KONICA MINOLTA

DiMAGE G530

E INSTRUCTION MANUAL

9222-2736-11 IM-A402/0406/109678

Before you begin

Thank you for purchasing this Konica Minolta product. Please take the time to read through this instruction manual so you can enjoy all the features of your new digital camera.

Check the packing list before using this product. If any items are missing, immediately contact your camera dealer.

DiMAGE G530 digital camera
Lithium-ion battery NP-600
Lithium-ion battery charger BC-600
Neck strap NS-DG130
SD Memory Card
USB cable USB-810
DiMAGE Viewer CD-ROM
DiMAGE Instruction Manuals CD-ROM
Quick Reference Guide
International Warranty Certificate

Only use the battery specified in this manual that are manufactured and distributed by Konica Minolta. Beware of counterfeit batteries; the use of these batteries will damage the product and may cause fire.

While reasonable efforts have been made to assure the accuracy of this information, Konica Minolta assumes no liability or responsibility for any errors or omissions of this instruction manual.

Konica Minolta is a trademark of Konica Minolta Holdings, Inc. DiMAGE is a trademark of Konica Minolta Photo Imaging, Inc. Apple, Macintosh, and Mac OS are registered trademarks of Apple Computer Inc. Microsoft and Windows are registered trademarks of the Microsoft Corporation. The official name of Windows is Microsoft Windows Operating System. Pentium is a registered trademark of the Intel Corporation. Power PC is a trademark of the International Business Machines Corporation. QuickTime is a trademark used under license. Memory Stick is a trademark of Sony Corporation. All other brand and product names are trademarks or registered trademarks of their respective owners.

For proper and safe use

Lithium-ion batteries

This camera operates on a small, but powerful lithium-ion battery. Misuse or abuse of the lithium-ion battery can cause damage or injury through fire, electric shock, or chemical leakage. Read and understand all warnings before using the battery.

⚠ DANGER

- Do not short, disassemble, damage, or modify the battery.
- Do not expose the battery to fire or high temperatures over 60°C (140°F).
- Do not expose the battery to water, or moisture. Water can corrode or damage the internal battery safety devices and cause the battery to overheat, ignite, rupture, or leak.
- Do not drop or subject the battery to strong impacts. Impacts can damage the internal battery safety devices and cause the battery to overheat, ignite, rupture, or leak.
- Do not store the battery near or in metallic products.
- Do not use the battery with any other products.
- Only use the specified charger. An inappropriate charger may cause damage or injury through fire or electric shock.
- Do not use a leaking battery. If fluid from the battery enters your eye, immediately rinse the eye with plenty of fresh water and contact a doctor. If fluid from the battery makes contact with your skin or clothing, wash the area thoroughly with water.
- Only use or charge the battery in an environment with ambient temperatures between 0° and 40°C (32° and 104°F). Only store the battery in an environment with ambient temperatures between –20° and 35°C (–4° and 95°F) and a humidity of 45% to 85% RH.

⚠ WARNING

- Tape over the lithium-ion battery contacts to avoid short-circuiting during disposal; always follow local regulations for battery disposal.
- If charging is not completed after the specified period elapses, unplug the charger and discontinue charging immediately.

General warnings and cautions

Read and understand the following warnings and cautions for safe use of the digital camera and its accessories.

⚠WARNING

- Only use the battery specified in this manual.
- Only use the specified charger or AC adapter within the voltage range indicated on the unit. An inappropriate adapter or current may cause damage or injury through fire or electric shock.
- Only use the charger power cord in the sales region for which it was designed. An inappropriate current may cause damage or injury through fire or electric shock.
- Do not disassemble the camera or charger. Electric shock may cause injury if a high voltage circuit inside the product is touched.
- Immediately remove the battery or unplug the AC adapter and discontinue use if the camera is dropped or subjected to an impact in which the interior, especially the flash unit, is exposed. The flash has a high voltage circuit which may cause an electric shock resulting in injury. The continued use of a damaged product or part may cause injuries or fire.
- Keep the battery, memory card, or small parts that could be swallowed away from infants. Contact a doctor immediately if an object is swallowed.
- Store this product out of reach of children. Be careful when around children not to harm them with the product or parts.
- Do not fire the flash directly into the eyes. It may damage eyesight.
- Do not fire the flash at vehicle operators. It may cause a distraction or temporary blindness which may lead to an accident.
- Do not use the monitor while operating a vehicle or walking. It may result in injury or an accident.
- Do not look directly at the sun or strong light sources through the viewfinder. It may damage your eyesight or cause blindness.

- Do not use these products in a humid environment, or operate them with wet hands. If liquid enters these products, immediately remove the battery or unplug the product, and discontinue use. The continued use of a product exposed to liquids may cause damage or injury through fire or electric shock.
- Do not use these products near inflammable gases or liquids such as gasoline, benzine, or paint thinner. Do not use inflammable products such as alcohol, benzine, or paint thinner to clean these products. The use of inflammable cleaners and solvents may cause an explosion or fire.
- When unplugging the AC adapter or charger, do not pull on the power cord. Hold the plug when removing it from an outlet.
- Do not damage, twist, modify, heat, or place heavy objects on the AC adapter or charger cord. A damaged cord may cause damage or injury through fire or electric shock.
- If these products emits a strange odor, heat, or smoke, discontinue use. Immediately remove the battery taking care not to burn yourself as the battery may become hot with use. The continued use of a damaged product or part may cause injuries or fire.
- Take the product to a Konica Minolta service facility when repairs are required.
- Handling the cord on this product may expose you to lead, a chemical known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling.
- The subject must not be closer than 1 m when photographing portraits with flash in order to avoid damage to the eyes.

⚠CAUTION

- Do not use or store these products in a hot or humid environment such as the glove compartment or trunk of a car. It may damage the camera, charger, and battery which may result in burns or injuries caused by heat, fire, explosion, or leaking battery fluid.
- If the battery is leaking, discontinue use of the product.
- The camera, charger, and battery temperature rises with extended periods of use. Care should be taken to avoid burns.
- Burns may result if the memory card or battery is removed immediately after extended periods of use. Turn the camera off and wait for it to cool.
- Do not fire the flash while it is in contact with people or objects. The flash unit discharges a large amount of energy which may cause burns.
- Do not apply pressure to the LCD monitor. A damaged monitor may cause injury, and the liquid from the monitor may cause inflammation. If liquid from the monitor makes contact with skin, wash the area with fresh water. If liquid from the monitor comes in contact with the eyes, immediately rinse the eyes with plenty of water and contact a doctor.
- When using the AC adapter and charger, insert the plug securely into the electrical outlet.
- Do not use electronic transformers or travel adapters with the charger. The use of these devices may cause a fire or damage the product.
- Do not use if the AC adapter or charger cord is damaged.
- Do not cover the AC adapter or charger. A fire may result.
- Do not obstruct access to the AC adapter or charger; this can hinder the unplugging of the units in emergencies.
- Unplug the AC adapter or charger when cleaning or not in use.

The following marks may be found on the product:

This mark on your camera certifies that this camera meets the requirements of the EU (European Union) concerning interference causing equipment regulations. CE stands for Conformité Européenne (European Conformity).

This Class B digital apparatus complies with Canadian ICES-003.

FCC Compliance Statement
Declaration on Conformity

Digital Camera: **DiMAGE G530**

Tested To Comply
With FCC Standards

FOR HOME OR OFFICE USE

Responsible Party: Konica Minolta Photo Imaging U.S.A. Inc.
Address: 725 Darlington Avenue, Mahwah, NJ 07430

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Do not remove the ferrite cores from the cables.

Table of contents

The getting up and running section covers how to prepare the camera for use. It contains important information about power supplies and memory cards. The basic operation of this camera is covered in the recording - basic operation section between pages 22 and 30, and the playback - basic operation section between pages 32 and 34. Read the data-transfer mode section in its entirety before connecting the camera to a computer or printer.

Many of the features of this camera are controlled with menus. The menu navigation sections concisely describe the menu. Descriptions of the settings immediately follow the navigation sections.

The appendix contains a troubleshooting section to help answer questions about the operation of the camera. Information covering camera care and storage is also provided. Please store this manual in a safe place.

Names of parts 12
Getting up and running 14
- Charging the battery.....14
- Inserting a battery 15
- Battery-condition indicator.....16
- Auto power off.....16
- AC adapter (sold separately).....17
- Installing and removing a memory card.....18
- About memory cards.....19
- Turning the camera on and off 20
- Attaching the strap.....20
- Setting the language, date, and time.....21

Recording - basic operation 22
- Handling the camera 22
- LCD monitor display.....22
- Using the zoom lens.....23
- Basic recording operation 24
- Focus lock 25
- Focus range.....25
- Focus signals 26
- Special focusing situations 26
- Display button - recording mode 27
- Flash modes.....28
- Flash range - Automatic operation 29
- Flash signals.....29
- Macro modes 30
- Deleting images.....31

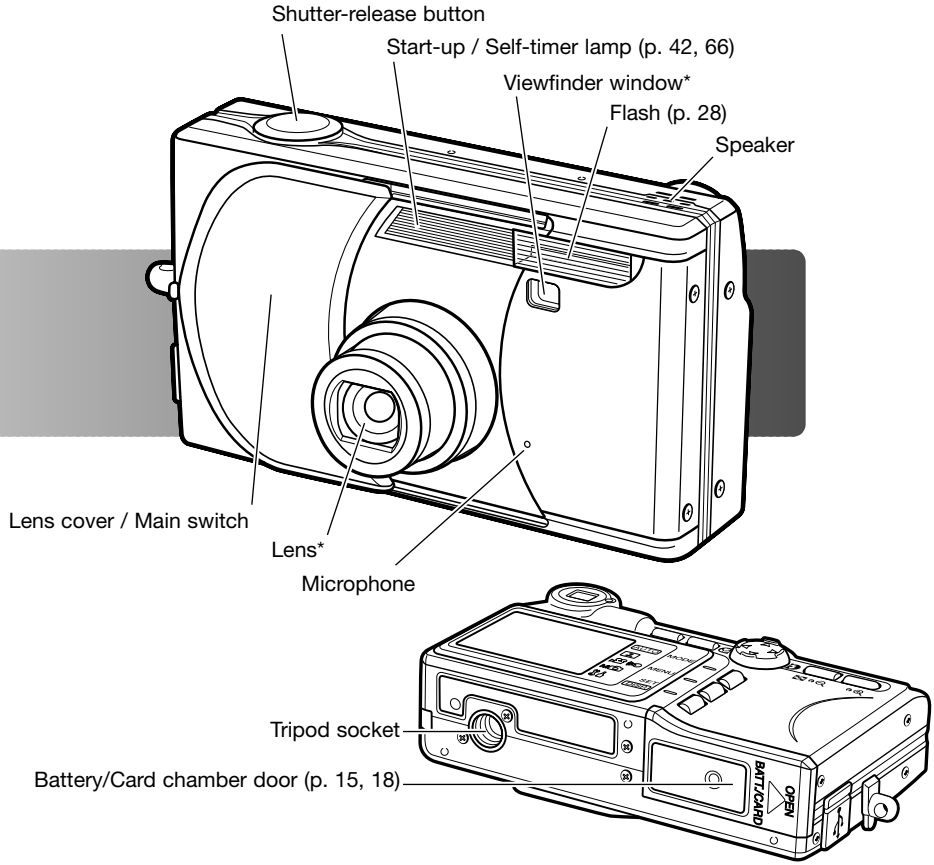
Playback - basic operation 32
Single-frame playback display 32
Viewing images 33
Display button - playback 33
Enlarged playback 33
Index playback 34
Recording - advanced operation 34
Changing modes 34
Movie recording 35
Navigating the recording menus 36
Scene selection 38
Color mode 39
Memory priority 39
Drive modes 40
Image size and quality 41
Self timer 42
Exposure compensation 43
Movie/audio recording mode 44
Audio recording 44
Audio caption 45
White balance 46
Camera sensitivity (ISO) 47
Camera sensitivity and flash range 47
Exposure modes 48
Aperture priority 48
Manual exposure 49
Focus modes 50
Autofocus and autoexposure lock 51
Playback - advanced operation 52
Playing back movies and audio 52
Deleting audio captions 53
Navigating the playback menu 54
Frame-selection screen 55
Copy & Move 56
Resize 57
DPOF 58
Protect 60
Slide show 61

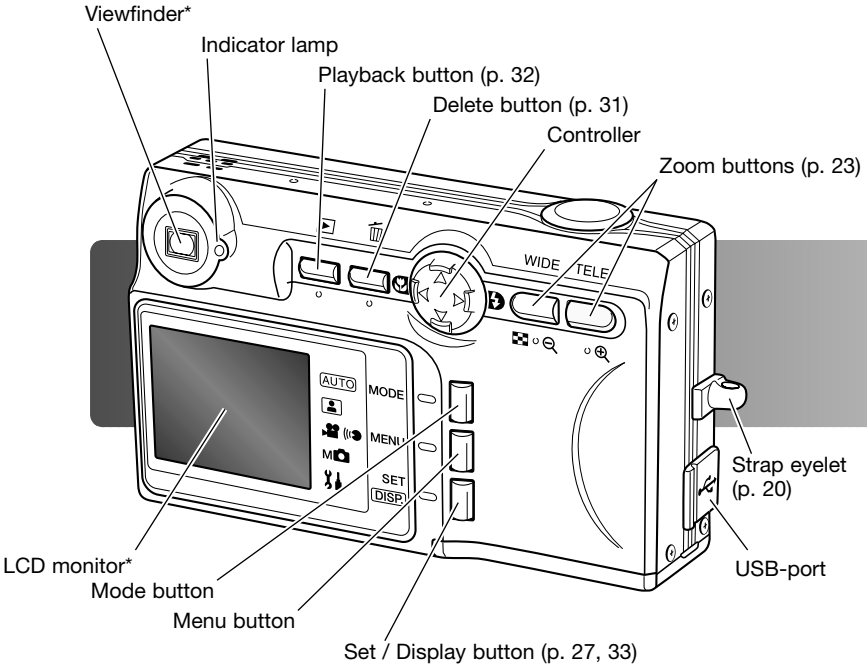
Setup menu 62
Navigating the setup menu 62
Format 64
Adjusting the monitor 65
Start-up LED.....66
Information display setup.....66
Monitor on/off.....67
Instant playback 67
Custom 68
Custom setup.....69
Flash compensation 70
Saturation 70
Contrast 70
Sharpness.....71
Shutter-speed limit 71
RGB color channels.....72
An introduction to color.....72
AE metering modes.....73
File-number memory 74
Red-eye reduction.....74
Digital zoom.....75
Sound 76
Auto power off.....76
USB transfer mode.....77
Initialize.....78
Language.....80
Date setup 81
A short guide to photography.....82
What is an Ev? 82

USB-transfer mode 83
System requirements 83
Connecting the camera to a computer 84
Connecting to Windows 98 and 98SE 85
Automatic installation 85
Manual installation 86
Memory card folder organization 88
Disconnecting the camera from the computer 90
Windows 98 and 98SE 90
Windows Me, 2000 Professional, and XP 90
Macintosh 91
PictBridge 92
Notes on printing errors 94
QuickTime system requirements 94
Changing the memory card - data-transfer mode 95
Appendix 96
Troubleshooting 96
About the lithium-ion battery charger cord 97
Removing the driver software - Windows 98
Care and storage 99
Camera care 99
Cleaning 99
Storage 99
Memory cards 100
Batteries 100
Before important events or journeys 100
Operating temperatures and conditions 101
LCD monitor care 101
Copyright 101
Questions and service 101
Technical specifications 102

Names of parts

* This camera is a sophisticated optical instrument. Care should be taken to keep these surfaces clean. Please read the care and storage instructions in the back of this manual (p. 99).

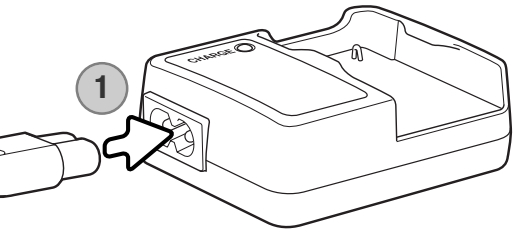



Viewfinder*
Indicator lamp
Playback button (p. 32)
Delete button (p. 31)
Controller
Zoom buttons (p. 23)
WIDE
TELE
AUTO
MODE
MENU
SET
DISP.
Strap eyelet
(p. 20)
USB-port
LCD monitor*
Mode button
Menu button
Set / Display button (p. 27, 33)

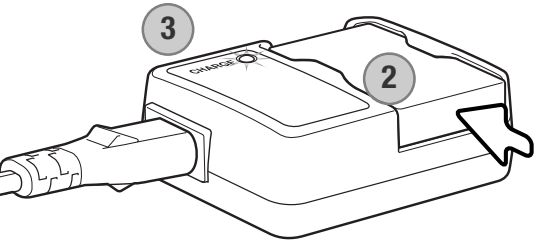
Getting up and running

Charging the battery

Before the camera can be used, the lithium-ion battery must be charged. Before charging the battery, read the safety warnings on pages 3 through 6. Only recharge the battery with the supplied battery charger. The battery should be recharged before each shooting session. See page 100 for battery care and storage.



Plug the power cord into the charger unit (1). Plug the other end of the cord into a live household outlet. The included AC cord is designed for the current of the sales region. Only use the cord in the region it was purchased. For more on the AC cord, see page 97.



With the contacts down, slide the battery into the charger (2). The indicator lamp (3) is red when the battery is charging. The lamp turns green when the battery has been charged. Charging time is approximately 120 minutes.

When the battery has been charged, remove the it from the charger. Unplug the power cord from the outlet.

Inserting a battery

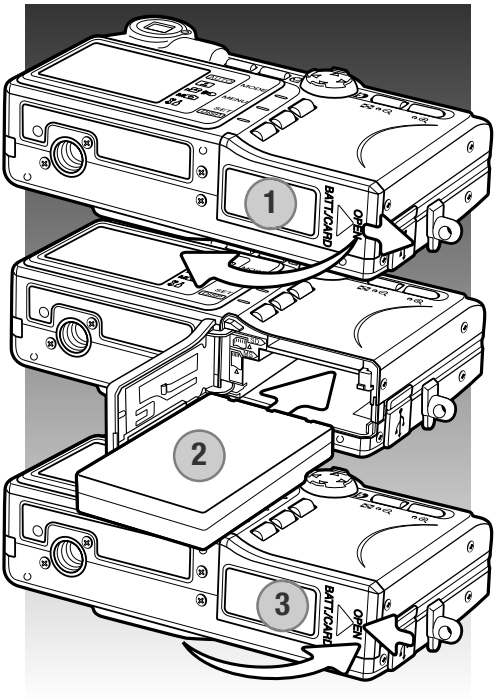
This digital camera uses one NP-600 lithium-ion battery. Before using the battery, read the safety warnings on pages 3 of this manual. When replacing the battery, the camera should be turned off.

Slide the battery-chamber door toward the side of the camera to release the safety catch (1). Open the door.

Insert the battery (2).

Close the battery-chamber door (3) and slide it toward the camera to engage the safety catch.

After initially installing the battery, the menu language, clock, and calendar need to be set. The camera can also reset if the camera is stored without a battery. See page 21 on how to set up the camera.

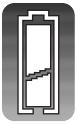


Camera notes

After initially inserting a charged battery, do not remove it from the camera for twenty-four hours; the camera can be off during this period. The lithium-ion battery is used to charge an internal battery, which protects settings when the camera is turned off.

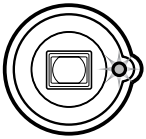
Battery-condition indicator

This camera is equipped with an automatic battery-condition indicator. It is displayed in the bottom left corner of the LCD monitor when the camera is on.



Full-battery indicator - the battery is fully charged.

Low-battery indicator - battery power is low. The battery should be recharged as soon as possible.



If power is insufficient for camera operation, the both indicator lamp next to the viewfinder blink. The monitor will not turn on. The battery must be recharged.

Auto power off

To conserve battery power, the camera shuts down if an operation is not made within three minutes. To restore power, turn the camera off and on with the lens cover or press the playback button. The length of the auto-power-off period can be changed or the function disabled in the setup menu (p. 76).

AC adapter (sold separately)

Always turn off the camera before changing between power supplies.

The AC adapter allows the camera to be powered from a household outlet. The AC adapter is recommended when the camera is interfaced with a computer or during periods of heavy use. AC adapter model AC-9U is for use in North America, Taiwan and Japan; AC-9GB is for the United Kingdom and Hong Kong; AC-9C is for China; AC-9E is for use in all other areas.

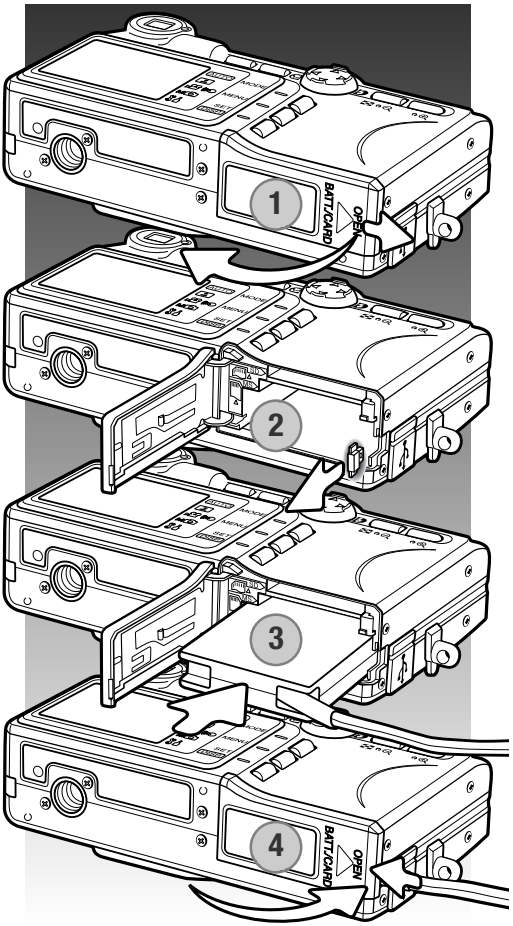
Slide the battery-chamber door toward the side of the camera to release the safety catch (1). Open the door.

Remove the battery and the cable-slot cover (2).

Insert the adapter making sure the cable passes through the slot at the side of the camera (3).

Close the battery-chamber door (4) and slide it toward the camera to engage the safety catch.

Connect the AC adapter cables as described in the adapter's instruction manual. Read all warnings and cautions in the manual before using the AC adapter.



Installing and removing a memory card

Always turn off the camera and confirm the viewfinder lamp is out before changing the memory card, otherwise the card may be damaged, and data lost.

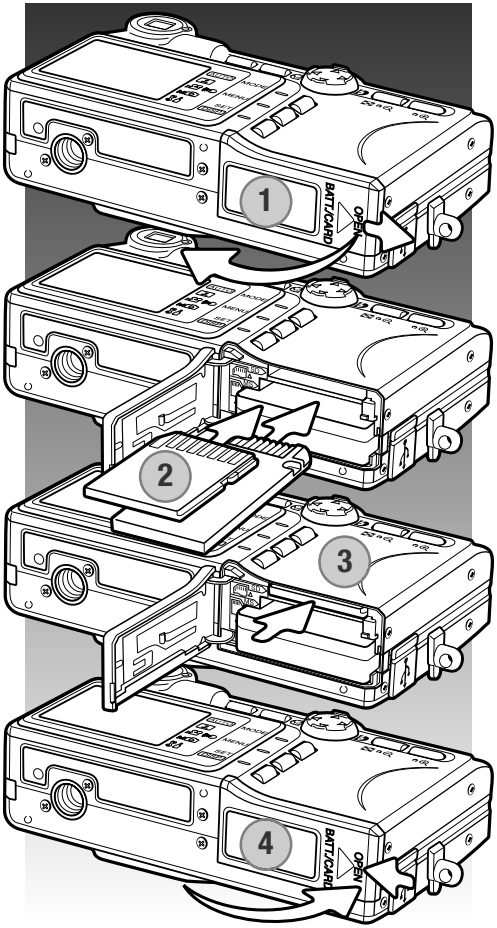
An SD Memory card, MultiMediaCard, or Memory Stick must be inserted for the camera to operate. If a card has not been inserted, a no-card warning appears on the LCD monitor.

Slide the battery-chamber door toward the side of the camera to release the safety catch (1). Open the door.

Insert the memory card all the way into the card slot and then release (2). The Memory Stick slot is next to the battery; the SD Memory Card / MultiMediaCard slot is next to the back of the camera. The card should catch in the slot. Always push the card in straight, never at an angle. Never force the card. If the card does not fit, check that it is oriented correctly.

To eject a memory card, press the card into the slot and release (3). The card can then be pulled out.

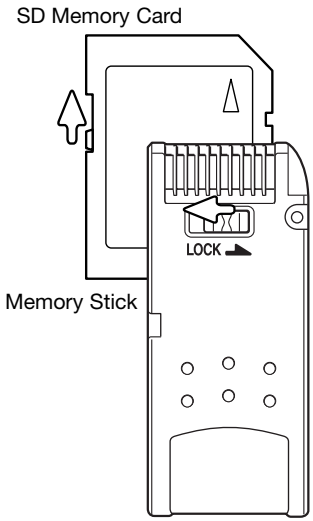
Close the battery-chamber door and slide it toward the camera to engage the safety catch (4).



About memory cards

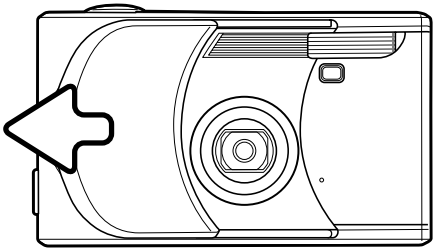
The response time during recording and playback is longer with MultiMediaCards compared with SD Memory Cards. This is not a defect, but rather due to the specifications of the cards. When using large capacity cards, some operations like deletion may take longer.

The SD Memory Cards and Memory Sticks have a write-protect switch to prevent image data from being deleted. However, when the card is protected, images cannot be recorded. If an attempt is made to record or delete an image with the camera, the card-protected message appears the viewfinder indicator lamp blinks. For memory card care and store see page 100.



If the unable-to-read message appears, the inserted card in the camera may need to be formatted. A card used in another camera may also have to be formatted before being used. A card can be formatted in the setup menu (p. 64). When a card is formatted, all the data on the card is permanently erased.

Turning the camera on and off



Slide the lens cover in the direction indicated to turn on the camera; the lens extends automatically. Do not touch or hinder the lens while it is extending.

To turn off the camera, push the cover toward the lens; the lens retracts automatically. The cover can be closed when the lens has completely retracted into the body.

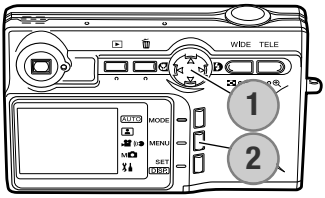
Attaching the strap

Always keep the strap around your neck in the event that the camera is accidentally dropped.

Pass the small loop of the strap through the strap eyelet on the camera body (1).

Pass the other end of the strap through the small loop and tighten (2).

Setting the language, date, and time



After initially inserting a memory card and charging the battery, the menu language and the camera's clock and calendar must be set on the setup menu.

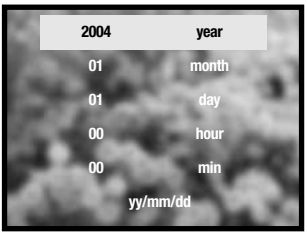
The four-way keys of the controller (1) move the cursor and change settings. Pressing the set / display button (2) sets selections.

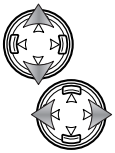
Use the up/down keys to select the language.

Press the set / display button to continue. A confirmation screen will open.

Use the left/right keys to select "Yes." "No" returns to the previous screen.

Press the set / display button to continue.





Use the up/down keys to select the option to be changed. Use the left/right keys to change the option. The last option sets the date format among year/month/day, day/month/year, and month/day/year.

Press the set / display button to complete the operation.

Recording mode – Basic operation

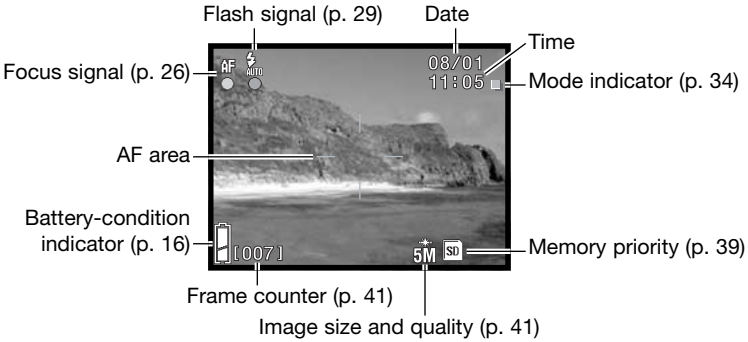
This section covers basic recording operation. To prepare the camera for use, read pages 14 through 21.

Handling the camera

While using the viewfinder or LCD monitor, grip the camera firmly with your right hand while supporting the camera body with your left. Keep your elbows at your side and your feet shoulder-width apart to hold the camera steadily.

Take care not to cover the lens, or flash with your fingers or the strap.

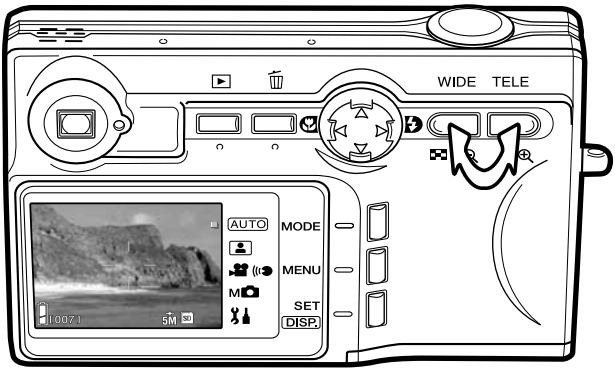
LCD monitor display



The current date and time are displayed for a few seconds each time the camera is turned on.

Using the zoom lens

This camera is equipped with a 5.6 - 16.8mm zoom lens. This is equivalent to a 34 - 102mm lens on a 35mm camera. The effect of the optical zoom is visible in both the viewfinder and LCD monitor.



To zoom in on the subject, push the tele zoom button.

To zoom out, push the wide zoom button.

The digital-zoom function can increase the power of the lens. The digital zoom is activated in the setup menu (p. 75).

Camera Notes

Because the optical viewfinder and the lens are slightly separated, the image seen through one is not exactly the same as the other; this is called parallax. Parallax can cause errors in framing when using the viewfinder at close distances. When the subject is closer than 1m (3ft) at the lens' wide-angle position or 3m (9.8ft) at the telephoto position, use the monitor to compose the image.

Basic recording operation

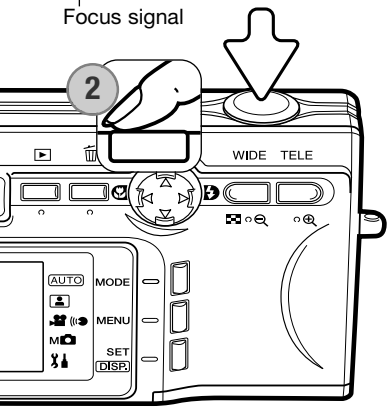
Place the subject within the AF area.

The focus-lock function (p. 25) can be used with off-center subjects. If the subject is closer than 1m (3ft.) at the zoom lens' wide-angle position or 3m (10ft) at the telephoto position, only use the LCD monitor to frame the subject.

Focus signal

Press the shutter-release button partway down (1) to lock the focus and exposure.

The monitor focus signal and viewfinder indicator lamp glows when the focus is locked; the flash signal appears if the flash is going to fire. If the focus signal and indicator lamp blink, the camera could not focus, repeat the procedure.



Press the shutter-release button all the way down (2) to take the picture.

After the shutter releases, the viewfinder indicator lamp glows while image data is being written to the memory card. Never remove a memory card while data is being transferred.

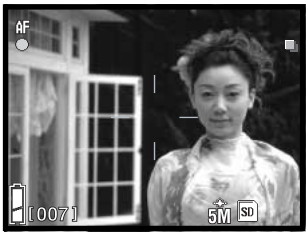
If the shutter-release button is pressed and held, a series of consecutive images is captured. The previous image is displayed between exposures.

Focus lock

The focus-lock function is used when you want to compose the image with the subject off-center and outside the AF area. Focus lock may also be used when a special situation prevents the camera from focusing on the subject (p. 26). This function is controlled with the shutter-release button.

Focus signal

Place the subject within the AF area. Press and hold the shutter-release button partway down and wait until the focus signal appears and viewfinder indicator lamp glows to indicate focus is locked. If the signal and lamp blink, repeat the procedure.



Without lifting your finger from the shutter-release button, recompose the subject within the image area. Press the shutter-release button all the way down to take the picture.

Focus range

The focus range depends on the zoom position. To focus closer than the distances below, use the macro mode (p. 30).

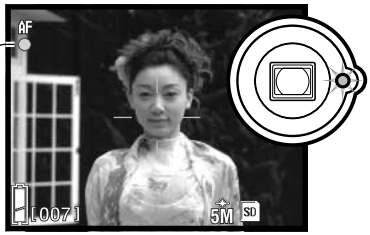
Wide-angle position	Telephoto position
0.5m - ∞ (1.6ft. - ∞)	0.8m - ∞ (2.6ft. - ∞)

Focus signals

This digital camera has a quick, accurate autofocusing system. The the monitor focus signal and viewfinder indicator lamp indicates the focus status. The shutter can be released regardless if the camera can focus on the subject or not.

Focus confirmed - the monitor focus signal and viewfinder indicator lamp glow. Focus is locked.

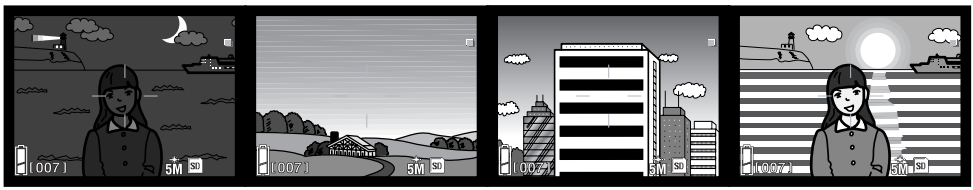
Cannot focus - the focus signal and indicator lamp blink.



Focus signal

Special focusing situations

The camera may not be able to focus in certain situations. In these situations, focus lock (p. 25) or fixed focus (p. 50) can be used to focus on another object at the same distance as your main subject, and then the image can be recomposed to take the picture.



The subject is too dark.

The subject in the AF area is low in contrast.

The subject is composed of broad horizontal lines.

The subject is near a very bright object or area.

Camera Notes

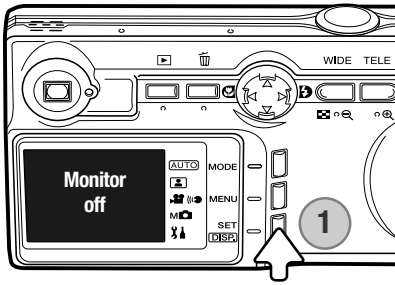
In the manual recording mode (p. 34), the focus can be fixed at specified distances with the focus mode option on the menu. See page 50 for more on focus modes and page 36 for menu operation.

Display button - recording mode

The display button (1) controls the LCD monitor display. The display cycles to the next format each time the button is pressed: standard display, live image only, and monitor off.

Standard display

Live image only



Battery power can be conserved by turning the monitor off and using the viewfinder to take pictures. However, because of parallax, the monitor should be used for subjects closer than 1m (3ft.) at the zoom lens' wide-angle position or 3m (10ft) at the telephoto position.

When changing settings, the monitor turns on automatically. The warnings and other relevant information can appear on the live image only display. The digital zoom is canceled when the monitor is off.

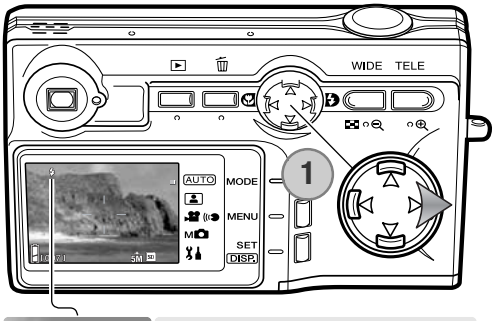
Flash modes

The flash can be used when taking still images. To select the flash mode, press the right key of the controller (1) until the appropriate mode is displayed. The active flash mode is displayed in the top left corner of the LCD monitor.

Autoflash - the flash fires automatically in low-light conditions.

Fill flash - the flash fires with each exposure regardless of the amount of ambient light. Fill-flash can be used to reduce harsh shadows caused by strong direct light or sunshine.

Flash cancel - the flash will not fire. Use flash cancel when flash photography is prohibited, natural light is desired to illuminate the subject, or the subject is beyond the flash range.



	Autoflash (No display)
	Fill flash
	Flash cancel

Fill flash

Camera Notes

Red-eye reduction can be activated with the setup menu. See page 74.

When using the aperture priority or manual exposure mode (p. 48), autoflash cannot be selected.

Flash range - Automatic operation

The camera automatically controls the flash output. For well-exposed images, the subject must be within the flash range. Because of the optical system, the flash range is not the same at the lens' wide-angle position as it is at the telephoto position. The flash range can be changed with camera sensitivity (ISO), see page 47.

Wide-angle position	Telephoto position
0.5m ~ 3.0m (1.6ft ~ 9.8ft)	0.8m ~ 1.7m (2.6ft ~ 5.6ft)

Flash signals

The the monitor flash signal indicates the status of the flash. When the signal appears, the flash will be used in the exposure.

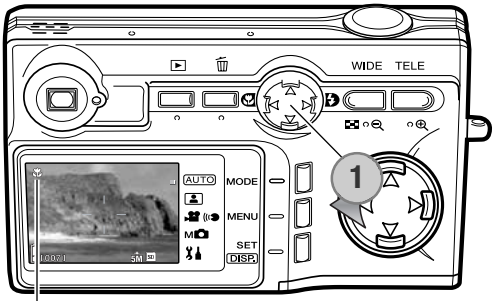
When using flash cancel, the flash signal and viewfinder indicator lamp blink to warn of camera shake caused by long exposures. Camera shake is slight blurring caused by subtle hand motion and is more pronounced at the lens' telephoto position than at the wide-angle position. Although the warning appears, the shutter can be released. If the warning appears, place the camera on a tripod or use the flash. Warning is not used with manual exposure.

Flash signal

Macro modes

Macro focusing is selected by pressing the left key of the controller (1). To select Super Macro, first zoom the lens to the maximum telephoto position and then select the appropriate mode with the controller. The active mode is displayed in the top left corner of the LCD monitor.

The minimum subject distance changes with the zoom position of the lens. Super Macro is only available at the telephoto position of the lens.



Wide-angle position	Telephoto position		
5cm (2.0in) - ∞	50cm (19.7in) - ∞		Macro
Super Macro	20cm - 40cm (7.9in - 15.7in)		Super macro
–			

If the subject is outside the flash range (p. 47), overexposure may result. To prevent the flash from firing, set the flash mode to flash cancel (p. 28).

Always use the monitor to frame the image. The use of a tripod is recommended.

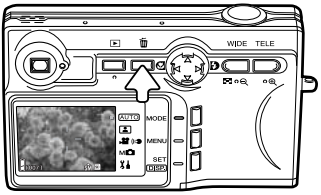
Shooting Tips

Camera shake is more noticeable with long exposures or close-up pictures. In these situations, place the camera on a tripod and make the exposure with the self-timer (p. 42) to prevent shaking the camera.

Deleting images

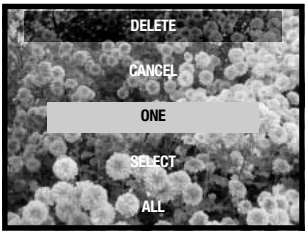
Images can be erased in the recording or playback modes.

To delete a file, press the delete button.



Use the up / down keys of the controller to select the delete option.

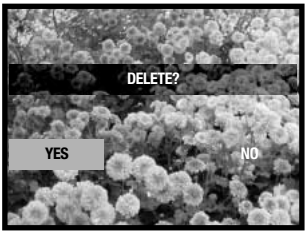
Press the set button to continue.



If the select option was selected, the frame selection screen opens. Select the image(s) to be deleted by placing the red frame on the index thumbnail and pressing the set button; a yellow frame indicates selection. Highlight the “OK” frame and press the set button to continue.

Use the left/right keys to highlight “YES.” “NO” cancels the delete operation.

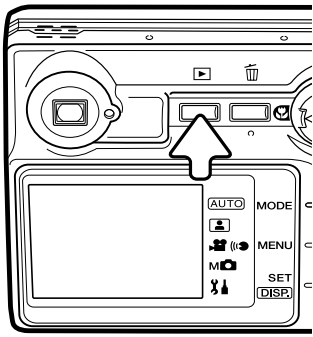
Press the set button to complete the operation.



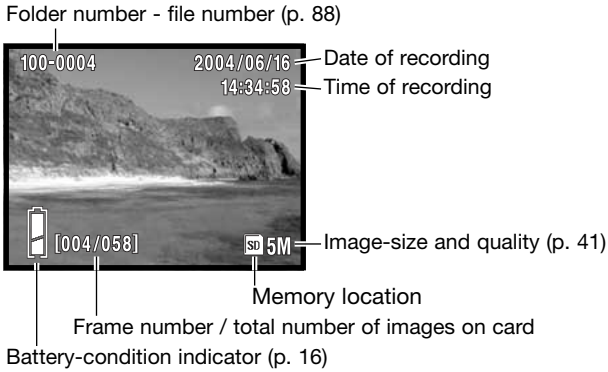
Playback – Basic operation

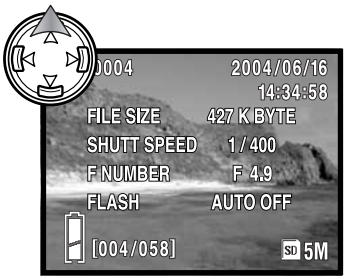
Images are viewed in the playback mode. This section covers the basic playback operation. The playback mode has additional functions, see page 52.

Press the playback button to view recorded images. Images can be viewed directly from the recording mode or when the lens cover is closed. When the lens cover is closed.
To cancel the playback mode, press the playback button. If the lens cover is open, pressing the shutter-release button also cancels the playback mode when a still image is displayed.



Single-frame playback display



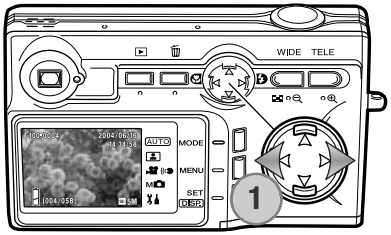


Press the up key of the controller to display image information. Press the up key a second time to hide the information display.

Viewing images

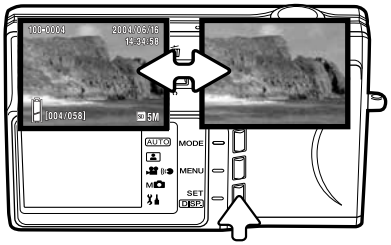
In playback mode, use the left/right keys of the controller (1) to scroll through the images on the memory card.

To delete a file, see page 31.



Display button - playback

Pressing the display button switches between the standard display and the image-only display. Image information can only be displayed with the standard display.

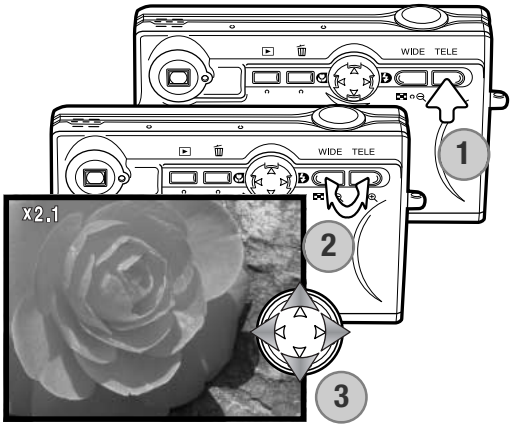


Enlarged playback

An image can be enlarged; maximum magnification depends on image size. To enlarge the displayed image, press the telephoto zoom button (1).

Use the zoom buttons (2) to enlarge and reduce the image size; the degree of magnification is displayed. The controller (3) scrolls the image.

To cancel the enlarged playback, reduce the image magnification below X1.1 or press the shutter-release button.

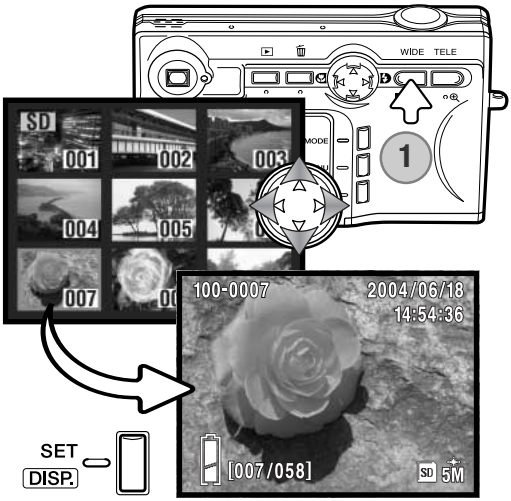


Index playback

To view the recorded images in a 9-frame index, press the wide-angle zoom button (1). The images are grouped by the memory card which is indicated on the first frame of the group. The frame number of the image is displayed.

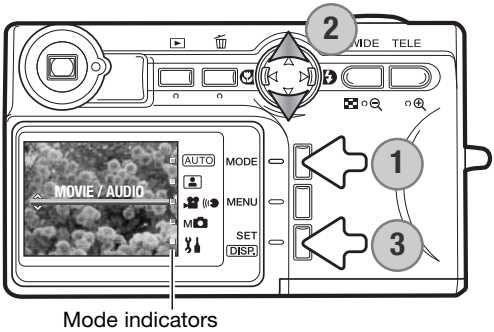
The controller moves the red border among the images.

Press the set button, telephoto zoom button, or shutter-release button to display the framed image in the single-frame playback mode.



Recording – Advanced Operation

Changing modes



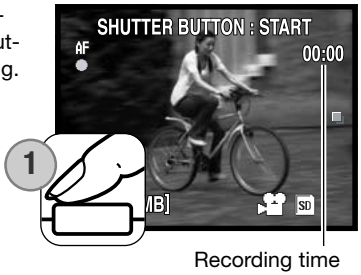
Four recording modes are available: auto recording for general photography, scene selection for specific subjects, movie and audio recording, and manual recording for more control over the image. The setup mode can also be accessed.

Press the mode button (1). The current mode is indicated. Use the up/down keys of the controller (2) to select the appropriate mode. Press the set button (3) to set the mode; a mode indicator remains on the monitor.

Movie recording

This camera can record 320x240 digital movies with audio at approximately 180KB/s. Select the movie mode with the mode button, see the previous page. The digital zoom cannot be used and the monitor cannot be turned off.

Place the subject in the center of the monitor and press the shutter-release button partway down to lock focus (1). Press the shutter-release button all the way down and release to begin recording.



Recording time

The camera continues to record until the memory card is full or the shutter-release button is pressed again. The elapsed recording time and remaining memory are displayed on the monitor.

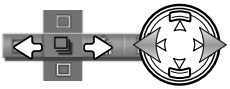
Remaining memory

Take care not to cover the microphone while recording. During recording, focus is locked and the optical zoom is disabled. The writing speed of the memory card may prematurely end the recording of a movie clip. When using a MultiMediaCard, the maximum recording time is 30 seconds.

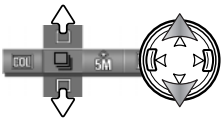
Navigating the recording menus

Navigating the menu is simple. The menu button turns the menu on. The controller moves the cursor and changes settings on the menu. For information on the setup menu, see page 62. To change modes, see page 34.

To activate the menu, press the menu button. The menu varies depending on the mode selected (p. 34).

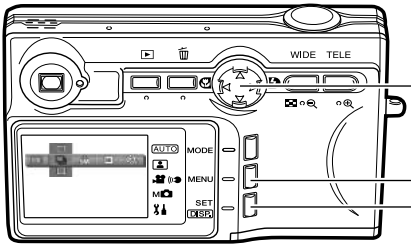


Use the left/right keys of the controller to scroll through the menu options. The option name is displayed on the monitor. The manual recording menu has several consecutive option displays.



Use the up/down keys to change the setting; the selected setting is shown by a black indicator.

Press the menu button, set button, or the shutter-release button to close the menu.



AUTO	Auto recording
	Color mode, p. 39
	Drive mode, p. 40
	Image size and quality, p. 41
	Memory priority, p. 39
	Self timer, p. 42

	Scene selection
	Scene selection, p. 38
	Drive mode, p. 40
	Image size and quality, p. 41
	Memory priority, p. 39
	Self timer, p. 42

	Movie / audio recording
	Recording mode, p. 44
	Exposure compensation, p. 43
	White balance, p. 46
	Memory priority, p. 39
	Self timer, p. 42

M	Manual recording
	Exposure modes, p. 48
	Drive modes, p. 40
	Image size and quality, p. 41
	Memory priority, p. 39
	Self timer, p. 42
	Color mode, p. 39
	Exposure compensation, p. 43
	White balance, p. 46
	Camera sensitivity (ISO), p. 47
	Focus modes, p. 50

	Setup mode
	Format, p. 64
	Monitor setup, p. 63
	Recording setup, p. 63
	Sound, p. 76
	Basic setup, p. 63

Refer to the following sections for descriptions of the menu options and their settings. Indicators next to each section heading show on which menu the option appears. When an option appears The manual recording menu can be further customized to control image quality with the setup menu as well as editing which functions are included on the menu. For information on the setup menu operation and options see the setup menu section on page 62.

Scene selection

In the scene-selection recording mode, the camera settings can be optimized to certain subjects with the menu. See page 34 on how to change the camera mode.

On the scene-selection menu, select the appropriate scene-selection setting. See page 36 for information on menu operation.

Portrait - optimized to reproduce warm, soft skin tones and a slight defocusing of the background. Most portraits look best at a telephoto setting; the longer focal length does not exaggerate facial features and the shallower depth of field softens the background. Use fill flash with strong direct sunlight or backlight to reduce harsh shadows.

Scenery - focus is optimized for landscapes. The use of a tripod is recommended in twilight or overcast conditions. The flash is canceled.

Night - for deep, subtle night scenes. The use of a tripod is recommended. When used with fill flash, the subject and background exposures are balanced. The flash can only be used with close subjects such as with a portrait of a person. When using the flash, ask your subjects not to move after the burst; the shutter may still be open for the background exposure.

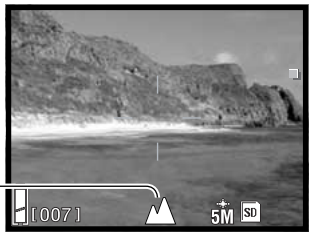
Snapshot - for quick effortless images. The subject must be between 0.8m and 2.5m (2.6 ft. - 8.2ft.) away. for best results, use the wide-angle position of the zoom.

Sports - used to capture action by maximizing shutter speeds. When using flash, the subject must be within the flash range (p. 47).

Angel - creates a soft, luminous complexion with portraits.

When set, a monitor indicator shows the active setting.

Scene selection indicator



Color mode

In the auto and manual recording modes, the color mode can be changed with the menu. The color mode controls if the picture is color or black and white. See page 34 on how to change the camera mode.

On the auto or manual recording menu, select the appropriate color mode; the live image changes accordingly. See page 36 for information on menu operation.

COL	**Standard color** - for standard color images. The camera's initial setting.
SEPI	**Sepia** - for warm tone monochrome images.
BW	**Black & white** - for neutral tone monochrome images.
W	**Warm color** - to make warm-tone color images.
C	**Cool color** - to make cool-tone color images.

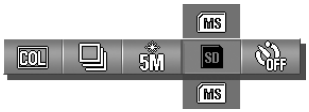
When warm or cool color is set, a monitor indicator shows the active mode. No indicator is used for other the modes.

Color-mode indicator

Memory priority

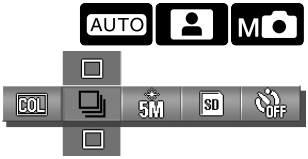
When two memory cards are used in the camera, memory priority specifies to which card recorded images and audio are saved. When the card is full, the second card is then used. When a single card is used, memory priority is set to that card automatically.

Memory priority can be set in all the recording menus. See page 36 for information on menu operation.



The memory card in use or set with memory priority is indicated in the lower right corner of the monitor.

Drive modes



The drive mode controls the rate and method still images are captured. The drive mode is set in the auto, scene selection, and manual recording menus. See page 36 for information on menu operation.

	Single shutter - to take a single image each time the shutter-release is pressed.
	Continuous shutter - to record three consectutive images when the shutter-release button is pressed and held.
	Auto bracket: exposure - to make a three-image exposure bracket. Only available in the manual recording mode.
	Auto bracket: focus - to make a three-image focus bracket. Only available in the manual recording mode.

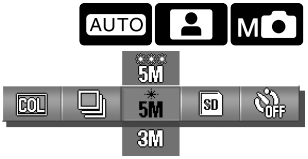
Except when single shutter is selected, a monitor indicator shows the active drive mode.

Drive-mode indicator

The maximum rate of capture with continuous shutter depends on the image size and quality as well as the use of other functions. The maximum rate of capture is approximately 0.7fps with 5 megapixel normal images.

The bracketing drive modes are only available in manual recording, see page 34 on how to change the recording mode. When using the auto bracketing drive mode, press and hold the shutter-release button all the way down until all three images are captured. The auto exposure bracket takes a three images at the set exposure, -0.5Ev under, and +0.5Ev over. The focus bracket varies the with each frame: set distance, before, and behind.

Image size and quality



Changing image size and quality affects the number of pixels in each image as well as the compression rate. Image size and quality are set in the auto, scene selection, and manual recording menus; see page 36 for menu operation.

	Pixel dimensions (hor. x vert.)	Compression rate	File size (approximate)	16MB SD Memory Card capacity (approximate)
***5M	2592 x 1944	Fine	2,100MB	6 images
*5M	2592 x 1944	Normal	1,250MB	10 images
*3M	2048 x 1536	Normal	750MB	17 images
*2M	1600 x 1200	Normal	400MB	33 images
*VGA	640 x 480	Normal	100MB	133 images

Changing image size affects the number of pixels in each image. The greater the image size, the larger the file size. Choose image size based on the final use of the image - smaller images are more suitable for web sites whereas larger sizes produce higher quality prints. Compression affects the file size and image detail. Normal compression is sufficient for most uses. Fine makes higher quality image, but file sizes are larger.

Size & quality indicator

If image resolution is changed, the frame counter displays the approximate number of images that can be recorded at that setting on the installed memory card. If the settings are changed, the frame counter adjusts accordingly. Because the counter uses approximate file sizes, the actual image taken may not change the counter or may decrease it by more than one.

The number of images that can be stored on a memory card is determined by the size of the card and the file size of the images, however no more than 999 images can be recorded on one memory card. The actual file size is determined by the scene; some subjects can be compressed further than others.

Self timer

The self timer is used for self-portraits. It delays the release of the shutter or the start of a movie or audio recording by 10 or 3 seconds. The self timer is available in all recording menus. See page 36 for menu operation.

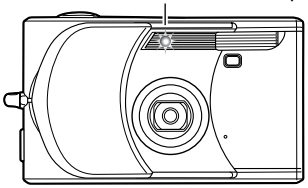
When set, an indicator is displayed on the monitor.

Self-timer indicator

Set the camera on a tripod and confirm the subject will be within the AF area when the shutter releases; focus is determined just before the exposure. Press the shutter-release button all the way down to start the timer. The self-timer lamp on the front of the camera blinks during the countdown; it flashes quickly just before the picture is taken. To stop the countdown before the exposure, turn off the camera; the ten-second self timer is canceled.

The ten-second self-timer is canceled after the exposure or when the camera is turned off. The three-second self timer remains active after the exposure. Use the menu to cancel the self timer.

Self-timer lamp



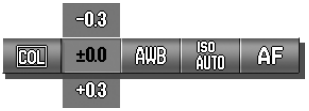
Shooting tips

When using the camera on a tripod, photographs of static subjects (landscapes, still-lifes, or macro photographs) can be made with the three-second self timer. Because no contact is made with the camera during exposure, there is no risk of camera shake caused by the operator.

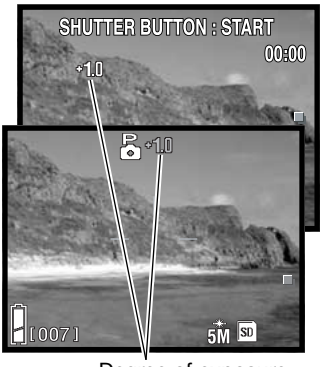
Exposure compensation

The camera exposure can be adjusted to make the final picture lighter or darker by as much as ±2.0Ev in 1/3Ev increments in the movie/audio and manual recording modes. Exposure compensation is set on the menu. When set to any value other than 0.0, the exposure-compensation value remains on the monitor as a warning.

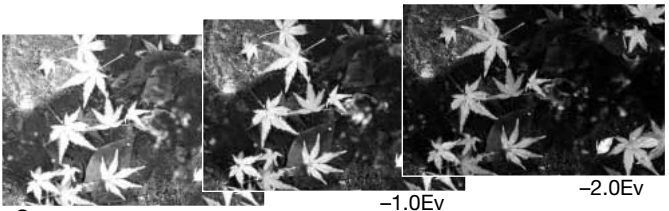
On the movie/audio or manual recording menu, select the degree of exposure compensation; the live image reflects the changes. See page 36 for menu operation.



Exposure compensation is used when the camera's exposure meter is deceived by high-key or low-key subjects. In the example below, the dark water caused the camera to overexpose the image making it bright and washed-out. By compensating the exposure, detail is brought out in the leaves, and the stones and water appear richer.



Degree of exposure compensation



Camera exposure

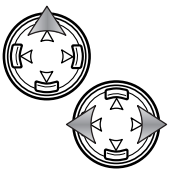
–1.0Ev

–2.0Ev

Camera Notes

In the manual recording mode, exposure compensation can be set with the controller.

Press the up key of the controller; the exposure compensation display appears. Use the left/right controller keys to adjust the degree of exposure compensation. To set other functions with the controller, press the up key again; the exposure compensation display turns gray.



Movie/audio Recording mode

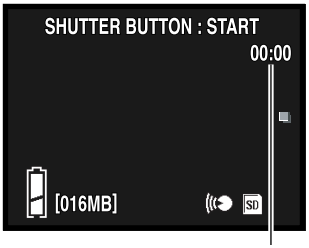
In the movie/audio recording mode, the menu is used to switch between the movie, audio, and audio-caption options. See page 36 for menu operation. The selected mode is displayed in the lower left corner of the monitor.

Movie recording, p. 35 Audio recording, p. 44 Audio caption, p. 45

Audio recording

This camera can record audio at approximately 8KB/s in the movie/audio recording mode. To select the recording mode, see page 34. audio recording is selected with the menu, see above and page 36.

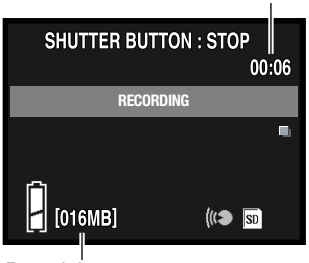
Press the shutter-release button all the way down and release to begin recording.



Recording time

The camera continues to record until the memory card is full or the shutter-release button is pressed again. The elapsed recording time and remaining memory are displayed on the monitor. When using a MultiMediaCard, the maximum recording time is 30 seconds.

Take care not to cover the microphone while recording.

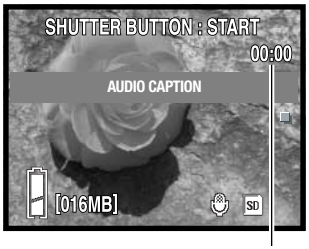


Remaining memory

Audio caption

This camera can add an audio track to a still image in the movie/audio recording mode. To select the recording mode, see page 34. Audio caption is selected with the menu, see page 36 and 44.

Use the left/right keys of the controller to display the still image to which the audio track is to be added.



Recording time

Press the shutter-release button all the way down and release to begin recording.

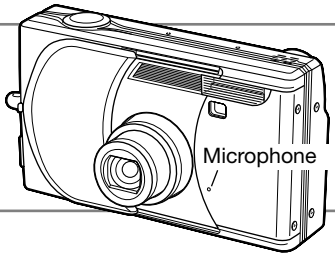
The camera continues to record until the memory card is full or the shutter-release button is pressed again. The elapsed recording time and remaining memory are displayed on the monitor. When using a MultiMediaCard, the maximum recording time is 30 seconds.

Remaining memory

Take care not to cover the microphone while recording. to replace an audio caption, the existing caption must be deleted first, see page 53.

Recording tips

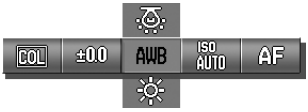
When making audio recordings, be careful not to touch or cover the microphone. The quality of the recording is proportional to the subject to microphone distance. For best results, hold the camera approximately 20cm (8in) from your mouth.



White balance

White balance is the camera's ability to make different types of lighting appear neutral. One automatic and four preset white-balance setting are available in the movie/audio and manual recording modes. White balance is set on the menu.

On the movie/audio or manual recording menu, select the white-balance option; the live image reflects the changes. See page 36 for menu operation.

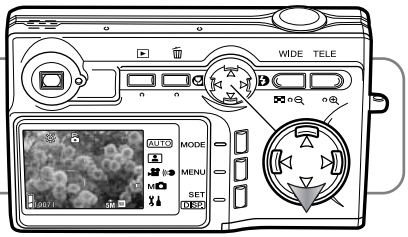


AWB	**Auto white balance** - compensates for the color temperature of a scene automatically. Auto white balance is sufficient in most cases.
	Tungsten - for incandescent lighting: household filament light bulbs.
	Fluorescent - for fluorescent lighting: office ceiling lights.
	Cloudy - for overcast outdoor scenes.
	Daylight - for outdoor and sunlit subjects.

When one of the preset white-balance settings is selected, an indicator is displayed on the monitor; the effect is immediately visible in the live image. To record the ambient light, set the flash mode to flash cancel (p. 28). If the built-in flash fires when using a preset white-balance, the white balance is set to the color temperature of the flash.

Camera Notes

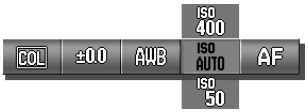
In the manual recording mode, the white balance can also be changed by pressing the down key of the controller.



Camera sensitivity (ISO)

The sensitivity of the camera can be changed in the manual recording mode with the menu. To change recording modes, see page 34.

On the manual recording menu, select the camera sensitivity setting. See page 36 for menu operation. If a manual ISO setting is selected, an indicator is displayed on the monitor.



Five camera sensitivity settings can be selected with a still image. The auto setting automatically adjusts the camera sensitivity to the light conditions between ISO 50 and ISO 200. The camera sensitivity can also be specified among ISO 50, 100, 200, and 400. The numerical values are based on an ISO equivalent. As the ISO value doubles, the camera sensitivity doubles. Noise increases with the sensitivity in digital imaging; the ISO setting of 50 has the least noise and 400 has the most.

Manual ISO indicator

Camera sensitivity and flash range

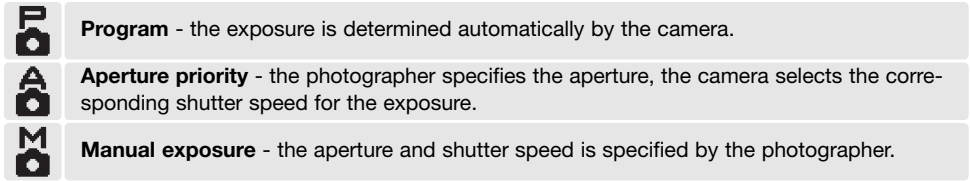
The flash range changes with camera sensitivity. Because of the optical system, the flash range is not the same at the lens' wide-angle position as it is at the telephoto position.

ISO speed	Flash range (wide angle)	Flash range (telephoto)
AUTO	0.5m ~ 3.0m (1.6ft ~ 9.8ft)	0.8m ~ 1.7m (2.6ft ~ 5.6ft)
50	0.5m ~ 1.5m (1.6ft ~ 4.9ft)	0.8m ~ 0.86m (2.6ft ~ 2,8ft)
100	0.5m ~ 2.1m (1.6ft ~ 6.9ft)	0.8m ~ 1.2m (2.6ft ~ 3.9ft)
200	0.5m ~ 3.0m (1.6ft ~ 9.8ft)	0.8m ~ 1.7m (2.6ft ~ 5.6ft)
400	0.5m ~ 4.3m (1.6ft ~ 14,1ft)	0.8m ~ 2.4m (2.6ft ~ 7.9ft)

Exposure modes

The exposure mode can be change in the manual recording mode with the menu. To change recording modes, see page 34.

On the manual recording menu, select the exposure mode. See page 36 for menu operation. An indicator is displayed at the top of the monitor to show the active mode.



Program - the exposure is determined automatically by the camera.

Aperture priority - the photographer specifies the aperture, the camera selects the corresponding shutter speed for the exposure.

Manual exposure - the aperture and shutter speed is specified by the photographer.

The operation of the program exposure mode is the same as described in the basic recording operation section on page 24. However, when the shutter-release button is pressed partway down, the shutter speed and aperture used for the exposure are displayed in the top right corner of the monitor.

Aperture

Aperture priority

When the aperture value in the top right corner of the monitor is gray, the controller can be used to change the flash mode (p. 28), macro mode (p. 30), and white balance (p. 46).

To change the aperture, press the up key of the controller; the aperture value turns white.

Press the down key to select between two apertures; the apertures vary depending on the zoom position.

When the shutter-release button is pressed partway down, the shutter speed used for the exposure is displayed.

To set other functions with the controller, press the up key; the aperture value turns gray.

Manual exposure

When the exposure display in the top right corner of the monitor is gray, the controller can be used to change the flash mode (p. 28), macro mode (p. 30), and white balance (p. 46).

To change the exposure, press the up key of the controller; the exposure display turns white.

Press the down key to select between two apertures; the apertures vary depending on the zoom position. Use the left/right keys of the controller to set the shutter speed.

When the shutter-release button is pressed partway down, the difference between the metered exposure and the set exposure is displayed in Ev (p. 82). When the difference is greater than ±2.0Ev, the display turns red.

To set other functions with the controller, press the up key; the exposure display turns gray.

Focus modes

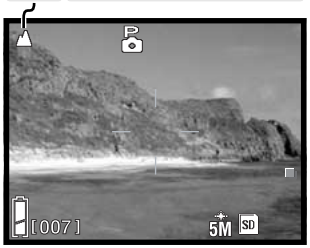
The focus mode can be changed in the manual recording mode with the menu. To change recording modes, see page 34.

On the manual recording menu, select the focus mode. See page 36 for menu operation. An indicator is displayed on the monitor if a manual focus mode is selected.

The fixed focus modes can be used when a special focusing situation is preventing the autofocus system from focusing (p. 26).

AF	Autofocus
MF 0.8	Focus fixed at 0.8m (2.6ft)
MF 1.2	Focus fixed at 1.2m (3.9ft)
MF 2.5	Focus fixed at 2.5m (8.2ft)
▲	Focus fixed at infinity

How much area is in focus before and behind the subject plane depends on the position of the zoom lens and the aperture in use. Depth of field increases as the focal length and aperture decreases. The depth of field is greater at the zooms wide-angle position and when using an aperture with a large value.



Autofocus and autoexposure lock

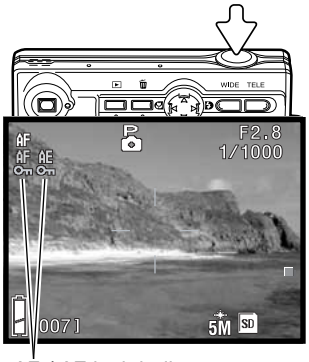
In the manual recording mode, the autofocus (AF) and autoexposure (AE) can be locked individually and used for multiple images.

Press and hold the shutter-release button partway down. The focus signal and shutter speed and aperture display should appear on the monitor.

Press the left controller key to lock the focus; the AF lock indicator appears on the monitor.

Press the up controller key to lock the exposure; the AE lock indicator appears on the monitor.

The shutter button can be released.



AF / AE lock indicators

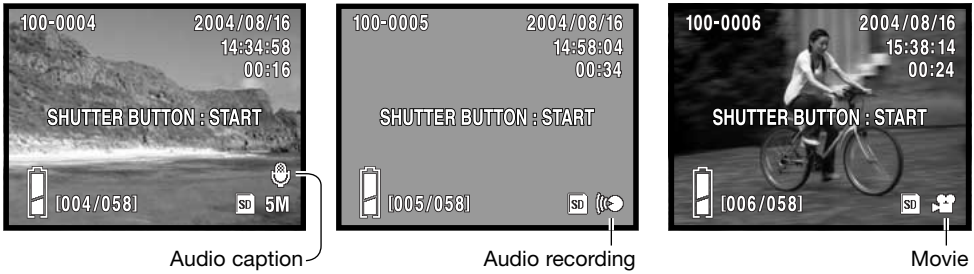
The focus and exposure remains locked even after the the picture is taken. Repeat the procedure to cancel the AF or AE lock. The lock is also canceled when the camera is turned off or the menu or zoom button is pressed.

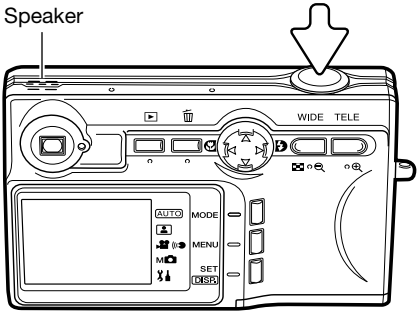
Playback – Advanced operation

The basic functions in this mode are described in the basic playback section on pages 32 through 34. This section covers how to playback movie clips and audio tracks, and delete audio captions as well as the advanced functions on the playback menu.

Playing back movies and audio

Movie clips (p. 35) and audio tracks (p. 44, 45) can be played back in the playback mode. The type of file is specified with an indicator in the bottom right corner of the monitor and the playback time under the date and time of recording.





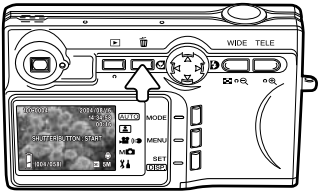
Press the shutter-release button to start the playback of the displayed file.

Playback time is displayed in the top right corner of the image. To cancel the playback, press the shutter-release button.

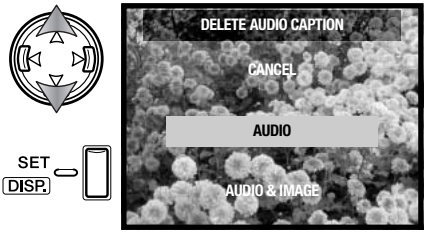
Deleting audio captions

Audio captions (p. 45) can be erased in the playback mode.

Display the file with the audio caption and press the delete button.

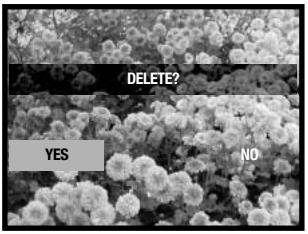


Use the up / down keys of the controller to select the delete option. The audio option erased the audio caption and the audio & image option deletes the image and audio file.

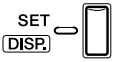


Press the set button to continue.

Use the left/right keys to highlight “YES.” “NO” cancels the delete operation.

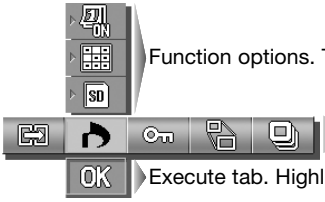


Press the set button to complete the operation.



Navigating the PLAYBACK menu

Navigating the menu is simple. The menu button turns the menu on. The controller moves the cursor and changes settings on the menu. The set button executes menu operations.



Function options. To change the option, highlight it and press the set button.

Playback menu functions

Execute tab. Highlight the tab and press the set button to start the operation.

To activate the menu, press the menu button.

The left/right keys of the controller scrolls through the playback menu functions. The function name is displayed on the monitor.

The up/down keys select function options or the execute tab; the selected setting is shown by a black indicator.

Press the set button to change options or execute the menu function.

Press the menu button or shutter-release button to close the menu.

Refer to the following sections for descriptions of the menu options.

Copy & move, p 56
DPOF, p 58
Protect, p 60
Resize, p 57
Slide show, p 61

Frame-selection screen

When using the select function option, the frame selection screen appears.

The following indicators may be displayed:

- Movie file
- Audio caption
- Audio recording

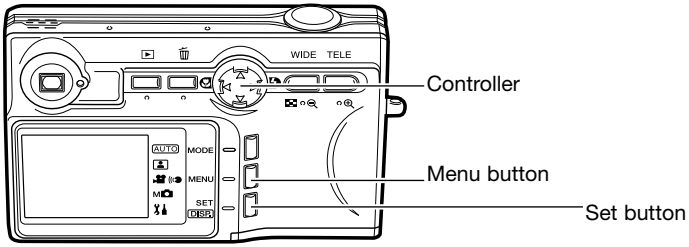
Use the controller to move the red border around the file to be selected.

Press the set button to select the file; a yellow border indicates selected files. If the frame is marked with a yellow border, pressing the set button again clears the border deselecting the image.

Repeat until all required files are selected.

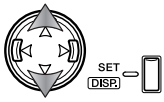
Use the controller to highlight the “OK” frame.

Press the set button to continue or the shutter-release button to cancel the operation.

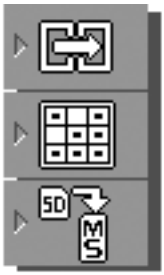


Copy & move

Files can be copied and moved between memory cards. Two memory cards must be in the camera to select this playback menu option. Before copying or moving files, confirm that the destination card has sufficient free memory.



Use the up/down keys to select function options and press the set button to change the option. See navigating the playback menu section on how to use the menu (p. 54).



To copy selected files.

To move selected files.

To copy or move all files on a card.

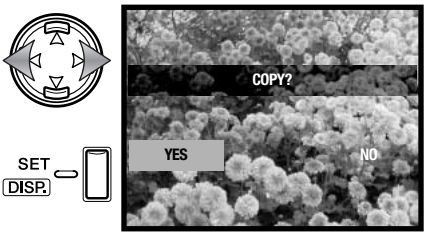
To select the files on a card to be copied or moved.

To specify the source and destination cards between the SD Memory Card/MultiMediaCard and Memory Stick.

Highlight the OK tab. Press the set button to continue the operation specified with the copy and move options.

If the select option was specified, the frame selection screen opens. Select the image(s) to be copied or moved by placing the red frame on the index thumbnail and pressing the set button; a yellow frame indicates selection. Highlight the “OK” frame and press the set button to continue. See page 55 for more on the frame-selection screen.

A confirmation screen opens. Use the left/right keys to highlight “Yes.” “No” cancels the operation.

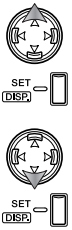


Press the set button to complete the operation.

If the destination card runs out of memory when files are being copied or moved, the memory-full message is displayed. Confirm which files were copied or moved and repeat the operation with a new destination card.

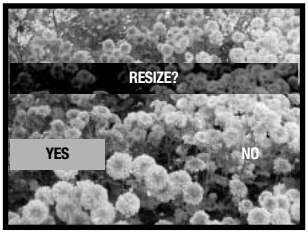
Resize

A still image can be resized to a VGA (640 X 480) or QVGA (320 X 240) JPEG copy so that it may be easily transmitted by e-mail. Display the image to be resized before opening the playback menu. See navigating the playback menu section on how to use the menu (p. 54).



Highlight the resize option with the controller. Press the set button to specify the size of the image between VGA and QVGA.

Highlight the OK tab. Press the set button to continue the operation.

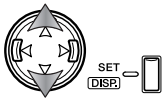


A confirmation screen opens. Use the left/right keys to highlight “Yes.” “No” cancels the operation.

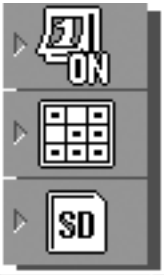
Press the set button to complete the operation.

DPOF

The DPOF (Digital Print Order Format) allows direct printing of still images from digital cameras. After creating the DPOF file, take the memory card to a photofinishing service or insert it into the memory-card slot of a DPOF compatible printer.



Use the up/down keys to select function options and press the set button the change the option. See navigating the playback menu section on how to use the menu (p. 54).



To print the date and time of recording with the images.

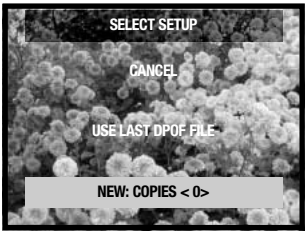
To cancel the date and time print.

All Select Reset

To select all or multiple files to print or cancel the existing DPOF file.

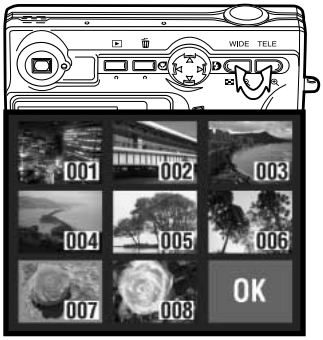
To specify the card containing the images to be printed when both an SD Memory Card/MultiMediaCard and Memory Stick are in the camera.

Highlight the OK tab. Press the set button to continue the operation specified with the DPOF options.



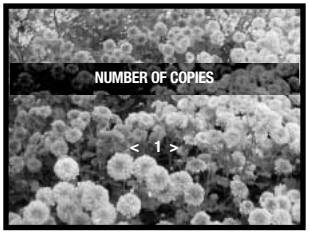
If the select option was specified, the select-setup screen opens. Highlight the new option. The left/right controller keys can be used to specify the number of copies of each image on the card; the images to be printed are edited on the next screen. Press the set button to continue. The use-last-DPOF-file option uses an existing DPOF file.

If the select option was specified, the frame selection screen opens. Select the image(s) to be printed by placing the red frame on the index thumbnail and pressing the set button; a yellow frame indicates selection. Use the zoom buttons to select the numbers of copies; the number of copies is displayed in the top left corner of each index frame. Reduce the number of copies to zero to deselect the image.



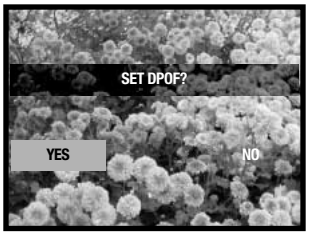
Highlight the “OK” frame and press the set button to continue. See page 55 for more on the frame-selection screen.

If the select all option was specified, the number of copies of each image must be set. Use the left/right keys to change the number of copies.



Press the set button to continue.

A confirmation screen opens. Use the left/right keys to highlight “Yes.” “No” cancels the operation.

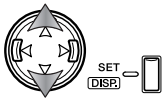


Press the set button to complete the operation.

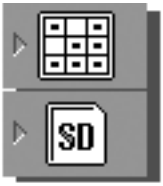
When using the date option, how and where the date is printed varies with the printer. Not all printers can print the date and time. The DPOF file remains on the memory card and can be used again or edited with the use-last-DPOF-file option on the select setup screen. The DPOF file can be deleted from the card by using the reset option on the menu.

Protect

Important files can be protected. A protected file cannot be erased by any of the camera's delete functions. However, the formatting function (p. 64) will erase all files on a memory card whether protected or not.



Use the up/down keys to select function options and press the set button to change the option. See navigating the playback menu section on how to use the menu (p. 54).



All Select Reset

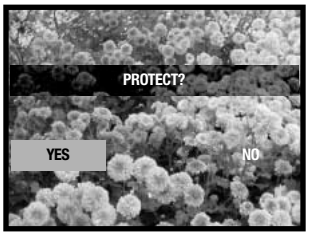
To protect all or multiple files or cancel the protection on existing files.

SD MS To specify the card containing the images to be protected when both an SD Memory Card/MultiMediaCard and Memory Stick are in the camera.

Highlight the OK tab. Press the set button to continue the operation specified with the protect options.

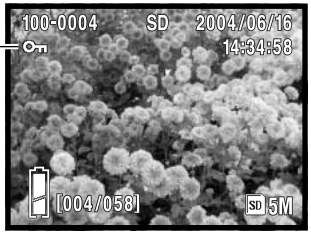
If the select option was specified, the frame selection screen opens. Select the image(s) to be protected by placing the red frame on the index thumbnail and pressing the menu button; a yellow frame indicates selection. The image can be unprotected by repeating the operation to remove the yellow border. Highlight the "OK" frame and press the set button to continue. See page 55 for more on the frame-selection screen.

A confirmation screen opens. Use the left/right keys to highlight “Yes.” “No” cancels the operation.



Press the set button to complete the operation.

Protected files are displayed with the protect indicator.

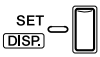


Slide show

Each file on the memory cards are displayed automatically in order for approximately two seconds.

Highlight the OK tab. Press the set button to continue the operation.

During the slide show, pressing the left/right keys of the controller advances or returns to the next or previous image.

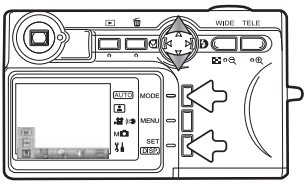


Press the set, menu, or shutter-release button to cancel the slide show. When showing a large number of images, disable the auto-power-off function in the setup menu (p. 76).

Setup menu

Navigating the setup menu

The setup menu can be opened from either the recording menu or playback menu.

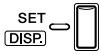


From the recording mode - press the mode button (1). Use the up/down keys of the controller (2) to select the setup mode. Press the set button (3) to open the menu.

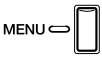
From the playback mode - press the mode button (1) to open the menu.

The left/right keys of the controller scrolls through the playback menu sections. The section name is displayed on the monitor.

The up/down keys select functions; the selected setting is shown by a black indicator and the function name is displayed.

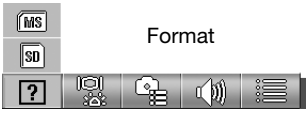


Press the set button to change the function. Setting or confirmations screens may open.



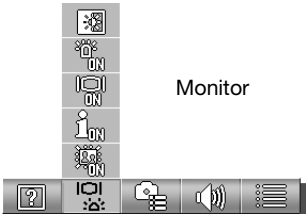
Press the menu button or shutter-release button to close the menu.

Refer to the following sections for descriptions of the menu options.



Format

To format a memory card in the camera (p. 64).

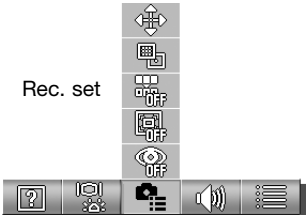


Monitor

To set up camera displays.

Monitor adjustment, 65
Start-up LED, 66
Monitor on/off, 67
Information display, 66
Instant playback, 67

Rec. set



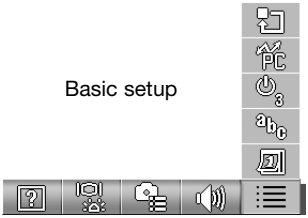
To set up recording mode preferences.

Custom, 68
AE metering mode, 73
File number memory, 74
Digital zoom, 75
Red-eye reduction, 74

Sound

To turn the sounds used in the camera's audio signal on and off (p. 76).

Basic setup



To set up basic camera operations.

Initialize, 78
USB transfer mode, 77
Auto power off, 76
Language, 80
Date and time setup, 81

Format

When a memory card is formatted, all data on the card is erased.

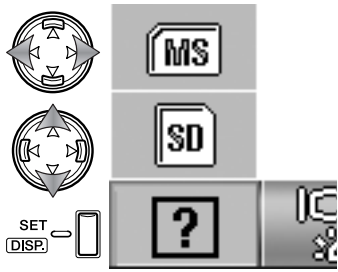
The formatting function is used to erase all data on a memory card. Before formatting a memory card, copy the data to a computer or storage device. Protecting images do not prevent them from being deleted when the card is formatted. Always format the memory card using the camera; never use a computer to format a card.

See navigating the setup menu section on how to open and use the menu (p. 62).

Use the left/right controller keys to select the format option.

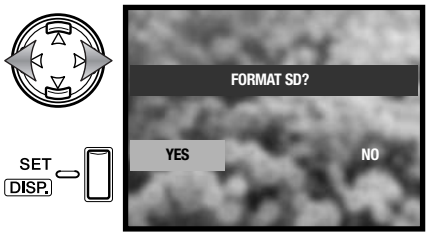
Use the up/down keys to select the card to be formatted. Select the SD option to format a MultiMediaCard.

Press the set button to continue.



A confirmation screen opens. Use the left/right keys to highlight “Yes.” “No” cancels the operation.

Press the set button to complete the operation.



A status bar is displayed and the viewfinder lamp glows while the card is being formatted. Never remove the card or battery during this period.

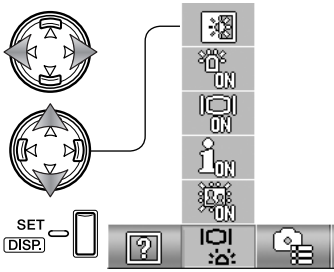
Adjusting the monitor

The monitor brightness and color can be adjusted with the setup menu. See navigating the setup menu section on how to open and use the menu (p. 62).

Use the left/right controller keys to select the monitor menu section.

Use the up/down keys to select the monitor adjustment option.

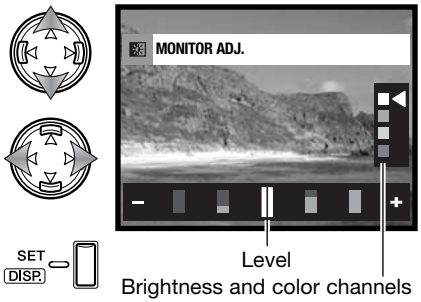
Press the set button to continue.



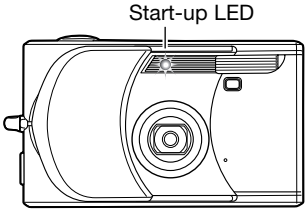
Use the up/down keys of the controller to select the brightness (white box), red, green, or blue channel. For more on color, see page 72.

Use the left/right controller keys to adjust the selected channel. The change is visible in the monitor image.

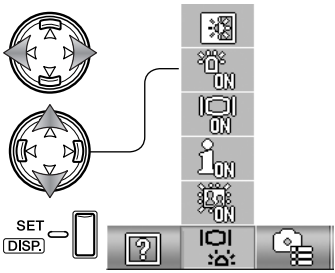
Press the set button to complete the operation.



Start-up LED



The start-up LED glows when the camera is turned on. The LED can be turned on and off with the setup menu. See navigating the setup menu section on how to open and use the menu (p. 62).



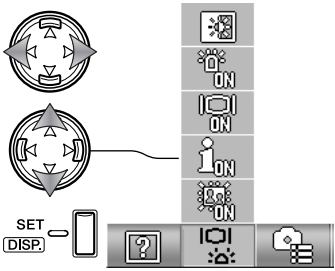
Use the left/right controller keys to select the monitor menu section.

Use the up/down keys to select the start-up LED option.

Press the set button to turn the LED on or off; the menu indicator changes.

Information display setup

The information displayed on the live image in the recording mode and on the recorded image in the playback mode can be turned off and on. See navigating the setup menu section on how to open and use the menu (p. 62).



Use the left/right controller keys to select the monitor menu section.

Use the up/down keys to select the information on/off option.

Press the set button to turn the information display on or off; the menu indicator changes.

Monitor on/off

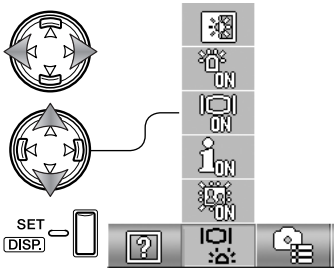
In the recording mode,if the monitor display setting is off; the monitor will briefly turn on when the camera is turned on. The monitor activates during playback and when using menus. The monitor can be turned on and off with the set/display button (p. 27).

See navigating the setup menu section on how to open and use the menu (p. 62).

Use the left/right controller keys to select the monitor menu section.

Use the up/down keys to select the monitor off/on option.

Press the set button to set the initial monitor display on or off; the menu indicator changes.



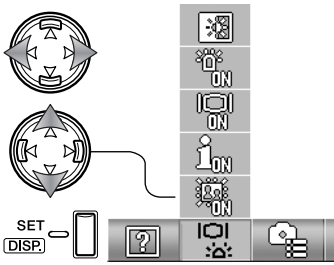
Instant playback

Instant playback displays a still image for approximately three seconds after it has been recorded. Instant playback can be canceled before the end of the playback period by pressing the shutter-release button partway down. When using the continuous-shutter drive mode (p. 40), instant playback activates after each frame. If the monitor is off, it activates for the instant playback period. See navigating the setup menu section on how to open and use the menu (p. 62).

Use the left/right controller keys to select the monitor menu section.

Use the up/down keys to select the instant playback option.

Press the set button to turn instant playback on or off; the menu indicator changes.



Custom

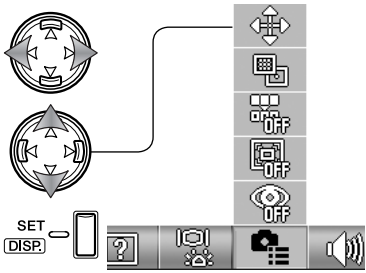
The custom option allows the functions on the manual recording menu to be edited. Camera operation can be customized to control image quality, refer to the next section.

See navigating the setup menu section on how to open and use the menu (p. 62).

Use the left/right controller keys to select the rec. set menu section.

Use the up/down keys to select the custom option.

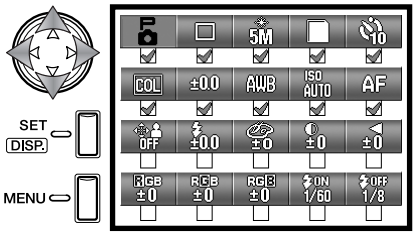
Press the set button to continue.



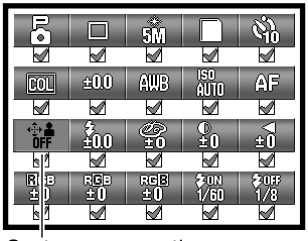
Use the controller to select the option to be added or removed from the manual recording menu.

Press the set button to add or remove the check; checked options are displayed on the menu.

Press the menu or shutter-release button to complete the operation.



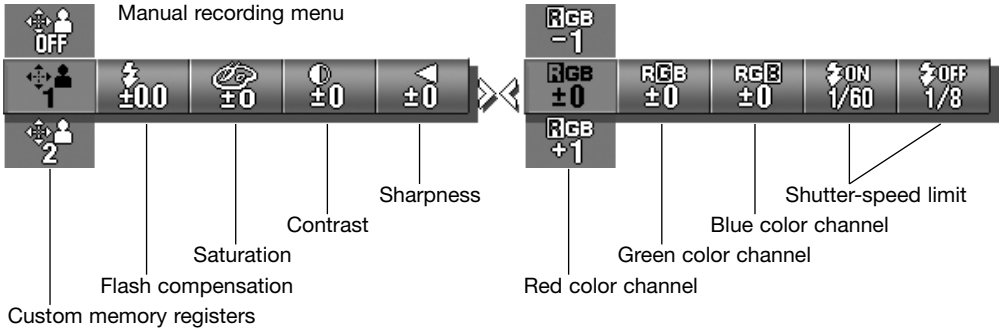
When the custom menu option is selected, the custom function are also selected. Follow the procedure above to edit the available functions. Refer to the next section for information on the functions.



Custom menu option

Custom setup

On the manual recording menu, adjustments to flash exposure, saturation, contrast, sharpness, and color can be saved to two memory registers when activated with the setup menu (p. 68). The shutter speed limit can also be specified. See navigating the recording menu section on how to open and use the menu (p. 36).



Use the left/right keys of the controller to select the custom option.

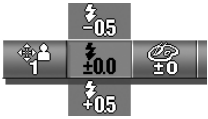
Use the up/down keys to select the memory register; off disables the custom settings and prevents changes to the options.

Use the controller to change the custom settings.

Press the menu button, set button, or the shutter-release button to close the menu and apply the changes. The active memory register is displayed at the bottom of the monitor.

Flash compensation

Flash compensation increases or decreases the flash exposure of the flash in reference to the ambient exposure by as much as ±1 Ev. See page 82 for more on Ev. See pages 68 and 69 for more on custom functions. Flash compensation is set on the manual recording menu.



Positive compensation No compensation Negative compensation No flash

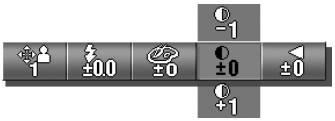
When using fill-flash to reduce harsh shadows caused by direct sunlight, flash compensation changes the ratio between the highlights and shadows. By decreasing the flash output with a negative Ev setting, the shadows receive less light and are deeper. Using a positive Ev setting softens or eliminates shadows.

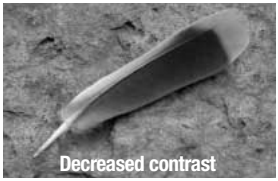
Saturation

Saturation controls how vivid the colors of an image are. Saturation can be set in five levels. See pages 68 and 69 for more on custom functions. Saturation is set on the manual recording menu.

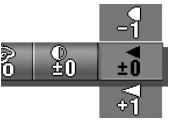
Contrast

Contrast controls the tonal ratio of an image. Contrast can be set in five levels. See pages 68 and 69 for more on custom functions. Contrast is set on the manual recording menu.

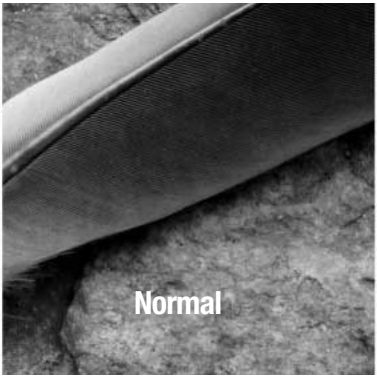




Sharpness

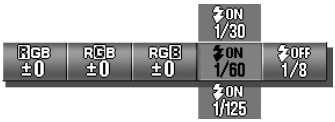


Sharpness accents or softens details in an image in five levels. Any changes made are applied to the live image, but may be difficult to see. However, when viewed with a computer, the changes are evident. See pages 68 and 69 for more on custom functions. Sharpness is set on the manual recording menu.



Shutter-speed limit

The minimum shutter speed used for automatic exposures can be specified. See pages 68 and 69 for more on custom functions. The shutter-speed limit is set on the manual recording menu. When the custom settings are off, the minimum shutter speed is 1/60 second with flash and 1/8 second without.



To specify the shutter-speed limit when the flash is set to autoflash or fill flash. The camera sets the shutter speed equal to or faster than the limit.

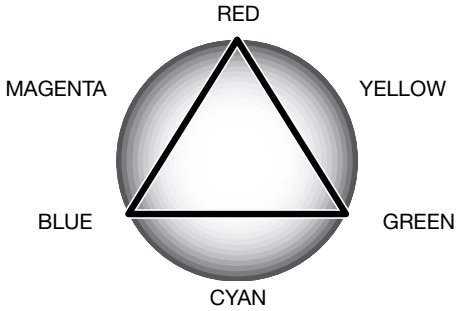
To specify the shutter-speed limit when the flash is set to flash cancel. See page 28 for more on flash modes.

RGB color channels

The red, green, and blue color channels can be adjusted in five levels. Any changes made are applied to the live image. See pages 68 and 69 for more on custom functions. Color is adjusted on the manual recording menu.

An introduction to color

In photography, red, green, and blue are the primary colors. The secondary colors, cyan, magenta, and yellow, are made from combining the primary colors: cyan = blue + green, magenta = blue + red, and yellow = red + green. The primary and secondary colors are grouped in complementary pairs: red and cyan, green and magenta, and blue and yellow.



Knowing the complementary colors is very important in color balancing. If the image has a specific color cast, either subtracting the color or adding its complementary color will create a natural looking image.

Increase	Image is too:	Decrease
Blue + Green	Red	Red
Blue + Red	Green	Green
Red + Green	Blue	Blue
Red	Cyan	Blue + Green
Green	Magenta	Blue + Red
Blue	Yellow	Red + Green

Adding or subtracting equal parts of red, green, and blue have no affect on the color balance. However, changing two colors equally has the same affect as the opposite change with one color; +2 green and +2 red is the same as -2 blue. The greatest change in a specific color comes by setting the color channels to their opposite extremes. To make an image as blue as possible, set the color channels to +2 blue, -2 red, and -2 green.

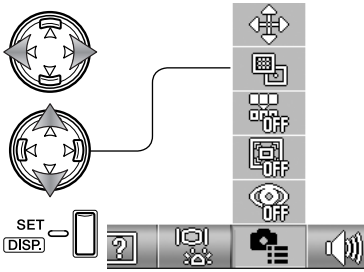
AE metering modes

The AE metering mode controls how light is measured. See navigating the setup menu section on how to open and use the menu (p. 62).

Use the left/right controller keys to select the rec. set menu section.

Use the up/down keys to select the AE option.

Press the set button to switch between center-weighted and spot metering.



Center-weighted metering: measures luminance over the entire image area with emphasis to the central region. This metering mode give accurate exposures in almost all situations.

Spot metering: uses the AF area to calculate the exposure. Spot metering allows precise exposure measurements of a particular object without being influenced by extremely bright or dark areas within the scene.

File-number memory

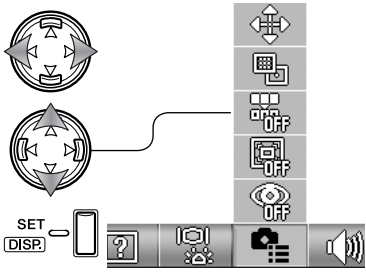
If file number memory is on, the first image saved has a number one greater than the last file saved regardless of the number of files on the card. If a new card contains an image with a greater file number, the file number of the saved image is one greater than the greatest on the card. If file-number memory is off and the memory card is changed or all files are deleted, the first file saved is assigned a 0001 file number.

See navigating the setup menu section on how to open and use the menu (p. 62).

Use the left/right controller keys to select the rec. set menu section.

Use the up/down keys to select the file number memory option.

Press the set button to turn file number memory on and off.



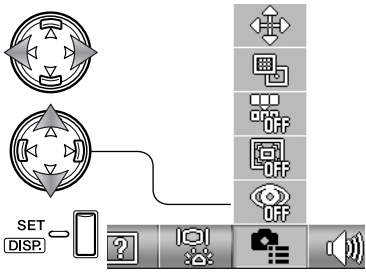
Red-eye reduction

Red-eye reduction uses a pre-flash to minimize red eye by contracting the pupils of the subject's eyes. Use this in low light conditions when taking pictures of people or animals. See navigating the setup menu section on how to open and use the menu (p. 62).

Use the left/right controller keys to select the rec. set menu section.

Use the up/down keys to select the red-eye reduction option.

Press the set button to turn red-eye reduction on and off.



The flash indicator shows the use of red-eye reduction. For more on flash modes, see page 28.

	Autoflash with red-eye reduction
	Fill flash with red-eye reduction

Digital zoom

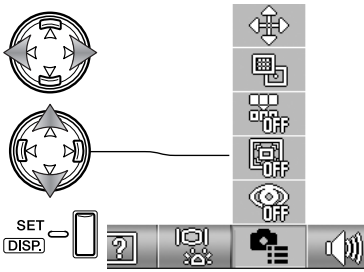
The digital zoom increases the magnification of the greatest telephoto setting of the optical zoom by 2X and 3X. Although the images recorded with the digital zoom are interpolated to the set image size, the quality of the images may not be equal to images taken without the digital zoom; the greater the power of the digital zoom the lower the image quality. The effect of the digital zoom is visible on the LCD monitor only. The digital-zoom function is canceled if the LCD monitor is turned off (p. 27).

See navigating the setup menu section on how to open and use the menu (p. 62).

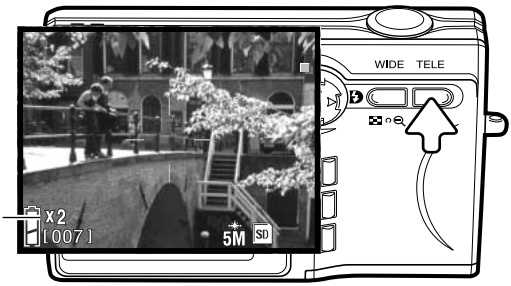
Use the left/right controller keys to select the rec. set menu section.

Use the up/down keys to select the digital zoom option.

Press the set button to turn digital zoom on and off.



At the maximum telephoto position, press the telephoto zoom button to engage the 2X and 3X digital zoom. The zoom magnification is displayed above the frame counter. To zoom out, press the wide-angle zoom button.



Magnification

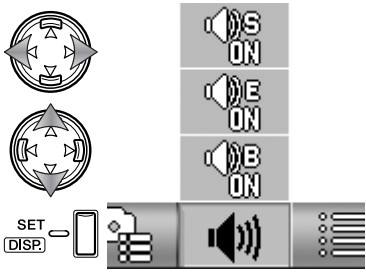
Sound

The sounds used in camera operation can be turned on and off. See navigating the setup menu section on how to open and use the menu (p. 62).

Use the left/right controller keys to select the sound menu section.

Use the up/down keys to select the sound option.

Press the set button to turn the option on and off.



The beep is for the self-timer countdown and warnings. The sound effect is for the focus signal and when the camera is turned on. The shutter sound is used when a picture is taken.

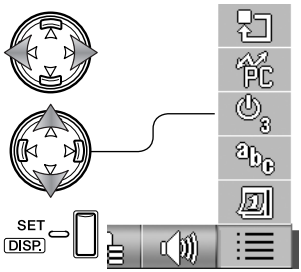
Auto power off

The length of the auto-power-off period can be changed between 3 and 10 minutes or the function can be disabled. Auto power off is disabled when the camera is connected to a computer or printer. For more on auto power off, see page 16. See navigating the setup menu section on how to open and use the menu (p. 62).

Use the left/right controller keys to select the rec. set menu section.

Use the up/down keys to select the auto-power-off option.

Press the set button to change the auto-power-off setting.



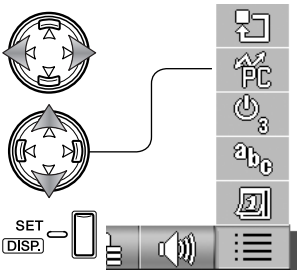
USB transfer mode

The USB transfer mode must be specified depending on whether images are transferred to a computer or printed directly. The data-storage option must be selected to transfer data from the camera to a computer or when using the DiMAGE Viewer software. The PictBridge option allows images to be printed directly from the camera with a PictBridge compatible printer (p. 92). See navigating the setup menu section on how to open and use the menu (p. 62).

Use the left/right controller keys to select the basic-setup menu section.

Use the up/down keys to select the USB transfer mode option.

Press the set button to change the USB transfer mode between data storage and PictBridge.



Data storage

PictBridge

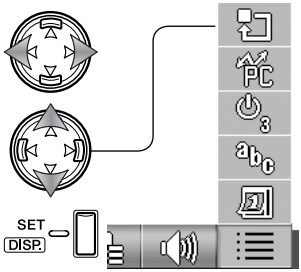
Initialize

This function resets the camera to its default settings. See navigating the setup menu section on how to open and use the menu (p. 62).

Use the left/right controller keys to select the basic-setup menu section.

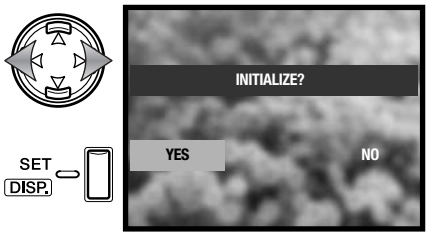
Use the up/down keys to select the initialize option.

Press the set button to continue.



A confirmation screen opens. Use the left/right keys to highlight “Yes.” “No” cancels the operation.

Press the set button to complete the operation.
The following are reset:



Recording mode		
Recording mode	Auto recording	p. 34
Flash mode	Autoflash	p. 28
Macro mode	Canceled	p. 30
Display mode	Standard display	p. 27
Image size and quality	5M normal	p. 41
Color mode	Standard color	p. 39
Drive mode	Single shutter	p. 40
Memory priority	SD Memory Card	p. 39
Self timer	Canceled	p. 42
Scene selection	Portrait	p. 38

Exposure mode	Program	p. 48
Exposure compensation	0.0	p. 43
White balance	Auto	p. 46
Camera sensitivity (ISO)	Auto	p. 47
Focus mode	Autofocus	p. 50
Movie/audio recording mode	Movie recording	p. 44
Custom	Off	p. 68
Flash compensation	0.0	p. 70
Saturation	0	p. 70
Contrast	0	p. 70
Sharpness	0	p. 71
RGB color channels	Red, green, and blue channels reset to 0.	p. 72
Shutter-speed limit	Autoflash / Fill flash: 1/60. Flash cancel: 1/8	p. 71

Setup menu		
Monitor adjustment	Brightness and color reset	p. 65
Start-up LED	On	p. 66
Monitor on/off	On	p. 67
Information display	On	p. 66
Instant playback	Off	p. 67
Custom	Custom and custom functions canceled	p. 68
AE metering mode	Center-weighted metering	p. 73
File-number memory	On	p. 74
Digital zoom	Off	p. 75
Red-eye reduction	Off	p. 74
Beep	On	p. 76
Sound effect	On	p. 76
Shutter sound	On	p. 76
Auto power off	3 minutes	p. 76
USB transfer mode	Data storage	p. 77

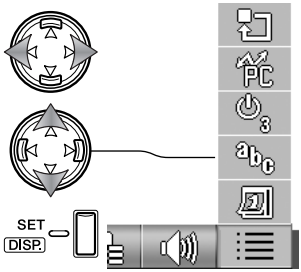
Language

The language used in the menus can be changed. See navigating the setup menu section on how to open and use the menu (p. 62).

Use the left/right controller keys to select the basic-setup menu section.

Use the up/down keys to select the language option.

Press the set button to continue.



Use the up/down keys to select the language.

Press the set button to continue. A confirmation screen will open.

A confirmation screen opens. Use the left/right keys to highlight “Yes.” “No” cancels the operation.

Press the set button to complete the operation.

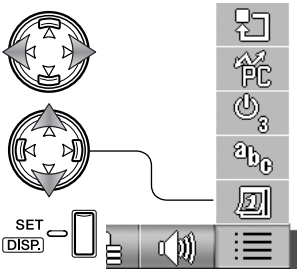
Date setup

The camera's clock and calendar can be set. See navigating the setup menu section on how to open and use the menu (p. 62).

Use the left/right controller keys to select the basic-setup menu section.

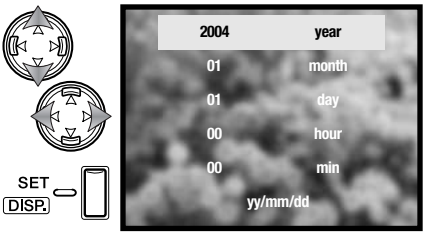
Use the up/down keys to select the date setup option.

Press the set button to continue.



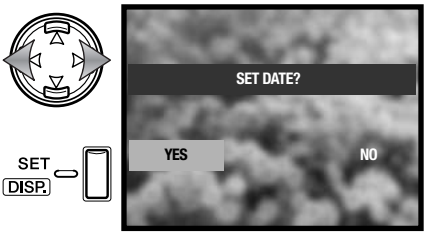
Use the up/down keys to select the option to be changed. Use the left/right keys to change the option. The last option sets the date format among year/month/day, day/month/year, and month/day/year.

Press the set button to continue.



A confirmation screen opens. Use the left/right keys to highlight "Yes." "No" cancels the operation.

Press the set button to complete the operation.



A short guide to photography

The lens aperture controls not only exposure, but also depth of field; the area between the closest object in focus and the furthest object in focus. The larger the aperture value, the greater the depth of field and the longer the shutter speed needed to make the exposure. The smaller the aperture value, the shallower the depth of field and the faster the shutter speed needed to make the exposure. Usually landscape photographs use a large depth of field (large aperture value) to keep the foreground and background in focus, and portraits use a shallow depth of field (small aperture value) to separate the subject from the background.

Depth of field also changes with focal length. The shorter the focal length, the greater the depth of field; the longer the focal length, the shallower the depth of field. Wide-angle lenses also create a strong perspective which gives a sense of depth in the image. Telephoto lenses compress the space between the subject and background and create a weak perspective.

The shutter controls not only exposure, but also the ability to stop motion. Fast shutter speeds are used in sport photography to stop action. Slow shutter speeds can be used to show the flow of motion such as water cascading over a waterfall. The use of a tripod is recommended with slow shutter speeds.

What is an EV?

Ev stands for exposure value. A change of one Ev adjusts the exposure by a factor of two.

+2.0 EV	4X as much light
+1.0 EV	2X as much light
Calculated exposure	
–1.0 EV	1/2 as much light
–2.0 EV	1/4 as much light

USB transfer mode

Read this section carefully before connecting the camera to a computer. Details on using and installing the DiMAGE Viewer software are found in the supplied software manual. The DiMAGE manuals do not cover the basic operation of computers or their operating systems; please refer to the manual supplied with your computer.

System requirements

For the camera to be connected directly to the computer and used as a mass-storage device, the computer must be equipped with a USB port as a standard interface. The computer and the operating system must be guaranteed by their manufacturers to support USB interface. The following operating systems are compatible with the camera:

Windows 98, 98SE, Me, 2000 Professional, and XP home and professional editions.
Mac OS 9.0 ~ 9.2.2 and Mac OS X 10.1.3 - 10.1.5, 10.2.1 ~ 10.2.8, 10.3 ~10.3.3.

Check the Konica Minolta web site for the latest compatibility information:

North America:	http://www.konicaminolta.us/
Europe:	http://www.konicaminoltasupport.com

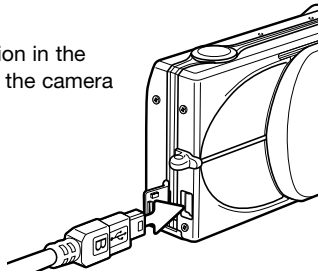
Users with Windows 98 or 98 second edition will need to install the driver software on the included DiMAGE Viewer CD-ROM (p. 85). No special driver software is required for other Windows or Macintosh operating systems.

Customers who have bought a previous DiMAGE digital camera and have installed the Windows 98 driver software must repeat the installation procedure. The updated version of the driver software included on the supplied DiMAGE Viewer CD-ROM is required for the operation of this camera with a computer. The new software will have no affect on the performance of older DiMAGE cameras.

A remote camera driver is supplied with the Windows edition of the DiMAGE Viewer. The driver is not compatible with this camera.

Connecting the camera to a computer

A fully charged battery should be used when the camera is connected to a computer. The use of the AC adapter (sold separately) is recommended over the use of the battery. For users with Windows 98 or 98SE, read the section on page 85 on how to install the necessary USB driver before connecting the camera to a computer.



1. Insert the memory card into the camera. Confirm the memory-priority option in the recording menu is set to the card type. To change the memory card while the camera is connected to a computer, see page 95.

2. Turn off the camera.

3. Insert the small plug of the USB cable into the camera. Make sure the plug is firmly attached.

4. Attach the other end of the USB cable to the computer's USB port. Make sure the plug is firmly attached. The camera should be connected directly to the computer's USB port. Attaching the camera to a USB hub may prevent the camera from operating properly.

The camera turns on automatically when it is connected to a computer; the viewfinder lamp lights to indicate the connection. When using two cards in the camera, if the card to be accessed is full, the camera may automatically switch the memory priority to the empty card. Remove the empty card and confirm memory priority before connecting the camera to a computer.

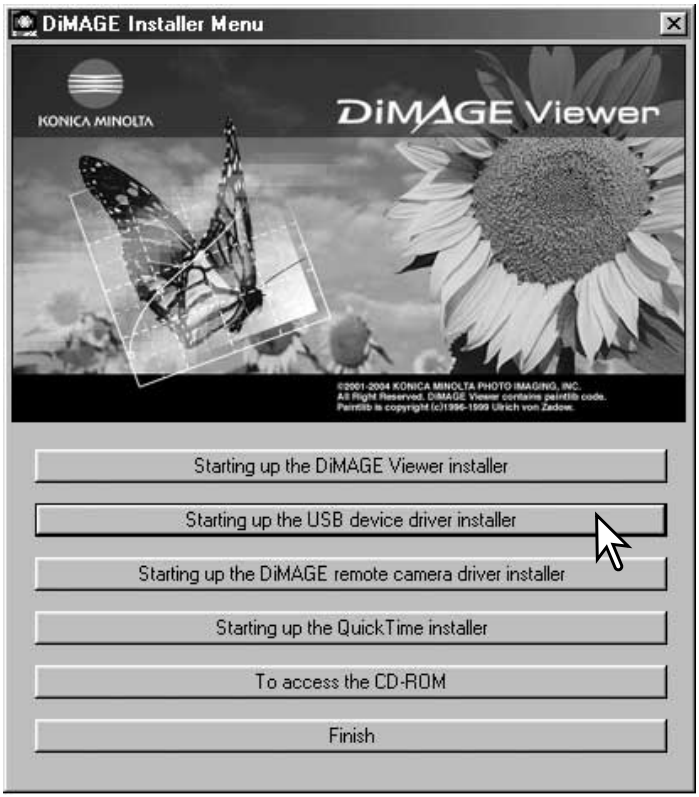
When the camera is properly connected to the computer, a drive icon, or volume, appears in My Computer or on the desktop. The drive icon can be identified by the camera name and memory card or as a removable disk. When using Windows XP or Mac OS X, a window opens requesting instructions on what to do with the image data; follow the directions in the window. If the computer does not recognize the camera, disconnect the camera and restart the computer. Repeat the connection procedure above.

Connecting to Windows 98 and 98 SE

The driver needs only to be installed once. If the driver cannot be installed automatically, it can be installed manually with the operating system's add-new-hardware wizard; see the instructions on the following page. During installation, if the operating system requests the Windows 98 CD-ROM, insert it into the CD-ROM drive and follow the accompanying instructions on the screen. No special driver software is required for other Windows or Macintosh operating systems.

Automatic Installation

Before connecting the camera to the computer, place the DiMAGE Viewer CD-ROM in the CD-ROM drive. The DiMAGE installer menu should automatically activate. To automatically install the Windows 98 USB driver, click on the starting-up-the-USB-device-driver-installer button. A window appears to confirm that the driver should be installed; click "Yes" to continue.



When the driver has been successfully installed, a window appears. Click "OK." Restart the computer and connect the camera (p. 84) to complete the operation.

Manual Installation

To install the Windows 98 driver manually, follow the instructions in the connecting-the-camera-to-a-computer section on page 84.

When the camera is plugged into the computer, the operating system will detect the new device and the add-new-hardware-wizard window opens. Place the DiMAGE Viewer CD-ROM in the CD-ROM drive. Click “Next.”

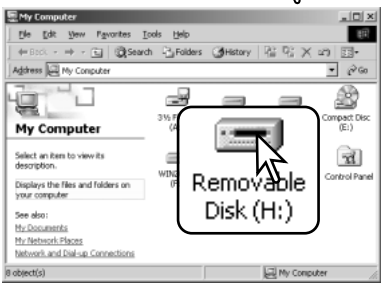
Choose the recommended search for a suitable driver. Click “Next.”

Choose to specify the location of the driver. The browse window can be used to indicate the driver location. The driver should be located in the CD-ROM drive at :\Win98\USB. When the location is shown in the window, click “Next.”

The add new hardware wizard will confirm the location of the driver. The letter designating the CD-ROM drive varies between computers. Click “Next” to install the driver in the system.

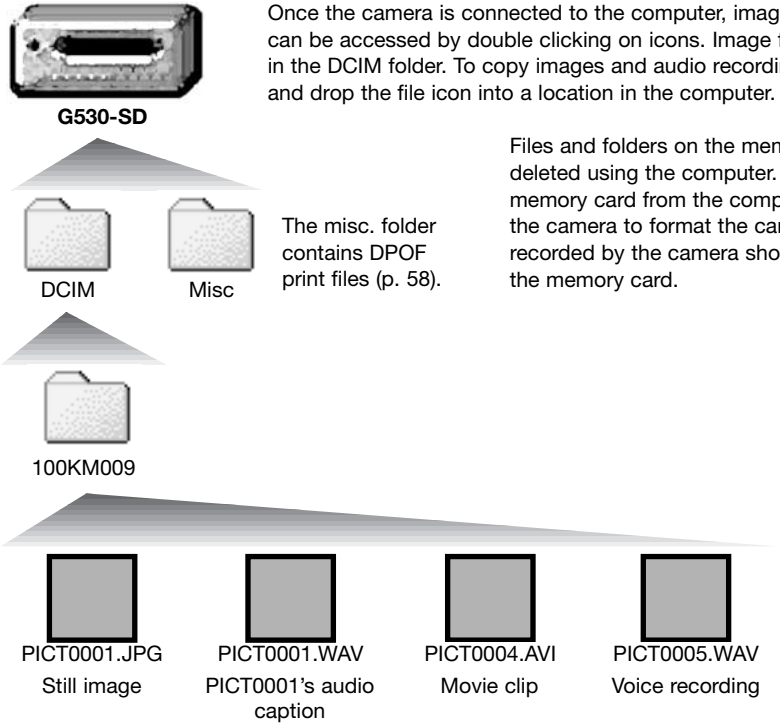
One of three drivers may be located: MNLVENUM.inf, USBPDR.inf, or USBSTRG.inf.

The last window confirms the driver has been installed. Click “Finish” to close the add new hardware wizard. Restart the computer.



When the my-computer window is opened, a new removable-disk or G530 drive icon is displayed. Double click on the icon to access the camera’s memory card; see page 88.

Memory card folder organization



Once the camera is connected to the computer, image and audio files can be accessed by double clicking on icons. Image folders are located in the DCIM folder. To copy images and audio recordings, simply drag and drop the file icon into a location in the computer.

The misc. folder contains DPOF print files (p. 58).

Files and folders on the memory card can be deleted using the computer. Never format the memory card from the computer; always use the camera to format the card. Only files recorded by the camera should be stored on the memory card.

DiMAGE Viewer Notes

Images and the attached audio file should be stored together in the same folder. This allows the DiMAGE Viewer to playback the audio recording with the matching image file. Image and audio files can be download automatically into separate folders with Mac OS X.

Image and audio file names begin with “PICT” followed by a four-digit file number and a jpg, avi, or wav extension. Audio files attached to still images have a wav extension and the file number corresponds to their image file. Audio recordings also use the wav extension.

When the file number exceeds 9,999, a new folder is created. The first three digits of the folder name increase by one: e.g. from 100KM009 to 101KM009. “KM” stands for Konica Minolta, and 009 indicates a DiMAGE G530 camera.

The file number may not correspond to the frame number of the image played back in the camera. As images are deleted in the camera, the frame counter adjusts itself to show the number of images on the card and reassigns the frame numbers accordingly. The serial numbers used with image files do not change when an image is deleted.

Camera Notes

Image files contain exif tag data. This data includes the time and date the image was recorded as well as the camera settings used. This data can be viewed with the camera or the DiMAGE Viewer software. If a camera image is opened in a photo-retouching application like Adobe Photoshop, and then the image is saved overwriting the original data, the exif tag information is erased. When using software other than the DiMAGE Viewer, always make a backup copy of the image files to protect the exif tag data.

To view images correctly on your computer, the monitor’s color space may need to be adjusted. Refer to your computer manual on how to calibrate the display to the following requirements: sRGB, with a color temperature of 6500K, and a gamma of 2.2. Changes made to the captured image with the camera’s contrast and color-saturation controls will affect any color-matching software in use.

Disconnecting the camera from a computer

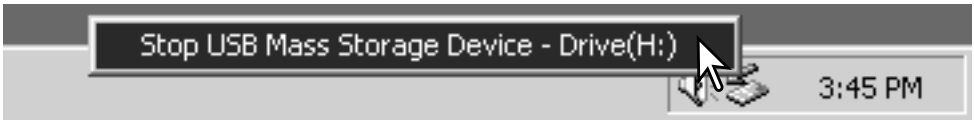
Never disconnect the camera when data is being transferred between the camera and computer,

Windows 98 / 98 Second Edition

Confirm no files are being copied between the camera and computer. Disconnect the USB cable.

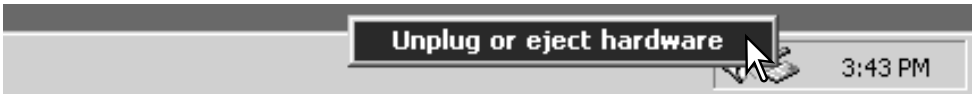
Windows Me, 2000 Professional, and XP

To disconnect the camera, click once on the unplug-or-eject-hardware icon located on the task bar. A small window opens indicating the device to be stopped.

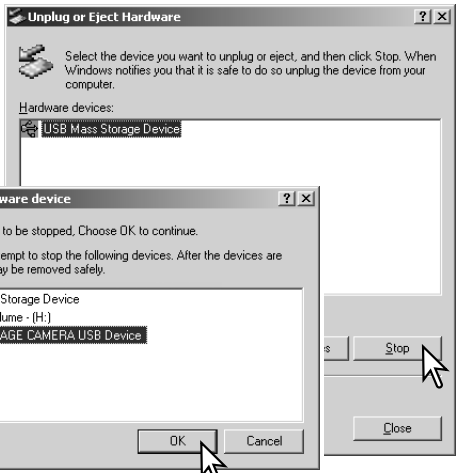


Click on the small window to stop the device. The safe-to-remove-hardware window opens. Close the window and then disconnect the USB cable.

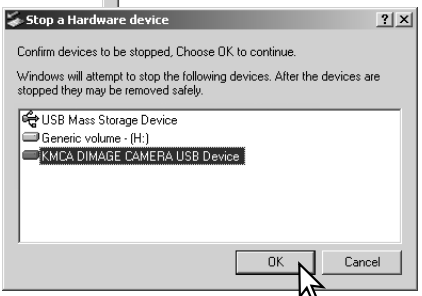
When more than one external device are connected to the computer, repeat the procedure above except right click on the unplug-or-eject-hardware icon. This opens the unplug-or-eject-hardware window after clicking on the small window indicating the unplug-or-eject-hardware routine.



The hardware devices to be stopped is displayed. Highlight the device by clicking on it then click “Stop.”



A confirmation screen appears to indicate the devices to be stopped. Clicking “OK” will stop the device.

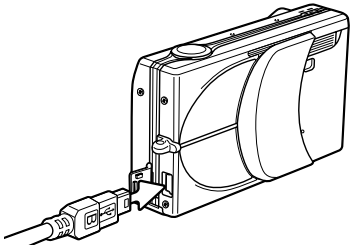


A third and final screen appears to indicate the camera can be safely disconnected from the computer. Close the window and then disconnect the USB cable.

Macintosh

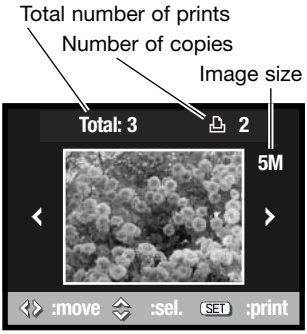
Confirm that no data is being transferred between the camera and computer and then drag the mass-storage device icon and drop it into the trash. Disconnect the USB cable.

PictBridge



Confirm the USB-transfer mode option in the setup menu is set to PictBridge. Connect the camera to a PictBridge compatible printer using the camera's USB cable. The larger plug of the cable is connected to the printer. Insert the smaller plug of the cable into the camera; the camera turns on automatically and starts the PictBridge connection.

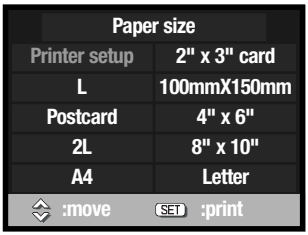
Individual still images can be selected for printing on the PictBridge screen. When two memory cards are in the camera, only the images on the card specified with the memory priority option on the recording menu (p. 39) can be viewed.



Use the left/right keys of the controller to display the image to be printed.

Press the up key to select the number of copies to be printed. No more than 50 images can be selected. To deselect an image for printing, press the down key until the number of copies reaches zero.

Repeat the previous steps until all the images to be printed are selected. Press the menu button to continue.



Use the up/down keys of the controller to select the paper size. The options available depend on the printer. The printer-setup option uses the size set with the printer.

Press the set button to begin printing.

To cancel the print run once it begins, press the set button.

The printing-finished message indicates the end of the print run. Press the set button to complete the operation. Unplug the camera from the printer.

Printing Notes

The following are the dimensions for postcard, L, and 2L paper sizes in both millimeters and inches for your reference:

Postcard	100 X 148mm	3.9 X 5.9 in.
L	89 X 127mm	3.5 X 5.0 in.
2L	127 X 178mm	5.0 X 7.0 in.

Notes on printing errors

If a minor problem occurs during printing, such as the paper runs out, follow the procedure recommended for the printer; no action is required for the camera. If a major printer error occurs, press the menu button to end the routine. Refer to the printer manual for the correct procedure for the printer problem. Check the printer settings before starting again and use the PictBridge screen to deselect the images that were printed.

QuickTime system requirements

IBM PC / AT Compatible
Pentium processor-based PC or compatible computer
Windows 98, Me, 2000, or XP.
128MB or more of RAM

To install QuickTime, follow the instructions in the installer. Macintosh users can download the latest version of QuickTime free of charge from the Apple Computer web site: http://www.apple.com.

Changing the memory card – Data-transfer mode

Never remove the card when data is being transferred between the camera and computer - the data or memory card may permanently be damaged.

Windows 98 and 98 Second Edition

1. Disconnect the USB cable.
2. Change the memory card.
3. Reconnect the USB cable to remake the USB connection.

Windows ME, 2000 Professional, and XP

1. Stop the USB connection using the unplug-or-eject-hardware routine (p. 90).
2. Disconnect the USB cable.
3. Change the memory card.
4. Reconnect the USB cable to remake the USB connection.

Macintosh

1. Stop the USB connection by dragging the drive icon into the trash (p. 91).
2. Disconnect the USB cable.
3. Change the memory card.
4. Reconnect the USB cable to remake the USB connection.

Appendix

Troubleshooting

The section covers minor problems with basic camera operation. For major problems or damage, or if a problem continues to reoccur frequently, contact a Konica Minolta service facility.

Problem	Symptom	Cause	Solution
The camera will not work.	Nothing displayed on the monitor.	The battery is dead.	Recharge battery (p. 14).
		The AC adapter is not connected properly.	Check that the adapter is connected to the camera and a live electrical outlet (p. 17).
Shutter will not release.	Memory-full warning appears on the monitor.	Memory card is full and unable to store an image at the image-size and quality setting on the camera.	Insert a new memory card (p. 18), delete some images (p. 31), or change the image size and quality setting (p. 41).
	No-card warning appears on the monitor.	No memory card in the camera.	Insert a memory card (p. 18).
While using flash, the pictures are too dark.	The subject is beyond the flash range (p. 47).		Move closer to the subject or change the camera sensitivity to a higher setting (p. 47).

Pictures are not sharp.	Green viewfinder indicator lamp blinks.	Subject is too close.	Make sure the subject is within the autofocus range (p. 25) or use the macro focus mode (p. 30).
		A special situation is preventing the autofocus system from focusing (p. 26).	Use the focus-lock function to focus on an object at the same distance as the subject (p. 25).
	Pictures are taken indoors or in low-light situations without flash.	Slow shutter speeds result in blurred images when the camera is handheld.	Use a tripod, change the camera sensitivity to a higher setting (p. 47), or use the flash (p. 28).

If the camera does not function normally, turn it off, remove and reinsert the battery, or unplug and reconnect the AC adapter. Always turn the camera off otherwise the memory card may be damaged and camera settings reset.

About the lithium-ion battery charger cord

The included AC cord is designed for the current of the sales region. Only use the cord in the region it was purchased.

Region	Product code
Continental Europe, Singapore, Korea (220V-240V)	APC-150
China (220V-240V)	APC-151
Great Britain, Hong Kong (220V-240V)	APC-160
United States, Canada, Taiwan, Japan (100V-120V)	APC-170

Removing the driver software - Windows

1. Insert a memory card in the camera and connect it to the computer with the USB cable. Other devices must not be connected to the computer during this procedure.

2. Right click on the My-computer icon. Select “properties” from the drop-down menu.

   Windows XP: from the start menu go to the control panel. Click on the performance and maintenance category. Click “System” to open the system properties window.

3. Windows 2000 and XP: select the hardware tab in the properties window and click the device-manager button.

   Windows 98 and Me: click the device-manager tab in the properties window.

4. The driver file will be located in the universal-serial-bus-controller or other-devices location of the device manager. Click on the locations to display the files. The driver should be indicated with the camera name. Under certain conditions, the driver name may not contain the camera name. However, the driver will be indicated by either a question mark or exclamation point.

5. Click on the driver to select it.

6. Windows 2000 and XP: click on the action button to display the drop-down menu. Select “uninstall.” A confirmation screen will appear. Clicking “Yes” will remove the driver from the system.

   Windows 98 and Me: click the remove button. A confirmation screen will appear. Clicking “Yes” will remove the driver from the system.

7. Disconnect the USB cable and turn off the camera. Restart the computer.

Care and storage

Read this section in its entirety to get the best results from your camera. With proper care, your camera will provide years of service.

Camera care

- Do not subject the camera to shock or impact.
- Turn off the camera when transporting.
- This camera is neither waterproof nor splashproof. Inserting or removing batteries or the memory card, or operating the camera with wet hands may damage the camera.
- When at the beach or near water, take care not to expose the camera to water or sand. Water, sand, dust, or salt can damage the camera.
- Do not leave the camera under direct sunlight. Do not point the lens directly at the sun; the CCD may be damaged.

Cleaning

- If the camera or the outside of the lens is dirty, gently wipe it with a soft, clean, dry cloth. If the camera or lens comes in contact with sand, gently blow away loose particles. Wiping may scratch the surface.
- To clean the lens surface, first blow away any dust or sand, then gently wipe the lens with a cloth or tissue designed for optics. Use lens-cleaning fluid if necessary.
- Never use organic solvents to clean the camera.
- Never touch the lens surface with your fingers.

Storage

- Store in a cool, dry, well-ventilated area away from dust and chemicals. For long periods of disuse, store the camera in an airtight container with a silica-gel drying agent.
- Remove the batteries and memory card from the camera when not in use for extended periods.
- Do not store the camera in an area with naphthalene or mothballs.
- During long periods of storage, operate the camera occasionally. When taking the camera out of storage, check that the camera is functioning properly before using.

Memory cards

SD Memory Cards, MultiMediaCards, and Memory Sticks are manufactured with precision electronic components. The following may cause data loss or damage:

- Improper use of the card.
- Bending, dropping, or subjecting the card to impact.
- Heat, moisture, and direct sunlight.
- Static electrical discharge or electromagnetic fields near the card.
- Removing the card or interrupting the power supply while the camera or a computer is accessing the card (reading, writing, formatting, etc.).
- Touching the electrical contacts of the card with your fingers or metal objects.
- Using the card beyond its life. Purchasing a new card periodically may be necessary.

Konica Minolta has no responsibility for any loss or damage to data. It is recommended that a copy of the card data be made.

Batteries

- Battery performance decreases with temperature. In cold environments, we recommend keeping spare batteries in a warm place, such as the inside of a coat. Batteries can recover their power when they warm up.
- Do not store the battery when it is fully charged.
- When storing the battery for extended periods, recharge it for five minutes every six months. The battery may not be able to be charged if completely exhausted. Store batteries within -20°C to 35°C (-4°F to 95°F).
- A special built-in battery supplies power to the clock and memory when the camera is off or the lithium-ion battery is removed. The main lithium-ion battery is used to charge the internal battery; charging time is approximately twenty-four hours. The internal battery protects the camera memory between eight and twenty-four hours with the lens cover closed. If internal battery is exhausted, it must be replaced at a Konica Minolta service facility.
- Keep battery and camera charger contacts clean. Dirty contacts can prevent charging. If the contacts become dirty, wipe them with a cotton swab.

Before important events and journeys

- Check the camera’s operation; take test pictures and purchase spare batteries.
- Konica Minolta has no responsibility for any damage or loss incurred by equipment malfunction.

Operating temperatures and conditions

- This camera has been designed for use in temperatures from 0°C to 50°C (32°F to 122°F).
- Never leave the camera exposed to extreme high temperatures, such as in a car parked in the sun, or to extreme humidity.
- When taking the camera from a cold to a warm environment, place it in a sealed plastic bag to prevent condensation from forming. Allow the camera to come to room temperature before removing it from the bag.

LCD monitor care

- The LCD monitor is manufactured using high-precision technology and more than 99.99% of the pixels operate properly. Less than 0.01% of the monitor pixels are displayed as color or bright points; this is not monitor defect and does not affect the recorded image.
- Do not apply pressure to the surface of the LCD monitor; it may be permanently damaged.
- If fingerprints are on the LCD monitor surface, gently wipe with a soft, clean, dry cloth.

Copyright

- TV program, films, video tapes, photographs, and other materials may be copyrighted. Unauthorized recording or duplication of such material may be contrary to copyright laws. Taking pictures or images of performances, exhibitions, etc., is prohibited without approval and can infringe on copyright. Images protected by copyright can only be used under the provisions within the copyright laws.

Questions and service

- If you have questions about your camera, contact your local camera dealer or write to the Konica Minolta distributor in your area.
- Before shipping your camera for repair, please contact a Konica Minolta service facility.

Technical specifications

Number of effective pixels:	5.0 million
CCD:	1/2.5-type interline primary-color CCD with a total of 5.4 million pixels.
Camera sensitivity (ISO):	Automatic and manual (ISO 50, 100, 200, 400)
Aspect ratio:	4:3
Lens construction:	7 elements in 6 groups.
Maximum aperture:	f/2.8 - f/4.9
Focal length:	5.6 - 16.8 mm (35mm equivalent: 34 - 102 mm)
Focusing range:	Wide angle: 0.5 m - ∞ (Macro: 5cm - ∞) Telephoto: 0.8 - ∞ (Macro: 50cm - ∞) Super Macro: 20cm - 40cm
Autofocusing system:	Video AF
Shutter:	CCD electronic shutter plus mechanical shutter
Shutter speed range:	1 - 1/2000s (Auto, Program, Aperture priority) 15 - 1/1000s (Manual)
Built-in flash recycling time:	Approximately 4 seconds
Viewfinder:	Optical real-image zoom viewfinder.
Monitor LCD:	1.5in. (3.8 cm) low-temperature polysilicon TFT color
Monitor field of view:	Approximately 100%
A/D conversion:	10 bits
Recording media:	SD Memory Cards, MultiMediaCards, Memory Stick, Memory Stick Pro
File formats:	JPEG, motion JPEG (AVI), WAV. DCF 1.0, DPOF ver. 1.1, and Exif 2.2 compliant.
Printing output control:	PictBridge, Exif Print
Menu languages:	Japanese, English, German, French, Spanish, Italian, and Chinese (Simplified).

Battery:	Konica Minolta NP-600 lithium-ion battery.
Battery performance (recording):	Approximately 185 frames: based on the CIPA standard with a NP-600 lithium-ion battery, LCD monitor on, full-size images (5M), normal image compression, no instant playback, no audio, flash used with 50% of the frames.
Battery performance (playback):	Approximate continuous playback time: 200 min. with NP-600 lithium-ion battery.
External power source:	AC adapter AC-9
Dimensions:	93.5 (W) X 55.5 (H) X 26.0 (D) mm 3.7 (W) X 2.2 (H) X 1.0 (D) in.
Weight:	Approximately 145g / 5.1oz (without battery or memory cards)
Operating temperature:	0°C to 50°C (32°F to 122°F)
Operating humidity:	20% - 80% (noncondensing)

Lithium-ion Battery NP-600	
Voltage:	3.7V
Weight:	25g / 0.8oz
Dimensions	31.8 (W) X 9.0 (H) X 49.8 (D) mm 1.3 (W) X 0.4 (H) X 2.0 (D) in

Battery Charger BC-600	
Input voltage:	AC100-240V, 50/60Hz
Weight:	70g / 2oz (without cord or battery)
Dimensions	71.0 (W) X 25.8 (H) X 57.5 (D) mm 2.8 (W) X 1.0 (H) X 2.3 (D) mm

Specifications are based on the latest information available at the time of printing and are subject to change without notice.

KONICA MINOLTA

Konica Minolta Customer Support:
www.konicaminoltasupport.com

Konica Minolta Photoworld:
www.konicaminoltaphotoworld.com

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