release button is kept pressed.

1. Set the mode dial to **B**.



INFORMATION

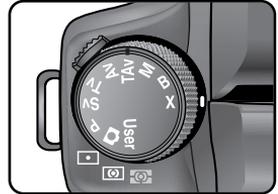
- Turn the rear e-dial to adjust the aperture value.
- Set the aperture value in increments of 1/2 EV or 1/3 EV. Set in [EV Steps] in the [CUSTOM1 MENU] menu (p.133).
- Use a sturdy tripod and the cable switch (optional) to prevent camera shake when using **B** (Bulb) mode. Connect the cable switch to the cable switch terminal.
- Bulb shooting is available when using the remote control shooting mode (p.65). The shutter remains open as long as the shutter release button of the optional remote control is held down.
- Noise reduction is a process to reduce noise (image roughness or unevenness) caused by low shutter speed. Set [Noise Reduction] in the [CUSTOM1 MENU] menu (p.137).
- When the sensitivity is set to [Auto] and exposure mode is set to **B** (Bulb) mode, the sensitivity is set to the minimum value set on the "Setting the Range of Automatic Correction in AUTO (p.83)".

Using the Mode Dial

Using the X (Flash X-Sync Speed) Mode

- The shutter speed is locked at 1/180 second. Use this when using an External flash that does not automatically change the shutter speed.

1. Set the mode dial to **X**.



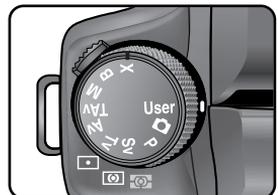
INFORMATION

- Turn the rear e-dial to adjust the aperture value.
- Press the Green button to retain the shutter speed at 1/180 sec and automatically adjust the aperture.
- When the sensitivity is set to [Auto] and exposure mode is set to **X** (Flash X-Sync Speed) mode, the sensitivity is set to the minimum value set on the "Setting the Range of Automatic Correction in AUTO (p.83)".

Using the USER Mode

- You can store the current camera settings and easily retrieve them simply by setting the mode dial to **USER**.

1. Set the mode dial to **USER**.



MEMO

A large, empty rectangular box with rounded corners, intended for writing a memo. The box is outlined in a thin grey line and occupies most of the page below the header.

5 Basic Function

Introduces functions to further enhance your GX-10 experience.

Checking the Composition, Exposure and Focus Before Shooting	190
Focusing	192
Setting the Exposure	199
Using the Built-in Flash	208
Using an External Flash (Optional).....	212

Checking the Composition, Exposure and Focus Before Shooting

- You can use the preview function to check the depth of field, composition, exposure and focus before taking a picture. There are 2 preview methods.

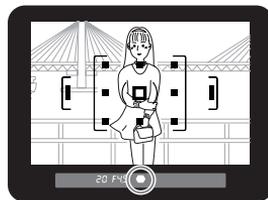
Optical Preview	For checking the depth of field with the viewfinder.
Digital Preview	For checking the composition, exposure, focus with the LCD monitor.

- ※ Set in [Preview Method] in the [CUSTOM2 MENU] menu. (p.145)
The default setting is Digital Preview.

- Displaying the Preview
Display the Optical Preview or Digital Preview.

Displaying the Optical Preview

1. Position the subject inside the AF frame.



2. Turn the main switch to  while looking through the viewfinder.
- You can check the depth of field in the viewfinder while the main switch is on .



INFORMATION

- No shooting information is displayed in the viewfinder, and the shutter cannot be released while the main switch is in the preview position ().
- You can check the depth of field in all exposure modes.

Checking the Composition, Exposure and Focus Before Shooting

Displaying the Digital Preview

- Focus on the subject, then compose the picture in the viewfinder and move the main switch to .



- ※ The icon () appears in the LCD monitor during preview and you can check the composition, exposure and focus.

Press the shutter release button halfway to end Digital Preview and start focusing. The image displayed in Digital Preview is not saved.



- ※ In the digital preview mode, the image can be enlarged by using the rear e-dial. You can check the composition, exposure and focus with the four-way button () on the LCD monitor.



INFORMATION

- You can display the Bright/Dark area warning or histogram in Digital Preview. Set in [Digital Preview] (p.167) in the [PLAYBACK MENU] menu.

Focusing

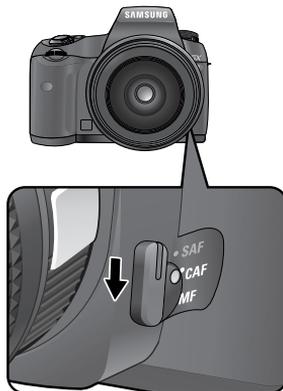
- You can focus with the following methods.

AF	Autofocus	The camera is focused when the shutter release button is pressed halfway.
MF	Manual focus	Manually adjust the focus.

Using Autofocus

- You can choose the autofocus mode from **SAF** (Single mode) where the shutter release button is pressed halfway to focus on the subject and the focus is locked at that position, and **CAF** (Continuous mode) where the subject is kept in focus by continuous adjustment while the shutter release button is pressed halfway.

1. Set the focus mode lever to **SAF** or **CAF**.



SAF (Single mode)	When the shutter release button is pressed halfway to focus on the subject, the focus is locked at that position.
CAF (Continuous mode)	The subject is kept in focus by continuous adjustment while the shutter release button is pressed halfway.

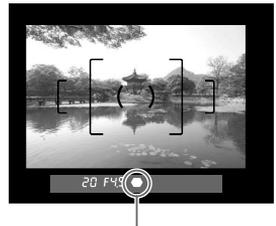
Focusing

2. Look through the viewfinder and press the shutter release button halfway.



- The focus indicator () appears in the viewfinder when focused (if it is blinking, the subject is not in focus).

※ Subjects that are Difficult to Focus on (p.54)



Focus indicator

INFORMATION

- The camera can be focused by pressing the **AF** button
- In **SAF** (Single mode), the focus is locked (focus lock) while  is lit. To focus on another subject, take your finger off the shutter release button first.
- In **CAF** (Continuous mode), focus is adjusted continuously, tracking the moving object as long as the shutter release button is kept pressed halfway.
- The shutter cannot be released until the subject is in focus in **SAF** (Single mode). If the subject is too close to the camera, move back and take the picture. Adjust the focus manually if the subject is difficult to focus (p.54, 197).
- In **SAF** (Single mode), press the shutter release button halfway. The built-in flash will discharge automatically several times, enabling the autofocus to focus on the subject easier if the subject is in a dark area and the built-in flash is available.

Focusing

Selecting the Focusing Area (AF Point)

- Choose the part of the viewfinder to set focus to. The factory default setting is  (Auto). The selected AF point lights red in the viewfinder. (Superimpose AF Area).

	Auto	The camera selects the optimum AF point even if the subject is not centered.
SEL	Select	Sets the focusing area to one of the eleven points in the AF area.
	Center	Sets the focusing area to the center of the viewfinder.

- Set with the AF point switching dial.



INFORMATION

- AF point is not displayed in the viewfinder when [Off] is selected for [Superimpose AF Area] in the [CUSTOM1 MENU] menu.

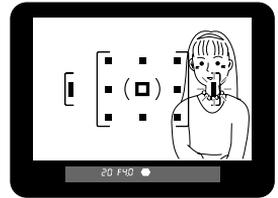
Focusing

Setting the Focus Position in the Viewfinder

1. Select **SEL** (Select) with the AF point switching dial.



2. Look through the viewfinder and check the position of the subject.



3. Use the four-way controller (▲▼◀▶) to select the desired AF point.

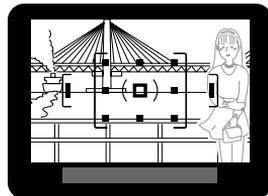
- The AF point lights red in the viewfinder (Superimpose AF Area) and you can check where you set the AF point.

Focusing

Fixing the Focus (Focus Lock)

- If the subject is outside the range of the focusing area, the camera cannot automatically focus on the subject. In this situation, you can aim the focusing area toward the subject, use focus lock and recompose the picture.

1. Frame the desired composition for your picture in the viewfinder.
 - Use focus lock function when the subject you wish to focus on is not inside the focusing area.

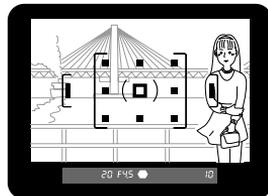


(Example) The person is out of focus and the background is focused instead.

2. Center the subject to focus in the viewfinder and press the shutter release button halfway. The focus indicator (●) appears and you will hear a beep when the subject comes into focus (if it is blinking, the subject is not in focus).



3. Lock the focus.
 - Keep the shutter release button pressed halfway. The focus will remain locked.
4. Re-compose the picture while keeping the shutter release button pressed halfway.



INFORMATION

- The focus is locked while the focus indicator (●) is lit.
- Turning the zooming ring in focus lock mode may cause the subject to be out of focus.
- The beep can be turned off. (p.151)
- When the focus is fixed, you can fix the exposure. (p.205)

Focusing

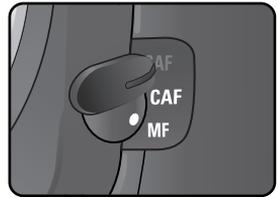
Adjusting the Focus Manually (Manual Focus)

- When you adjust the focus manually, you can either check with the focus indicator in the viewfinder or use the viewfinder matte field to adjust focus.

Using the Focus Indicator

- You can manually adjust the focus using the focus indicator ().

1. Set the focus mode lever to **MF**.



2. Look through the viewfinder, press the shutter release button halfway and turn the focusing ring.



- The focus indicator () appears and you will hear a beep when the subject comes into focus.



Focus indicator

Focusing

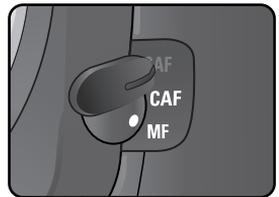
INFORMATION

- Use the matte field in the viewfinder when the subject is difficult to focus (p.54, 197) and the focus indicator will not stay lit.
- The beep can be turned off. (p.151)

Using the Viewfinder Matte Field

- You can manually adjust the focus using the viewfinder matte field.

1. Set the focus mode lever to **MF**.



2. Look through the viewfinder and turn the focusing ring until the subject looks sharp on the screen.



Setting the Exposure

Effect of Aperture and Shutter Speed

- Correct exposure of the subject is determined by the combination of shutter speed and aperture setting. There are many correct combinations of shutter speed and aperture for a particular subject. Different combinations produce different effects.

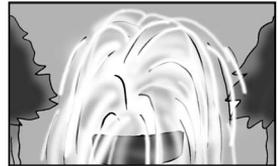
Effect of Shutter Speed

- The shutter speed determines the length of time that light is allowed to strike the CCD. Adjusting the shutter speed alters the amount of light striking the CCD.

- Using slower shutter speed

If the subject is moving, the image will be blurred because the shutter is open longer.

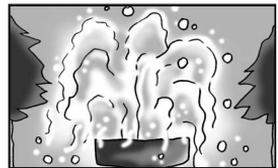
It is possible to enhance the effect of motion (rivers, waterfalls, waves, etc.) by intentionally using a slower shutter speed.



- Using faster shutter speed

Choosing a faster shutter speed will allow freezing the action of a moving subject.

A faster shutter speed also helps preventing camera shake.



Setting the Exposure

Effect of Aperture

- Adjust the amount of light hitting the CCD by changing the aperture.

- Opening the aperture (reduce the aperture value)

Objects closer and farther than the focused subject will be out of focus. For instance, if you take a picture of flower against a landscape with the aperture open, the landscape in front and behind the flower will be blurred, emphasizing only the flower.



- Closing the aperture (increase the aperture value)

The range in focus expands forward and backward.

For instance, if you take a picture of flower against a landscape with a smaller aperture, the landscape in front and behind the flower will be in focus.



Depth of Field

When you focus on a specific subject, there is a range in which objects closer and farther away will also be in focus. This focused range is called the depth of field.

- The depth of field for the GX-10 differs depending on the lens but compared to a 35 mm camera, the value is roughly one aperture setting lower (the focused range becomes shallower).
- The wider the wide-angle lens, and the farther away the subject, the greater the depth of field (some zoom lenses do not have a scale for depth of field because of their structure).

Depth of field	Shallow	←————→	Deep
Area of focus	Narrow	←————→	Wide
Aperture	Open (Smaller value)	←————→	Close (Larger value)
Lens focal length	Longer (Telephoto)	←————→	Shorter (Wider)
Distance to the subject	Near	←————→	Far

Setting the Exposure

How to Check Depth of Field

- When you focus on a portion of the subject, there is a range in which object closer and farther will also be in focus. This focused range is called the depth of field. If you use Depth of Field confirmation, you can check the depth of field in the viewfinder before taking a picture.

1. Focus on the subject.



2. Turn the main switch to  while looking through the viewfinder.
- You can check the depth of field in the viewfinder while holding the main switch.



INFORMATION

- No shooting information is displayed in the viewfinder, and the shutter cannot be released while the main switch is in the preview position ().
- You can check the depth of field in all exposure modes.

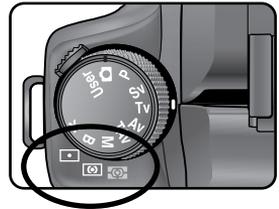
Setting the Exposure

Selecting the Metering Method

- Choose the part of the screen to use for measuring brightness and determining exposure.  (Multi-segment metering),  (Center-weighted metering) or  (Spot metering) mode can be selected. The default setting is  (Multi-segment metering).

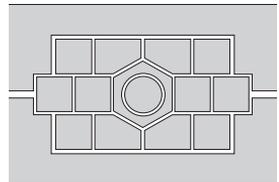
	Multi-segment metering	Segment the screen in 16 parts, meter each portion and determine the appropriate exposure.
	Center-weighted metering	Measure the entire screen with an emphasis on the center and determine the exposure.
	Spot metering	Measure only the center of the screen and determine exposure.

- Set with the metering mode lever.



Using the Multi-Segment Metering

- The scene in the viewfinder is metered in 16 different zones as shown in the illustration when using the multi-segment metering. This mode automatically determines what level of brightness is in which portion.



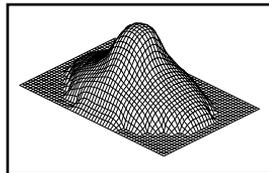
INFORMATION

- The center-weighted metering mode is automatically set even if you select the multi-segment metering mode when using a lens other than the D-XENON, D-XENOGON lens (can only be used if permission is set in [Use Aperture Ring] in the [CUSTOM2 MENU] menu). (p.142)
- You can link the exposure and AF point in the focusing area during multi segment metering. (p.131)

Setting the Exposure

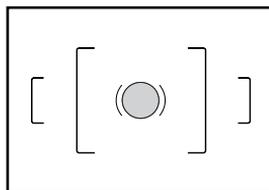
Using the Center-Weighted Metering

- Metering is weighted at the center of the screen.
Use this metering when you want to compensate the exposure by experience, instead of leaving it to the camera. The illustration shows that sensitivity increases as the pattern height increases (center). This mode does not automatically compensate for backlit scenes.



Using the Spot Metering

- With spot metering, brightness is measured only within a limited area at the center of the screen as shown in the illustration. You can use this in combination with the AE lock (p.205) when the subject is extremely small and proper exposure is difficult to obtain.



Setting the Exposure

Exposure Compensation

- This allows you to deliberately overexpose (brighten) or under-expose (darken) your picture. You can adjust the EV Compensation from -2 to +2 (EV) in increments of 1/2 EV or 1/3 EV. Select 1/2 EV or 1/3 EV in [EV Steps] in the [CUSTOM1 MENU] menu. (p.133)

1. Set the compensation with the front e-dial while the  button is pressed.



 Av button

2. Confirm the compensation value in the viewfinder.

-  is displayed during compensation.
-  blinks when the flash is popped up if the flash compensation is set.



Compensation value

INFORMATION

- Exposure compensation is not available when the exposure mode is set to  (Auto), **M** (Manual), **B** (Bulb) and **X** (Flash synchro) mode.
- The exposure compensation cannot be cancelled by turning the camera off or by setting any other exposure mode.
- The  is set to 0 when EV button and Green button are pressed at the same time.

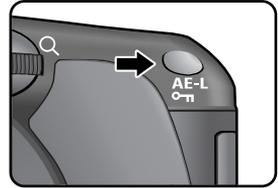
Setting the Exposure

Recording the Exposure Before Shooting (AE Lock)

- AE Lock is a function that memorizes the exposure prior to taking the picture. Use this when the subject is too small or backlit and a proper exposure setting cannot be obtained.

1. Press the **AE-L** button.

- The camera memorizes the exposure (brightness) at that instant. Press it again to unlock.



INFORMATION

- * is displayed in the viewfinder while the AE lock is engaged. (p.27)
- The exposure remains in memory for twice as much time as the metering timer after releasing the **AE-L** button. The exposure remains locked as long as the **AE-L** button is kept pressed or the shutter release button is kept pressed halfway.
- You will hear a beep when the **AE-L** button is pressed. The beep can be turned off. (p.151)
- AE lock is not available when the exposure mode is  (Auto), **B** (Bulb) or **X** (Flash synchro) mode.
- The combination of shutter speed and aperture value changes depending on the zooming position even while the AE lock is engaged when using a zoom lens for which maximum aperture varies depending on the focal length. However, the exposure value does not change and the picture is taken at the brightness level set by the AE lock.
- If the exposure mode is **M** (Manual), the aperture and/or shutter speed are automatically adjusted to set the appropriate exposure when the Green button is pressed.
- Exposure can be fixed when focus is locked. Set in [AEL with AF Locked] in the [CUSTOM1 MENU] menu. (p.134)

Setting the Exposure

Changing the Exposure and Shooting (Auto Bracket)

- You can take continuous pictures with different exposure when the shutter release button is pressed. The first frame is exposed with no compensation, the second frame is under-exposed (negative compensation) and the third is over-exposed (positive compensation). (when the number of frames is set to [3]).



[Normal exposure]



[Under-exposure]

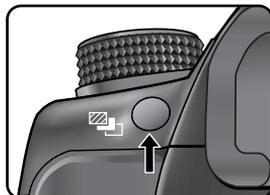


[Over-exposure]

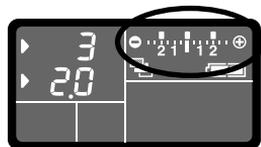
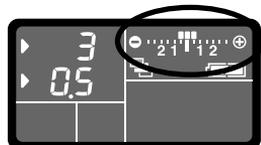
You can set [Auto Bracketng order] in the [Custom Setting1] menu.

1. Set the number of frames.

- Turn the front e-dial while pressing the Exposure bracket button. Select OFF (no frames), 3 or 5.



- ### 2. Set the step interval. Turn the rear e-dial while pressing the Exposure Bracket button. The available bracketing amounts in [EV Steps] in the [CUSTOM1 MENU] menu. (p.133)



Setting the Exposure

3. Press the shutter release button halfway.
 - Focus indicator () appears in the viewfinder when focused.
4. Press the shutter release button fully.
 - Three consecutive pictures will be taken, the first with no compensation, the second with negative compensation, and the third with positive compensation.
(when the number of frames is set to [3]).

INFORMATION

- When the focus mode is set to **SAF** (Single mode), the focus is locked in the first frame position and used for subsequent consecutive frames.
- The auto bracketing exposure setting will remain effective for twice as long as the exposure metering timer (default setting is 20 seconds) when you release your finger from the shutter release button during auto bracketing, and you can take the next picture at the next compensation value. In this case, auto focusing works for each frame. After about twice as much time as the exposure metering timer (default setting is 20 seconds), the camera returns to settings for taking the first picture.
- You can combine Auto Bracket with the built-in flash or external flash (P-TTL auto only) to change only the flash output continuously. However, when using an external flash, holding the shutter release button down to take three continuous frames may cause the second and third frame to be taken before the flash is fully recharged. Always take one frame at a time after confirming that charging is complete.
- Auto Bracket is not available when the exposure mode is set to **B** (Bulb) mode.
- Auto Bracket and Multi exposure are not used at the same time.

Taking Only Overexposed or Underexposed Pictures

You can use Auto Bracket mode for only underexposure or overexposure shots by combining the operation with EV compensation (p.204). Auto Bracket is performed in both cases on the basis of the specified EV compensation value.

Using the Built-in Flash

Flash Characteristics in Each Exposure Mode

- Using the Flash in **Tv** (Shutter Priority) Mode
 - When taking a moving subject, you can use the flash to change the blur effect.
 - Any desired shutter speed 1/180 sec. or slower can be set for taking a flash photograph.
 - The aperture value automatically changes according to the ambient brightness.

- Using the Flash in **Av** (Aperture Priority) Mode
 - You can set the desired aperture to take a flash photograph when you want to change the depth of field or shoot a subject farther away.
 - The shutter speed automatically changes with the ambient brightness.
 - The shutter speed shifts automatically anywhere from 1/180 sec. to a slow shutter speed that reduces camera shake. The slowest shutter speed depends on the focal length of the lens in use.

Using the Built-in Flash

Using Slow-Speed-Sync

- You can use slow-speed-sync when shooting portraits with the sunset in the background.

INFORMATION

- Slow-speed-sync slows the shutter speed. Use a tripod or OPS to avoid camera shake. The picture will also blur if the subject moves.
- Slow-speed-sync shooting can also be performed with an external flash.

■ Using Tv (Shutter Priority) Mode

1. Set the mode dial to **Tv**.

Tv (Shutter Priority) mode is set.

2. Use the e-dial to set the desired shutter speed.

The background is not properly corrected if aperture value is flashing when shutter speed is set.

Set the shutter speed so that aperture does not flash.

3. Press the  button.

The flash pops up.

4. Take the picture.

■ Using M (Manual) Mode

1. Set the mode dial to **M**.

M (Manual) mode is set.

2. Set the shutter speed (under 1/180 sec.) and aperture value to obtain correct exposure.

3. Press the  button.

The flash pops up.

In **M** (Manual) mode, pop up the flash at any time.

4. Take the picture.

Using the Built-in Flash

Distance and Aperture when Using the Built-in Flash

- A set criteria is necessary between the guide number, aperture and distance when shooting with the flash. Calculate and adjust the shooting conditions if flash is not sufficient.
- Built-in flash guide number

Sensitivity	Built-in flash guide number
ISO 100	11
ISO 200	15.6
ISO 400	22
ISO 800	31
ISO 1600	44

Calculating Shooting Distance from Aperture Value

- The following equation calculates the distance of the flash for aperture values.

Maximum flash distance $L1 = \text{Guide number} \div \text{Selected aperture}$

Minimum flash distance $L2 = \text{Maximum flash distance } L1 \div 5^*$

* The value 5 used in the formula above is a fixed value which applies only when using the built-in flash alone.

Example)

When sensitivity is [ISO 200] and aperture value is F4

$L1 = 15.6 \div 4 = \text{approx. } 3.9 \text{ (m)}$

$L2 = 3.9 \div 5 = \text{approx. } 0.8 \text{ (m)}$

Therefore, the flash can be used in a range of about 0.8 m to 3.9 m.

The flash cannot be used when the distance is less than 0.7 m. When the flash is used at closer than 0.7 m, it causes vignetting in the picture corners, light is distributed unevenly and the picture may be over-exposed.

Using the Built-in Flash

Calculating Aperture Value from Shooting Distance

- The following equation calculates the aperture value for shooting distances.

Aperture Value Used $F = \text{Guide number} \div \text{Shooting distance}$

When sensitivity is [ISO 200] and shooting distance is 5.2 m, aperture value is:

$$F = 15.6 \div 5.2 = 3$$

If the resulting number (3, in the above example) is not available as a lens aperture, the smaller number that is closest (2.8, in the above example) is generally used.

Using an External Flash (Optional)

- Using the optional external flash SEF-54PZF, SEF-36PZF enables a variety of flash modes, such as P-TTL auto flash mode, high-speed flash sync mode, and wireless mode. See the chart below for details. (O: Available, △: Restricted, X: Not available)

- See the SEF-54PZF, SEF-36PZF operating manual for details.

※ When using an external flash, it is recommended to use the high-precision SEF-54PZF, SEF-36PZF, as it is capable of P-TTL auto flash mode.

Camera Function	Flash	Built-in Flash	SEF-36PZF
Red-eye reduction flash		O	O
Automatic flash discharge		O	O
After the flash is charged, the camera automatically switches to the flash sync speed.		O	O
Aperture is automatically set in P (Program) mode and Tv (Shutter Priority) mode.		O	O
Auto viewfinder check		X	X
P-TTL auto flash (appropriate sensitivity: 200 to 3200)		O	O
Slow-speed sync		O	O
Flash exposure compensation		O	O
AF illuminator		O	O
Rear curtain sync flash ^{*1}		△ ^{*2}	O
Contrast-control-sync flash mode		△ ^{*3}	O
Slave flash		X	O
Multi Flash		X	X
High-speed flash sync		X	O
Wireless flash ^{*4}		X	O

*1 : Shutter speed of 1/90 sec. or slower.

*2 : Can be combined with SEF-36PZF for rear curtain sync flash.

*3 : When combined with the SEF-36PZF, 1/3 of the flash discharge can be output by the built-in flash and 2/3 can be output by the external flash.

*4 : Two or more SEF-54PZF, SEF-36PZF units are required.

Using an External Flash (Optional)

About the LCD Panel Display for SEF-36PZF

- The SEF-36PZF will automatically convert the field angle differential between 35 mm format and the GX-10 depending on the focal length of the lens you are using (when using D-XENON lenses). The conversion indicator appears and the format size indicator disappears when the exposure metering timer of the GX-10 is on (it returns to 35 mm format display when the exposure metering timer is turned off).

Lens focal length		85mm	77mm	50mm	35mm	28mm	24mm	20mm	18mm
SEF-36PZF	Exposure metering timer Off	85mm	70mm	50mm	35mm	28mm	24mm*		
LCD panel	Exposure metering timer On	58mm	48mm	34mm	24mm	19mm	16mm*		

* Using wide adaptor

Using P-TTL Auto Mode

- Use this flash mode with the SEF-36PZF flash unit. When flash mode is set to “P-TTL auto”, the flash pre-fires right before taking pictures using 16-segment metering and allows more precise control. P-TTL auto is available in wireless flash mode when two or more SEF-36PZF / SEF-54PZF units are used.
 1. Remove the cover of the hot shoe and attach the SEF-36PZF / SEF-54PZF.
 2. Turn on the SEF-36PZF / SEF-54PZF.
 3. Set the SEF-36PZF / SEF-54PZF flash mode to P-TTL auto.
 4. Confirm that the SEF-36PZF / SEF-54PZF is fully charged and then take the picture.

INFORMATION

- P-TTL auto is only available with the SEF-36PZF / SEF-54PZF flash unit.
- The  will light in the viewfinder when the flash is ready (fully charged).
- For details such as operation method and effective distance, please read the external flash manual.
- The flash does not discharge when the subject is bright enough when Flash Mode is ^A or ^A. Therefore, it may not suitable for daylight-sync shooting.
- Never press the flash pop up button when any external flash unit is attached to the camera. The built-in flash will hit the external flash.
- See the SEF-36PZF / SEF-54PZF operating manual for details.

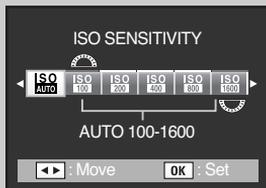
Using an External Flash (Optional)

Using High-Speed Flash Sync Mode

- With the SEF-36PZF / SEF-54PZF, you can discharge the flash to take a picture at a shutter speed faster than 1/180 second. High-speed flash sync can be used with the flash attached to the camera, or wireless.
- Attaching and Using the SEF-36PZF / SEF-54PZF on the Camera
 1. Remove the hot shoe cover and attach the SEF-36PZF / SEF-54PZF.
 2. Turn the mode dial and set the exposure mode to **Tv** or **M**.
 3. Turn on the SEF-36PZF / SEF-54PZF.
 4. Set the SEF-36PZF / SEF-54PZF sync mode to HS  (high-speed flash sync.).
 5. Confirm that the SEF-36PZF / SEF-54PZF is fully charged and then take the picture.

INFORMATION

- The  will light in the viewfinder when the flash is ready (fully charged).
- High-speed flash sync is only available when the shutter speed is faster than 1/180 sec.
- High-speed flash sync is not available when the exposure mode is set to **B** (Bulb).
- See the SEF-36PZF / SEF-54PZF operating manual for details.
- When the ISO sensitivity is set to [AUTO], an image is taken in the High-speed flash sync mode with the minimum ISO value in the range of ISO automatic correction.
Refer to p.83 for setting the range of Automatic Correction.



Using in Wireless Mode

- Shoot using the flash without connecting the camera and flash with a cord by using two SEF-36PZF / SEF-54PZF units. The High-speed sync mode is also available in wireless mode.

INFORMATION

- Be sure to set the two SEF-36PZF / SEF-54PZF units to the same channel. See the SEF-36PZF / SEF-54PZF operating manual for details.

Using an External Flash (Optional)

- In Wireless Mode

1. Place the SEF-36PZF / SEF-54PZF at the desired location.
2. Set the SEF-36PZF / SEF-54PZF power switch to [WIRELESS].
3. Set the SEF-36PZF / SEF-54PZF wireless mode to S (Slave).
4. Turn the camera mode dial and set the exposure mode to **P**, **Tv**, **Av** or **M** mode.
5. Set the SEF-36PZF / SEF-54PZF power switch on the camera to [WIRELESS].
6. Set the SEF-36PZF / SEF-54PZF wireless mode on the camera to **M** (Master) or **C** (Control).

INFORMATION

- Wireless mode is not available for the built-in flash.
- Set the SEF-36PZF / SEF-54PZF wireless slave mode to SLAVE1.

Wireless Flash Control (P-TTL Flash Mode)

The following information is exchanged between the two SEF-36PZF / SEF-54PZF flash units before the flash is discharged when the SEF-36PZF / SEF-54PZF is used for wireless flash.

Press the shutter release button fully.

1. The camera' s flash discharges a pre-flash (the camera' s flash mode is transmitted).
2. The external flash unit discharges a pre-flash (the subject' s lighting condition is checked).
3. The camera' s flash unit discharges a pre-flash (the required flash output is transmitted to the external flash).
 - ※ The camera' s flash will discharge another pre-flash to transmit the flash duration in HS ⚡ (High-speed sync).
4. The external flash discharges the main flash.
 - ※ Set the SEF-36PZF / SEF-54PZF wireless slave mode to SLAVE1.

Using an External Flash (Optional)

Red-Eye Reduction

- As with the built-in flash, red-eye reduction is available with an external flash.

INFORMATION

- The red-eye reduction feature works even when only an external flash is used. (p.70)
- If red-eye reduction is used when the SEF-36PZF / SEF-54PZF is set as the slave unit or with the wireless function, the preflash for red-eye reduction will trigger the external flash. Do not use red-eye reduction when using a slave unit.
- See the SEF-36PZF / SEF-54PZF operating manual for details.

6 Software information

Explains software installation and how to use the program.

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Software Notes

Please ensure that you read this section of the instruction manual carefully before use.

- The included software is a camera driver and image editing software tool for Windows.
- Under no circumstances should all or part of either the software or the user manual be reproduced.
- Copyrights for software are licensed only for use with a camera.
- In the unlikely event of a manufacturing fault, we will repair or exchange your camera. We cannot, however, be held responsible in any way for damage caused by inappropriate use.
- Using a Hand-made PC or a PC and OS that has not been guaranteed by the manufacturer is not covered by the Samsung warranty.
- Before reading this manual, you should have a basic knowledge of computers and O/S (Operating Systems).

System Requirements

For Windows	For Macintosh
PC with processor better than Pentium III 450Mz (Pentium 700MHz recommended)	Power Mac G4 or later
Windows 2000/ME/XP	Mac OS 10.2 or later
Minimum 256MB RAM (XP : 512MB) 250MB of available hard disk space (1GB recommended)	Minimum 256MB RAM 250MB of available hard-disk space
USB port	USB port
CD-ROM drive	CD-ROM drive
1024x768 pixels, 16-bit colour display compatible monitor (24-bit colour display recommended)	

About the software

- **Digimax Master** : This is the all-in-one multi media software solution
You can download, view, edit and save your digital images (RAW, JPEG) with this software.
This software is only compatible with Windows.
- **Digimax RAW Converter**
You can convert a RAW (*.dng) file into a JPEG or TIFF file format.

INFORMATION

- You should allow 5~10 seconds for running the automatic setup program according to the capability of your computer. If the frame does not show, run the [Windows Explorer] and select [setup.exe] in the CD-ROM Drive root directory.
- PDF documents of user manual are included in the Software CD-ROM supplied with this camera. Search the PDF files with Window' s explorer. Before opening the PDF files, you must install the Adobe Reader included in the Software CD-ROM.
- To install the Adobe Reader 6.0.1, the Internet Explorer 5.01 must be installed. To upgrade the Internet Explorer, visit www.microsoft.com.

Setting up the application software

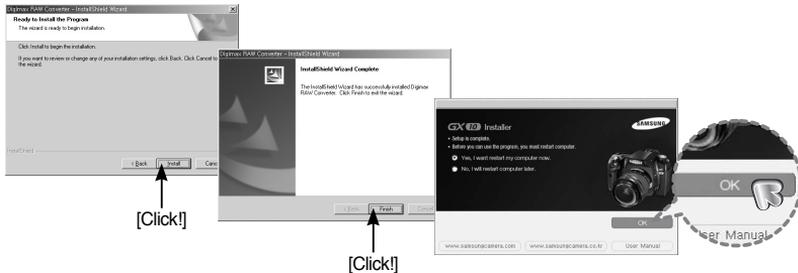
- To use this camera with a PC, install the application software first.
After this has been done, the stored images in the camera can be moved to the PC and can be edited by an image editing program.
- You can visit the Samsung web-site through the internet.

<http://www.samsungcamera.com> : English
<http://www.samsungcamera.co.kr> : Korean

1. Install the Digimax Master by following the instructions shown on your PC monitor.



Setting up the application software

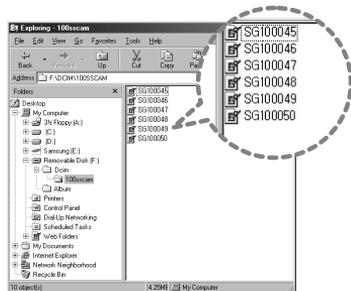


2. After restarting the computer, connect the PC to the camera with the USB cable.

3. Turn the camera power on.

The [Found New Hardware Wizard] will open and the computer will recognize the camera.

- ※ If your OS is Windows XP, an image viewer program will open.
- If the download window of Digimax Master opens after starting Digimax Master, the camera driver was setup successfully.



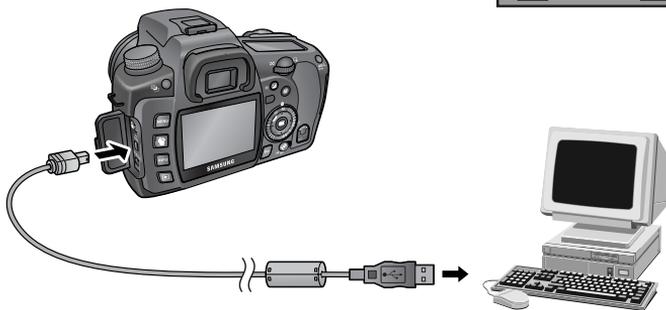
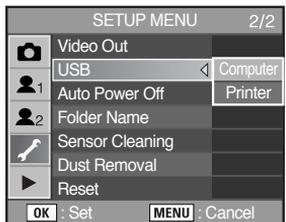
Setting up the application software

Starting PC mode

- In this mode, you can download stored images to your PC through the USB cable.
- The LCD monitor is always turned off in PC mode.

■ Connecting the camera to a PC

1. Press the MENU button and select the [SETUP MENU] menu.
2. Set [USB] on camera to [Computer].
3. Connect the PC to the camera with the USB cable.

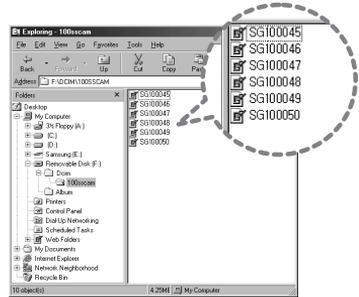


Removable Disk

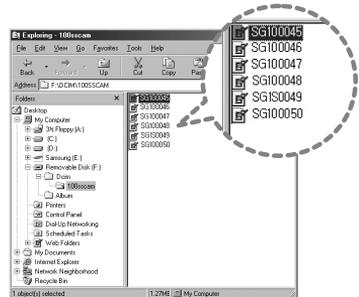
■ Downloading stored images

You can download the still images stored on the camera to your PC's hard disk and print them or use a photo editing software to edit them.

1. Connect the camera to your PC with the USB cable.
2. On your computer's desktop display, select [My Computer] and double click [Removable Disk → DCIM → 100SSCAM].
The image files will then be displayed.



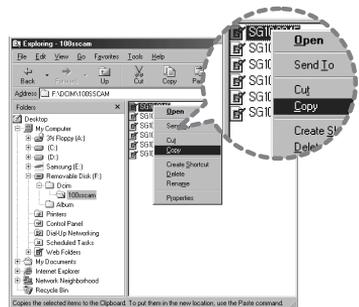
3. Select an image and press the right mouse button.



4. A pop-up menu will open.

Click the [Cut] or [Copy] menu.

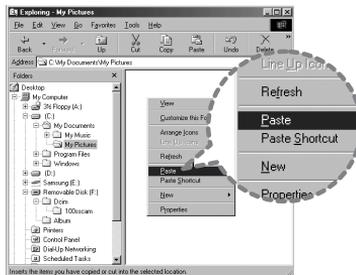
- [Cut] : cuts a selected file.
- [Copy] : copies files.



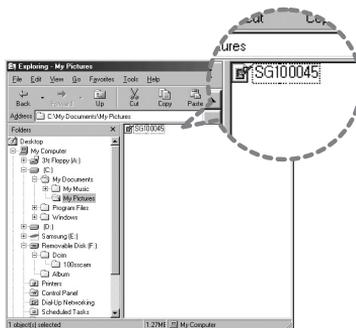
5. Click a folder where you want to paste the file.

Removable Disk

6. Press the right mouse button and a pop-up menu will open. Click [Paste].



7. An image file is transferred from the camera to your PC.



- By using [Digimax Master], you can see the images stored in the memory directly on the PC monitor and you can copy or move the image files.

CAUTION

- We recommend that you should copy the images to the PC to view them. Opening images directly from the removable disk may be subject to unexpected disconnection.
- When you upload a file that is not taken by this camera to the Removable Disk, the [Camera cannot display this image] message will be displayed on the LCD monitor in the PLAY mode, and [?] message is displayed in THUMBNAIL mode.

Removing the removable disk

■ Windows 2000/ME/XP

(The illustrations may be different from the real display depending on the Windows O/S.)

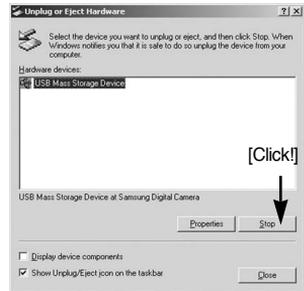
1. Check whether the camera and PC is transferring a file. If the Card in use lamp blinks, you have to wait until the lamp is turned off.

2. Double-click the [Unplug or Eject Hardware] icon on the task bar.



[Double-click!]

3. The [Unplug or Eject Hardware] window will open. Select the [USB Mass Storage Device] and click the [Stop] button.



4. The [Stop a Hardware device] window will open. Select the [USB Mass Storage Device] and click the [OK] button.



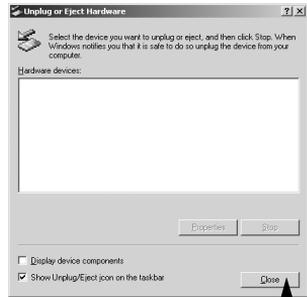
5. A [Safe to Remove Hardware] window will open. Click the [OK] button.



[Click!]

Removing the removable disk

6. A [Unplug or Eject Hardware] window will open.
Click the [Close] button and the removable disk may then be removed safely.



7. Unplug the USB cable.

Setting up the USB Driver for MAC

1. A USB Driver for MAC is not included with the software CD as MAC OS supports the camera driver.
2. Check the MAC OS. This camera is compatible with MAC OS 10.2 or later.
3. Connect the camera to the Macintosh and turn the camera power on.
4. A new icon will be displayed on the desktop after connecting the camera to the MAC.

Using the USB Driver for MAC

1. Double click a new icon on the desktop and the folder in the memory will be displayed.
2. Select an image file and copy or move it to MAC.

INFORMATION

- For Mac OS 10.0 or later : First complete uploading from computer to camera and then remove the removable disk with the Extract command.

Digimax Master

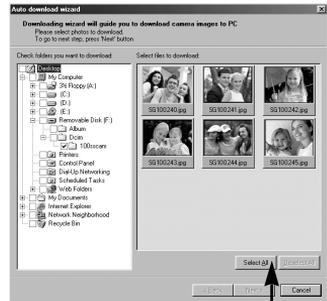
- You can download, view, edit and save your digital images and movies with this software.
This software is only compatible with Windows except for the Windows 98.
- To start the program, click [Start → Programs → Samsung → Digimax Master → Digimax Master].

● Downloading images

1. Connect the camera to your PC.

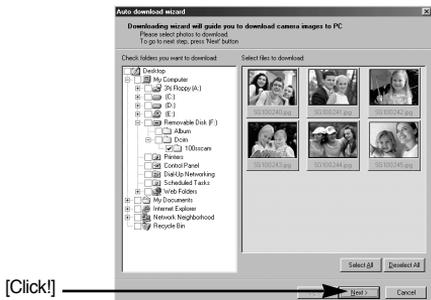
2. A window for downloading images will display after connecting the camera and your PC.

- To download the captured images, select the [Select All] button.
- Select desired folder in the window and click the [Select All] button. You can save captured images and selected folder.
- If you click the [Cancel] button, downloading will be cancelled.



[Click!]

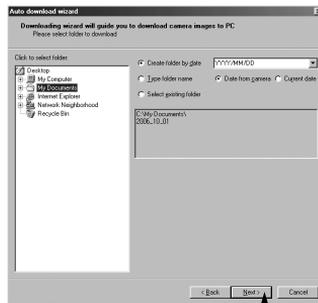
3. Click [Next >] button.



[Click!]

Digimax Master

4. Select a destination and make a new folder in which to save downloaded images and folders.
 - Folders will be made in order of date and images will be downloaded.
 - Folder names can be made as you want and images will be downloaded.
 - After selecting a folder that was made before, images will be downloaded.
5. Click [Next >] button.



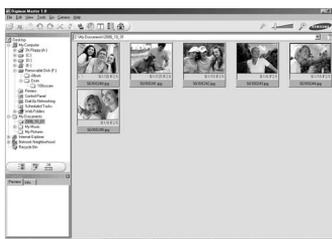
[Click!]

6. A window will open as shown alongside.
The destination of the selected folder will be displayed on the upper side of the window.
Click the [Start] button to download the images.



[Click!]

7. Downloaded images will be displayed.



Digimax Master

- Image viewer : You can view the stored images.



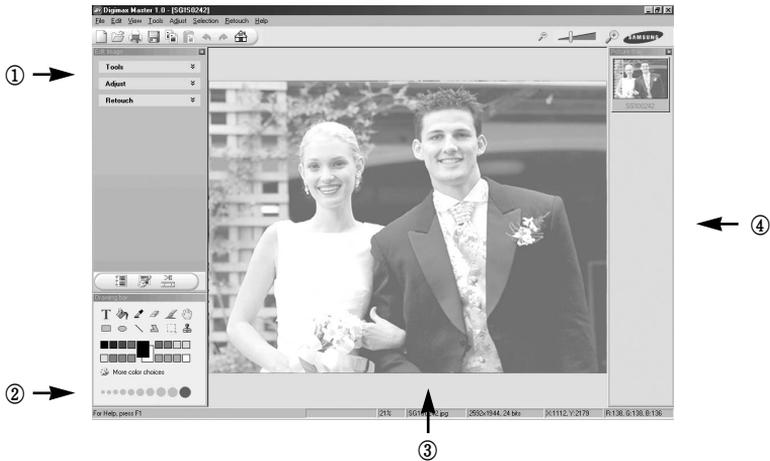
- Image viewer functions are listed below.

- ① Menu bar : You can select menus.
File, Edit, View, Tools, Change functions, Auto download, help, etc.
- ② Image selection window : You can select the desired images in this window.
- ③ Media type selection menu : You can select image viewer, image edit, movie edit functions in this menu.
- ④ Preview window : You can preview a image or a movie clip and check the multi media information.
- ⑤ Zoom bar : You can change preview size.
- ⑥ Folder display window : You can see the folder location of the selected image.
- ⑦ Image display window : Images of the selected folder are displayed.

※ Refer to the [Help] menu in Digimax Master for further information.

Digimax Master

- Image edit : You can edit the still image.



- Image edit functions are listed below.

- ① Edit menu : You can select the following menus.
 - [Tools] : You can resize or crop the selected image. See the [Help] menu.
 - [Adjust] : You can modify image quality. See the [Help] menu.
 - [Retouch] : You can change image or insert effects on the image. See the [Help] menu.
- ② Drawing tools : Tools for editing an image.
- ③ Image display window : a selected image displays in this window.
- ④ Preview window : You can preview the changed image.

- ※ A still image edited with Digimax Master can't be played back on the camera.
- ※ Refer to the [Help] menu in Digimax Master for further information.

Digimax Master

- **Movie edit** : You can have still images, movies, narration and music all in one movie file.



- Movie clip edit functions are listed below.

- ① **Edit menu** : You can select the following menus.

[Add Media] : You can add other media elements to a movie.

[Edit Clip] : You can change the brightness, contrast, colour and saturation.

[Effects] : You can insert an effect.

[Set Text] : You can insert texts.

[Narrate] : You can insert a narration.

[Produce] : You can save the edited multi media as a new file name.

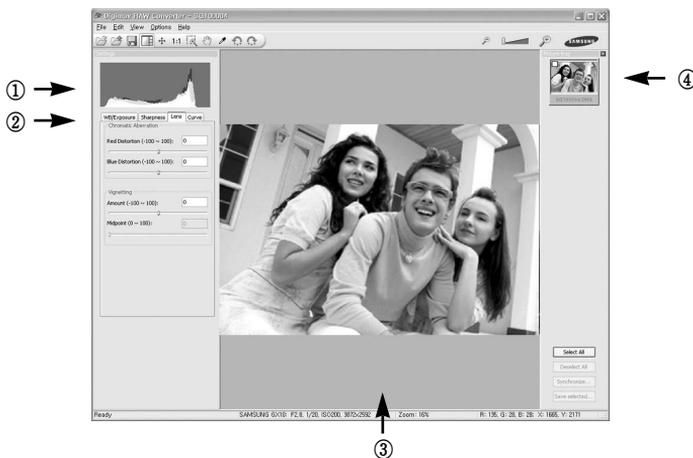
You can select AVI, Windows media (wmv), Windows media (asf) and movie clip for this camera (avi, MPEG-4) file types.

- ② **Frame display window** : You can insert multi media in this window.

- ※ Some movie clips that were compressed with a codec that is not compatible with the Digimax Master can't play back in the Digimax Master.
- ※ Refer to the [Help] menu in Digimax Master for further information.

Digimax RAW Converter

- Digimax RAW Converter : You can convert a RAW (*.dng) file into a JPEG or TIFF file format.



- RAW Converter functions are listed below.

- ① Histogram display : Histogram of displayed image will be displayed.
- ② Tools : You can edit the RAW (*.dng) files as you want
 - [White Balance] : You can edit the colour temperature and saturation of the image.
 - [Exposure] : You can edit the Exposure value, Contrast and gamma value.
 - [Sharpness] : You can edit the Sharpness of the image.
 - [Aberration] : You can change the chromatic aberration.
 - [Vignetting] : You can add the Vignetting on the captured image.
 - [Curve] : You can change the color and contrast of an image.
- ③ Image display window : a selected image displays in this window.
- ④ Image tray : the selected image is displayed. You can edit several images at a time.

※ Refer to the [Help] menu in Digimax RAW Converter for further information.

※ You can convert a RAW (*.pef, *.dng) file into a JPEG or TIFF file format with the Digimax Master.

7 Appendix

Explains troubleshooting, introduces optional accessories and provides various resources.

Default Settings.....	234
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Default Settings

- The table below lists the factory default settings.

Table notations are as follows.

The current setting (last memory) is saved when the camera is turned off.

- Reset Setting

O : The setting returns to the default setting with the reset function. (p.164)

X : The setting is saved even after reset.

- Recording mode menu

Item		Default Setting	Reset Setting	Page
Image Tone			O	p.121
File type		JPEG	O	p.122
Recorded Pixels		10M (3872x2592)	O	p.122
Quality Level			O	p.123
Saturation			O	p.124
Sharpness			O	p.124
Contrast			O	p.124
User setting		-	-	p.125
Color space		sRGB	O	p.126
Extended bracket	Type	Off	O	p.127
	White Balance	AB±1	O	p.127
	Saturation / Sharpness / Contrast	±1	O	p.127
Multi exposure	Number of shots	Off	O	p.127
	Auto exposure compensation	<input type="checkbox"/> (Off)	O	p.127
Memory setting		<input checked="" type="checkbox"/>	O	p.128
Optical Picture Stabilisation (OPS)		*1 35 (Focus range)	O	p.55
Exposure mode*2		P	O	p.129

*1 : When a lens that does not display the focal length automatically is attached, this icon will display.

*2 : When the Mode dial is set to USER, * menu will be displayed.

Default Settings

- User setting1 menu

Item	Default Setting	Reset Setting	Page
Link AF Point and AE	Off	O	p.131
Superimpose AF Area	On	O	p.131
AF in remote control	Off	O	p.132
AF Button Function	On	O	p.132
AF by Press Halfway	On	O	p.133
EV Steps	1/2 EV	O	p.133
Meter Operating Time	10 Sec	O	p.134
AE-L with AF locked	Off	O	p.134
Program Line	Normal	O	p.135
Auto EV Compensation	Off	O	p.135
Fine tune when AWB	Off	O	p.136
WB when using flash	No	O	p.136
Color temp. steps	Kelvin	O	p.137
Noise Reduction	On	O	p.137
ISO Warning	Off	O	p.138
Sensitivity Steps	1 EV	O	p.139
Reset Custom Function1*	-	-	p.139

* Reset settings in [CUSTOM1 MENU] menu.

Default Settings

- User setting2 menu

Item	Default Setting	Reset Setting	Page
Auto Bracketng order	0 - +	O	p.141
Green Btn in Manual	<-P->	O	p.141
Using aperture ring	Prohibited	O	p.142
e-dial in Program	 : Tv  : Av	O	p.142 ~ 143
e-dial in Sv mode	 : ---  : ISO	O	p.142 ~ 143
e-dial in Tv mode	 : Tv  : ---	O	p.142 ~ 143
e-dial in Av mode	 : ---  : Av	O	p.142 ~ 143
One-touch RAW +	1 time	O	p.144
Recordable Image No.	Recordable Image No.	O	p.144
Release when Chrging	Off	O	p.145
Preview Method	Optical Preview	O	p.145
Initial zoom display	1.2X	O	p.146
Auto Image Rotation	On	O	p.146
Saving rotation info	On	O	p.147
Illuminate LCD panel	On	O	p.147
Reset Custom Function2*	-	-	p.148

* Reset settings in [CUSTOM2 MENU] menu.

Default Settings

- Set up menu

Item		Default Setting	Reset Setting	Page
Format		-	-	p.150
Beep All O (On)			O	p.151
Date Adjust	World Time	According to default setting	X	p.152 ~ 155
	Hometown (City)	<input type="checkbox"/> (Off)	O	p.152 ~ 155
	Hometown (DST)	According to default setting	X	p.152 ~ 155
	Destination (City)	Same as Hometown	X	p.152 ~ 155
	Destination (DST)	Same as Hometown	X	p.152 ~ 155
Language / 言語		According to default setting	X	p.156
Guide display		3 sec	O	p.156
Brightness Level		±0	O	p.157
Video Out		NTSC	X	p.158
USB		PC	O	p.159
Auto Power Off		1min	O	p.159
Folder Name		Std.	O	p.160
Sensor Cleaning		-	X	p.161
Dust Removal	Dust Removal	-	X	p.163
	Cleaning when turning on	<input type="checkbox"/> (Off)	O	p.163
Reset Custom Function2		-	-	p.164

Default Settings

● Playback menu

Item		Default Setting	Reset Setting	Page
Bright/Dark area		Off	O	p.165
Instant Review	Display Time	1 sec	O	p.166
	Histogram	<input type="checkbox"/> (Off)	O	p.166
	Bright/Dark area	<input type="checkbox"/> (Off)	O	p.166
Digital Preview	Histogram	<input type="checkbox"/> (Off)	O	p.167
	Bright/Dark area	<input type="checkbox"/> (Off)	O	p.167
Digital Filter*		B&W	O	p.167
Slideshow	Interval	3 sec	O	p.168
	Repeat Playback	<input type="checkbox"/> (Off)	O	p.168

* The slimness setting for the slim filter, the softness setting for the soft filter, the brightness setting for the brightness filter, and the color setting for the color filter can be saved/reset.

● Fn menu

Item	Default Setting	Reset Setting	Page
Drive Mode	Single frame shooting	O	p.60
Flash Mode	 Fill-in flash* ¹	O	p.70
White Balance	Auto	O	p.76
Sensitivity	Auto	O	p.82
DPOF	-	O	p.105
Digital Filter* ²	B&W	O	p.93
Slideshow	3 sec	O	p.90
RAW Display	Recorded Pixels : 10M Quality Level : Super fine	O	p.96

*1 : Automatically discharged in Green Mode ( ^).

*2 : The slimness setting for the slim filter, the softness setting for the soft filter, the brightness setting for the brightness filter, and the color setting for the color filter are saved/reset.

Optional Accessories

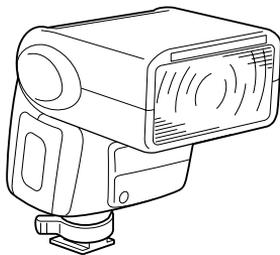
- Dedicated accessories are available for this camera. Please contact a service center for details regarding accessories. Accessories for PENTAX DSLR can be used with SAMSUNG DSLR.

Flash Accessories

- Auto Flash SEF-36PZF / SEF-54PZF

This is an auto flash unit with a maximum guide number of 54 (ISO 100/m) / 36 (ISO 100/m).

Its features include slave-sync flash, contrast-control-sync flash, AF spot beam, high-speed sync, wireless flash and front/rear curtain-sync.



Optional Accessories

Camera Case

- Camera Case SCP-D2



Others

- The accessories below are the same as the accessories that are packaged with the camera.

- Viewfinder cap



- Eyecup



- Strap



Error Messages

Error Message	Description
Memory card full	The Memory Card is full and no more images can be saved. Insert a new Memory Card or delete unwanted images. (p.38, 98) You may be able to save new images by changing the quality level or recorded pixels. (p.122, 123)
No image	There are no images for playback on the Memory Card.
Camera cannot display this image	You are trying to play back an image in a format not supported by this camera. You may be able to play it back on another brand of camera or your computer.
No card in camera	The Memory Card is not inserted in the camera. (p.38)
Memory card error	The Memory Card has a problem, and image capture and playback are impossible. It may be viewable on a PC but not the camera.
Card not formatted	The Memory Card you have inserted is unformatted or has been formatted on a computer or other device and is not compatible with this camera. Use after formatting with the camera.
Card locked	A locked Memory Card is inserted in the camera. Unlock the Memory Card. (p.39)
Card is locked Rotation information cannot be saved	
This image is protected Rotation information cannot be saved	The selected rotated image is protected. Remove protection from the image.
Cannot use this card	The inserted card cannot be used on a camera. Insert a usable card.
Battery depleted	The batteries are exhausted. Install new batteries in the camera. (p.36)
Not enough battery remaining to clean sensor	Appears during CCD cleaning if battery set level is insufficient. Replace the battery set with a new one or use an AC adaptor. (p.37)

Error Messages

Error Message	Description
Image folder could not be created	The maximum folder number (999) and file number (9999) are being used, and no more images can be saved. Insert a new Memory Card or format the card. (p.150)
The image is not stored	The image could not be saved because of an Memory Card error.
Settings not stored	The DPOF settings file could not be saved because Memory Card is full. Delete unwanted images and set DPOF again. (p.98)
RAW images cannot be set	DPOF cannot be applied to the RAW images.
RAW images are not supported	RAW images cannot be processed using the digital filter.
No image to be filtered	When digital filter is started from [ PLAYBACK MENU] menu, this message appears if all saved images are RAW files or images captured with other cameras.
This image cannot be filtered	Appears when digital filter is started from Fn menu for images captured with other cameras.
No DPOF files	No file set with DPOF. Set DPOF and print. (p.105)
Printer error	There is an error with the printer and the file cannot be printed. Fix error and print.
No paper in a printer	Printer has run out of paper. Put paper in printer and print.
No ink in a printer	Printer has run out of ink. Replace ink and print.
Paper stuck in a printer	Paper is jammed in printer. Remove paper and print.
Data error	A data error has occurred during printing.

Troubleshooting

We recommend checking the following items before contacting a service center.

Problem	Cause	Remedy
Camera does not turn on	Batteries are not installed	Check if batteries are installed. If not, install batteries.
	Battery power is low	Replace with a charged battery set or use the AC adapter (SAC-82, optional). (p.26)
The shutter does not release	The Aperture Ring is not on the A position	Set the Aperture Ring to the A position or set the [Use Aperture Ring] on the [CUSTOM2 MENU] to [On].
	Flash is charging	Wait until charging is finished.
	No available space on Memory Card	Insert Memory Card with available space or delete unwanted images. (p.38, 98)
	Recording	Wait until recording is finished.
The Autofocus does not work	Subject is difficult to focus on	Autofocus cannot focus well on subjects that have low contrast (the sky, white walls), dark colours, intricate designs, are moving quickly or scenery shot through a window or a net-like pattern. Lock focus on another object located at same distance (press shutter release button halfway), then aim at target and press shutter release button fully. Alternatively, use manual focus. (p.197)
	Subject is not in focusing area	Position subject in focus frame in middle of viewfinder. If the subject is outside the focusing area aim the camera at the subject and lock the focus (press shutter release button halfway), then compose picture and press the shutter release button fully.
	Subject is too close	Move away from the subject and take a picture.
	The focus mode is set to MF	Set the focus mode lever to AF . (p.192)
	The focus mode is set to CAF (Continuous mode)	Set the focus mode to SAF (Single mode). (p.192)

Troubleshooting

Problem	Cause	Remedy
AE lock function does not operate	AE lock is not available when set to A (Auto), B (Bulb) mode or X (Flash X-synchro) mode.	Use AE lock with any setting other than A (Auto), B (Bulb) mode or X (Flash X-synchro) mode.
Built-in Flash does not discharge	When flash mode is set to [Auto discharge] or [Auto flash+Redeye reduce], the flash will not discharge if the subject is bright	Set flash mode to [Manual discharge] or [Manual flash+Redeye reduce]. (p.70)
USB connection with computer does not work properly*	The transfer mode is set to [Printer]	Set transfer mode to [Computer].
USB connection with printer does not work properly	An error occurred while sending USB data	Change the transfer mode to [Printer].
	The transfer mode is set to [Computer]	Set transfer mode to [Printer]. (p.159)
Shake Reduction does not work	Shake Reduction function is off	Turn on the Shake Reduction switch.
	Shake Reduction function is not set Properly	If a lens for which focal length information cannot be acquired is used, set the [Focal Length] on the [] OPS menu.
	Shutter speed is too low for Shake Reduction function to be effective when panning or shooting night scenes, etc.	Turn off the Shake Reduction function and use a tripod.

Troubleshooting

Problem	Cause	Remedy
Shake Reduction does not work	Subject is too close	Move away from the subject, or turn off the Shake Reduction function and use a tripod.

* In rare cases, the camera may not operate correctly due to static electricity. This can be remedied by taking the batteries out and putting them back in again. When the mirror remains in the up position, take the batteries out and put them back in again. Then, turn the power on. The mirror will retract. After the procedure is done, if the camera operates correctly, it does not require any repairs.

* Refer to the software instructions for details on connecting the camera to a PC. (p.218)

Troubleshooting

- Please check the following if the USB connection malfunctions.

[Case 1] The USB cable is not connected or you are using a cable with an incorrect specification.
→ Use a USB cable with the correct specification.

[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 the USB hub.
→ There may be a problem in 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 cables connected to the PC?
→ The camera may malfunction when it is connected to the PC at the same time as another USB cable. In this case, disconnect the other USB cable, and connect only one USB cable to the 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 on the entry with the question (?) or exclamation (!) mark and select "Remove". Restart the PC and connect the camera the again. For Windows 98 PC, remove the camera driver also, restart the PC, and then reinstall the camera driver.

Troubleshooting

[Case 7]

In some security programs (Norton Anti Virus, V3, etc.), the computer may not recognise 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 stop the program.

[Case 8]

If a PC connected with the camera stops responding while Windows is starting.

→ In this case, disconnect the PC and the camera and Windows will start.

If the problem happens continuously, set the Legacy USB Support to disable and restart the PC. The Legacy USB Support is in the BIOS setup menu (The BIOS setup menu differs from the PC manufacturers and some BIOS menus don't have Legacy USB Support). If you can't change the menu by yourself, contact the PC manufacturer or BIOS manufacturer.

[Case 9]

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 recognise the camera.

Connect the camera to the USB port located on the back of the computer.

Main Specifications

Image Sensor	Type	23.5mm x 15.7mm CCD
	Effective Pixel	Approx. 10.20 Mega-pixel
	Total Pixel	Approx. 10.75 Mega-pixel
Lens	Mount	PENTAX KAF2 bayonet mount
	Usable Lens	Schneider D-XENON, D-XENOGON Lens * All PENTAX DSLR lenses are available. * KAF2 mount lenses, KAF mount lenses, KA mount lenses
Viewfinder	Type	Pentaprism, Natural-Bright-Matte Focusing Screen
	Field of View	95%
	Magnification	0.95X (50mm F1.4 Lens · ∞)
	Diopter Adjustment	-2.5m ⁻¹ ~ 1.5m ⁻¹
	LCD Monitor	Low-temperature polysilicon TFT colour LCD monitor 2.5" (approximately 210,000 dots)
Focusing	Type	TTL phase-matching 11 points wide AF
	Modes	AF Single (with focus lock), Manual focus, Continuous AF
Shutter	Type	Electronically controlled vertical-run focal plane shutter
	Speed	Auto : 1/4000sec ~ 30sec (No step), Manual : 1/4000sec ~ 30sec (1/3EV step or 1/2EV step) with Bulb
Exposure Control	Metering System	TTL open-aperture 16-segment Metering : Multi, Center-weighted, Spot
	Compensation	±3 (1/3EV or 1/2EV steps)
	ISO Equivalent	Auto, 100, 200, 400, 800, 1600
Flash	Type	Built-in retractable P-TTL Manual pop-up flash
	Modes	Auto, Fill-in, Auto+Red eye, Fill-in+Red eye, Front curtain synchro, Front curtain synchro+Red eye, Rear curtain synchro
	Guide Number	11 (at ISO 100)
	Angle of View Coverage	28mm wide-angle (equivalent to 35mm)
	Sync. Speed	1/180 sec.
	Recharging Time	Approx. 3 sec.
	External Flash	SEF-36PZF, SEF-54PZF (optional)
White Balance		Auto, Daylight, Shade, Cloudy, Tungsten, Fluorescent (W, D, N), Flash, Manual, Colour Temperature 1, 2, 3
Shooting	Modes	Auto, Program, Sensitivity Priority, Shutter Priority, Aperture Priority, Shutter&Aperture Priority, Manual, Bulb, Flash X-sync, User mode

Main Specifications

Shooting	Drive Modes	Single, Continuous, Auto Bracket
	Continuous	3 fps up to 9 frames (RAW), Depending on the memory capacity (JPEG)
OPS		CCD shift type
Dust Removal		by removing the CCD and SP coating
Self-timer		2 sec., 12 sec., Remote control, Remote control 3 sec (Compatible with PENTAX remote control, Optional)
Storage	Media	SD/MMC (up to 2GB guaranteed), SDHC (up to 4GB guaranteed)
	File Format	RAW (DNG), JPEG (DCF), EXIF 2.21, DPOF 1.1, PictBridge 1.0
	Image Size	10M : 3872X2592, 6M : 3008X2000, 2M : 1824X1216 (JPEG) 10M : 3872X2592 (RAW)
	Capacity (512MB)	10M : RAW 30 10M : Super Fine 104 Fine 178 Normal 306 6M : Super Fine 174 Fine 297 Normal 512 2M : Super Fine 474 Fine 802 Normal 1360 ※ These figures are measured under Samsung's standard conditions and may vary depending on shooting conditions and camera settings.
Image Play	Type	Single image, Thumbnails, Slide show
	Editing	Rotate, Digital Filter
	Digital Filter	B&W, Sepia, Soft, Slim, Brightness
Interface		Digital Output Connector : USB 2.0 (HI-SPEED) Video Output : NTSC, PAL (user selectable) DC Power Input Connector : DC 8.3V, 2A (100~240V)
Power Source		Lithium Ion Battery : SLB-1674, Charger : SBC-L6 AC adapter : SAC-82 (optional)
Dimensions (WxHxD)		142x101x71.5mm (excluding the projecting parts of the camera)
Weight		710g (without batteries and card)
Operating Temperature		0 ~ 40° C
Operating Humidity		5 ~ 85%
Software	Camera Driver	Storage Driver (Windows 2000/ME/XP, Mac OS 10.2 or later)
	Application	Digimax Master, Digimax RAW Converter, Adobe Reader

* Specifications are subject to change without prior notice.

* All trademarks are the property of their respective owners.

* Accessories for PENTAX DSLR can be used with SAMSUNG DSLR.

Glossary

AdobeRGB

Colour space recommended by Adobe Systems, Inc. for commercial printing. Wider range of colour reproduction than sRGB. Covers most of the colour range so colours only available when printed are not lost when editing images from a computer. When image is opened by non-compatible software, the colours look lighter.

AE Metering

Brightness of subject is measured to determine exposure. In this camera, select from [Multi-segment Metering], [Center-weighted Metering] and [Spot Metering].

Aperture

The aperture increases or reduces the light beam (the amount of light) that passes through the lens.

Auto Bracket

For automatically changing the shooting conditions. When the shutter button is pressed, three images are shot. The first one has no compensation, the second is under-exposed and the third is over-exposed.

Bright Portion

Over exposed area in the image loses contrast and appears white.

Camera Shake (Blur)

When the camera moves while the shutter is open, the entire image appears blurred. This occurs more often when shutter speed is low.

Prevent camera shake by raising the sensitivity, using the flash, or by using a faster shutter speed. Alternatively, use a tripod to stabilize the camera. Because camera motion causes camera shake, use the self-timer, the remote control unit, and the cable switch to prevent.

CCD (Charge Coupled Devices)

Photography element which converts the light entering through the lens into electric signals.

Colour space

A defined range of colours from the spectrum which are used. In digital cameras, [sRGB] is defined as the standard Colour Space by Exif. In this camera, [AdobeRGB] is also used because of its richer colour expression over sRGB.

Glossary

Colour Temperature

This numerically expresses the colour of the light source illuminating the subject. This is indicated in absolute temperature, using Kelvin (K) units.

The colour of light shifts to a bluish colour as the colour temperature rises, and to a reddish colour as the colour temperature falls.

DCF (Design Rule for Camera File System)

A digital camera file system standard established by the Japan Electronics and Information Technology Industries Association (JEITA).

Depth of Field

Area of focus. This depends on the aperture, lens focal length, and distance to the subject. For example, select a smaller aperture to increase the depth of field or use a larger aperture to decrease the depth of field.

DNG RAW file

DNG (Digital Negative) is a general-purpose RAW file format designed by Adobe Systems. When images captured in proprietary RAW formats are converted to DNG format, support and compatibility for the images increases significantly.

DPOF (Digital Print Order Format)

Rules for writing information onto a card with recorded images regarding the specific images and number of copies to be printed. Prints can easily be made by taking images to a DPOF photo printing store.

EV (Exposure Value)

Exposure Value is determined by the combination of the aperture value and the shutter speed.

EV Compensation

Process of adjusting the image brightness by changing the shutter speed and aperture value.

Exif (Exchangeable image file format for digital still camera)

A standard digital camera file format established by the Japan Electronics and Information Technology Industries Association (JEITA).

Glossary

Focus point

Position in the viewfinder that determines focus.

Histogram

A graph that shows the darkest and brightest points in an image. The horizontal axis represents the brightness and the vertical axis represents the number of pixels. This is useful when you wish to refer to the exposure status of an image.

JPEG

An image compression method. The image is recorded in JPEG format when the quality level is set to  (Best),  (Better), or  (Good). Images recorded in JPEG format are suited for viewing on your PC or for attaching to e-mail.

ND (Neutral Density) Filter

A filter which reduces the amount of light entering the camera lens by a measured amount, without affecting the picture itself.

Noise Reduction

Process to reduce noise (image roughness or unevenness) caused by slow shutter speed.

NTSC/ PAL

These are video output formats. NTSC is mainly used in Japan, North America, and South Korea. PAL is mainly used in Europe and in China.

Quality Level

This refers to the image compression ratio. The lower the compression, the more detailed the image. The image becomes rougher as the compression rate rises.

RAW data

Unedited image data output from the CCD. RAW data is data before being internally processed by the camera. Settings like White balance, contrast, saturation and sharpness can be manipulated individually on each file. In addition, RAW data is 12-bit data that contains 16 times the information of 8-bit JPEG and TIFF data. Rich gradations are possible. Transfer RAW data to your computer and use the provided software to create image data with different settings, such as JPEG or TIFF.

Glossary

Recorded Pixels

Indicates the size of the image by the number of pixels. The more pixels that compose a picture, the larger the image size.

Sensitivity

The sensitivity of the camera to light; the equivalent of film speed in a camera using film. With a high sensitivity, images can be shot with a high shutter speed even in dimly lit places, reducing camera shake. However, images with high sensitivity are more susceptible to noise.

Shutter Speed

The length of time that the shutter is open and light strikes the CCD. The amount of light that strikes the CCD can be changed by altering the shutter speed.

sRGB (standard RGB)

International standard of colour space established by the IEC (International Electrotechnical Commission). This is defined from colour space for PC monitors and is also used as the standard colour space for Exif.

Vignetting

Vignetting occurs when corners of pictures are darkened because the subject was blocked by the hood or filter or the flash was blocked.

White Balance

While shooting, colour temperature is adjusted to match the light source so that the subject appears to have correct colour.

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Correct Disposal of This Product



Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems) This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life.

To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources. Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase contract.

This product should not be mixed with other commercial wastes for disposal.



Samsung Techwin cares for the environment at all product manufacturing stages to preserve the environment, and is taking a number of steps to provide customers with more environment-friendly products. The Eco mark represents Samsung Techwin's will to create environment-friendly products, and indicates that the product satisfies the EU RoHS Directive.

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:

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

■ 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 TECHWIN
Model No. : Samsung GX-10
Responsible Party : Samsung Opto-Electronics America, INC.
Address : 40 Seaview Dr. Secaucus, NJ 07094
Telephone No. : 201-902-0347

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.

MEMO



MEMO

A large, empty rectangular box with rounded corners, intended for writing a memo. The box is white with a thin gray border and occupies most of the page below the header.

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