Quick Start Manual

NX10

FOR TECHNICAL SUPPORT, PLEASE CALL 1-800-SAMSUNG (726-7864)

For more information, refer to the User Manual included on the supplied **CD-ROM**.

This Quick Start Manual has been specially designed to guide you through the basic functions and features of your device. Please read the Quick Start Manual and User Manual carefully to ensure safe and correct use.

Health and safety information

Always comply with the following precautions and usage tips to avoid dangerous situations and ensure peak performance of your camera.

Warning—situations that could cause injury to yourself or others

Caution—situations that could cause damage to your camera or other equipment

Note—notes, usage tips, or additional information

Safety warnings

Do not use your camera near flammable or explosive gases and liquids

Do not use your camera near fuels, combustibles, or flammable chemicals. Do not store or carry flammable liquids, gases, or explosive materials in the same compartment as the camera or its accessories.

Keep your camera away from small children and pets

Keep your camera and all accessories out of the reach of small children and animals. Small parts may cause choking or serious injury if swallowed. Moving parts and accessories may present physical dangers as well.

Prevent damage to subjects' eyesight

Do not use the flash in close proximity (closer than 1 m/3 ft) to people or animals. Using the flash too close to your subject's eyes can cause temporary or permanent damage.

Handle and dispose of batteries and chargers with care

- Use only Samsung-approved batteries and chargers. Incompatible batteries and chargers can cause serious injuries or damage to your camera.
- Never dispose of batteries in a fire. Follow all local regulations when disposing of used batteries.
- Never place batteries or cameras on or in heating devices, such as microwave ovens, stoves, or radiators. Batteries may explode when overheated.

Safety precautions

Handle and store your camera carefully and sensibly

- Do not allow your camera to get wet—liquids can cause serious damage. Do not handle your camera with wet hands. Water damage to your camera can void your manufacturer's warranty.
- Do not expose the camera to direct sunlight or high temperatures for an extended period of time. Prolonged exposure to sunlight or extreme temperatures can cause permanent damage to your camera's internal components.
- Avoid using or storing your camera in dusty, dirty, humid, or poorly-ventilated areas to prevent damage to moving parts and internal components.
- Remove the batteries from your camera when storing it for an extended period of time. Installed batteries may leak or corrode over time and cause serious damage to your camera.
- Protect your camera from sand and dirt when using it on beaches or in other similar areas.
- Protect your camera from impact, shock, bending, or press of heavy goods when you connect either cable or power cord. It may damage your camera or cable or cause by electric shock or fire.
- Exercise caution when connecting cables or adaptors and installing batteries and memory cards. Forcing the connectors, improperly connecting cables, or improperly installing batteries and memory cards can damage ports, connectors, and accessories.

- Do not insert foreign objects into any of your camera's compartments, slots, or access points. Damage due to improper use may not be covered by your warranty.
- Do not use broken power cord, plug, or wall-outlet. It may cause by electric shock or fire.

Protect batteries, chargers, and memory cards from damage

- Avoid exposing batteries or memory cards to very cold or very hot temperatures (below 0º C/32º F or above 40º C/104º F). Extreme temperatures can reduce the charging capacity of your batteries and can cause memory cards to malfunction.
- Prevent batteries from making contact with metal objects, as this can create a connection between the + and – terminals of your battery and lead to temporary or permanent battery damage.
- Prevent memory cards from making contact with liquids, dirt, or foreign substances. If dirty, wipe the memory card clean with a soft cloth before inserting in your camera.
- Turn off the camera when inserting or removing the memory card.
- Do not bend, drop, or subject memory cards to heavy impact or pressure.
- Do not use memory cards that have been formatted by other cameras or by a computer. Reformat the memory card with your camera.
- Never use a damaged charger, battery, or memory card.

Use only Samsung-approved accessories

Using incompatible accessories may damage your camera, cause injury, or void your warranty.

Protect your camera's lens

- Do not expose the lens to direct sunlight, as this may discolor the image sensor or cause it to malfunction.
- Protect your lens from fingerprints and scratches. Clean your lens with a soft, clean, debris-free lens cloth.

Important usage information

Allow only qualified personnel to service your camera

Do not allow unqualified personnel to service the camera or attempt to service the camera yourself. Any damage that results from unqualified service is not covered by your warranty.

Ensure maximum battery and charger life

- Overcharging batteries may shorten battery life. After charging is finished, disconnect the cable from your camera.
- Over time, unused batteries will discharge and must be recharged before use.
- Disconnect chargers from power sources when not in use.
- Use batteries only for their intended purpose.

Exercise caution when using the camera in humid environments

When transferring the camera from a cold environment to a warm and humid one, condensation can form on the delicate electronic circuitry and memory card. In this situation, wait for at least 1 hour until all moisture has evaporated before using the camera.

Check that the camera is operating properly before use

The manufacturer takes no responsibility for any loss of files or damage that may result from camera malfunction or improper use.

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Camera specifications or contents of this manual may be changed without prior notice due to upgrade of camera functions.

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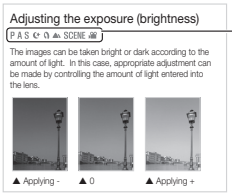
Indications used in this manual

Shooting mode	Marking
Smart Auto	SMART
Program	P
Aperture Priority	A
Shutter Speed Priority	S
Manual	M
Night	
Portrait	
Landscape	
Scene	SCENE
Movie	

Shooting mode explanation shown next to the title

This shows that the functions explained can only be selected from within the shooting mode. In the case of the SCENE mode, this corresponds to only part of the scene.

Ex) Adjusting exposure (brightness)

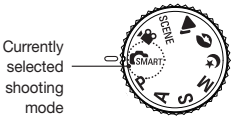


P (Program),
A (Aperture priority),
S (Shutter priority),
(Night),
(Portrait),
(Landscape),
SCENE (Scene), or
(Movie) mode.

The diagram below reflects the actual shooting mode dial on the camera body.

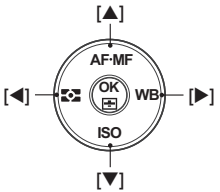
Your desired shooting mode can be selected by rotating the shooting mode dial.

The diagram below shows the status has been changed to (SMART).



Directional Keys in the User's Manual

When explaining the steps needed for navigating the menu, the up, down, left and right directional arrows are shown below.



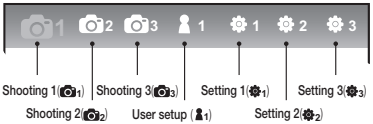
Ex) Executing the 'Play' mode

The user can check saved pictures and movies.

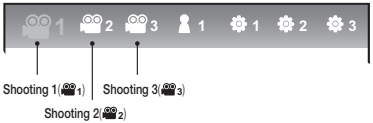
1. Press [▶]
   - Show most recently saved files.
2. Check the following pictures sequentially by using [▶].

Menu display used in this manual

Menu display of the photo shooting mode



Menu display of the movie shooting mode



Ex) Setting the image quality of movie file

1. Set the mode dial to .
2. Press **[MENU]**
3. Select **Shooting1** (1) → **Quality**
4. Select a desired image quality

Icons used in this manual

Symbol	Explanation
	Additional information about the function
	Safety warnings and precautions
[ ]	Camera buttons; for example: **[Shutter]** (represents the shutter button)
( )	Shows the reference page
→	Display when selecting a menu or option within the step Example: Select **Shooting 1** (1) → **Quality**. (represents select **Shooting 1** (1), and then **Quality**)
*	Comment explaining symbols

Abbreviations used in this manual

Abbreviations	Explanation
AF (Auto Focus)	Auto focus
BKT (Bracketing)	Bracketing
DPOF (Digital Print Order Format)	Printing order mark
EV (Exposure Value)	Exposure value
OIS (Optical Image Stabilization)	Optical image stabilization
ISO (International Standard for color negative film)	Film sensitivity
WB (White Balance)	White balance

Expressions used in this manual

Pressing the shutter

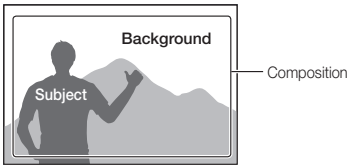
- Half-press [**Shutter**]: press the shutter halfway down
- Press [**Shutter**]: press the shutter all the way down

Half-press [**Shutter**]

Press [**Shutter**]

Subject, background, and composition

- **Subject**: the main object of a scene, such as a person, animal, or still life
- **Background**: the objects around the subject
- **Composition**: the combination of a subject and background



Exposure (Brightness)

The amount of light that enters your camera determines the exposure. You can alter the exposure with shutter speed, aperture value, and ISO speed. By altering the exposure, your photos will be darker or lighter.

Normal exposure

Overexposure (too bright)

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Unpacking

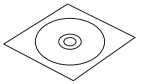
Check your product box for the following items.

Camera (Body cap, eye-cup, Hot-shoe cover included)

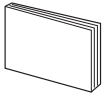
USB cable (AD39-00174A)

Battery (AD43-00192A)

Strap (AD63-04468A)



Software installation CD (including user's manual) (AD46-00298A)



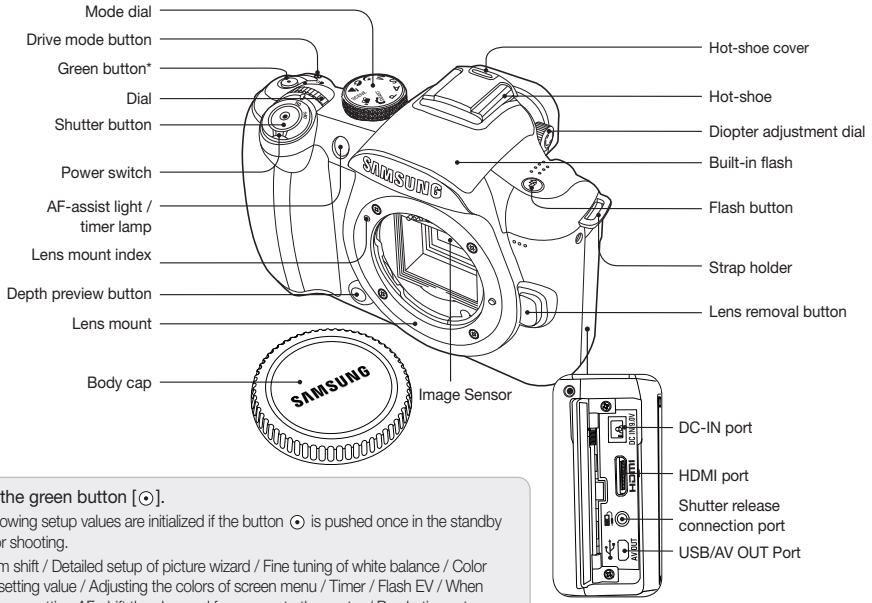
Quick Start Manual (AD68-04529A)

Charger(AD44-00157A)/ AC power cable (AD81-00681A)

The image of components or optional parts can differ from that of actual products.
For more information about optional items, see “Accessories(optional items).” (CD-ROM User manual, page 120)

Title and role of each part

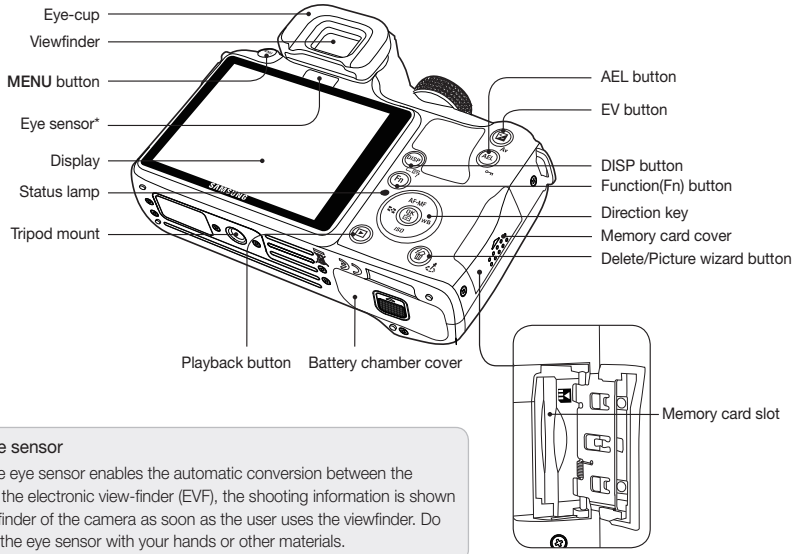
For more detailed information, refer to the CD-ROM User manual ( ).



* Use the green button [⊙].

The following setup values are initialized if the button ⊙ is pushed once in the standby state for shooting.

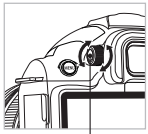
Program shift / Detailed setup of picture wizard / Fine tuning of white balance / Color Temp. setting value / Adjusting the colors of screen menu / Timer / Flash EV / When selecting or setting AF, shift the changed focus area to the center / Bracketing setup



*Use of eye sensor

Because the eye sensor enables the automatic conversion between the display and the electronic view-finder (EVF), the shooting information is shown on the viewfinder of the camera as soon as the user uses the viewfinder. Do not overlap the eye sensor with your hands or other materials.

Diopter adjustment dial/Eye-cup/Status lamp

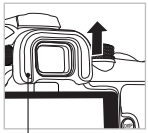


Eyesight adjustment dial

Use of Diopter adjustment dial

It is possible to adjust the viewfinder appropriate for the eyesight of user.

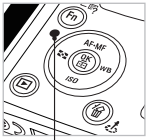
If the image is not shown clearly through the viewfinder, move the eyesight adjustment dial in the left/right direction to have a clear view.



Eye-cup

Removal of Eye-cup

When the camera is shipped, the eyecup is attached to the viewfinder. Push the Eye-cup up as shown in the figure for removal.



Status lamp

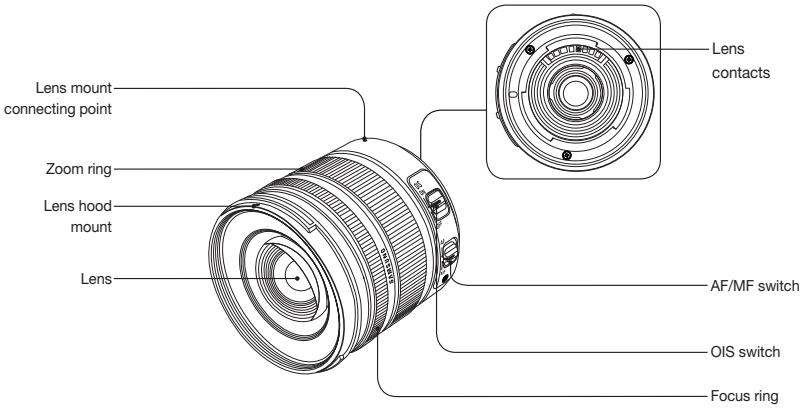
Status lamp

In the case of saving a picture or shooting a movie, this shows the operating status of the camera by blinking the status indicator lamp.

- **Blinking**: When saving photos, recording movies, being read by a computer or printer.
- **Steady**: When there is no data transfer or when connecting to a computer or printer is complete.

Description for each part of the lens

For more detailed information, refer to the CD-ROM User manual ( ).



- When purchasing the lens separately, please contact a service center to check the models compatible for use.
- This user manual was prepared based on the **SAMSUNG 18-55mm F3.5-5.6 OIS** lens. Please refer to the lens user manual for more information about the lens.

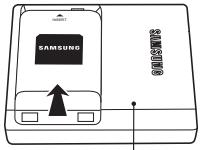
Preparations before shooting

Charging the battery

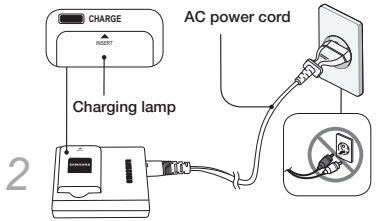
Please charge the battery fully before using this product.

Please make the connections as in the following figure.

1



Charger

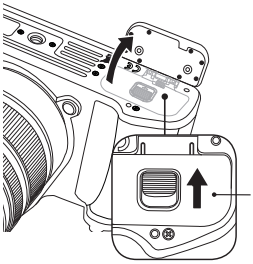


Color of charge lamp	Charging status
Red	Charging
Green	Fully charged
Turned off, or Yellow	Charging error

- To remove the battery from the charger, lift slightly in the direction of the arrow.
- Please use designated charger or batteries for proper use. SAMSUNG is not responsible for any accident that may occur from using a product other than designated.

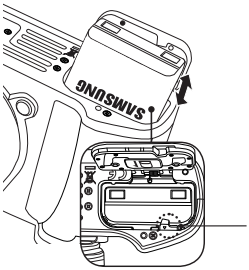
Installing the battery

1



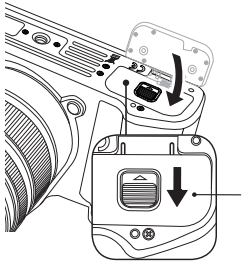
Open by pushing in the direction of the arrow

2



Lock lever

3

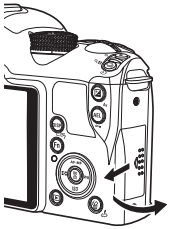


Close by pushing down in the direction of the arrow.

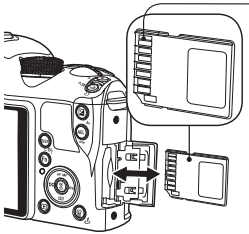
When taking out the battery, slightly pull down on the lock lever. The battery may then be removed.

Installing the memory card

1

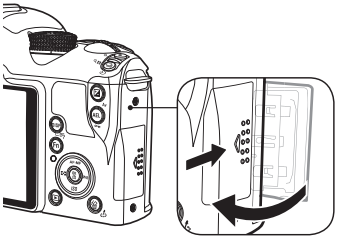


2



After checking the direction of metal terminal, you can insert the memory card.

3



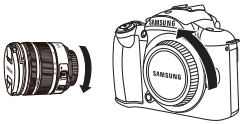
- When taking out the memory card, you can remove it by slightly pushing in the direction of insertion.
- Please do not remove the memory card or battery while the status indicator lamp is blinking. It may cause loss or data or product damage.

Mounting/dismounting the lens

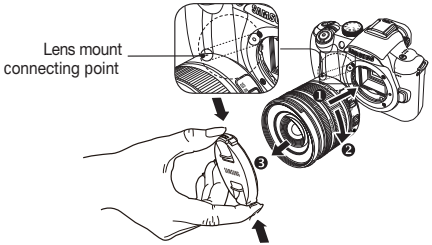
Please remove the lens mount cover and body cap prior to the installation of lens.

After matching the lens mount index (red) of camera body with the point (red) of lens mount, join the lens by turning the lens clockwise until it clicks. When removing the lens, turn the lens counter clockwise while holding down the lens dismount button.

Before mounting the lens



Lens mounting



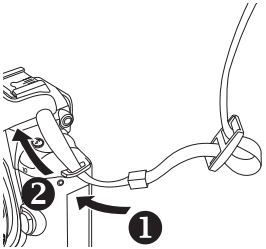
Dismounting the lens

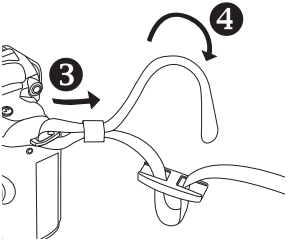
- Mounting or dismounting the lens while the camera is powered off is desirable to ensure the stable operation of the lens.
- SAMSUNG is not responsible for any accident, damage or trouble caused by using other company's lens.
- The body cap protects the product from scratch or dust while transporting.

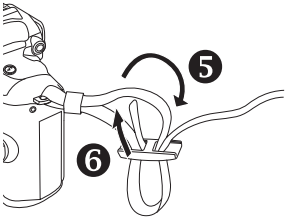
- Changing lenses should be made in an environment clean of foreign particles. Foreign particles within the body or lens of camera may cause a product defect.
- When mounting the lens, please do not touch the inner part of the camera with your finger. Any dust or foreign particles within the camera may cause an impact on image quality or defect.

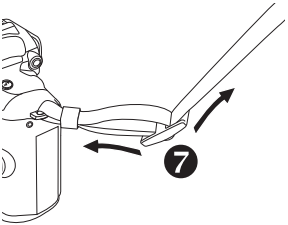
Connecting the strap

By connecting the strap to the body, the user can conveniently carry the camera.



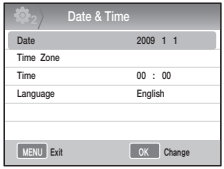






Turning on the power and initialization

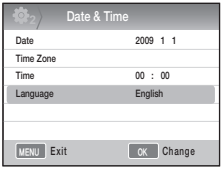
When turning the power on/off, please set the power switch to **ON/OFF**.
When turning on the power for the first time, you may be asked to set the language and date.



1 Press **[▼]** to select **Language** and then press [OK].

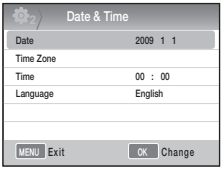
2 Press **[▲/▼/◀/▶]** to set desired language option and then press [OK].

- The screen appears in the language selected.



3 Press **[▲/▼]** to select **Date** and then press [OK].

4 Press **[▲/▼/◀/▶]** to set desired date and then press [OK].



5 Press [▼] to select **Time Zone** and then press [OK].

6 Set a desired world time zone by pressing **[◀/▶]**.

7 To set the daylight saving time, press [▲].
Press [▲] again to disable.

8 Press [OK] to save.

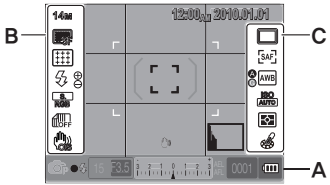
9 Press [▼] to select **Time** and then press [OK].

10 Set desired time by pressing [▲/▼/◀/▶], and then press [OK].

11 Press [**MENU**] to finish setting.

All the details shown on the view finder will appear identically on the display.
By using the live view function, the user can take a picture conveniently without having to look through the viewfinder.
The icons shown on the screen are for when the **OIS** and **AF/MF** switches on the lens are in use.

Icons



A Information display

	Shooting mode
	Movie shooting mode
	Focus checking
	Flash
15	Shutter speed
F3.5	Aperture value
	Adjusted value of exposure
AEL AFL	AEL/AFL setting
0001	Possible no. of shots
	Battery information
	Displays no-insertion of memory card
	Warning of camera shake
12:00 2010.01.01	Time, date and year info
	Focus indicator
	Spot metering area
	AF zone
	Histogram
	Grid display

B Shooting option display (left)

14M	Size
	Movie size
	Image quality
HQ	Movie quality
	Focus area
	Flash
	Flash light adjustment
	Color space
	Smart range
	OIS
	Voice recording
	Fader
	Wind Cut

C Shooting option display (right)

	Drive mode
	Timer
SAF	AF mode
AWB	White balance
	White balance adjustment
ISO AUTO	ISO
	Metering option
	Picture wizard

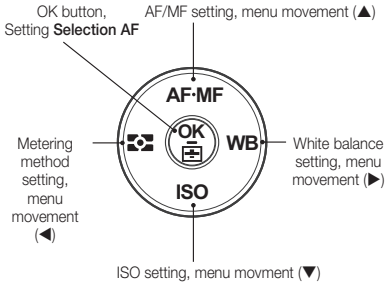
⚠ The display shows the icons for the currently selected option.

Option/menu selection method

When pressing [**MENU**], you can select a desired option or menu by pushing **[▲/▼]** or **[OK]**.

1 Press **[MENU]** in the shooting mode.

2 You can select a desired option or menu by pressing **[▲/▼/◀/▶]** or **[OK]**.



3 To save selected option or menu, press **[OK]**.

Return to the previous step.

To return to the previous step, press **[MENU]**.

The user can return to the state of shooting by pressing [**Shutter**].

Using the dial

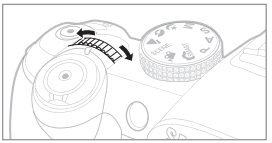
The user may change the menu setting's value by either using the dial or move the menu screen to a desired direction. For example when taking a picture in the shutter speed priority mode, this allows you to quickly adjust the desired shutter speed.

Example. Using the dial in the S mode

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

2 Adjust the shutter speed by turning the dial.

- The aperture value is set automatically according to the shutter speed being set.



Using [Fn]

By using the **[Fn]** function of camera body, the user can enter into the major functions such as Quality, Size, AF area, Flash, Color Space, Smart Range, and OIS.

Example. Flash setting in the P mode

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

2 Press the **[Fn]** button on the body of camera.

3 Select **Flash** by using the **[◀/▶]** or dial.

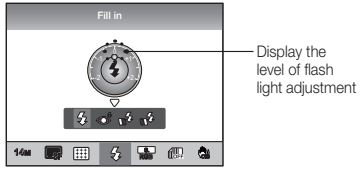
4 Press **[▲]**.

5 Set the flash menu option by using the **[◀/▶]** or dial.

6 Press **[▲]**.

7 Set the amount of flash light by using the **[◀/▶]** or dial.

- This allows adjusting the amount of flash light up to ±2 levels.



8 Align your subject in the frame and half-press **[Shutter]** to focus.

9 Press **[Shutter]** to take a photo.

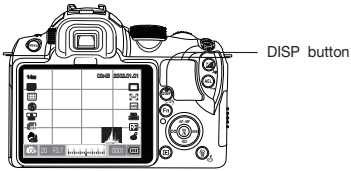
Changing the display type

Learn how to change the display options of your camera.

Changing the display type

You can select the display method of icons and option items shown while in shooting and play mode.

Press **[DISP]** repeatedly.

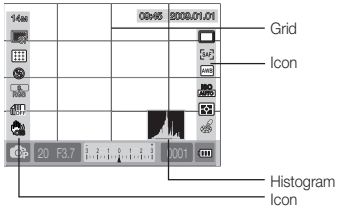


Shooting mode	• Display all the shooting information except for User Display setting values. • Display all the shooting modes set by user. • Hide all the information except for shooting mode, shutter speed, aperture value, exposure, number of available shots, battery information.
Playback mode	• Display the meta information for shooting. • Display the RGB histogram, currently selected option and date set. • Display the information regarding to shutter speed, aperture value, ISO, file in play and total number of files saved.

Setting user display P A S M SCENE

You can set or remove the shooting information display.

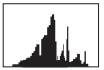
1. Press **[MENU]** in the shooting mode.
2. Select **User setup** (1) → **User Display** → an option.



About histogram

Histogram refers to the graph that shows the brightness distribution of picture. This represents a dark picture if the graph is inclined to the left and if the graph is leaning to the right, this represents a bright picture. The height of graph is related to the color information and the graph gets higher if a specific color is distributed more.

▲ Insufficient exposure



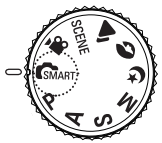
▲ Relevant exposure

▲ Excessive exposure

Simple picture-taking method

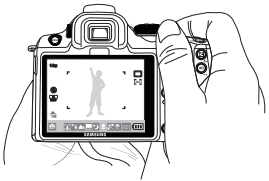
The user can take a picture conveniently by minimizing the need of user setup.

1 Rotate the mode dial to SMART.

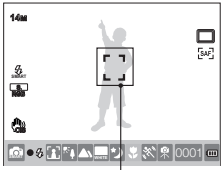


2 Align your subject in the frame.

All the details shown on the view finder will appear identically on the display.



3 Half-press **[Shutter]** to focus.



- Green: Focus is set.
- Red: Focus is not set.

4 Press **[Shutter]** to take a photo.

- Please refer to the "Tips for getting a clearer photo" (p. 26) to take a clear picture.
- Press [▶] to see the saved images on the screen.

Tips for getting a clearer photo

Holding your camera correctly

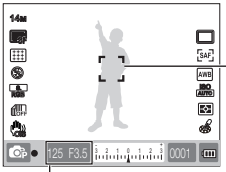
Please make sure that your hand, hair and strap do not interfere with the lens or flash.

Half-pressing the shutter button

In order to check in advance whether the focus of composition is set appropriately, please use the half-shutter function. If you press the shutter half-way down, the focus and exposure will be adjusted automatically.

Image stabilization

- To avoid the blurring effect of camera shake, set the optical Image Stabilization(OIS) function.(p.29)



Focus frame

- If green, take the picture by pressing the [**Shutter**].
- If red, either change the composition or adjust the focus again since the focus is not correctly set.

Showing the shutter speed and aperture value being set

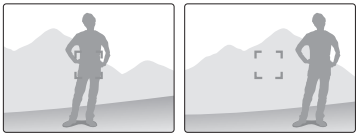
Preventing your subject from being out of focus

Under the following circumstances, it may be difficult to get your subject in focus when.

- When the color contrast is not clear
  (when someone is wearing clothes similar in color to the background)
- When the subject is in front of a strong backlight
- When the subject generates strong reflected light
- When there is a horizontally repeated line pattern like a window blinds
- When the subject is not located in the center
- When there is a flat white wall which does not include the specific patterns
- When there is a fast moving subject
- When the subject is too close to the camera

Please try to use the focus lock function.

Adjust the focus by using the half-shutter function where the focus can be made easily. Then, simply press the **[Shutter]** button after moving the camera to a desired composition. Keep pressing and holding down the half-shutter until you actually make a photo shot.



Under the half-shutter state, press the **[AEL]** button of the camera to fix the exposure value and focus information at the same time according to the setting. To cancel the function, press the **[AEL]** button once more. (CD-ROM User manual, page 75)

Using the manual focus

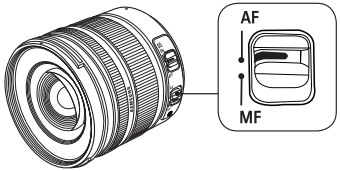
When the auto focus function does not operate normally due to the environmental factors, the focus can be adjusted manually by setting the focus method to **Manual Focus**.
For user convenience, this product shows the image expanded on the screen while user turns the focus ring in the photo shooting mode. If the focus is adjusted by using the expanded image, the focus can be adjusted more accurately. When pressing half of the shutter, the screen comes back to normal screen in the state of adjusted focus.

- By using the control level of **[AF/MF]**, the focus can be adjusted manually.
- If the lens doesn't have AF/MF switch, you can set **Manual Focus** option in the AF mode menu.
- The selectable option may differ according to the lens in use.
- When adjusting the focus manually, the picture may appear blurred if the focus not set accurately. Please take a picture after setting the focus accurately.
- When using the manual focus function, the **AF Area** is not available to use.
- In the movie shooting mode, you can not set the focus by using the expanded image.

Setting the automatic/manual focus function

The focus can be adjusted automatically or manually by using the AF/MF switch on the side of the lens.

1. **Use of automatic focus**
   Set the AF/MF switch of the camera to **AF**. The focus is adjusted automatically if pressing half of the shutter button.
2. **Use of manual focus**
   Set the AF/MF switch of the lens to **MF**. The focus can be adjusted manually by turning the focus ring.

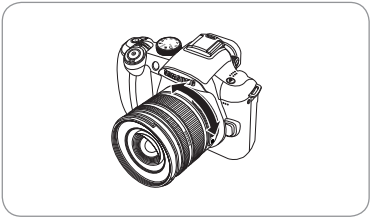


There may be lens models that do not have the AF/MF switch. Please consider when purchasing lens. (P.48)

Zooming

Using the zoom ring, you can enlarge (telephoto angle) or reduce (wide angle) the size of an image by changing the focal length value of the camera lens.
Adjust it to the desired size and take the picture.

1. Turn the zoom ring to the left/right after checking the focus to the subject.
   - According to the changed focal length, the subject may appear enlarged or reduced.
2. Half-press **[Shutter]** to focus.
3. Press **[Shutter]** to take a photo.



Since the focus can be slightly changed when zooming in or out, it is recommended to adjust the focus again prior to taking a picture.

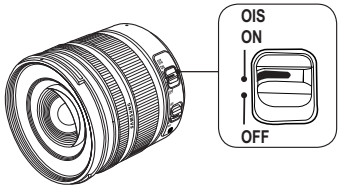
Optical Image Stabilization (OIS)

When using the optical image stabilization (OIS) function in taking pictures, the user can accurately focus pictures since this function minimizes camera shaking.

Using the OIS switch of lens

The OIS function can be used only in the case that the lens in use has the OIS function.

To use this function, please set **[OIS]** to **ON**.



Using the OIS in the menu option

After setting the OIS switch, select the OIS function in the menu option

1. In Shooting mode, press **[MENU]**.
2. Select **Shooting3** (📷3/🎥3) → **OIS** → an option.

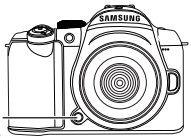
Mode 1	The OIS function is applied only when pressing the shutter in full or half.
Mode 2	The OIS function is always applied.

- The OIS function may not be applied well in the following cases.
  - When taking a picture while tracing a moving object
  - When a big vibration occurs beyond the range of stabilization
  - When the shutter speed is too slow due to a circumstance like night shooting
  - When the battery capacity is not sufficient
  - When having a close-up shot
- When using a tripod, please disable the OIS function since the image can be shaken due to the vibration of OIS function.
- If the camera is shocked when taking a picture, the display can be shaken. In this case, the camera may operate normally if the camera is powered off and on again.
- Since the battery consumption can increase along with the use of OIS function, it is recommended to use the function only if needed.
- To set the OIS function by using the menu, set [**OIS**] of lens to **ON**. This function may not operate depending on the lens model.
- The function can be set directly by pressing [**Fn**] in the shooting mode.

Depth preview P A S M

When you are not using the depth preview function, you can only see the subject through the camera in the condition of the maximum aperture (minimum f-number) in the shooting mode. If you use the depth of field checking function before taking picture, you can conveniently check the depth of field in advance.

1 Press the **[Depth Preview]** in the shooting mode.



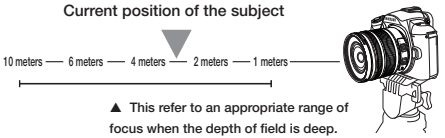
2 You can check the depth of field result actually taken through the display and viewfinder.

You can set the function of a button differently by using the **Key Mapping** menu option. (CD-ROM User manual, page 75)

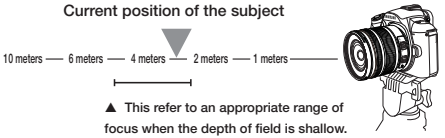
What is the depth of field?

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

The wider the wide-angle lens, the higher the aperture value, the greater the depth of field.
For example, the aperture stop, f 11 is higher than f 2.8.



▲ This refer to an appropriate range of focus when the depth of field is deep.



▲ This refer to an appropriate range of focus when the depth of field is shallow.

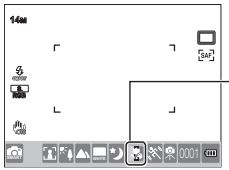
Using the Smart Auto mode

The smart auto mode allows taking pictures under an optimized condition since the camera recognizes various photographing conditions automatically. Therefore, even a beginner can use the camera easily.

1 Rotate the mode dial to SMART.

2 Align your subject in the frame.

- If the camera sets a desired shot composition, it detects the scene automatically and shows the corresponding mode icon on the display.



The corresponding mode icon is displayed according to the scene detected.

	Outdoor landscape shot
	Highly bright background shot
	Night landscape shot
	Outdoor portrait shot at night
	Backlight landscape shot without a man
	Portrait shot under backlight
	Portrait shot
	Close-up shot
	Close-up character shot
	Sunset shot
	Blue sky shot
	Nature shot such as forest and leaves
	Close-up shot for the subject with various colors
	Close-up portrait shot
	After fixing to a fixture like tripod, proceed with the shot under the condition that the subject does not move for a while.
	Taking pictures under the condition that the subject moves much

- When the camera does not detect the shooting environment, the camera takes the picture with the basic settings of the mode .
- Even after detecting the face, the camera may not recognize the portrait mode according to the direction and brightness of face.
- The camera may recognize the same scene differently according to the photographing environment such as light, camera shaking, subject distance.
- The camera may not recognize in the mode according to the movement of subject even though a tripod is used.

3 Half-press **[Shutter]** to focus.

4 Press **[Shutter]** to take a photo.

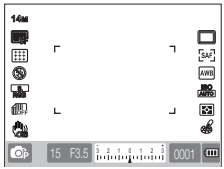
Using the Program mode

In the program mode, the shutter speed and aperture value are automatically adjusted maintaining the correct brightness.

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

2 Set options.

- For a list of options, refer to “Extended shooting functions.” (CD-ROM User manual, page 49)



3 Align your subject in the frame and half-press **[Shutter]** to focus.

4 Press **[Shutter]** to take a photo.

What is the program shift method?

If this function is used, desired shutter speed and aperture value can be selected while maintaining the same brightness.

The shutter speed and aperture value are changed as in the following rules.

The available aperture numbers for exposure setting is different depending on the lens model.

Dial direction	Changing the exposure value
Left	Decreased shutter speed + increased aperture
Right	Increased shutter speed + decreased aperture

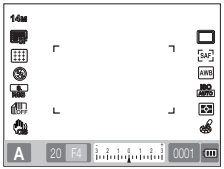
Using the Aperture Priority, Shutter Priority, or Manual mode

By using the aperture value of adjusting light volume and shutter speed, you can take pictures of desired exposure.
As for the shooting modes that allows adjusting the aperture value and shutter speed, there are the aperture priority mode, shutter speed priority mode, and manual mode.

Using the Aperture Priority mode

The Aperture Priority mode allows you to manually set the aperture value while the camera automatically selects an appropriate shutter speed.

1. Rotate the mode dial to **A**.
2. Rotate the dial to adjust the aperture value.



3. Set options.
   - For a list of options, refer to “Extended shooting functions.” (CD-ROM User manual, page 49)
4. Align your subject in the frame and half-press **[Shutter]** to focus.
5. Press **[Shutter]** to take a photo.

Aperture value

The aperture value of a lens can be adjusted to control the amount of light reaching the image sensor. When opening the aperture (reduce the aperture value), objects closer and further away than the focused subject will be out of focus. When closing the aperture (increase the aperture value), the range in focus expands forward and backward.

▲ Increased aperture value (narrow open)

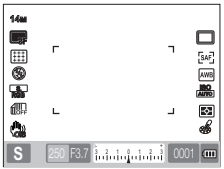
▲ Reduced aperture value (wide open)

Using the Shutter Priority mode

The Shutter Priority mode allows you to manually set the shutter speed while the camera automatically selects an appropriate aperture value.

1 Rotate the mode dial to **S**.

2 Rotate the dial to adjust the shutter speed.



3 Set options.

- For a list of options, refer to “Extended shooting functions.” (CD-ROM User manual, page 49)

4 Align your subject in the frame and half-press **[Shutter]** to focus.

5 Press **[Shutter]** to take a photo.

Shutter speed

Shutter speed is the length of time the shutter is open. You can enjoy many interesting effects by adjusting the shutter speed. A low shutter speed blurs motion on the image. You can feel the speed in the picture when the low shutter speed is used for a shot.
A fast shutter speed is essential for capturing the movement. A faster shutter speed froze the subject in its movement.

▲ Slow shutter speed

▲ Fast shutter speed

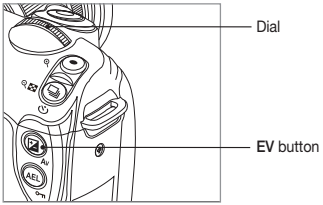
Using the Manual mode

In the manual mode, you can take pictures by setting various shot options directly including the shutter speed and aperture value.

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

2 Rotate the dial to adjust the shutter speed.

3 Rotate the dial to adjust the aperture value while press and hold the **[EV]**.



4 Setting desired shooting option

- For a list of options, refer to “Extended shooting functions.” (CD-ROM User manual, page 49)

5 Align your subject in the frame and half-press **[Shutter]** to focus.

6 Press **[Shutter]** to take a photo.

- In case of P (program), S (shutter priority), or A (aperture priority) mode, the display is shown in red for each part beyond the range of expousre.
  P mode: The red sign is shown for the shutter speed and aperture value.
  S mode: The red sign is shown for the shutter speed.
  A mode: The red sign is shown for the aperture value.
- The ISO speed cannot be set automatically in the **M**(manual) mode.

Using the Night/Portrait/Landscape mode

Using the night mode

When using the night mode, you can use the optimal exposure value for a dark environment.

1. Rotate the mode dial to .
2. Align your subject in the frame and half-press **[Shutter]** to focus.
3. Press **[Shutter]** to take a photo.

In the night mode, it is recommended to use a tripod, shutter release or Timer function to minimize camera shaking (purchased separately).

Using the portrait mode

In the portrait mode, the optimal effect can be obtained when taking a portrait shot.

1. Rotate the mode dial to .
2. Align your subject in the frame and half-press **[Shutter]** to focus.
3. Press **[Shutter]** to take a photo.

In the portrait mode, the focus area is automatically set to the face as it is set to the **Face Detection AF** mode automatically.

Using the landscape mode

This mode can be useful when a clear focus for a natural landscape is needed.

1. Rotate the mode dial to .
2. Align your subject in the frame and half-press **[Shutter]** to focus.
3. Press **[Shutter]** to take a photo.

In the landscape mode, the shutter speed is adjusted automatically according to the aperture value.
It is recommended to use a tripod in the case of a slow shutter speed setting.

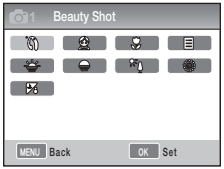
Using the Scene mode

Since an appropriate option is set in advance by the scene, the shot can be taken conveniently by selecting a scene appropriate for the situation.

1 Rotate the mode dial to **SCENE**.

2 Select a scene.

- Press **[MENU]** to select a scene. You can select a desired scene.
- For the Beauty Shot mode, see “Using the Beauty Shot mode.”



3 Align your subject in the frame and half-press **[Shutter]** to focus.

4 Press **[Shutter]** to take a photo.

When the camera is set to standby mode while the mode dial is set to **SCENE**, you can directly select a desired scene by pressing **[Fn]**.

Using the Beauty Shot mode SCENE

In the beauty shot mode, you can take pictures by retouching the skin smooth and blemish-free.

1 Rotate the mode dial to **SCENE**.

2 Press **[MENU]**.

3 Select **Shooting1** (1) → **SCENE** → **Beauty Shot**.

4 Select **Shooting3** (3) → **Face Tone**.

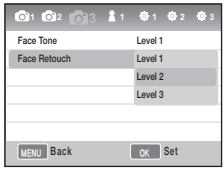
5 Set options.

- Select a higher setting to make skin tone appear lighter.

6 Select **Shooting3** (3) → **Face Retouch**.

7 Set options.

- Select a higher setting to make skin tone appear lighter.



8 Align your subject in the frame and half-press **[Shutter]** to focus.

9 Press **[Shutter]** to take a photo.

In the **Beauty Shot** mode, AF area is set to **Face Detection AF** or **Self-Portrait AF**.

Recording a movie

In the movie shooting mode, recordings can be saved in High Definition quality (1280x720). You can continue recording movies up to 25 minutes. The recorded video is saved as an H.264 (MPEG-4.AVC) file.

1 Rotate the mode dial to 🎥.

2 Press **[MENU]**.

3 Select **Shooting1** (🎥1) → **Quality**.

4 Set options.

5 Select **Shooting3** (🎥3) → **Voice**.

6 Select whether to record the voice.

7 Press **[Shutter]** to start recording.

8 Press **[Shutter]** again to stop recording.

- When taking a movie, the frame speed is fixed at 30 fps (30 frames/sec).
- While shooting a movie, push the [**Depth Preview**] button once to activate the AF function and once again to cancel the function.

Pause while recording a movie

By using the pause function, you can shoot only desired scenes into one file without generating several movie files.

To pause during the recording, press **[OK]**.

- To continue on recording, press **[OK]** again.

- H.264 (MPEG-4 part10/AVC) is the latest video coding format established in 2003 collaboratively by ISO-IEC and ITU-T. Since this format uses a high compression rate, more amount of data can be saved to the same storage media.
- When using a slow writing memory card, your movie's recording can be interrupted since it can not process at the rate the video is being saved.
  In this case, you can solve this problem either by replacing with a faster memory card or by reducing the video size.
- When the image stabilizer option is set in shooting a movie, the image stabilizer sound can be recorded.
- When the capacity of one file in recording exceeds 4GB, the movie recording will be stopped automatically. In this case, the recording can be continued by starting new recording.
- When formatting a memory card, it is always recommended to format by using this camera.
  When the format is run in other product or PC, it is possible to damage images or to cause a change in the capacity of memory card.

- If the camera lens is removed while recording a movie, the recording will be interrupted. Do not change the lens while recording.
- When taking a movie, please be careful since the operational sounds such as zoom sound and button sound can be recorded.
- When changing the shooting angle of camera is suddenly changed while in shooting a movie, it may not be possible to take the images accurately. When recording movies, it is recommended to use tripod. In that way, you can minimize the camera shake.
- When shooting a movie, only the **Multi AF** function is supported. Hence, it is not possible to use a focus area setting function like **Face Detection AF**.

Finding more about the basic shooting function

For more detailed information, refer to the CD-ROM User manual ( ).

* Default value

Chapter	Function	Description	
Using the manual mode	Using the bulb exposure	When using the manual mode, you can set to the bulb exposure mode by turning the dial once more at the shutter speed of 30" (sec.).	43
Shooting a movie	Setting the aperture value	You can set the aperture value when taking a movie. (**Program***, **Aperture Priority**)	47
	To fade out the screen	You can make the movie screen darker or brighter gradually in recording by using the fader function.(**Off***, **In**, **Out**, **In-Out**)	47
	Using the Wind Cut	By using the wind noise removal function, you can remove some surrounding noise in addition to the wind noise.(**Off***, **On**)	48

Setting the resolution and quality

The function can be set directly by pressing [**Fn**] in the shooting mode.

Setting a resolution SMART P A S M SCENE

To capture the high level of detail and excellent image quality in your picture or video, it is a good idea to set the resolution to the highest setting. The main drawback is that the file size becomes relatively big.

Setting the resolution of picture

1. In Shooting mode, press **[MENU]**.
2. Select **Shooting 1** (1) → **Photo Size** → an option.

Picture size (display ratio)		Proper use
14M	4592 x 3056 (3:2)	When developing in the maximum size of A1
10M	3872 x 2592 (3:2)	When developing in the maximum size of A2
6M	3008 x 2000 (3:2)	When developing in the maximum size of A3
2M	1920 x 1280 (3:2)	When developing in the maximum size of A5
12M	4592 x 2584 (16:9)	When outputting to HDTV or developing in the A1 size (16:9)
8M	3872 x 2176 (16:9)	When outputting to HDTV or developing in the A3 size (16:9)
5M	3008 x 1688 (16:9)	When outputting to HDTV or developing in the A4 size (16:9)
2M	1920 x 1080 (16:9)	When outputting to HDTV or developing in the A5 size (16:9)

Setting the resolution of video

1. Press **[MENU]** in the video shooting mode.
2. Select **Shooting 1** (1) → **Movie Size** → an option.

1280	1280 (16:9)	When outputting to HDTV
640	640 (4:3)	When outputting to normal TV
320	320 (4:3)	When uploading and using on the web

The function can be set directly by pressing [**Fn**] in the shooting mode.

Setting the image quality of the picture

P A S M SCENE

The picture taken is saved either in JPEG or in RAW format.

The compression ratio is reduced as the image quality gets better. It is necessary to increase the file size to have a better quality picture.

1 In Shooting mode, press **[MENU]**.

2 Select **Shooting 1** (1) → **Quality** → an option.

SF	Super Fine	Set to super fine quality
F	Fine	Set to fine quality
N	Normal	Set to normal quality
RAW	RAW	Save in the RAW file format
RAW S.FINE	S.Fine+RAW	Save super-fine image and RAW file at the same time
RAW FINE	Fine+RAW	Save fine image and RAW file at the same time
RAW NORMAL	Normal+RAW	Save normal image and RAW file at the same time

- The RAW file format images are saved without loss of data, and the photo size is set to 14M(4592 x 3056) only. The RAW file format allows saving the original image without data loss. Although the settings such as white balance, contrast, saturation and sharpness are not reflected on the image, they are saved as information. If you want to save the RAW data into the image files such as JPEG or TIFF format, the provided software (SAMSUNG RAW Converter) should be used. RAW files have the extension of "SRW." (For example: "SAM_9999.SRW")

Setting the quality of movie

The recorded movies are saved as normal or high quality.

1 In Shooting mode, press **[MENU]**.

2 Select **Shooting 1** (2) → **Quality** → an option.

N	Normal	Set normal quality
HQ	HQ	Set high quality

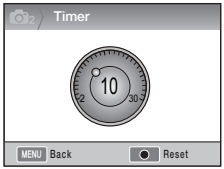
Using the timer function

The function can be set directly by pressing [⏲] in the shooting mode.

Setting the timer function

SMART P A S M SCENE

1. In Shooting mode, press **[MENU]**.
2. Select **Shooting 2** (📷2) → **Drive**.
3. Press **[Fn]** after selecting Timer.
4. Select the operation time by using the dial or **[◀ / ▶]**.
   - You can select the timer setting in the range of 2 ~ 30 seconds.



5. The shot is taken automatically after the time being set has passed by pressing **[Shutter]**.

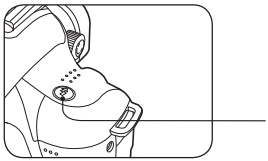
To cancel the self timer function, press [⏲] one more time, or press [**Shutter**].

Taking a picture in a dark place

The function can be set directly by pressing [**Fn**] in the shooting mode.

Using the flash popup button P A S M

The flash operates when the built-in flash is opened by using the flash button. When the flash is closed, it will not burst out the light and the SMART, SCENE, and modes support automatic popup and flash light.



1. In Shooting mode, press [ ].
2. Align your subject in the frame and half-press **[Shutter]** to focus.
3. Press **[Shutter]** to take a photo.
   - Even in the case that the built-in flash is already popped out by using the 'Flash' button, the bursting function is not supported when the flash option of menu is set to **Off**.

Setting the flash option SMART P A S M SCENE

If a picture is taken in a dark place, the picture may appear to be dark since the light source is not sufficient. Press **[ ]** to pop up the flash.

1. In Shooting mode, press **[MENU]**.
2. Select **Shooting 2** (2) → **Flash** → an option.

	Off	The flash light doesn't operate.
SMART	Smart Flash	The amount of flash light is adjusted automatically according to the exposure in the surrounding environment.
A	Auto	The flash light operates automatically in the dark place.
	Auto+Red	The flash light operates automatically and prevents the red-eye effect.
	Fill in	• Always operates the flash light. • The brightness of flash light is automatically controlled.
	Fill-in Red	Always operates the flash light, and prevents the red-eye effect.
	1st Curtain	Operates the flash light immediately after the opening of shutter
	2nd Curtain	Operates the flash light just before the closing of shutter

- The picture can be taken better if the subject is located within the applicable range of flash. (Refer to the Guide No in "Specification.")
- You can set the auto flash option only with the external flash for exclusive use by the NX-series model.
- The available flash options are different depending on the shooting modes.

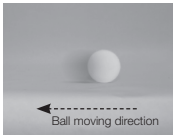
Using the red-eye fix function P A S M SCENE

When taking a portrait shot in a dark place, the red-eye effect can occur with the burst of flash light. In this case, please set the flash option to **Auto+Red** or **Fill-in Red**.

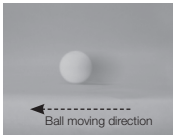
- By using the red-eye fix function, the red-eye effect can be removed through the preliminary flashing function prior to the burst of flash.
- When the subject is moving or is far away from the camera at the time of preliminary flashing, the function may not function well.

1st Curtain, 2nd Curtain P A S M

The following images were obtained by taking the pictures of straight-moving subject along with the respective options of **1st Curtain** and **2nd Curtain**. In case of using the **1st Curtain** flash function, the front part of action is remained clearly since the flash will burst light immediately upon shutter opening. Since the flash bursts the light at a later time when having used the **2nd Curtain** option, the picture expresses the last image of the subject clearly.



▲ Use of early 1st Curtain option



▲ Use of 2nd Curtain option

Adjusting the ISO sensitivity P A S M

The ISO sensitivity, as the film sensitivity established by the international standards organization (ISO), represents the degree of reaction when camera receives light. Since it reacts more sensitively with greater ISO value, a natural shot can be obtained in a dark place by raising the ISO value. This reduces the degree of camera shaking with faster shutter speed.

1. In Shooting mode, press **[MENU]**.
2. Select **Shooting 1** (📷1) → **ISO** → an option.

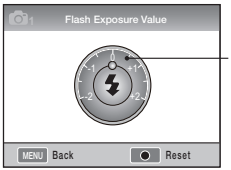
- The higher ISO speed you select, the more image noise you may get.
- When the noise reduction function is used, the noise caused by the high-sensitive ISO(3200) can be reduced. (CD-ROM User manual, page 52)
- The available ISO setting options may differ depending on the selected Shooting mode.
- The function can be set directly by pressing [**ISO**] in the shooting mode.

Adjusting the amount of flash light

P A S M SCENE

When setting the flash option, you can adjust the desired amount of flash light.

1. In Shooting mode, press **[MENU]**.
2. Select **Shooting 2** (2) → **Flash**.
3. Press the **[Fn]** button after selecting a desired item.
4. Adjust the amount of flash light by using the dial or **[◀ / ▶]**.
   - This allows adjusting the amount of flash light up to ±2 levels.



Display the level of flash light adjustment

- When the subject is too close, the ISO sensitivity is high, or the exposure value is too large or small, the adjustment effect will be reduced even by controlling the amount of flash light.
- Adjusting the amount of flash light is not available for some shooting modes.
- When an external flash unit has the flash control function, the light control value of external flash is applied when connecting to the camera.
- If the distance from the subject is quite close when taking images by using the built-in flash, part of the images may appear dark as the lens is interfered with the flash light. Please check the distance between camera and subject when taking pictures. The distance interfered with flash light may vary by the type of lens in use.
- When installing the lens hood, the light of built-in flash can be intercepted by the hood. Please remove the lens hood when using the built-in flash.

Focusing methods

Changing the Focusing methods P A S M SCENE

Various focus methods can be set according to the subject of photographing.

1 In Shooting mode, press **[MENU]**.

2 Select **Shooting 2** (/) → **AF Mode** → an option.

Single AF	If the focus is set by pressing half-way of the **[shutter]**, fix the focus to that position.
Continuous AF	While holding the **[shutter]** half-way down, the focus is continuously fixed appropriate for the subject.
Manual Focus	Adjust the focus manually by turning the focus ring.

- By using the control level of **[AF/MF]**, the focus can be adjusted manually.
- When there is no AF/MF switch on the lens, the focus can be adjusted manually in the AF mode by selecting the **Manual Focus**.
- The selectable option may differ according to the lens in use.
- When adjusting the focus manually, the picture may appear blurred if the focus not set accurately. Please take a picture after setting the focus accurately. (P. 27)
- The function can be set directly by pressing **[AF·MF]** in the shooting mode.

Changing the focus area P A S M SCENE

A clear and vivid picture can be taken if the focus area is changed in relative position to the subject.

1 In Shooting mode, press **[MENU]**.

2 Select **Shooting 2** () → **AF Area** → an option.

Selection AF	The focus is set appropriately for the selected area.
Multi AF	Shows all the places that the focus is set correctly in the display.
Face Detection AF	Shows the areas that the focus is correctly set in the display.
Self-Portrait AF	When the sound effect is heard at the time of self-shot, you can check the position of the subject's face.

- The selectable option may differ by the shooting mode.
- When the **AF/MF** switch of lens is set to **MF**, the AF area can not be changed by using the shooting menu.
- When the **Multi AF** function is selected, AF area appears in green as long as the subject is in focus.
- The function can be set directly by pressing [**Fn**] in the shooting mode.

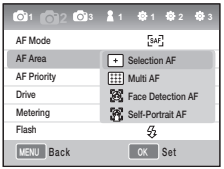
Setting the focus of the selected area

P A S M ▲ SCENE

In the shooting composition, a shot may be taken by setting the focus to the area desired by user.

1 In Shooting mode, press **[MENU]**.

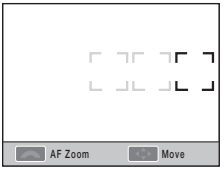
2 Select **Shooting 2** (📷2) → **AF Area** → **Selection AF.**



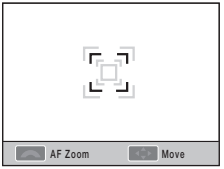
3 Press **[MENU]** to return to the previous mode.

4 In Shooting mode, press **[OK]**.

5 Press **[▲/▼/◀/▶]** to move the focus area.



6 Adjust the size of focus area by using the dial.



7 Align your subject in the frame and half-press **[Shutter]** to focus.

8 Press **[Shutter]** to take a photo.

Face detection

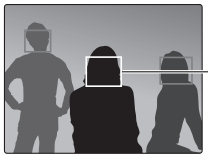
When the face detection AF function is used, the focus can be set around a person's face when taking a portrait shot. This function can also be quite useful when using self-shot.

Normal face detection P A S M SCENE

When the **Face Detection AF** option is used, the auto focus can be set based on the face.

When the shooting composition is set, the camera automatically detects as many as 10 faces and sets the focus and exposure.

1. In Shooting mode, press **[MENU]**.
2. Select **Shooting 2** (📷2) → **AF Area** → **Face Detection AF.**



The focus frame is shown by white for the closest face and by gray for the rest of faces.

- Face detection may not be effective when:
  - When the subject is too far
  - When it is too bright or dark
  - When the subject is not facing to the front
  - When part of the face is hidden by an object like sunglasses.
  - When one makes a large facial expression
  - When the light or backlight shown on the face is not uniform
  - Depending on the Picture Wizard option, the subject's face may not be recognized.
- The options may differ depending on the shooting mode.
- This function can not be used when having set the options such as manual focus and selection AF.
- The face detection function works faster when the camera is closer to the subject.
- When the **Face Detection AF** function is used, the white focus area is automatically set to focus.

Self-portrait face detection P A S M SCENE

When taking a self shot, the focal distance is fixed to make a close-up shot possible. If the face is detected in the center, it rings a sound to take a shot.

1. In Shooting mode, press **[MENU]**.
2. Select **Shooting 2** (📷2) → **AF Area** → **Self-Portrait AF**.
3. Press **[Shutter]** if having an info sound of shooting.

The face is positioned in the center with the info sound (ringing).

Brightness and color adjustment of picture

Adjusting the exposure (brightness)

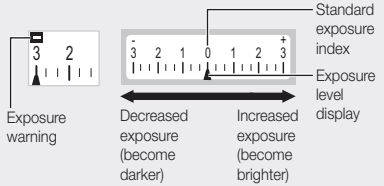
P A S SCENE

The images can be taken bright or dark according to the amount of light. In this case, appropriate adjustment can be made by controlling the amount of light entered into the lens.

▲ Applying - ▲ 0 ▲ Applying +

1. Check the focus of the subject in shooting mode
2. Adjust to a desired exposure value by turning the dial while pressing and holding down the **[ ]** button.
   - The adjustment value of exposure can be checked from the viewfinder and display.
3. Press the **[Shutter]** button to take a picture.

- When the exposure value is set, it may be excessively bright or dark depending on the shooting environment. Adjust and take a picture by changing the exposure value appropriate for the environment.
- When it is difficult to judge an appropriate value of exposure, please set the detailed setting of **AE BKT (successive shots of exposure increase/ decrease).** This takes 3 pictures successively, including one step darker one and one step brighter one. (CD-ROM User manual, page 71)
- The exposure warning is shown in red for each part beyond the range of “±3”.



Setting the white balance P A S M

Different light sources will affect the resulting color of your picture. To take a picture with colors close to what is seen with our own eyes, please select the white balance appropriate for the light source or manually adjust the color temperature desired.

In case of a light source that is difficult to take in to effect, the shot can be taken by adjusting the white balance manually according to the picture-taking situation.

1. In Shooting mode, press **[MENU]**.
2. Select **Shooting 1** (1/1) → **White Balance** → an option.

AWB	Auto WB	The optimal light source is automatically set according to the light conditions of camera.
	Daylight	Suitable for outdoor shot on a clear day
	Cloudy	Suitable for shadows on a cloudy day
	Fluorescent White	Daylight, fluorescent lamp, suitable especially for the white fluorescent light with the color temperature of about 4200K
	Fluorescent NW	Daylight, fluorescent lamp, suitable especially for the daylight fluorescent lighting with the color temperature of about 5,000K
	Fluorescent Daylight	Daylight, fluorescent lamp, suitable especially for the daylight-like fluorescent lighting with the color temperature of about 6,500K
	Tungsten	Suitable for the lighting of halogen lamp and incandescent bulb
	Flash WB	Suitable when using the built-in flash light
	Custom Set	Set by measuring the light source directly
K	Color Temp.	Set the color temperature manually

The function can be set directly by pressing **[WB]** in the shooting mode.

Changing the shooting method

It may be difficult to take a picture of a fast moving object, quick facial expression or motion of a person. In this case, please select the successive shooting option appropriate for the situation.

Successive shooting method and timer setup

You can select the successive shooting option appropriate for the situation.

1. In Shooting mode, press **[MENU]**.
2. Select **Shooting 2** (**2**) → **Drive** → an option.

Drive mode button

You can directly set this options by pressing the [▭] in the shooting mode.

Single	Take one photo shot whenever pressing the shutter.
Continuous	Take shots successively while pressing and holding down the shutter, possible to take 3 shots per second
Burst	After pressing the shutter, the camera will take up to 30 shots in a row.
Timer	The timer functions automatically takes a picture in the range of 2-30 seconds (in increments of 1 second).
AE BKT	When the shutter is pressed, the camera will take 3 consecutive shots; the original, th next one step darker, and the last one step lighter.
WB BKT	When the shutter is pressed the camera will take 3 consecutive shots, the original and 2 more with different white balance settings.
P Wiz BKT	When the shutter is pressed, the camera will take 3 consecutive shots; all three will have different picture wizard settings.

- The options may differ depending on the shooting mode.
- **WB BKT** and **P Wiz BKT** is the function that corrects the image after taking a shot.
- If the photo quality is set to RAW format, the bracketing (WB BKT, P Wiz BKT) set options cannot be used.
- In case of the **Burst** shooting option, it is not possible to select the image size and the image quality is fixed to 1472x976. Also when taking a **Burst** shooting option, the image saving time can be extended.
- In case of the **Burst** shooting option, the shot images can not be saved in RAW file format, and the ISO 100 speed cannot be set by user.
- Both the built-in and external flash do not fire when the **Burst** shooting option is in use.
- The shutter speed can be set to 1/30 Sec or faster when the **Burst** shooting option is in use.
- This product supports **Burst Shooting** mode which takes up to 30 shots per second. The images taken in **Burst Shooting** can be saved with a little bit enlarged size.

Special effect/photo retouching

Picture wizard P A S M

You can choose the customize options and then save images in 3 different ways.

1. In Shooting mode, press **[MENU]**.
2. Select **Shooting 1** (1) → **Picture Wizard** → an option.

3. Adjust the detailed items of picture wizard that were selected by using **[▲/▼/◀/▶]**.
   - You can control the color, saturation, sharpness and contrast.
4. Set to a desired value.

- The option can be set directly by pressing the **[ ]** button of camera in the shooting mode.

Finding more about the extended shooting function

For more detailed information, refer to the CD-ROM User manual ( ).

* Default value

Chapter	Function	Description	
Setting the resolution and image quality	Noise reduction	It can be set to reduce the noise of pictures. (**High ISO NR, Long Term NR**)	52
Taking a picture in the dark place	Using an external flash (optional item)	The A-TTL auto flash mode can be used by using an external flash unit (SEF 20A or SEF 42A).	57
Focus change	AF priority shot	The AF priority function is the function that the shutter does not work if the focus is not set appropriately when the user sets the focus manually. (**Off**, **On***)	59
	AF assist light	You can use the auto focus function more accurately in the dark place by using the AF lamp. (**Off, On***)	60

* Default value

Chapter	Function	Description	☉
Adjusting the brightness and color of picture	Exposure adjustment	You can set the level (step) of exposure adjustment. (**1/3***, **1/2**)	64
	Changing the brightness measurement method	You can change the brightness measurement method . (**Spot, Center-weighted, Multi***)	65
	Fine-adjustment of white balance	You can fine-adjust the white balance.	67
	User setup of white balance	You can do the user setup of white balance.	67
	Adjusting the color temperature	The user can set the white balance by adjusting the color temperature.	68
	Color space	This allows setting the color space to use. (**sRGB***, **Adobe RGB**)	69
	Smart range	This smoothly corrects the loss of bright part that can occur due to the differences in the shading of picture.(**Off***, **On**)	70
Changing the shooting method	Detailed bracket setup	The details for the exposure, white balance and picture wizard of bracket shot can be set. (**AE BKT Set, WB BKT Set, P Wiz BKT Set**)	72
Effect application/ picture correction	Custom picture wizard setup	Please select the custom option to change the color desired by user.	74
Key Mapping setup	Key Mapping setup	The function of camera button can be changed.	75

Play (picture/movie)

Viewing pictures in the play mode

The user can check saved pictures and movies.

1 Press [▶].

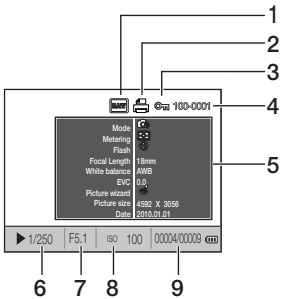
- Show most recently saved files.

2 Check the pictures sequentially by using **[◀/▶]**.

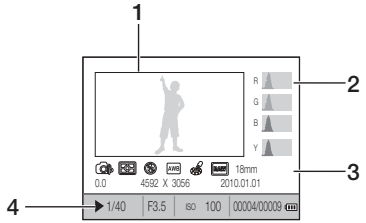
- When the playback screen is selected more than once, the last shown picture or movie is selected to be shown during playback.

Description about photo playback

The display information appears by pressing [**DISP**] in the play mode.

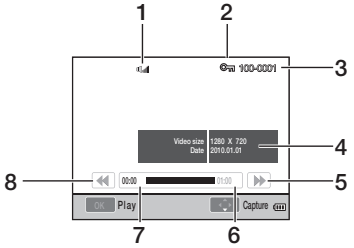


1	RAW file indicator
2	File that includes development info
3	Protected file
4	File no.
5	Meta value of taken picture
6	Shutter speed info
7	Aperture value
8	ISO setup value info
9	File in play/total no. of files taken / battery information



1	Shot image
2	RGB histogram
3	Shooting mode, metering, flash, white balance, picture wizard, focal length
4	Shutter speed, aperture value, ISO, selected file/ total number of files / battery information

Descriptions about movie playback

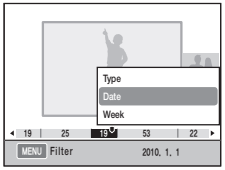


1	Volume control display
2	Protected file
3	File no.
4	Meta value of movie taken
5	Fast forward
6	Total play time of selected file
7	Current play time
8	Rewind

View files in the smart album by category

The files can be classified and shown by the file, date (day), date (week), and type.

1. In Playback mode, press **[❑]**.
2. Press **[MENU]**.
3. Select a desired playback method.



Type	Classify by the saved file form
Date	Classify by the saved date
Week	Classify by the saved week

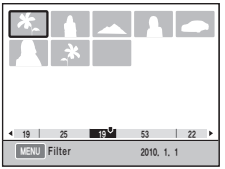
4. You can place the following items by turning the dial or by using **[◀/▶]**.
5. Press **[OK]** to return to the previous.

Executing the smart album or changing the category upon execution, the time may be delayed according to the volume of saved files. Please wait a moment until the smart album can appear.

Converting into the thumbnail view

Since several files can be shown on one display, files can be searched quickly.

To have a thumbnail view of 9 images, press [❑] two times, or press [❑] three times to have a thumbnail view of 20 images.
(Press [⊙] to cancel)



File protection

Files can be protected from deletion.

1. Press **[AEL]** in the play mode.
2. appears on the display.
3. Press **[AEL]** to cancel.

Deleting a file

Files can be selected and deleted in the play mode.

The function can be set by pressing [**MENU**] in the playback mode.

Deleting one picture

You can delete only one picture by selecting a desired file.

1. After selecting the file to be deleted in the play mode, press **[🗑]**.
2. From the popup window, select **Yes**.

Deleting selected file

1. After selecting the file to be deleted in the play mode, press **[🗑]**.
2. From the popup window, select **Multiple Delete**.
3. After selecting a file to be deleted, press [OK].
   - To cancel your selection, press [OK] again.
4. Press **[🗑]**
5. From the popup window, select **Yes**.

Deleting all files

All the files saved in the memory card can be deleted at once.

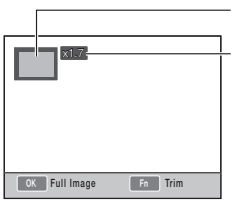
1. In Playback mode, press **[MENU]**.
2. Select **Playback [▶]** → **Delete** → **All**.
3. From the popup window, select **Yes**.

Enlargement/reduction

A picture can be enlarged when searching in play mode.

Enlargement

Press [⊙] to enlarge.
(Press [ ] to reduce)



Move to the enlargement	Press [▲/▼/◀/▶].
Trim the enlarged image	Press the [Fn] button to select a portion of the image to be cut.

See the slide show

Pictures can be shown in a slide show by applying various effects and music.

1 In Playback mode, press **[MENU]** → **[▶]**.

2 Select a desired option

- To play without setting an option, execute the **step 4**.

Images	Select the pictures to be shown in the slide show. • **All** : View all the saved pictures in the slide show. • **Date** : See the pictures taken on a specific date in the slide show. • **Select** : Select pictures and see them in the slide show
Effect	• Select the scene changing effect between pictures. • In order not to use the changing effect, select the **off** option.
Interval	• Select the scene changing time
Music	Execute the background music

3 Set to a desired option.

4 Select **Slide Show → Play.**

- To play the pictures repeatedly, please select the **repeat** option.

5 See the slide show

- To stop slide show, press [OK] and then press [◀/▶].

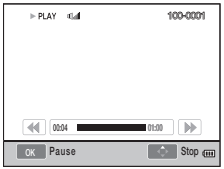
Pause/Play	Press the [OK] button.

View a movie

While a movie is being played back, you are able to select and cut a desired part of the scene.

1 After selecting a desired movie in the play mode, press [OK].

2 Enjoy movie.



Rewind	Press [◀]
Pause/Play	Press [OK].
Fast rewind	Press [▶]
Volume control	Turn the dial to the left/right
Stop	Press [▲]

Capturing a picture

You can capture a desired part of movie in the form of a picture while playing back the movie.

1. Press **[OK]** in the play mode.
2. Press **[OK]** while playing a movie.
3. Press **[▼]** in the pause state.

- The resolution of captured image is the same as the movie resolution.
- The captured file is saved by using the different file name.

Cutting part of a movie

1. Press [OK] in the play mode.
2. Select the start point to cut by pressing [OK] → **[⊙]** while playing a movie.
3. Select the end point of cutting by pressing [OK] → **[⊙]**.
4. From the popup window, press **Yes**.

- The cut file is saved by using a different file name.

Transferring files to your computer

For Windows users

Transfer files by connecting your camera to your PC.

Installing programs

Hardware and software requirements

Item	Requirements
CPU	Pentium III 500 MHz or better (Pentium III 800 MHz or better recommended)
RAM	256 MB or more (512 MB or more recommended)
OS	Windows 2000/XP/Vista
Hard disk capacity	250 MB or more (1 GB or more recommended)
Others	• USB port • CD-ROM drive • 1024 x 768 pixels, 16-bit color display compatible monitor (24-bit color display recommended) • Microsoft Direct X 9.0C or later

Requirements for QuickTime Player 7.6

- Intel Pentium 4, 3.2 GHz or higher/AMD Athlon™ 64FX, 2.6 GHz or higher
- Windows XP service pack2 or Vista
- Minimum 512 MB RAM (1 GB and above recommended)
- nVIDIA Geforce 7600GT or higher/ATI X1600 series or higer recommended

- Using a self-assembled PC or a PC and OS that are not supported may void your warranty.
- The programs may not work properly on 64-bit Edition of Windows XP and Vista.

Programs contained on the CD

Program	Purpose
Samsung Master	Edit photos and videos.
QuickTime Player 7.6	View videos (H.264 (MPEG-4.AVC) files) on a PC.
Samsung RAW Converter	Convert RAW files into the desired file format.
Adobe Reader	View the user manual.

1 Insert the installation CD in a compatible CD-ROM drive.

2 When the setup screen is displayed, click **Samsung Digital Camera Installer** to start installation.

3 Select programs to install and follow the onscreen instructions.

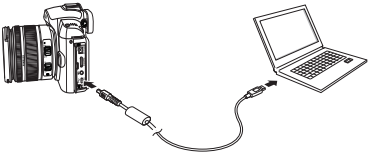
4 Click **Exit** to complete the installation and restart your computer.

Transferring files to your PC

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

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

⚠ You must plug the end of the cable with the correct connection port in your camera. If the cable is reversed, it may damage your files. The manufacturer is not responsible for any loss of data.



2 Turn on the camera.
   - In the popup window, select **Computer**.

3 On your PC, select **My Computer → Removable Disk → DCIM → "XXXPHOTO**," or select **"XXX_MMDD"** folder.

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

- If the Folder Type is set to Date, the folder name appears as "XXX_MMDD."
- For example, if shot at 1st January, the folder name appears "101_0101."

Disconnecting the camera (for Windows XP)

The way to disconnect the USB cable for Windows 2000/Vista is similar.

1 It the status lamp on your camera is blinking, it means the data transfer is in progress. Please wait until the status lamp stops blinking.

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

3 Click the pop-up message.

4 Remove the USB cable.

Using Samsung Master

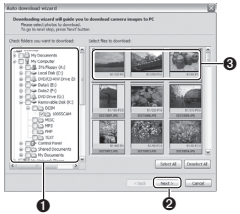
You can download files or edit photos or videos stored on your PC. For details, see the Help menu.

This program does not support editing of video files (H.264 (MPEG-4.AVC)) on the camera.

Downloading files using Samsung Master

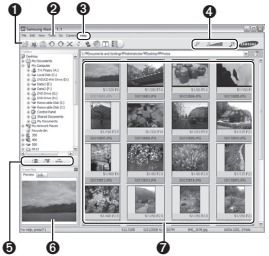
When you connect the camera to the PC, a window for downloading files automatically appears.

1. Select the files you want to download.
2. Click Next and follow the onscreen instructions.



No.	Description
❶	Select a location for downloaded files.
❷	Click to download the selected files.
❸	Thumbnails of files; click an image to download.

Using the Samsung Master Interface



No.	Description
❶	Toolbar
❷	Menus
❸	Click for more information about the program.
❹	Click to enlarge or reduce the thumbnails in the list.
❺	Change the mode. • : View mode • : Edit mode for photos • : Edit mode for videos
❻	Preview information about the selected file.
❼	The photos in the selected folder; double-click to switch to full-screen view.

Using the Samsung RAW Converter

Using the Samsung RAW Converter, you can develop RAW files after editing them as you like. You can also edit JPEG or TIFF files in the same way you edit the RAW files. This software is only compatible with Windows XP and Vista.

To start the program, click [Start → All Programs → Samsung RAW Converter → Samsung RAW Converter]

■ Developing the RAW files

- Image edit functions are listed below.

① Menu bar

② Image editing tools

[Exposure bias]:	Compensates the exposure value.
[White balance]:	Adjusts the white balance value.
[Color]:	Adjusts the color of the image.
[Tone]:	Changes the color tone.
[Sharpness/ Noise reduction]:	Adjusts the sharpness.
[Development]:	Previewing is available for the final output.

③ Highlight controller

Adjusts the saturation and highlights of the selected image.

④ Histogram

Displays the color layers of the selected image.

⑤ Preview window

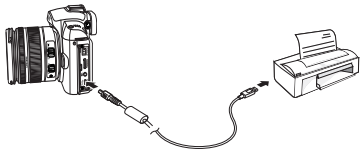
Displays the selected image.

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

Printing photos with a photo printer (PictBridge)

Print photos with a PictBridge-compatible printer by connecting your camera directly to the printer.

1 With the printer on, connect your camera to the printer with the USB cable.



2 Turn on your camera.

- Select **Printer** in the popup window.

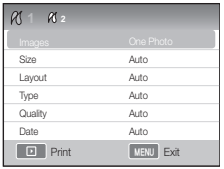
- If your printer has the mass storage feature, you must first set the USB mode to **Printer** in the settings menu.

3 Press [◀/▶] to select a photo.

- Press [**MENU**] to set printing options.

4 Press [OK] to print.

Configuring print settings



Images	Select whether to print the current photo or all photos.
Size	Specify the size of the print.
Layout	Create thumbnail prints.
Type	Select the type of paper.
Quality	Set the printing quality.
Date	Set to print the date.
File Name	Set to print the name of the file.
Reset	Reset the print options.

Some options are not supported by some printers.

Finding more about the playback/editing function

For more detailed information, refer to the CD-ROM User manual (◎).

* Default value

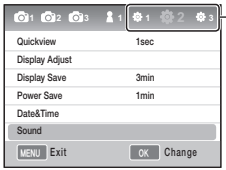
Chapter	Function	Description	◎
Play (picture/movie)	Auto rotate	Show the pictures taken in the vertical frame by rotating them automatically while in playing.	81
	Highlight	This informs the excessively bright part from the image taken.	81
Editing Pictures	Changing the resolution	You can change the resolution of a picture by using the picture edit menu.	85
	Rotating	You can rotate and save a picture by using the picture edit menu.	85
	Red-eye fix	You can minimize the red-eye effect of pictures.	86
	Adjusting the backlight	You can adjust the dark side of a picture taken in the backlight mode.	86
	Picture style	You can express various moods of emotional picture by selecting the picture style.	86
	Face retouching	You can retouch the face of portrait shot softly.	86
	Setting the print options (DPOF) > no. of copies, index, print size	The size and number of copies to be printed can be designated for the picture.	87
Viewing in TV (HDTV)	Viewing in HDTV	You can view a picture or movie through the TV screen by connecting the camera to a TV while using an A/V cable.	90
Loading files into your computer	Using in the Macintosh environment	You can connect the camera to a Macintosh PC.	94

Camera settings menu

The camera use environment can be set to a desired state by using the setup menu.

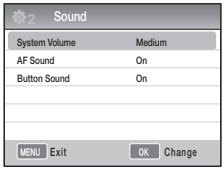
1 Press **[MENU]** in the shooting or play mode.

2 Select a desired setup menu



Setup menu items

3 Select a desired item



4 Press **[MENU]** to return to the previous mode.

Sound

* Default value

System Volume	The user can set the sound that is made when manipulating the camera. (**Off, Low, Medium*, High**)
AF Sound	The sound can be set when operating in the AF mode. (**Off, On***)
Button Sound	The operating sound of camera can be set. (**Off, On***)

Display

* Default value

Language	Select the language to be shown on the display.
Display Adjust	This allows adjusting the display brightness, auto brightness setting and color. **Display Brightness:** Depending on whether the user uses the screen or the viewfinder, the display brightness can be adjusted by using the [▲/▼]. **Auto Brightness:** Adjust the brightness of screen. **Display Color :** Depending on whether the user uses the screen or the viewfinder, the display color can be adjusted by using the [▲/▼/◀/▶].
Display Save	This allows setting the power-off time of display. (**Off, 0.5min*, 1min, 3min, 5min, 10min**)
Quickview	This allows setting the quick view (view immediately upon a shot) time. (**Off, 1sec*, 3sec, 5sec, Hold**)

Normal setup 1(⚙1)

* Default value

Format	This formats the memory card (deleting all the files including protected files). **(Yes, No*)** Error can occur if using a card formatted by another brand of camera, memory card reader or computer. Please use the card after formatting it from the camera.
Reset	This resets the setup menu and shooting options. (The date, time, language, and video output value are kept.)**(Yes, No*)**
File Name	This sets the method of designating filename. **Standard*** : SAM_XXXX.JPG(sRGB)/_SAMXXXX.JPG(Adobe RGB) **Date** : MMDDXXXX.JPG(sRGB)/_MDDXXXX.JPG(Adobe RGB, Jan. ~ Sep.)/ _ADDXXXX.JPG(Adobe RGB, indicating A for Oct, B for Nov, C for Dec) For example, the image taken by setting Jan 01 sRGB is saved in "0101xxxx.jpg".
File Number	This sets the method of designating file number. **(Series*, Reset)** • The folder name that has taken pictures for the first time becomes 100PHOTO and the filename will be SAM_0001 (when the color space is sRGB). • The filename number is increased by 1 in the range of SAM_0001~ SAM_9999. • The folder number is increased by 1 in the range of 100PHOTO ~999PHOTO. • The maximum number of files that can be saved in one folder is a maximum of 9999 units. • The filename is given according to the DCF (Design rule for Camera File system) specification. • When a filename is changed arbitrarily, the file may not be played on the camera.
Folder Type	This sets the type of folder. **Standard*** : XXXPHOTO **Date** : XXX_MMDD

Normal setup 2(⚙2)

* Default value

Power Save	This sets the power turned off automatically if not being used for a while. **(0.5 min, 1min*, 3min, 5min, 10min, 30min)** • The power-off time being set is kept even after replacing the battery. • This may not work if having connection to a computer, TV, or printer, playing a slide show or movie.
Date & Time	This sets to indicate the date and time that has taken a picture. **(Type, Date, Time Zone, Time, Imprint)** • The date and time are shown on the lower right side of the picture in play. • When printing a picture, the date may not be printed appropriately from certain manufacturer or printer model.

Normal setup 3(⚙3)

* Default value

Sensor Cleaning	**Sensor Cleaning**: Removes the dust of sensor when executing this menu **Start Up Action**: If set, the dust of sensor is removed whenever turning on the power. (**On**, **Off***) Since this product uses interchangeable lenses, the sensor may end up getting dust on it when changing lenses. This can lead to dust particles showing up on pictures taken. It is recommended to not change lenses when in a particularly dusty area. Also make sure to attach the lens cap onto the lens when not in use.
Video Out	Select the output signal appropriate for the country when connecting the camera to an external device (like monitor or TV). **NTSC*** : US, Canada, Japan, Korea, Taiwan, Mexico, etc. **PAL** (supporting only the BDGHI method) : Australia, Austria, Belgium, China, Holland, Finland, Germany, England, Italy, Kuwait, Malaysia, New Zealand, Singapore, Spain, Sweden, Switzerland, Thailand, Norway, etc.
Anynet+ (HDMI-CEC)	When having connected to HDTV that supports Anynet+ (HDMI-CEC), the play function of camera can be controlled with the TV remote controller (CD-ROM User manual, page 90). **On*** : The play function of camera can be controlled with the TV remote controller. **Off** : The play function of camera can NOT be controlled with the TV remote controller.
HDMI Size	The resolution on an HDTV can be changed when using an HDMI cable. (In case of NTSC method : **Auto*, 1080i, 720p, 480p**) (In case of PAL method : **Auto*, 1080i, 720p, 576p**) If the connected HDTV does not support the selected resolution, it is set to one level lower resolution.
Firmware Update	This shows the version info of main body and lens and upgrades the firmware. **Body Firmware**: This upgrades the firmware of camera body. **Lens Firmware**: This upgrades the firmware of lens. * You can upgrade the firmware by downloading it from www.samsung.com. • The Firmware update cannot be completed without fully charging the battery. Please try updating the firmware by using a fully charged battery or adaptor(optional). • After upgrading the firmware, the user customized options are reset to the default value. (The date, time, language, and video output values are kept.)

Error messages

When the following error messages appear, try these remedies.

Error message	Suggested remedies
Card Error	• Turn off your camera and then turn it on again. • Remove your memory card and insert it again. • Format your memory card. (p. 74)
Card Locked	Unlock the memory card.
DCF Full Error	File names do not match the DCF standard. Transfer the files on the memory card to your computer and format the card. (p. 74)
File Error	Delete the damaged file or contact a service center.
Low Battery	Insert a charged battery or recharge the battery.
Memory Full	Delete unnecessary files or insert a new memory card.
No Image File	Take photos or insert a memory card that has some photos.
Check the lens.	Check whether dust or foreign substances between Lens contacts and Lens mount index. Remove either dust or foreign substances if dirt or foreign substances are appeared. Please be care for avoid getting dirt foreign substances inside the camera
Error 00	Turn off the camera and then remove the lens and mount the lens again.
Error 01/02	Turn off the camera and then remove the battery and insert it again.

Before contacting a service center

If you are having trouble with your camera, try these troubleshooting procedures before contacting a service center. If you have attempted the troubleshooting solution and are still having problems with your device, contact your local dealer or service center.

Situation	Suggested remedies
Cannot turn on the camera	• Make sure that the battery is inserted. • Make sure that the battery is inserted correctly. • Charge the battery.
The power turns off suddenly	• Charge the battery. • Your camera may be in Power save mode. (p. 75) • The power automatically turns off to preven the camera from malfunctoning in the case that the unit overheats.
The camera is losing battery power quickly	• The battery may lose power more quickly in low temperatures (below 0° C). Keep the battery warm by putting it into your pocket. • Using the flash or recording videos depletes the battery quickly. Recharge if needed. • Batteries are consumable parts that must be replaced over time. Get a new battery if the battery life is diminishing quickly.
Cannot take photos	• There is no space on the memory card. Delete unnecessary files or insert a new card. • Format the memory card. (p. 74) • The memory card is defective. Get a new memory card. • The memory card is locked. Unlock the card. (CD-ROM User manual, page 109) • Make sure that the camera is switched on. • Charge the battery. • Make sure that the battery is inserted correctly. • When the **AF Priority** function is used, you cannot take a picture without adjusting the correct focus on the subject. Disable the **AF Priority** function, or se t the focus accurately.
The camera freezes	Remove the battery and insert it again.
The flash does not work	• The flash option may be set to **Off**. (p. 45) • You cannot use the flash in the 🎬 or some SCENE modes..
The flash fires unexpectedly	The flash may fire due to static electricity. This is not a malfunction of the camera.

Situation	Suggested remedies
The date and time are incorrect	Set the date and time in the **Setting2** (⚙2) menu.
The display or buttons do not work	Remove the battery and insert it again.
The memory card has an error	The memory card has not been reset. Format the card. (p. 74)
Cannot play back files	If you change the name of a file, your camera may not play the file (the name of the file should meet the DCF standard). If you encounter this situation, play back files on your computer.
The photo is blurry	• If the subject is out of focus, the photo may be blurry. Make a change to the shooting condition. • If the camera is shaken while shooting, the photo may be blurry. Use the tripod to avoid possible camera shake. • Make sure that the lens is clean. If not, clean the lens. (CD-ROM User manual, page 108)
The colors in the photo do not match the actual scene	An incorrect white balance can create unrealistic color. Select the proper white balance option to suit the light source. (p. 53)
The photo is too bright	Your photo is overexposed. • Adjust the exposure value. (p. 52) • Adjust the aperture value or the shutter speed. (p. 33) • Turn off the flash. (p. 45) • Adjust the ISO speed. (p. 46)
The photo is too dark	Your photo is underexposed. • Adjust the exposure value. (p. 52) • Adjust the aperture value or the shutter speed. (p. 33) • Turn on the flash. (p. 45) • Adjust the ISO speed. (p. 46)
The photo is distorted	The wide-angle lens may create distortions on the image. This is the normal feature of the wide-angle lens.

Situation	Suggested remedies
The TV does not display your photos	• Make sure that the camera is correctly connected to the external monitor with the A/V and HDMI cable. • Make sure that your memory card contains photos.
Your computer does not recognize your camera	• Make sure that the USB cable is connected correctly. • Make sure that your camera is switched on. • Make sure that you are using a supported operating system.
Your computer disconnects the camera while transferring files	The file transmission may be interrupted by static electricity. Disconnect the USB cable and connect it again.
Your computer cannot play videos	The codec installed in your computer may not be compatible with the video files you want to play. Use QuickTime® Player or install Codec Pack Full. • **Using QuickTime® Player 7.6** 1. Install QuickTime® Player 7.6 which supports MP4 (H.264 (MPEG-4.AVC)). 2. Play videos using QuickTime® Player. • **Using Codec Pack Full** 1. Install the latest version of Codec Pack Full. 2. Play videos using the media player (Media Player Classic or Windows Media Player 11 recommended). • Install QuickTime® Player 7.6 or K-Lite Codec Pack Full on Windows XP SP2 or later. • Depending on your computer environment, the video playback may be intermittent.

Camera specifications

Specification		
Image Sensor	Type	CMOS
	Sensor size	23.4×15.6mm
	Effective Pixel	Approx. 14.6 Mega-pixels
	Total Pixel	Approx. 15.1 Mega-pixels
	Color Filter	RGB primary color filter
Lens	Mount	Samsung NX Mount
	Usable Lens	Samsung Lenses
Image Stabilization	Type	Lens Shift (depends on Lens)
Dust Reduction	Type	Super sonic drive
Display	Type	AMOLED
	Size	3.0”
	Resolution	VGA (640x480) 614k dots (PenTile).
	Live view	Field of view : Approx. 100%
Viewfinder	Type	EVF
	Resolution	VGA (640x480) 921k dots
	Field of View	Approx. 100%
	Magnification	Approx. 0.86x (APS-C, 50mm, $-1m^{-1}$)
	Eyepoint	About 20.2mm
	Diopter Adjustment	Approx. $-4.0 \sim +2.0m^{-1}$

Specification		
Focusing	Type	Contrast AF
	Focusing point	Selection : 1point (Free selection) Multi : Normal 15points, Close Up 35points Face Detection : Max. 10faces
	Modes	Single AF, Continuous AF, MF
	AF-assist lamp	Yes (Green LED)
Shutter	Type	Electronically controlled vertical-run focal plane shutter
	Speed	Auto: 1/4000sec. ~ 30sec. Manual: 1/4000sec. ~ 30sec. (1/3EV or 1/2EV step) Bulb (Limit time : 8 min)
Exposure	Metering System	TTL 247 (19x13) Block segment
		Metering : Multi, Center-weighted, Spot
		Metering range : EV0 ~ 18 (ISO100·30mm F2.0)
	Compensation	±3 EV (1/2EV, 1/3EV step)
	AE Lock	AEL button
	ISO Equivalent	Auto, 100, 200, 400, 800, 1600, 3200 (1EV step)

Specification		
Drive Mode	Modes	Single, Continuous, Burst, Self-timer, Bracket (AE, WB, PW)
	Continuous	JPEG : 3fps up to 10shots, Burst mode : 30fps, 30shots by 1 released RAW : 3fps up to 3shots
	Bracket	Auto Exposure Bracket (±3EV), White Balance Bracket (±3step), Picture Wizard Bracket (Selectable 3modes)
	Self-timer	2-30sec. (1sec. step)
	Remote controller	Wired : SR9NX01 (Optional)
Flash	Type	TTL Auto Pop-up flash
	Modes	Smart Flash, Auto, Auto + Red-eye reduction, Fill-in, Fill-in + Red-eye reduction, 1st Curtain, 2nd Curtain, OFF
	Guide Number	11 (at ISO 100)
	Angle of View Coverage	28mm wide-angle (Equivalent to 35mm)
	Sync. Speed	Less than 1/180sec.
	Flash Compensation	-2 - +2EV (0.5EV step)
	External Flash	Samsung External Flash available (SEF 42A, SEF 20A) (optional)
	Synchro (Flash attachment)	Hot Shoe

Specification		
White Balance	Modes	Auto, Daylight, Cloudy, Fluorescent (W, N, D), Tungsten, Flash, Custom, K(Manual)
	Micro adjustment	Each 7steps in Amber / Blue / Green / Magenta axis
Picture Wizard	Modes	Standard, Vivid, Portrait, Landscape, Forest, Retro, Cool, Calm, Classic, Custom (1-3)
	Parameter	Contrast, Sharpness, Saturation, Color tone

Specification		
Shooting	Modes	Smart Auto, Program, Shutter Priority AE, Aperture Priority AE, Manual, Night, Portrait, Landscape, Scene, Movie
	Scene Mode	Beauty shot, Children, Close Up, Text, Sunset, Dawn, Backlight, Fireworks, Beach & Snow
	Image Size	**JPEG (3:2):** 14M (4592x3056), 10M (3872x2592), 6M (3008x2000), 2M (1920x1280), 1.4M (1472x976): Burst mode only **JPEG (16:9):** 12M (4592x2584), 8M (3872x2176), 5M (3008x1688), 2M (1920x1080) **RAW:** 14M (4592x3056)
	Quality	Super fine , Fine, Normal
	RAW Format	SRW
	Color Space	sRGB, Adobe RGB

Specification		
Movie	Format	MP4 (H.264)
	Compression	Movie : H.264 , Sound : AAC
	Movie Clip	With Audio or without Audio (user selectable, recording time : 25 minutes)
	Image size	1280x720 , 640x480 , 320x240
	Frame rate	30fps
	Sound	Mono Sound
	Movie Editing	Still Image Capture, Time Trimming
Image Play	Type	Single image, Thumbnails (3/9/20 images), Slide show, Movie
	Highlight Warning	Available
	Editing	Red eye fix, Back light comp., Photo Style Selector, Resize, Rotate, Face Retouch
	Photo Style Selector	Soft, Vivid, Forest, Autumn, Misty, Gloomy, Classic,

Specification		
Storage	Media	External memory card(optional): SD card (up to 4GB guaranteed), SDHC card (up to 8GB guaranteed)
	File Format	RAW (SRW), JPEG (EXIF 2.21), DCF, DPOF 1.1, PictBridge 1.0
	Capacity (1GB)	14M : RAW 35 14M : Super Fine 142, Fine 278, Normal 408 10M : Super Fine 197, Fine 382, Normal 724 6M : Super Fine 322, Fine 615, Normal 1128 2M : Super Fine 738, Fine 1334, Normal 2238 Burst (1.4M) : Super Fine 1201, Fine 2092, Normal 3320 12M(W) : Super Fine 168, Fine 328, Normal 630 8M(W) : Super Fine 234, Fine 454, Normal 860 5M(W) : Super Fine 381, Fine 727, Normal 1334 2M(W) : Super Fine 872, Fine 1573, Normal 2638 Movie : 1280x720 : High Quality 15min., Normal 22min. 640x480 : High Quality 44min., Normal 66min. 320x240 : High Quality 145min., Normal 210min. ※ These figures are measured under the Samsung standard

Specification		
Direct Printing		PictBridge
Interface	Digital Output Connector	USB 2.0 (HI-SPEED)
	Video output	NTSC, PAL (user selectable) HDMI 1.3 : (1080i, 720P, 576P / 480P)
	External Release	Yes
	DC power input connector	DC 9.0V, 1.5A (100 ~ 240V)
Power Source	Type	Rechargeable battery : BP1310 (1300mAh) Charger: BC1310 AC Adaptor : AD9NX01 (Optional) * Included battery may vary depending on sales region
Physical Specification	Dimensions (WxHxD)	123×87×39.8mm (excluding the projecting parts of the camera)
	Weight	353g (without batteries and card)
	Operating Temperature	0 ~ 40 °C
	Operating Humidity	5 ~ 85%
Software	Application	Samsung Master, Samsung RAW Converter, QuickTime Player 7.6

* Specifications are subject to change without prior notice

* All trademarks are the property of their respective owners

Lens specifications

Lens Name	SAMSUNG 30mm F2	SAMSUNG 18-55mm F3.5-5.6 OIS	SAMSUNG 50-200mm F4-5.6 ED OIS
Focal Length	30mm (equivalent to 46.2mm in 35mm format)	18 - 55mm (equivalent to 27.7 - 84.7mm in 35mm format)	50 - 200mm (equivalent to 77 - 308mm in 35mm format)
Elements in Groups	5 elements in 5 groups (1 Aspherical lens included)	12 elements in 9 groups (1 Aspherical lens included)	17 elements in 13 groups (2 Extra-low Dispersion lens included)
Angle of View	50.2°	75.9°- 28.7°	31.4°- 8.0°
Aperture	F2 (Min. F22), (Number of Blades : 7 , Circular Aperture Diaphragm)	F3.5 - 5.6 (Min. F22), (Number of Blades : 7 , Circular Aperture Diaphragm)	F4 - 5.6 (Min. F22), (Number of Blades : 7 , Circular Aperture Diaphragm)
Mount Type	Samsung NX Mount	Samsung NX Mount	Samsung NX Mount
Optical Image Stabilizer	No	Yes	Yes
Minimum Focus Distance	0.25m ~ ∞	0.28m ~ ∞	0.98m ~ ∞
Maximum Magnification	Approx. 0.16X	Approx. 0.22X	Approx. 0.2X
Lens Hood	Optional	Included	Included
Filter Size	43mm	58mm	52mm
Max. Diameter x Length	61.5 x 21.5mm	63 x 65.1mm	70 x 100.5mm
Weight	Approx. 85g (without hood)	Approx. 198g (without hood)	Approx. 417g (without hood)
Operating Temperature	0 ~ 40°C	0 ~ 40°C	0 ~ 40°C
Operating Humidity	5 ~ 85%	5 ~ 85%	5 ~ 85%

The lens provided may differ by the model.

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Please refer to the warranty that came with your product or visit our website
http://www.samsung.com/ for after-sales service or inquiries.

AD68-04529A (1.0)