# MIN✺LTA

**The essentials of imaging**

4.0 MEGA PIXELS

AREA·AF

MIN✺LTA

DiMAGE F100

# DiMAGE F100

E   INSTRUCTION MANUAL

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

This manual contains information regarding products introduced before May, 2002. To obtain compatibility information for products released after this date, contact a Minolta Service Facility listed on the back cover of this manual.

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

Minolta DiMAGE F100 digital camera
CR-V3 battery
Hand strap HS-DG100
16MB SD Memory Card
AV cable AVC-200
USB cable USB-500
DiMAGE software CD-ROM
DiMAGE Instruction Manuals CD-ROM
Quick Reference Guide (printed)
Warranty card (printed).

Read and understand all warnings and cautions before using this product.

# ⚠ WARNING

Using batteries improperly can cause them to leak harmful solutions, overheat, or explode which may damage property or cause personal injury. Do not ignore the following warnings.
• Only use the batteries specified in this instruction manual.
• Do not install the batteries with the polarity (+/–) reversed.
• Do not use batteries which show wear or damage.
• Do not expose batteries to fire, high temperatures, water, or moisture.
• Do not attempt to short or disassemble batteries.
• Do not store batteries near or in metallic products.
• Do not mix batteries of different types, brands, ages, or charge levels.
• Do not charge alkaline batteries.
• When recharging rechargeable batteries, only use the recommended charger.
• Do not use leaking batteries. If fluid from the batteries enters your eye, immediately rinse the eye with plenty of fresh water and contact a doctor. If fluid from the batteries makes contact with your skin or clothing, wash the area thoroughly with water.

• Use only the specified AC adapter within the voltage range indicated on the adapter unit. An inappropriate adapter or current may cause damage or injury through fire or electric shock.
• Do not disassemble this product. Electric shock may cause injury if a high voltage circuit inside the product is touched.
• Immediately remove the batteries 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 batteries 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 use this product in a humid environment, or operate this product with wet hands. If liquid enters the product, immediately remove the batteries or unplug the AC adapter 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 the product 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 the product. The use of inflammable cleaners and solvents may cause an explosion or fire.
- When unplugging the AC adapter, do not pull on the power cord. Hold the adapter unit when removing it from an outlet.
- Do not damage, twist, modify, heat, or place heavy objects on the AC adapter cord. A damaged cord may cause damage or injury through fire or electric shock.
- If the product emits a strange odor, heat, or smoke, discontinue use. Immediately remove the batteries taking care not to burn yourself as the batteries become hot with use. The continued use of a damaged product or part may cause injuries or fire.
- Take the product to a Minolta Service Facility when repairs are required

# ⚠ CAUTION

- Do not use or store the product in a hot or humid environment such as the glove compartment or trunk of a car. It may damage the product and batteries which may result in burns or injuries caused by heat, fire, explosion, or leaking battery fluid.
- If batteries are leaking, discontinue use of the product.
- The camera temperature rises with extended periods of use. Care should be taken to avoid burns.
- Burns may result if the memory card or batteries are 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, insert the plug securely into the electrical outlet.
- Do not use if the AC adapter cord is damaged.
- Do not cover the AC adapter. A fire may result.
- Do not obstruct access to the AC adapter; this can hinder the unplugging of the unit in emergencies.
- Unplug the AC adapter when cleaning or when the product is not in use.

# About this manual

The basic operation of this camera is covered between pages 14 and 38. This section of the manual covers the camera parts, preparation of the camera for use, and the basic camera operation for recording, viewing, and deleting images.

The auto-recording mode section covers all the basic functions of the camera in this mode and the multi-function recording mode. Take time to read this section before moving on to the multi-function recording mode section. The other sections, movie recording mode, playback mode, setup mode, and data transfer mode, can be read as needed.

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

# TABLE OF CONTENTS

## Camera body

\* 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. 121).

Mode dial (main switch)

Shutter-release button

Data panel (p. 13)

Self-timer/ Remote-control lamp (p. 42)

Microphone

Speaker

Remote-control receiver

Flash (p. 32)

Lens\*

Viewfinder window\*
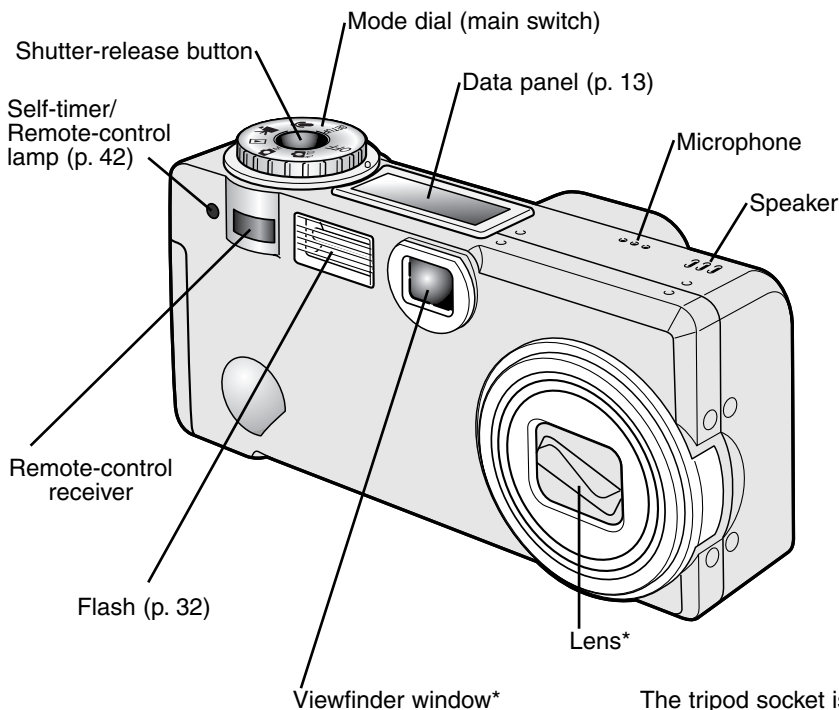
The tripod socket is located on the bottom of the body.

Flash mode/Information button (p. 32, 78)

Viewfinder* (p. 12)

Exposure-compensation button (p. 52)

Strap eyelet (p. 15)

Controller

Power/Access lamp
• When the lamp is red, data is being transferred to and from the memory card.

LCD monitor*

Display button (p. 31, 81)

QV/Delete button (p. 34)

Menu button

Digital-subject-program button (p. 29)

Battery-chamber door (p. 14)

Card-slot door (p. 18)

The USB port, AV-out terminal, and DC terminal are located behind the terminal cover.

## Viewfinder



Focus lamp (green) ⌐ └ Flash lamp (orange)

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 at close distances and is more pronounced at longer focal lengths. When the subject is closer than 1m (3ft) at the wide-angle lens positions or 3m (9.8ft) at the telephoto lens position, use the LCD monitor to compose the image; because the lens creates the monitor image, it does not suffer from parallax.

## Mode dial

This dial gives direct and easy access to the camera's major modes. It also acts as the main switch
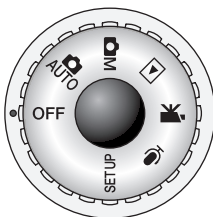


**AUTO**  Auto-recording mode (p. 22)

**M**  Multi-function recording mode (p. 54)

▶  Playback mode (p. 77)

🎥  Movie-recording mode (p. 74)

🎤  Audio recording mode (p. 76)

**SET UP**  Setup mode (p. 95)

## Data panel

Located on the top of the camera body, the data panel shows the status of the camera. All icons have been shown for clarity.

Frame counter (p. 47)
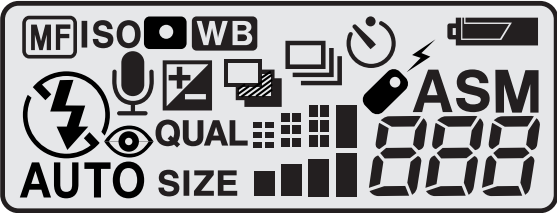
| Icon | Description |
|------|-------------|
| MF | Manual-focus indicator (p. 65) |
| ISO | Camera-sensitivity indicator (p. 67) |
| ● | Spot-metering indicator (p. 66) |
| WB | White-balance indicator (p. 62) |
| | Drive-mode indicators (p. 40) |
| | Battery-condition indicator (p. 16) |
| | Microphone indicator (p. 48, 76, 87) |
| | Exposure-compensation indicator (p. 52) |
| AUTO | Flash-mode indicators (p. 32) |
| QUAL | Image-quality display (p. 46) |
| SIZE | Image-size display (p. 46) |
| ASM | Exposure-mode indicators (p. 58) |
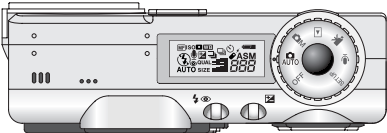
The frame counter cannot exceed 999. When the number of record-able images exceeds this, 999 will be displayed. The frame counter will continue to count down when the number of recordable images falls below one thousand.

# GETTING UP AND RUNNING

## Changing the CR-V3 battery
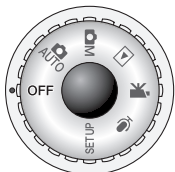
This digital camera uses one CR-V3 lithium battery. When replacing the batteries, the mode dial should be in the off position.
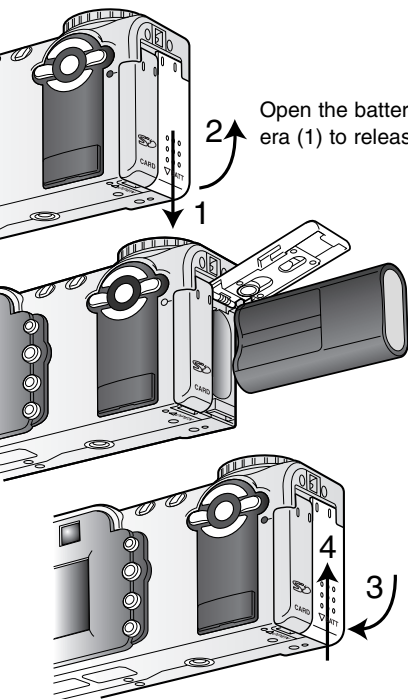
Open the battery-chamber door by sliding the door toward the bottom of the camera (1) to release the safety catch; the door can then be opened(2).

Insert the battery.
• The CR-V3 battery must be inserted with the battery terminals first. The flat side of the battery should face the front of the camera. If the battery does not fit, check its orientation. Never force the battery.

Close the battery-chamber door (3) and slide it toward the top of the body (4) to engage the safety catch.
• After installing the battery, the set-time/date message may appear on the monitor. The clock and calendar are set in the custom 2 section of the setup menu (p. 96).

## Installing AA batteries

Although performance is better with a CR-V3 lithium battery, two AA-size Ni-MH batteries can also be used. Other types of AA batteries should not be used. When using Ni-MH batteries, fully recharge them with a battery charger suitable for complex electronic equipment. Please consult your vendor about an appropriate charger.
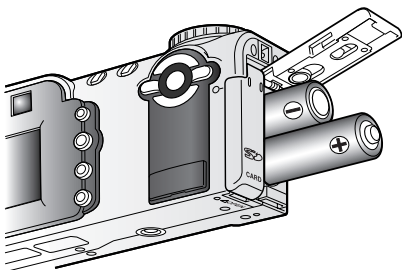
Install the AA batteries as shown in the diagram; make sure the positive and negative battery terminals are oriented correctly.

## Attaching the hand strap
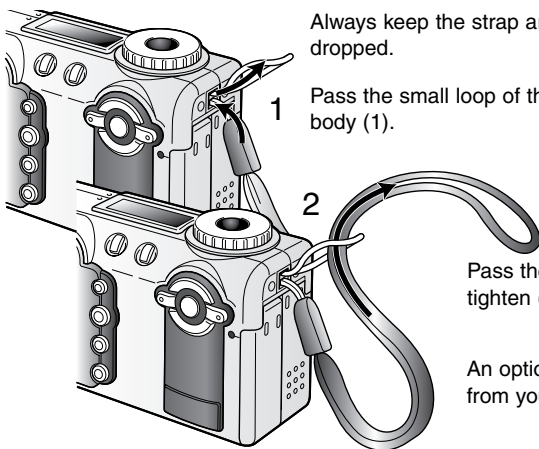
Always keep the strap around your wrist incase the camera is accidentally dropped.

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

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

An optional leather neck strap, NS-DG200, is also available from your Minolta dealer.

## Battery condition indicator

This camera is equipped with an automatic battery-condition indicator. When the camera is on, the battery-condition indicator appears on the data panel and monitor. The monitor icon will change from white to red when battery power is low. If the data panel and monitor are blank, the battery may be dead or installed incorrectly.

Full-battery Icon – the battery is fully charged. This icon is displayed for five seconds on the monitor when the camera is turned on. The icon remains on the data panel.

Low-battery warning – battery power is very low. The battery should be replaced as soon as possible. This warning automatically appears and remains on the monitor until the battery is changed. If the power falls below this level, the battery-exhausted message will be displayed just before the camera shuts down
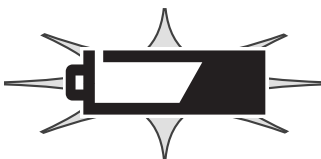
Blinking low-battery icon – when displayed on the data panel with no other icons, power is insufficient for camera operation. The shutter will not release.

## Auto power save

To conserve battery power, the camera will turn off displays and unnecessary functions if an operation is not made within a minute. The green power lamp will blink for the first three minutes after auto power save shuts down the camera before turning off. To restore power, press any button or key, or turn the mode dial to another position. The length of the auto-power-save period can be changed in the basic section of the setup menu (p. 96).

# Connecting the AC adapter (sold separately)

The AC-6 Adapter allows the camera to be powered from an electrical household outlet. The AC Adapter is recommended when the camera is interfaced with a computer or during periods of heavy use.

Always turn off the camera before changing between power supplies.
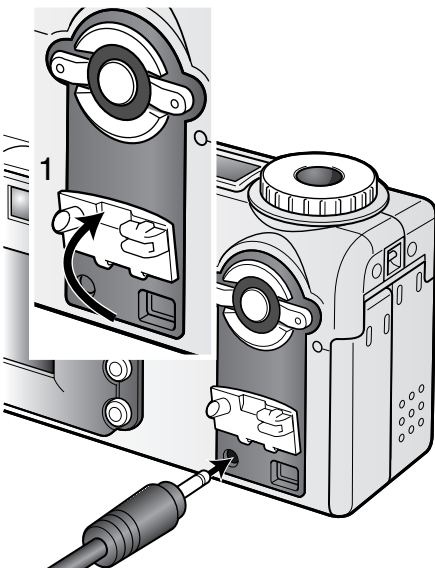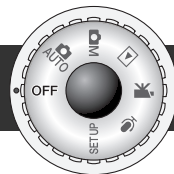
Remove the battery from the camera

Lift the DC terminal cover from the bottom (1).
• The cover is attached to the body to prevent loss.

Insert the mini plug of the AC adapter into the DC terminal.

Insert the AC adapter plug into an electrical outlet.

## Changing the memory card

An SD Memory Card or MultiMediaCard must be inserted for the camera to operate. If a card has not been inserted, a no-card warning will automatically be displayed on the monitor and three dashes (– – –) will be displayed on the data-panel frame counter. For memory card care and storage, see page 122.

> Always turn off the camera and confirm the power/access lamp is not red before inserting or removing a memory card; the card may be damaged, and data lost.
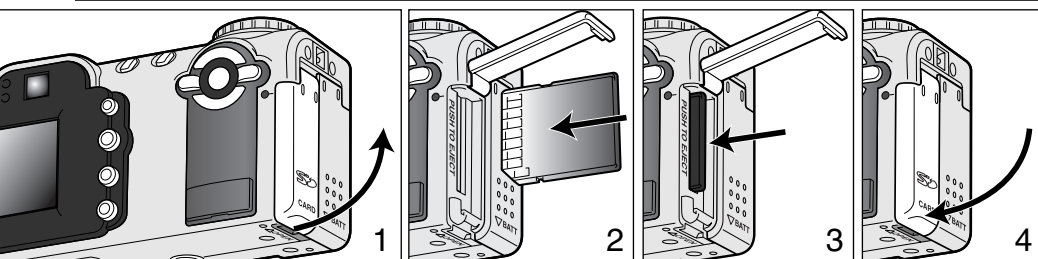


Open the card-slot door (1) from the fingernail notch at the bottom of the camera.

Insert the memory card all the way into the card slot and release (2). The card should catch in the slot.
• Insert the card so the face is toward the front of the camera. Always push the card in straight. Never force the card. If the card does not fit, check that it is orientated correctly.

To eject a memory card, press the card into the slot and release (3). The card can now be pulled out.
• Take care when removing the card as it becomes hot with use.

Close the card-slot door (4). The door should click into place.

If the card-not-recognized message appears, the inserted card in the camera may need to be formatted. A card used in another camera may have to be formatted before being used. If the unable-to-use-card message appears, the card is not compatible with the camera and cannot be formatted.

A card is formatted in the basic section of the setup menu (p. 96). When a card is formatted, all the data on the card is permanently erased.

## *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.

Write-protect switch

The SD Memory Card has a write-protect switch to prevent image data from being deleted. By sliding the switch to the bottom of the card, the data will be protected. 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-locked message will appear on the monitor and the orange flash lamp near the viewfinder will blink quickly. For memory card care and storage see page 122.

Lock position
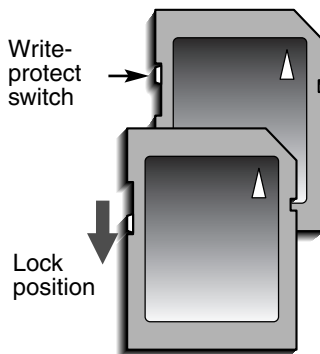
## Setting the date and time

After initially inserting a memory card and battery, the camera's clock and calendar must be set. When images are recorded, the image data is saved with the date and time of recording. Depending on the region, the menu language may also have to be set. To change the language, see the camera notes on the following page.
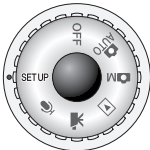
Turn the mode dial on the top of the camera to the setup position. The camera will turn on and the setup menu will be displayed.
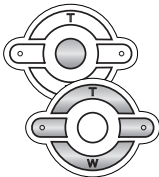
Navigating the menu is simple. The up/down and left/right keys of the controller (1) move the cursor and change settings on the menu.

The central button of the controller selects menu options and sets adjustments.

Setup

Basic  Custom1  Custom2
LCDbrightness   –
⚠ Format   –
Power save   1 min.
Language   English

MENU

DC IN 3V    A / V OUT

| **Basic** | Custom1 | Custom2 |
|---|---|---|
| Reset default | — | |
| Date/Time set | — | |
| └ Date format | YYYY/MM/DD | |
| Video output | NTSC | |
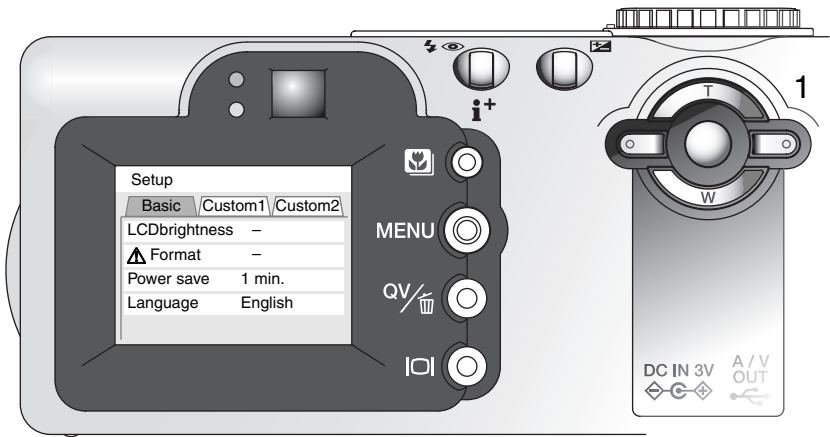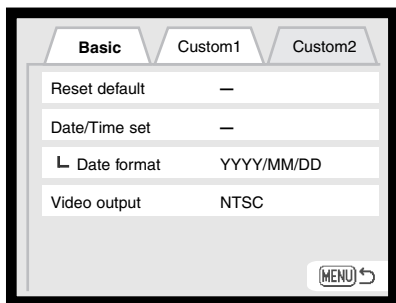
MENU ↩

Playback menu: custom 2 section

Use the right key to highlight the custom 2 tab at the top of the menu.

Use the down key to highlight the date/time-set menu option.

Press the right key. "Enter" will appear on the right side of the menu.

Press the central button to display the date/time setting screen.

Use the left and right keys to select the item to be changed.
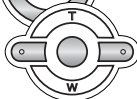
Use the up and down keys to adjust the item.

Press the central button to set the clock and calendar. The setup menu will be displayed.

Date/Time set

▲
2002 . 08 . 01  11 : 05
▼

● Enter                    MENU ↩
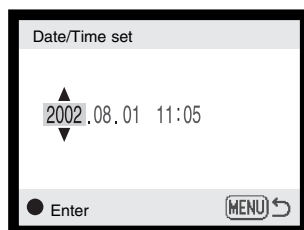
Date/Time setting screen

## Camera notes

For customers in certain areas, the menu language must also be set. Highlight the language option in the basic section of the setup menu. Press the right key to display the language settings. Using the up/down keys, highlight the desired language. Press the central button to set the highlighted language; the setup menu will be displayed in the selected language.

# AUTO-RECORDING MODE
# BASIC OPERATION

This section covers the basic operation of this camera. Thoroughly familiarize yourself with the operations in this section before moving on to the other sections in the manual.

The sophisticated technology employed in the auto-recording mode frees the photographer from complicated camera settings to be able to simply concentrate on the subject and composition. Although automated, the camera's operation can be changed to meet various conditions as well as to suit personal shooting preferences.

## Handling the camera

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

When taking vertical pictures, hold the camera so that the flash is above the lens with the grip to the top. Take care not to cover the lens with your fingers or the strap.
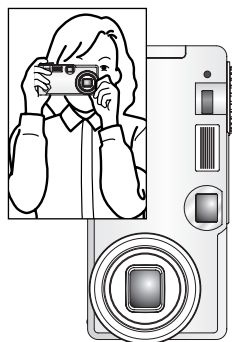
# Setting the camera to record images automatically
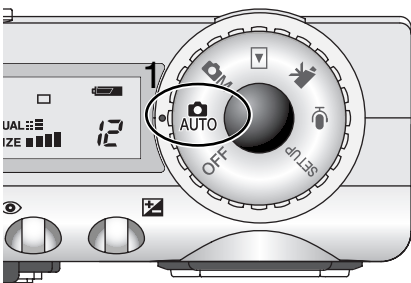
Turn the mode dial to the auto-recording mode position (1); all camera operations are now fully automatic. The autofocus, exposure, and imaging systems will work together to bring beautiful results effortlessly.

While many of the camera's systems in this mode are automatic, the camera's operation can be optimized to different subjects very simply with the digital subject program button (p. 29). The flash mode (p. 32) and drive mode (p. 40) can also be changed. Image size and quality can be set on the auto-recording mode menu (p. 38).

| Exposure mode | Program | Fixed |
|---|---|---|
| Metering mode | Multi-segment | Fixed |
| Camera sensitivity (ISO) | Auto | Fixed |
| Flash mode | Auto flash | Can be changed* |
| Focus area | Wide focus area | Can be changed |
| Focus control | Autofocus | Fixed |
| Drive mode | Single-frame advance | Can be changed |
| Exposure compensation | 0.0 | Can be adjusted* |
| Sharpness | Normal | Fixed |
| Color mode | Natural Color | Fixed |
| White balance | Auto | Fixed |
| Full-time AF | On | Fixed |

* Changes to the flash mode or exposure compensation will be reset when the mode dial is turned to another position.

## Using the zoom lens

This camera is equipped with a 7.8 to 23.4mm optical zoom. This is equivalent to a 38 to 114mm zoom lens on a 35mm camera. In 35mm photography, focal lengths below 50mm are referred to as wide-angle; the angle of view is larger than that of the human eye. Above 50mm is referred to as tele-photo and makes distant objects appear closer. The effect of the optical zoom is visible in both the viewfinder and LCD monitor.
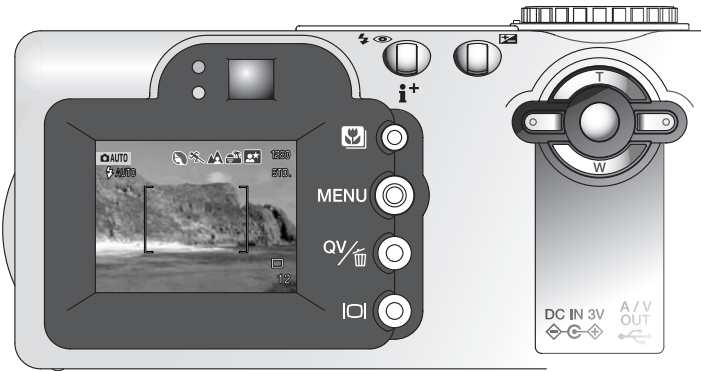


The zoom lens is operated by the controller (1). Pressing the up key (T) will zoom in to the telephoto position of the lens. Pressing the down key (W) will zoom out to the wide-angle position.

## Focus range

CCD plane

| Normal focusing range | 0.5m - ∞ (1.6ft - ∞) |
|---|---|
| Macro mode (p. 29) | 0.2m – 0.6m (0.7ft – 2ft) |

All distances are measured from the CCD
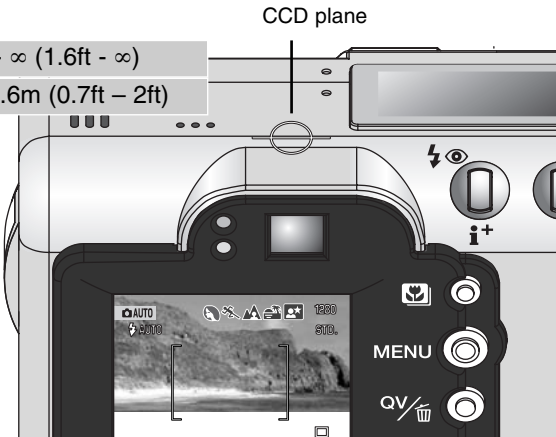
# About camera operation

The auto-recording mode uses advanced technology to make beautiful photography as effortless as possible. Automatic Digital Subject Program Selection optimizes exposure, color, and image-processing settings to each subject. The sophisticated AF system locates and tracks the subject automatically.

**Automatic Digital Subject Program Selection** – The icons at the top of the LCD monitor display indicate the Digital Subject Program in use. When taking pictures, the icon for the active subject program will remain. If no icons are displayed, programmed AE is employed. For more on Automatic Digital Subject Program Selection, see page 28.



Automatic Digital Subject Program Display

Area AF focus frames
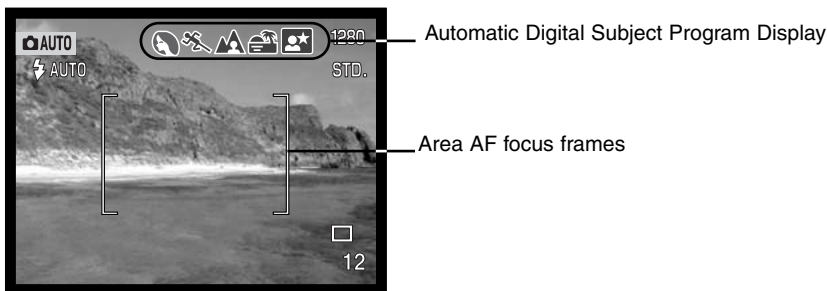
**Area AF & Subject Tracking AF** – Area AF locates the subject within the extra large focus frames. An AF sensor will be displayed when the camera locates and focuses on the subject. Subject Tracking AF will continue to follow the subject in the focus frames whether the subject moves or the camera position is changed.

## Basic recording operation
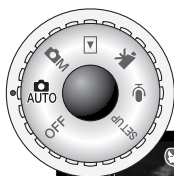
With the mode dial set to auto recording, the camera will be on and the LCD monitor will activate. Auto recording mode uses two advanced AF systems. Area AF and Subject Tracking AF, to locate and track the subject in the the extra-wide focus frames.

Place the subject anywhere within the focus frame.
• Make sure the subject is within the focus range of the lens: 0.5m - ∞ (1.6ft - ∞). For subjects closer than 0.5m, use the macro function (p. 29).
• If the subject is closer than 1m at the wide-angle lens position or 3m at the telephoto lens position, use the LCD monitor to frame the subject.

Press the shutter-release button partway down (1) to lock the subject and exposure.
• The focus signals on the monitor will confirm subject lock. If the focus signal is red, the camera was unable to locate the subject. Repeat the previous steps until the signal is white.
• When the subject lock engages, an AF sensor will appear on the live image to indicate the subject. If the subject moves within the focus frames, the AF sensor will change to track the subject.
• The shutter speed and aperture will appear indicating the exposure is locked.
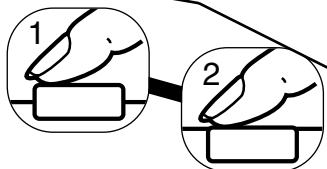
Press the shutter-release button all the way down (2) to take the picture.
• The access lamp will turn red indicating image data is being written to the memory card. Never remove a memory card while data is being transferred.
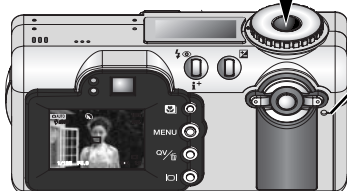
## Focus signals

This digital camera has a quick, accurate autofocusing system. The focus icon in the lower right corner of the LCD monitor and the green focus lamp next to the viewfinder indicate the focus status.

| | | | |
|---|---|---|---|
| ((●)) | ☀ ● | Focus icon: white<br>Focus lamp: steady | Subject locked. The camera will continue to track the subject within the focus frames. |
| ○ | ☀ ● | Focus icon: red<br>Focus lamp: blinking | Cannot focus. The subject is too close or a special situation is preventing the AF system from focusing. |

- If the subject lock is lost, the monitor icon will change from white to red, but the focus lamp will continue to glow steadily. For more about Subject Tracking AF, see page 64.
- The shutter can be released even if the camera cannot focus on the subject.
- When the AF system cannot focus, the focus is set to 2 m (6.5 ft). In this case, focus lock with Focus Area Selection can be used (p. 50, 51).

## Special focusing situations

The camera may not be able to focus in certain situations. If the autofocus system cannot focus on a subject, the focus icon will turn red. In this situation, focus-lock with Focus Area Selection can be used to focus on an object at the same distance as the main subject and then the image can be recomposed on the monitor (p. 50, 51).
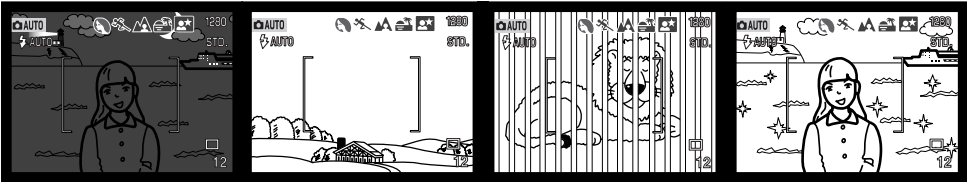


The subject is too dark.

The subject in the focus frame is low in contrast.

Two subjects at different distances overlap in the focus frame.

The subject is near a very bright object or area.

# Automatic Digital Subject Program Selection

Automatic Digital Program Selection chooses between programmed AE and one of five subject programs: portrait, sport action, landscape, sunset, and night portrait. The digital-subject-programs optimise the camera's performance for various conditions and subjects. Exposure, white-balance, and image-processing systems work in unison for beautiful results. For information on individual subject programs, see page 30.
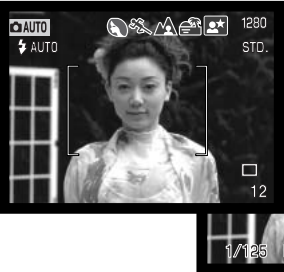


Place the subject in the focus frames.

Press the shutter-release button partway down. The AF system will locate the subject and the Automatic Digital Subject Selection function will choose a subject program.
• If no icons are displayed, programmed AE is active. The exposure mode indicator is not displayed in auto-recording mode.



Programmed AE

Portrait

Sports action

Landscape

Sunset

Night portrait

If the flash mode (p. 32) is set to autoflash or autoflash with red-eye reduction, the flash will not fire in the landscape, sunset, or night portrait modes. To use the flash, change the flash mode to fill flash; the flash will fire with each exposure regardless of the amount of light.



Night portrait

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# Digital-subject-program button
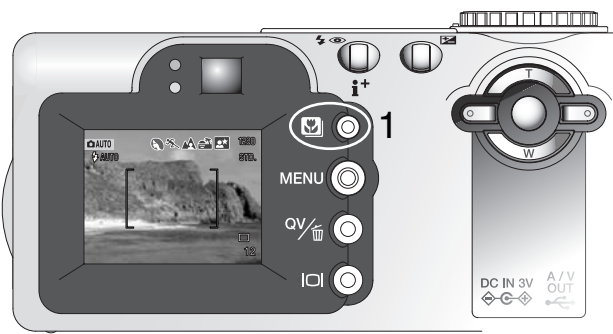


Pressing the subject-program button (1) cycles through the modes. The active subject program will be indicated at the top of the live image. The subject program will remain in effect until it is changed or the mode dial is turned to another position. Except for macro, digital subject programs cannot be used in the multi-function recording mode.

While camera performance is optimized for each shooting condition, some changes can be made to camera settings with subject programs. The flash mode (p. 32) can be changed and the exposure can be altered using the exposure-compensation function (p. 52). In extreme lighting conditions, changes in exposure compensation may not produce the intended results in the portrait, or night portrait mode. The camera-shake warning (p. 33) may appear in macro, landscape, sunset, or night portrait modes.

Automatic Digital Subject Program Selection

Macro

Portrait

Sports action

For information on individual subject programs, see page 30.

Landscape

Sunset

Night portrait

Programmed AE

**MACRO** – used for close-up photography between 20 and 60 cm (0.7 – 2.0ft) from the CCD. The lens will automatically zoom to the macro position and cannot be changed. Because of parallax, the LCD monitor should be used to compose the picture.

**PORTRAIT** – optimized to reproduce soft skin tones and a slight defocusing of the background. Most portraits look best at a telephoto setting; longer focal lengths do not exaggerate facial features and the shallower depth of field softens the background.

**SPORTS ACTION** – optimized to stop action. Automatic Digital Subject Program Selection activates this mode when shooting moving subjects at a distance with a telephoto lens setting.

**LANDSCAPE** – optimized to produce sharp, colorful landscapes. With bright out-door scenery, Automatic Digital Subject Program Selection activates this mode when recording the broad expanse of a landscape.

**SUNSET** – optimized to produce rich, warm sunsets. Automatic Digital Subject Program Selection recognizes the warmth of the setting sun in a landscape photo-graph and activates this mode.

**NIGHT PORTRAIT** – for deep, subtle night scenes. Because the flash does not fire, exposures can be long. The use of a tripod is recommended. If the flash mode is set to fill flash (p. 32), the flash and background exposures are balanced. Ask your subject not to move after the flash burst; the shutter may still be open for the background exposure.

# Display button – recording mode

The display-information button controls the LCD monitor display. The display cycles to the next position each time the button is pressed: full display, live image only, and monitor off.

Battery power can be conserved by turning the monitor off and using the viewfinder to take pictures. When the menu or exposure-compensation button is pressed, or the macro mode is activated, the monitor will automatically turn on. Automatic Digital Subject Program Selection, Subject Tracking AF, Full-time AF (p. 65) and the digital zoom are disabled when the monitor is off.

Full display

Live image only
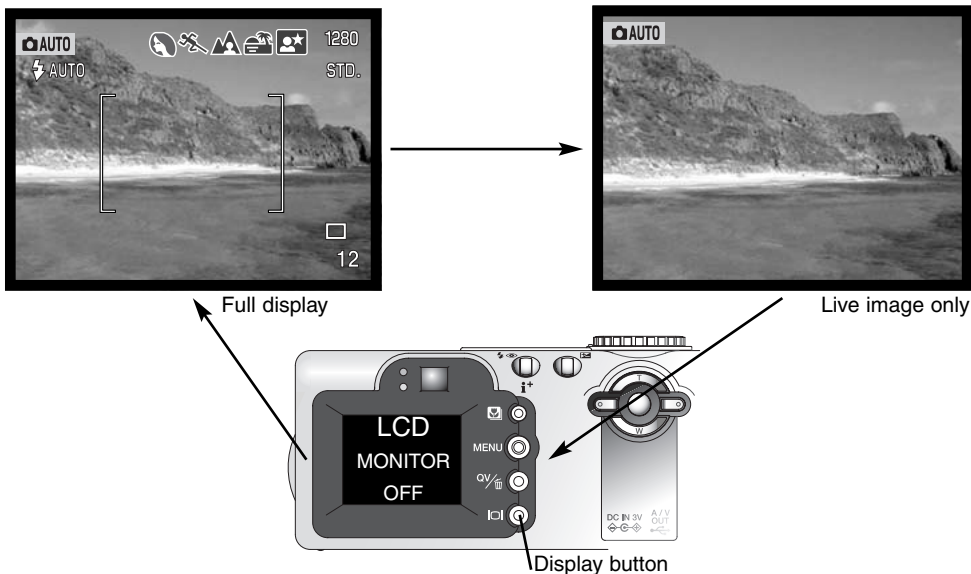
Display button

## Flash modes

To set the flash mode, simply press the flash mode button (1) on the back of the camera until the desired mode is displayed.
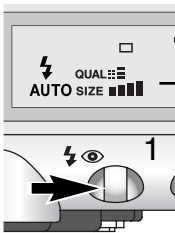


| | | |
|---|---|---|
| ⚡AUTO | ⚡AUTO | Autoflash |
| ⚡◉ AUTO | ◉AUTO | Autoflash with red-eye reduction |
| ⚡ | ⚡ | Fill-flash |
| (⚡) | (⚡) | Flash cancel |

**Autoflash** – the flash fires automatically in low-light and backlit conditions.

**Red-eye reduction** – the flash fires twice before the main flash burst to reduce red-eye; an effect caused by light reflected from the retina. Use in low-light conditions when taking photographs of people or animals. The pre-flashes contract the pupils of the subject's eyes.

**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. The camera-shake warning may appear when flash cancel is selected.

# Flash range – auto-recording mode

The camera will automatically control 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.

| | |
|---|---|
| Wide-angle position | 0.5m ~ 2.9m (1.6 ft. ~ 9.5 ft.) |
| Telephoto position | 0.5m ~ 1.7m (1.6 ft. ~ 5.6 ft.) |

# Flash signals

The orange flash lamp next to the viewfinder indicates the status of the flash.
When the orange flash lamp blinks quickly (1), the flash is charging and the shutter will not release. The lamp will go out when the flash is charged.
The flash lamp is also used as a camera-shake warning, see below.

# Camera-shake warning

If the shutter speed falls below the point where the camera can be safely hand held, the camera-shake warning will appear on the LCD monitor and the orange focus lamp will blink slowly.  Camera shake is slight blurring caused by subtle hand motion and is more pronounced at the telephoto setting of the lens than at the wide-angle setting. Although the warning appears, the shutter can still be released. If the warning appears, the following steps can be taken:
• Place the camera on a tripod.
• Use the built-in flash.
• Zoom the lens towards the wide-angle position until the warning
  disappears.

## Quick View
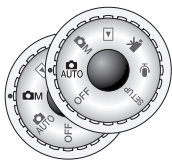
Captured images can be viewed in auto-recording and multi-function recording mode. Simply press the QV/Delete button to access the images. The date and time of capture, frame number, printing status, lock status, image size, and image quality are displayed with the images. Images can be enlarged to view detail (p. 36). The histogram and shooting data of the image can also be displayed in Quick View.

QV/🗑 ○ Press the QV/Delete button to play back the recorded images.

Use the left/right keys of the controller to scroll through the images.
• Pressing the display button switches between displaying the image with and without information.

i⁺ Press the information button to see the histogram of the displayed image.
• When the histogram is displayed, the left/right keys cannot scroll to the next image. Press the information button again to cancel the histogram display.

To return to the recording mode, press the menu button or shutter-release button.

Controller

Menu button

QV/Delete button

Display button

14:20
2002.04.27
1280
STD
100-0056
[0029/0078]

Mode indicator

*Quick-view display*

Image size (p. 46)
Image quality (p. 46)

**i⁺** To view the histogram, press the information button.

Aperture value
Shutter speed

Time of capture

1/125   1280
F5.6    STD
AWB
ISO AUTO
0
MLT08

White-balance setting (p. 62)
Sensitivity setting (p. 67)
Degree of exposure compensation (p. 52)
Folder name

14:20               100-0056
2002.04.27          [0029/0078]

Date of capture
Audio-track indicator
Lock indicator (p. 86)
Print indicator (p. 90)

2002.04.27          100-0056

Frame number/total number of images

Folder number – image file number

Histogram

## *Deleting images in Quick View*

In quick view, the displayed image can be deleted. When selecting an image for deletion, a confirmation screen will appear before the operation is executed.

Once deleted, an image cannot be recovered.

QV/🗑 To delete a displayed image, press the QV/Delete button.
• A confirmation screen will appear.

Use the left/right keys to highlight "YES."
• "NO" will cancel the operation.
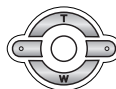
Press the central button of the controller to delete the image.

1280
STD

⚠ Delete this frame?
Yes    No

14:20               100-0056
2002.04.27          [0029/0078]

## Enlarged playback

In Quick View or in single-frame playback (p. 77), a still image can be enlarged in six steps for closer examination: 1.5X, 2.0X, 2.5X, 3.0X, 3.5X, 4.0X, 4.5X, and 5.0X.

With the image to be magnified displayed, press the up key of the controller to activate the enlarged playback mode.
• The degree of magnification is displayed on the LCD monitor.

Pressing the up key increases the image magnification.
Pressing the down key decreases the magnification.

• The display button switches between showing the full display and the image only.

x3.5

● → Scroll

To scroll the image, press the central button of the controller.
• Pressing the center button switches between the enlarged-playback and scroll screens.

Use the four-way keys of the controller to scroll the image.

MENU • To exit the enlarged playback mode, press the menu button.

● → Zoom

## Other Quick View features

Voice memos (p. 48) and audio captions (p. 87) can be played back in Quick View. When one of these audio tracks is attached to a still image, the audio-track indicator will be displayed at the bottom of the monitor.
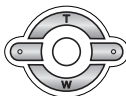
Press the central button of the controller to start the audio playback.

Playback time is displayed on a bar at the top of the image. The display will return to Quick View when the audio track finishes.

MENU  Press the menu button to cancel the playback.
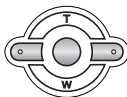
Use the up/down keys of the controller to adjust the volume.

The display button switch between viewing images with or without information.

### Camera Notes

The frame counter indicates the approximate number of images that can be stored on the memory card at the camera's image quality and size settings. If the settings are changed, the frame counter adjusts accordingly. Because the calculation is based on average file sizes, the actual image taken may not change the counter or may decrease it by more than one.

When the frame counter displays zero, it indicates no more images at the image size and quality settings can be captured. Changing the image size or quality settings may allow more image to be saved to the memory card (p. 38).

## Navigating the auto-recording mode menu

In auto-recording mode, the menu button(1) turns the menu on and off. The four-way keys of the controller (2) are used to move the cursor in the menu. Pressing the center of the controller will enter a setting.
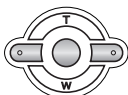
Use the up/down keys of the controller (2) to scroll through the menu options. Highlight the option whose setting needs to be changed.

With the menu option to be changed highlighted, press the right controller key; the settings will be displayed with the current setting highlighted.
• To return to the menu options, press the left key.

Use the up/down keys to highlight the new setting.

Press the center of the controller to select the highlighted setting.
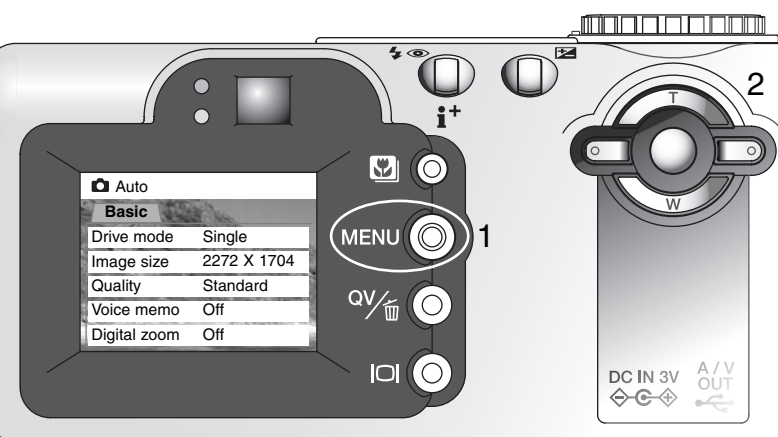
Once a setting has been selected, the cursor will return to the menu options and the new setting will be displayed. Changes can continue to be made.

To return to the auto-recording mode, press the menu button.

| Auto | |
|---|---|
| **Basic** | |
| Drive mode | Single |
| Image size | 2272 X 1704 |
| Quality | Standard |
| Voice memo | Off |
| Digital zoom | Off |

| Basic | |
|---|---|
| Drive mode | ▢ Single |
| | 🔲 Continuous |
| | ☻ Timer/RC |
| | 📷 Bracketing |
| Image size | 2272 X 1704 |
| | 1600 x 1200 |
| | 1280 X 960 |
| | 640 X 480 |
| Quality | Super fine |
| | Fine |
| | Standard |
| | Economy |
| Voice memo | 15 sec. |
| | 5 sec. |
| | Off |
| Digital zoom | On/Off |



**📷 AUTO**

±0.5 🔲

◀▶: select ●: enter (MENU)↩



Use the left/right keys to select the bracketing incre-ment (p. 44).

Settings made with the auto-recording menu will remain in effect until changed or the camera is reset to its default settings (p. 101).

Drive modes – to control the rate and method of image capture

Image size – to set the pixel resolution of the images. Image size affects the size of the image file.

Image quality – to set the rate of compression of the images. Image quality affects the size of the image file.

Voice memo – to record audio after a still image has been captured. The function can be turned off and the length of the recording can be set.

Digital zoom – the digital zoom can be turned off or on.

Read the following sections for more details on these options and settings. Changes made on the auto-recording mode menu will also affect the multi-function recording mode. All of these functions also appear on the multi-function recording mode menu.

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## Drive modes

The drive modes control the rate and method of image capture. Icons indicating the selected drive mode appear on the data panel and LCD monitor.

LCD monitor

Data panel

All icons have been shown for clarity. The single-frame advance and continuous drive indicators occupy the same area of the data panel. All the drive-mode icons appear in the lower right corner of the monitor.

| | | Single-frame advance | To take a single image each time the shutter-release button is pressed (p. 26). |
|---|---|---|---|
| | | Continuous advance | To take multiple images when the shutter-release button is pressed and held. |
| | | Self-timer/ Remote control | To delay the release of the shutter. Used for self-portraits. |
| | | Bracketing | To take a series of three images with differing exposures. |

# 🗐 Continuous advance

The continuous-advance drive mode allows a series of images to be captured while holding down the shutter-release button. Continuous advance acts like a motor drive on a film camera. The number of images that can be captured at one time and the rate of capture depend on the image-quality and image-size setting. The maximum rate of capture is 1.2 fps with the shutter FX on (p. 101), or 1.5 fps with it off. The continuous-advance mode is set on the auto-recording mode menu and in the basic section of the multi-function recording mode menu (p. 56).

When the shutter-release button is pressed and held, the camera will begin recording images until the maximum number has been taken or the shutter button is released. If super-fine image quality (p. 46) is selected, only one image will be captured. The built-in flash can be used, but the rate of capture is reduced because the flash must recharge between frames.

Compose the picture as described in the basic recording operation section (p. 26). Press the shutter-release button partway down to lock onto the subject and set the exposure for the series. Press and hold the shutter-release button all the way down (1) to begin taking pictures.
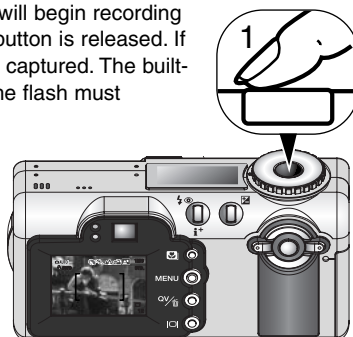
The following chart lists the maximum number of images that can be captured with different image-quality and image-size combinations.

| Image Quality \ Image Size | 2272 X 1704 | 1600 X 1200 | 1280 X 960 | 640 X 480 |
|---|---|---|---|---|
| Fine | 4 | 8 | 13 | 49 |
| Standard | 8 | 16 | 26 | 91 |
| Economy | 16 | 32 | 49 | 156 |

# ☉✎ Self-timer

Used for self-portraits, the self-timer will delay the release of the shutter for approximately ten seconds after the shutter-release button is pressed. When the drive mode is set to self-timer, the focus mode is changed from Subject Tracking AF to single-shot AF allowing the use of focus lock (p. 51).The self-timer is set on the auto-recording mode menu (p. 38) or in the basic section of the multi-function recording mode menu (p. 56).

With the camera on a tripod, compose the picture so the subject is within the focus frames. Press the shutter-release button partway down to lock the exposure and focus (1). Press the shutter-release button all the way down to begin the countdown (2). Because focus and exposure are determined when the shutter-release button is pressed, do not stand in front of the camera when taking a self-timer image. Always confirm the focus with the focus signals before beginning the countdown (p. 51).

During the countdown, the self-timer lamp on the front of the camera (3) will start to blink and is accompanied by an audio signal. A few seconds before the exposure, the self-timer lamp will blink rapidly. The lamp will glow steadily just before the shutter fires. To stop the countdown, press the up/down keys of the controller or turn the mode dial to another position. The audio signal can be turned off in the basic section of the setup menu (p. 96).
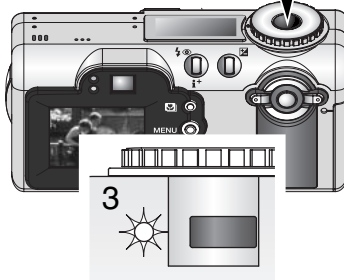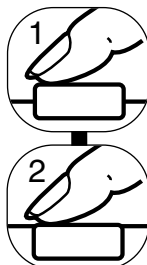
## Shooting tips

The self-timer can be used to minimize camera shake with long exposures. When using the camera on a tripod, photographs of static subjects (landscapes, still-lifes, or close-up photographs) can be made with the self-timer. Because no contact is made with the camera during exposure, there is no risk of camera shake caused by the operator.

# Remote control (sold separately)

The IR Remote Control RC-3 allows remote camera operation up to 5m (16 ft.) away. The remote control unit can be used in movie recording (p. 75).
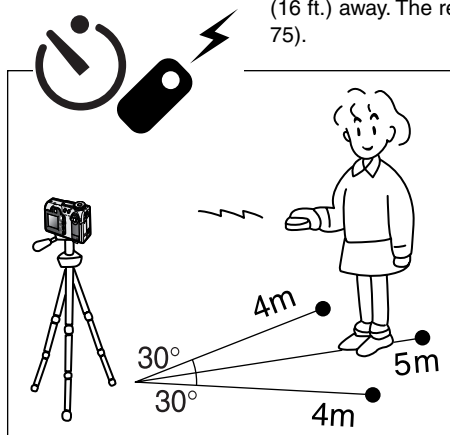
Place the camera on a tripod, and set the drive mode to self-timer / remote control (p. 38, 55).

Arrange the camera and subject to compose the picture. When setting up the camera, make sure the subject is within the focus frames.

• Focus lock cannot be used with the IR remote control.
• Focus area selection (p. 50) and manual focus (p. 65) can be used.

Emitter window

Delay button
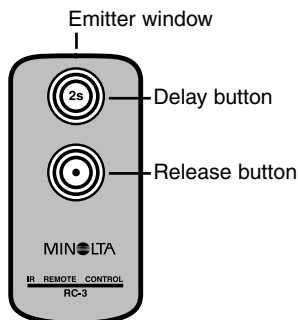
Release button

While pointing the emitter window of the remote control unit toward the camera, press the release button or the delay button to take the picture.

• When the release button is pressed, the self-timer lamp on the front of the camera will blink once before the picture is taken.
• When the delay button is pressed, the self-timer lamp on the front of the camera will blink for two seconds before the picture is taken.
• The remote control may not operate with backlit subjects or under fluorescent light.

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## ⬛ Bracketing

This mode makes a three-image bracket of a scene. Bracketing is a method of taking a series of images of a static subject in which each image has a slight variation in exposure. The bracketing mode is set on the auto-recording mode menu (p. 38) or in the basic section of the multi-function recording mode menu (p. 56). Brackets cannot be made with super-fine images (p. 46).

The order of the bracket series is normal exposure, underexposure, and overexposure. The exposure bracket can be made in 0.3, 0.5, or 1.0 Ev increments (p. 53). The larger the number, the greater the difference in exposure between the images in the bracketed series.



Normal → Under → Over
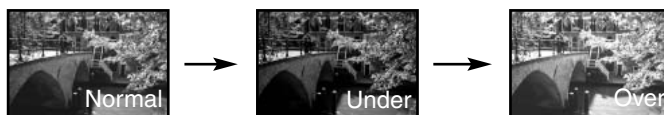
After the bracketing drive mode has been selected on the menu, a screen to choose the bracketing step will be displayed. Use the left and right keys of the controller (1) to display the desired step. Press the central button of the controller (2) to set it. The bracketing step will remain in effect until the drive mode is changed. To change the step, select the bracketing drive mode again from the menu.
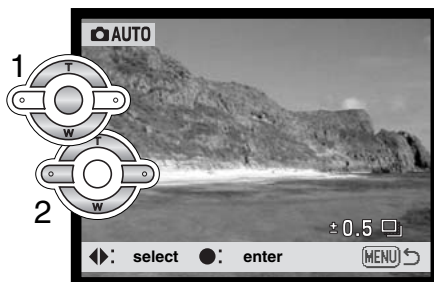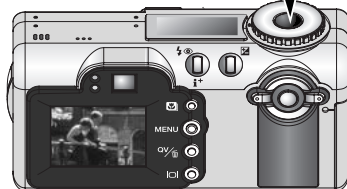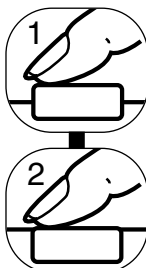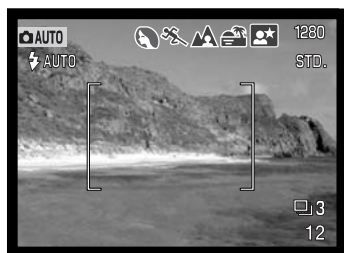
Number of frames in bracketing series
Frame counter

Compose the picture as described in the basic recording operation section (p. 26). Press the shutter-release button partway down (1) to lock onto the subject and set the exposure for the series. Press and hold the shutter-release button all the way down (2) to make the bracket series; three consecutive images will be captured.

The remaining number of frames in the bracket series is displayed on the monitor next to the bracketing icon. If the memory is filled or the shutter button is released before the series has completed, the camera will reset and the entire bracket must be made again. When using flash, there will be a delay between frames as the flash charges.

When using exposure compensation (p. 52), the bracketing series will be made in relation to the compensated exposure. Under extreme conditions, one of the bracketed exposures may be inaccurate because it is outside the exposure control range of the camera

## Image size and image quality

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 will be more suitable for web sites whereas larger sizes will produce higher quality prints.

| Data panel | LCD monitor | Number of pixels (hor. X vert.) | Image size |
|---|---|---|---|
| SIZE ▪️▪️▮▮ | 2272 | 2272 X 1704 | FULL |
| SIZE ▪️▪️▮ | 1600 | 1600 X 1200 | UXGA |
| SIZE ▪️▮ | 1280 | 1280 X 960 | SXGA |
| SIZE ▪️ | 640 | 640 X 480 | VGA |

Image quality controls the rate of compression, but has no effect on the number of pixels in the image. The higher the image quality, the lower the rate of compression and the larger the file sizes. If the economical use of the memory card is important, use the economy mode. Standard image quality is sufficient for normal usage. The super-fine mode will produce the highest quality image and the largest image files. Depending on image size, when capturing super-fine images, a delay of up to fifty seconds can occur as the image is saved to the memory card; the monitors will be blank and the access lamp will glow during that period.

| Data panel | LCD monitor | Quality | File type |
|---|---|---|---|
| QUAL ▦▦▦▮ | S. FIN | Super fine – the highest quality image. | TIFF |
| QUAL ▦▦▮ | FINE | Fine – high-quality image. | JPEG |
| QUAL ▦▦ | STD. | Standard – the default setting. | JPEG |
| QUAL ▦ | ECON. | Economy – the smallest file sizes. | JPEG |

File formats vary with the image quality setting. Super fine images are saved as a TIFF file. The fine, standard, and economy settings are formatted as a JPEG file. Super fine, fine, standard, and economy files can be recorded as color or monochrome images (p. 68) in the multi-function recording mode.

Image size and quality must be set before the picture is taken. Changes made to image size are displayed on the data panel and LCD monitor. Image size must be reset manually. See navigating the auto-recording mode menu section on page 38. In multi-function recording mode, image size and quality are controlled in the basic section of the multi-function recording menu (p. 56).

If image size or quality is changed, the data panel will display the approximate number of images that can be recorded at that setting on the installed memory card. One memory card can contain images with differing sizes and qualities. 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. The actual file size is determined by the scene; some subjects can be compressed further than others.

| Approximate file sizes. | | | | |
|---|---|---|---|---|
| Image quality \ Image size | 2272 X 1704 | 1600 X 1200 | 1280 X 960 | 640 X 480 |
| Super fine | 12MB | 5.6MB | 3.6MB | 900KB |
| Fine | 2.0MB | 1.0MB | 600KB | 200KB |
| Standard | 1.0MB | 500KB | 300KB | 100KB |
| Economy | 500KB | 250KB | 150KB | 50KB |
| Approximate number of images that can be stored on a 16MB memory card. | | | | |
| Super fine | 1 | 2 | 3 | 15 |
| Fine | 7 | 15 | 23 | 82 |
| Standard | 14 | 29 | 45 | 150 |
| Economy | 29 | 56 | 82 | 226 |

# 🎤 Voice memo

Voice memo allows a five or fifteen second audio track to be recorded with a still image. The function is activated and the length of the recording time is set on the auto-recording mode menu (p. 38) or in the custom 2 section of the multi-function recording menu (p. 56). When the function is active, the microphone icon is displayed on the data panel and LCD monitor. The voice memo must be set before taking a picture. It will remain in effect until reset.

After an image is captured, a screen will appear indicating the audio recording has started. A bar graph (1) will display the amount of recorded time remaining. The recording will automatically stop when the set time has elapsed. To cancel the recording and erase the audio track, press the central button of the controller (2) or the shutter-release button (3) before the recording has finished.



Microphone

When used with the continuous-advance or bracketing drive modes (p. 40) the audio file is attached to the last frame of the series. The voice memo can be played back in Quick View or the playback mode

(p. 78). Images with voice-memo audio tracks have the audio-track indicator displayed with them.
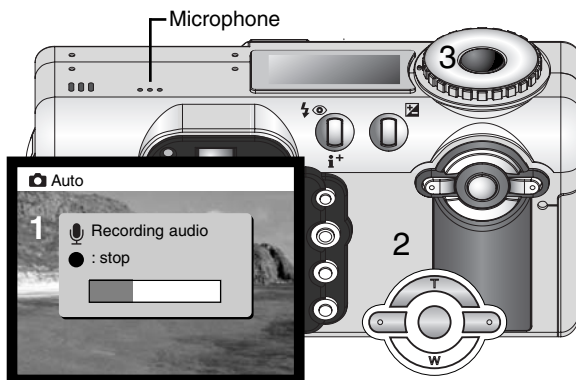
## Recording Tips

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.

# Digital zoom

The digital zoom is activated on the auto-recording mode menu (p. 38) and in the custom 2 section of the multi-function recording mode menu (p. 56). The digital zoom extends the power of the telephoto position of the optical zoom by up to two and a half times in six steps: 1.25X, 1.5X, 1.75X, 2.0X, 2.25X, and 2.5X. The transition between the optical zoom and digital zoom is seamless. When the digital zoom is active, the image magnification is displayed on the monitor. The autofocus mode is set to single-shot AF (p. 64). The digital zoom is canceled if the LCD monitor is turned off (p. 31).

Digital zoom images are interpolated to the set image size. There can be some loss of quality with images taken with the digital zoom.
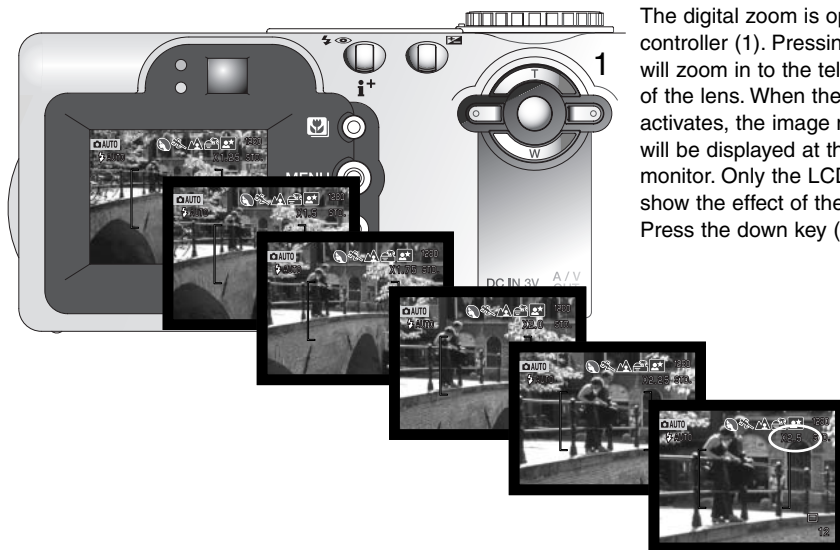


The digital zoom is operated by the controller (1). Pressing the up key (T) will zoom in to the telephoto position of the lens. When the digital zoom activates, the image magnification will be displayed at the top of the monitor. Only the LCD monitor will show the effect of the digital zoom. Press the down key (W) to zoom out.

## Focus area selection
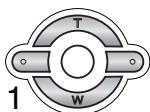
Individual focus areas can be selected. Press and hold the controller (1) until the Area-AF frame lines change to the spot-focus-area display. Press and hold the controller again to return to the Area-AF frame lines.
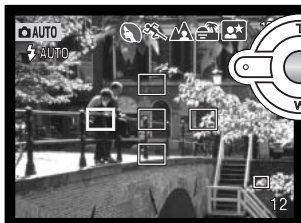
Use the four-way key of the controller (2) to highlight the desired autofocus area; the active area is blue.

Press the shutter-release button partway down (3) or press the center of the controller (4) to select the area; the other four areas will disappear. Focus and exposure is locked. Press the shutter-release button all the way down to take the picture.
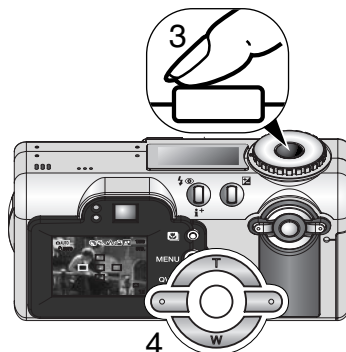
Once a focus area is selected, it will remain active even after the picture has been taken. Only when one focus area is displayed, can the controller be used to zoom (p. 24).

Press and hold the central button of the controller for about one second to return to the Area AF focus frames. The use another focus area, repeat the procedure.

# Focus lock

Focus lock can be used with off-center subjects or when a special focusing situation prevents the camera from focusing (p.27). This function is controlled with the shutter-release button and can be used with focus area selection and single-shot AF (p. 64).



Place the active focus area on the subject. Press and hold the shutter-release button partway down.
• The focus active focus area will turn red and the other four areas will disappear. The focus signal should turn white to indicate the the focus is locked.
• When using single-shot AF with Area AF, place the subject in the focus frames and press the shutter-release button partway down. The focus frames will disappear and a red AF sensor will indicate the point of focus.



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.

The focus signal in the lower right corner of the LCD monitor and the green focus lamp next to the viewfinder indicate the focus status.

Focus signal

| | | | |
|---|---|---|---|
| ○ | ☼ | Focus icon: white<br>Focus lamp: steady | Focus locked. |
| ○ | ☼ | Focus icon: red<br>Focus lamp: blinking | Cannot focus. The subject is too close or a special situation is preventing the AF system from focusing. |

## ◪ Exposure compensation

The camera exposure can be adjusted to make the final picture lighter or darker by as much as ±2EV in 1/3 increments. The exposure-compensation value will remain in effect until it has been reset. In auto-recording mode, exposure compensation is also reset when the mode dial is moved to another position.

The exposure compensation must be set before the image is captured. When making adjustments to exposure, the amount of compensation is shown next to the exposure-compensation icon on the monitor. After the setting is made, the shutter-speed and aperture displays will indicate the actual exposure. Because the exposure can be adjusted in fine steps, the shutter speed or aperture value displayed may not change. When set to any value other than 0.0, the exposure-compensation icon will remain on the data panel and LCD monitor as a warning.

To adjust the exposure, press the exposure-compensation button (1).
• The exposure compensation screen will appear.
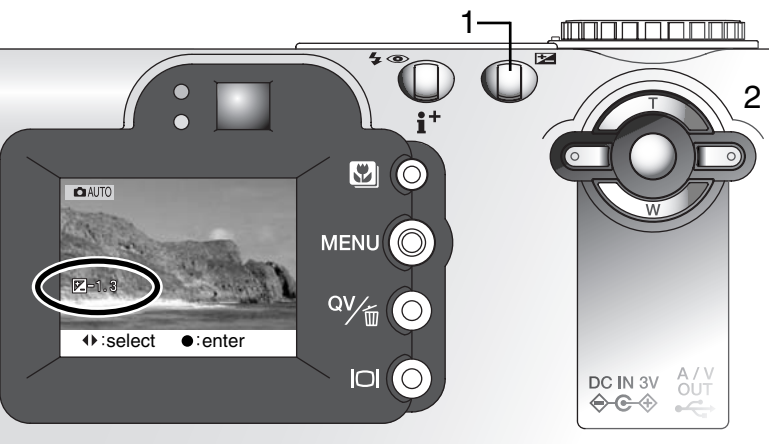


Use the left/right keys of the controller (2) to adjust the exposure-compensation value.
• Change in exposure compensation is visible in the live image on the monitor.

Press the exposure-compensation button to set the adjustment.

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Sometimes the camera's exposure meter is deceived by certain conditions. Exposure compensation can be used in these situations. For example, a very bright scene, such as a snowy landscape or a white sandy beach, can appear too dark in the captured image. Before taking the picture, adjusting the exposure by +1 or +2 EV will result in an image with normal tonal values.

In this example, the dark scene appears bright and washed-out on the LCD monitor. By decreasing the exposure by –1.5 EV, the richness of the sunset is preserved.
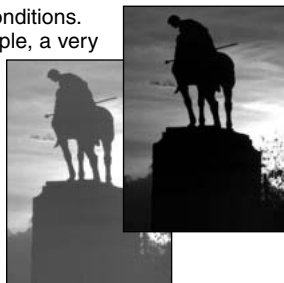
## What is an EV? What is a stop?

EV stands for exposure value. Stop refers to click stops in mechanical cameras. A change of one EV or one stop will adjust the exposure calculated by the camera by a factor of two.

| Change in EV | Change in stops | Adjustment to exposure |
|---|---|---|
| +2.0 EV | +2 stops | 4X as much light |
| +1.0 EV | +1 stop | 2X as much light |
| 0.0 EV | Calculated exposure | |
| –1.0 EV | –1 stop | 1/2 as much light |
| –2.0 EV | –2 stops | 1/4 as much light |

# MULTI-FUNCTION RECORDING MODE ADVANCED OPERATION

Except for digital subject programs, the basic operation of the camera in multi-function recording mode is identical to the auto-recording mode. Thoroughly familiarize yourself with the previous section before moving on.

The multi-function recording mode allows greater control over image making. This recording mode gives more control over autofocus and composition. The menu controls are extensive allowing critical adjustments to image qualities such as sharpness, contrast, and color saturation.

## Multi-function recording mode display
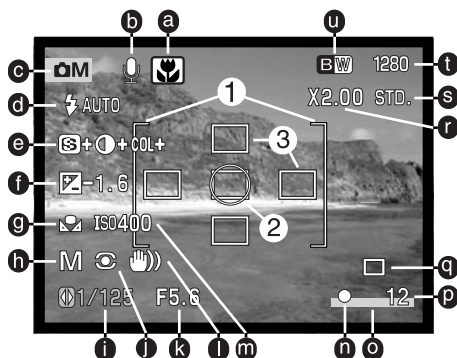


a. Macro-mode indicator (p. 29)
b. Microphone indicator
c. Mode indicator
d. Flash-mode indicator (p. 32)
e. Sharpness, Contrast, and Color-saturation-compensation displays (p. 68)
f. Exposure-compensation display (p. 52)
g. White-balance indicator (p. 62)
h. Exposure-mode indicator (p. 58)
i. Shutter-speed display
j. Metering-mode indicator (p. 66)

k. Aperture display
l. Camera-shake warning (p. 33)
m. Camera-sensitivity (ISO) display (p. 67)
n. Focus signal (p. 27, 51)
o. Date-imprinting indicator (p. 70)
p. Frame counter (p. 13, 47)
q. Drive-mode indicator (p. 40)
r. Digital-zoom display (p. 49)
s. Image-quality indicator (p. 46)
t. Image-size display (p. 46)
u. Color-mode display (p. 68)

1. Focus frame
2. Spot metering area (p. 66)
3. Spot focus areas (p. 50)

## Navigating the multi-function recording mode menu

In multi-function recording mode, the menu button turns the menu on and off. The four-way keys of the controller are used to move the cursor in the menu. Pressing the center of the controller will enter a setting.

Activate the recording-mode menu with the menu button. The "Basic" tab at the top of the menu will be highlighted. Use the left/right keys of the controller to highlight the appropriate menu tab; the menu will change as the tabs are highlighted.

When the desired menu section is displayed, use the up/down keys to scroll through the menu options. Highlight the option whose setting needs to be changed.

With the menu option to be changed highlighted, press the right controller key; the settings will be displayed with the current setting highlighted.
• To return to the menu options, press the left key.

Use the up/down keys to highlight the new setting.

Press the central button of the controller to select the highlighted setting.

Once a setting has been selected, the cursor will return to the menu options and the new setting will be displayed. To return to the recording mode, press the menu button. Changes made to the drive mode, image size, image quality, voice memo, and digital zoom will affect the auto-recording mode.

**Multi**

| Basic | Custom1 | Custom2 |
| --- | --- | --- |
| ExposureMode | Program | |
| Drive mode | Single | |
| Image size | 2272 X 1704 | |
| Quality | Standard | |
| WhiteBalance | Auto | |

| Basic | | Custom 1 | |
|---|---|---|---|
| Exposure mode | Program | Focus mode | AF-single |
| | Aperture priority | | Tracking AF |
| | Shutter priority | | MF |
| | Manual | Full-time AF | On/Off |
| Drive mode | ☐ Single | AF sensor display | On/Off |
| | ☐ Continuous | Metering mode | Multi-segment |
| | ⌛ Self-timer | | Spot |
| | ☐ Bracketing | CameraSensitivity | 100 – 800 ISO |
| Image size | 2272 X 1704 | | Auto |
| | 1600 x 1200 | **Custom 2** | |
| | 1280 X 960 | Digi FX ctrl | Color mode |
| | 640 X 480 | | ⑤ Sharpness |
| Quality | Super fine | | ◑ Contrast |
| | Fine | | COL Saturation |
| | Standard | Voice memo | 15 sec. |
| | Economy | | 5 sec. |
| White balance | ☐ Cust set | | Off |
| | ☐ CustRecall | Date imprinting | On/Off |
| | Auto | Digital zoom | On/Off |
| | Preset | Instant playback | 10 sec. |
| | | | 2 sec. |
| | | | Off |

Refer to the auto-recording mode section for details on drive modes (p. 40), image size (p. 46), image quality (p. 46), voice memo (p. 48), and digital zoom (p. 49).

Use the left/right keys to select the setting and the central button to enter the setting.
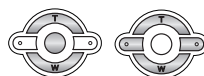
## Exposure modes

### *Programmed AE – P*

The program exposure mode controls both the shutter speed and aperture to ensure perfect exposures. The sophisticated exposure system allows the photographer the freedom to shoot without having to worry about the technical details of exposure settings. The shutter speed and aperture values of the exposure are displayed on the monitor. If shutter speed and aperture displays turn red, the scene is beyond the exposure control range of the camera.

### *Aperture priority – A*

The photographer selects the aperture and the camera sets the appropriate shutter speed to ensure correct exposure. When aperture priority is selected, the aperture value on the monitor turns blue and a double arrow icon appears next to it. If the LCD monitor is turned off, the aperture value

is fixed at the last setting and cannot be changed. The flash mode is set to flash cancel. Fill-flash and fill-flash with red-eye reduction can be selected (p. 32).
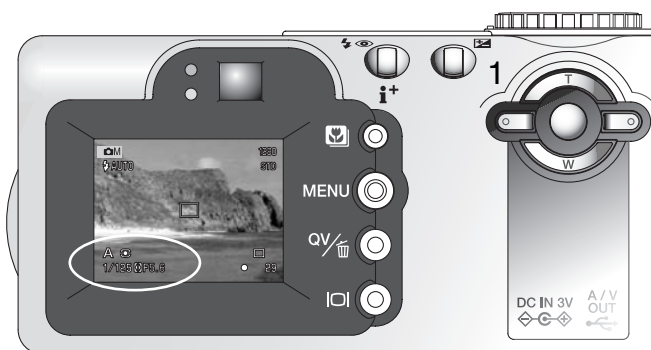
Use the left/right keys of the controller (1) to set the aperture. The aperture value can be changed in half stop increments. Press the shutter-release button to activate the exposure system; the corresponding shutter speed will be displayed on the monitor.

Because the maximum aperture is not the same at the wide-angle and telephoto position, as the lens is zoomed, the aperture will automatically shift. If the aperture value is beyond the shutter-speed range, the shutter-speed display will turn red on the monitor.

## *Shutter priority – S*

The photographer selects the shutter speed and the camera sets the appropriate aperture to ensure correct exposure. When shutter priority is selected, the shutter speed on the monitor turns blue and a double arrow icon appears next to it. If the LCD monitor is turned off, the shutter speed is fixed at the last setting and cannot be changed. The flash mode is set to flash cancel. Fill-flash and fill-flash with red-eye reduction can be selected (p. 32).

Use the left/right keys of the controller (1) to set the shutter speed. The shutter speed can be changed between 1/1000 and 4 seconds. Press the shutter-release button to activate the exposure system; the corresponding aperture will be displayed on the monitor. If the shutter speed is beyond the aperture range, the aperture display will turn red on the monitor.
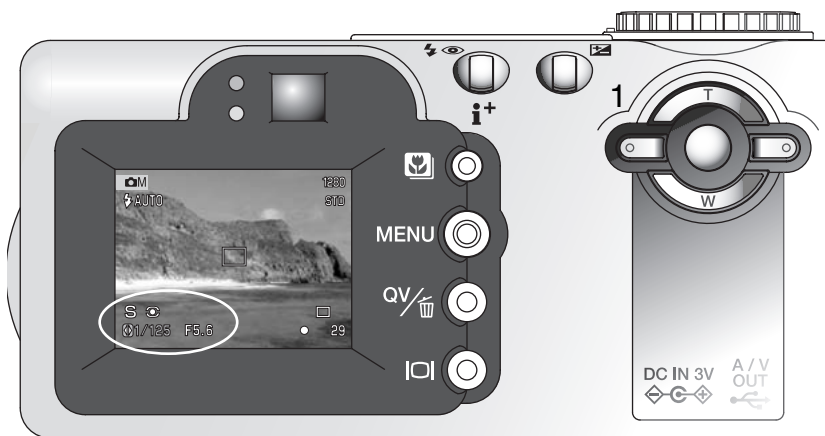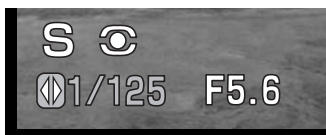
## *Manual exposure – M*

Manual exposure mode allows individual selection of shutter speeds and apertures. This mode overrides the exposure system giving the photographer total control over the final exposure.

As changes are made to the exposure, the effect will be visible on the monitor. The shutter-speed and aperture display will turn red on the monitor if the image is underexposed or overexposed by more than 1 EV. If the monitor is black, increase the exposure until the image is visible; decrease the exposure if the monitor is white. If the LCD monitor is turned off, the exposure is fixed at the last setting and cannot be changed. When the shutter-release button is pressed partway down, the brightness of the live image may change while the camera is focusing.

In manual exposure mode, the auto camera-sensitivity setting will fix the ISO value at 100. The camera sensitivity can be changed in the custom 1 section of the multi-function recording menu (p. 56). The flash mode is set to flash cancel. Fill-flash and fill-flash with red-eye reduction can be selected (p. 32), but the live image will not reflect the ambient or flash exposure.
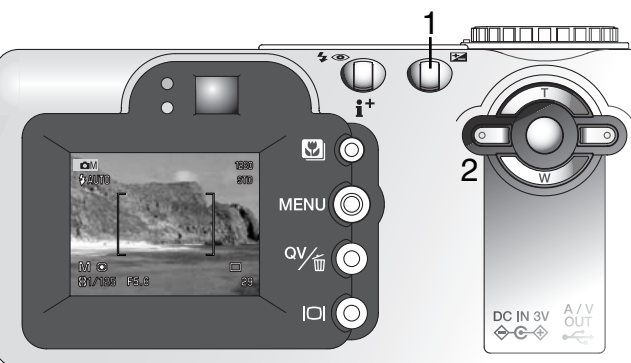
Press the exposure-compensation button (1) to select the aperture or shutter speed; the active display will turn blue.

Use the left/right keys of the controller to change the exposure setting.

## Bulb exposures

Bulb photographs can be taken in the manual-exposure mode. Exposures up to fifteen seconds can be made by pressing and holding the shutter-release button. The use of a tripod is recommended for bulb exposures.

Use the controller (1) to decrease the shutter-speed value below four seconds until "bulb" is displayed.

To set the aperture value, press the exposure-compensation button (2); the aperture display should turn blue. Use the controller (1) to set the aperture.
• The camera's exposure system cannot be used to calculate bulb exposures. The use of a separate light meter is recommended.
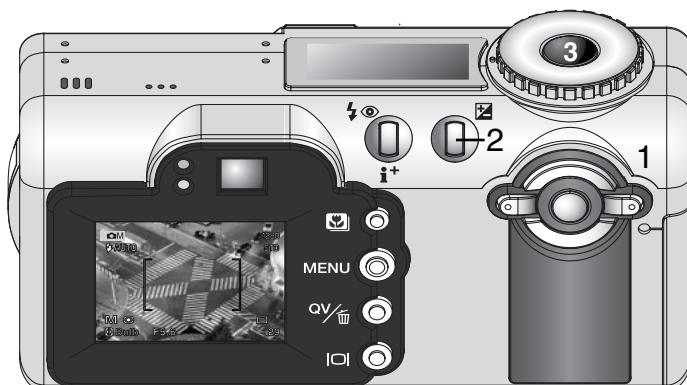


To take the picture, press and hold the shutter-release button (3) for the duration of the exposure.
• Releasing the shutter button will end the exposure.
• The monitors will be blank during the exposure.

## Camera Notes

When making bulb exposures, noise can be more pronounced because of the unusually long exposure times, especially at 400 or 800 ISO. When making long bulb exposures, a camera sensitivity setting of 100 or 200 will produce excellent results. At higher ISO settings, using shorter exposure times (8 seconds or less) will reduce the effect of noise.

# White balance

White balance is the camera's ability to make different types of lighting appear neutral. The effect is similar to selecting daylight or tungsten film, or using color compensating filters in conventional photography. An icon will be displayed on the monitor if a setting other than auto white-balance is chosen. White balance is set in the basic section of the multi-function recording mode menu (p. 56).

## *Automatic White Balance*

The automatic white balance compensates for the color temperature of a scene. In most cases, the AUTO setting will balance the ambient light and create beautiful images, even under mixed-lighting conditions. When the built-in flash is used, the white balance is set for the color temperature of the flash.

## *Preset White Balance*

Preset white-balance settings must be set before the image is taken. Once set, the effect is immediately visible on the LCD monitor.

The built-in flash can be used with preset white-balance settings, but will create a pinkish or blueish cast with the fluorescent and tungsten settings. The flash is daylight balanced and will produce acceptable results with the daylight and cloudy settings.

**Cloudy** – for overcast outdoor scenes.

**Daylight** – for outdoor and sunlit subjects.

**Tungsten** – for incandescent lighting: household filament light bulbs.

**Fluorescent** – for fluorescent lighting: office ceiling lights.

To apply a preset white-balance setting, select preset from the white balance option in the basic section of the multi-function recording mode menu; the preset setting screen will open.

Use the left/right keys of the controller (1) to select the preset setting. An icon is displayed in the bottom left corner of the screen and the live image shows the effect of the white-balance setting. Press the central button of the controller (2) to apply the setting.
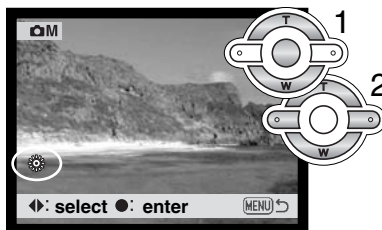
## Custom White Balance

Custom-white-balance function allows a photographer to calibrate the camera to a specific lighting condition. The setting can be used repeatedly until reset. Custom white balance is especially useful with mixed-lighting conditions or when critical control over color is needed. The object used to make a calibration must be neutral. A blank piece of white paper is an ideal surface and can easily be carried in a camera bag.

To calibrate the camera, select custom set from the white balance option in the basic section of the multi-function recording mode menu; the custom white-balance calibration screen will open.

Fill the image area with a white object; the object does not need to be in focus. Press the central button of the controller to make the calibration or press the menu button to cancel the routine. The calibration will take a moment to process. The live view will show the effect of the new white balance setting.

The custom setting will remain in effect until another calibration is made or the white-balance setting is changed. If the custom white-balance setting is required again, select custom recall from the white-balance option of the menu; the last custom white-balance setting will be applied to the camera.

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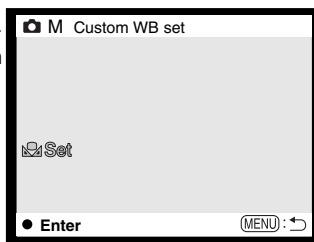
# Focus modes

This camera has autofocus and manual focus control. The focus mode is set in the custom 1 section of the multi-function recording mode menu (p. 56).

Autofocus will produce excellent results in almost every situation, however, under certain conditions, the autofocus system will not work accurately; see special focusing situations on page 27. In these situations the camera can be manually focused.

## *Single-shot AF*

Single-shot AF focuses on the subject and locks the focus position. This focus mode is ideal for static subjects. Because the focus is locked when the shutter-release button is pressed partway down, single-shot AF can be used when the subject is outside the focus frames, or when a special focusing situation is preventing the autofocus system from focusing. For more on focus lock, see page 51. Focus Area Selection (p.50) and the self-timer/remote control drive mode (p. 42) use single-shot AF.

## *Subject Tracking AF*

Place the subject within the Area-AF focus frames and press the shutter-release button partway down; Subject Tracking AF will lock onto the subject and follow the subject's movement in three-dimensional space through the focus area. With the camera stationary, subject tracking AF can follow a subject moving approximately 14.5 km/h (9 mph) toward or away from the camera and 5.4 km/h (3.4 mph) left or right at 3.5 m (12 ft) at the wide-angle lens position or at 10 m (33 ft) at the telephoto position. 14.5 km/h (9 mph) is equivalent to a child running, and 5.4 km/h (3.4 mph) is equivalent to someone walking quickly. This is the primary focus mode in the auto-recording mode.

Subject Tracking AF will automatically switch to single-shot AF under very low lighting conditions. Single-shot AF is used with Focus Area Selection (p. 50), the self-time/remote control drive mode (p. 42), and the digital zoom, or when the monitor is turned off (p. 31).

## Manual focus

After setting the camera to the manual focus mode (MF), "ZOOM" and "FOCUS" will appear at the top of the LCD monitor. Press the center of the controller to switch between the two functions; the function highlighted in blue is active. With "FOCUS" highlighted, use the up/down keys of the controller to focus; the monitor image is automatically magnified so that image sharpness can be judged. Manual focus is not available when the monitor is turned off. The controller function will automatically switch to the zoom.

Press the controller to switch between focus and zoom (1). The active function is highlighted in blue (2).
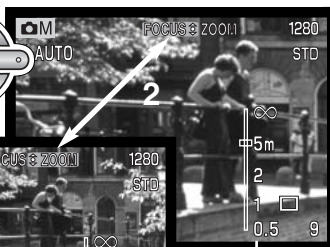
Use the up/down keys of the controller to zoom or focus.
• When focusing, the monitor image is automatically magnified to a maximum of 2.5X depending on the digital zoom setting. The live image returns to normal when zooming or when the shutter-release button is pressed partway down.

Focusing scale shows approximate distance.

## Full-time AF

With full-time AF active, the autofocus systems continually focuses to keep the monitor image sharp. This also reduces the autofocusing time when taking pictures. Full-time AF can be activated in the custom 1 section of the multi-function recording mode menu (p. 56).

When the monitor is turned off or when the camera is set to manual focus, full-time AF is disabled. Turning the full-time AF function off can help conserve battery power.

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## AF sensor display

When using Area AF, the AF-sensor display indicating the point of focus can be turned off. The Area-AF focus frames will remain on the display when the shutter-release button is pressed partway down.

## Metering modes

The icons indicating both metering modes are displayed on the monitor only. The metering mode is set in the custom 1 section of the multi-function recording mode menu (p. 56).

Multi-segment metering uses 256 segments to measure luminance and color. This data is combined with distance information to calculate the camera exposure. This advanced metering system will give accurate worry-free exposures in almost all situations.

Spot metering uses a small area within the image to calculate the exposure. When this mode is selected, the LCD monitor will automatically activate if off and a small circle will appear in the middle of the live image indicating the measuring area. The spot allows precise exposure measurements of a particular object without being influenced by extremely bright or dark areas within the scene. If the LCD monitor is turned off, the spot-metering mode will remain active.

Multi-segment metering

Spot metering
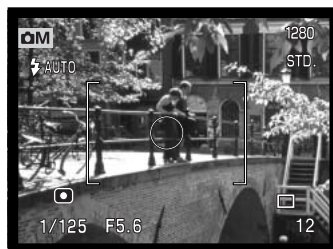
# Camera sensitivity ISO

Five camera sensitivity settings can be selected: Auto, 100, 200, 400, and 800; the numerical values are based on an ISO equivalent. ISO is the standard used to indicate film sensitivity: the higher the number, the more sensitive the film. Camera sensitivity is set in the custom 1 section of the multi-function recording mode menu (p. 56).

The auto setting automatically adjusts the camera sensitivity to the light conditions between ISO 100 and 200. When any other setting than auto is used, "ISO" will appear on the data panel, and "ISO" and the set value will be displayed on the monitor.

A specific sensitivity setting can be selected. As the ISO value doubles, the camera sensitivity doubles. Like grain in silver-halide film that increases with speed, noise increases with sensitivity in digital imaging; an ISO setting of 100 will have the least noise and 800 will have the most noise. An ISO setting of 400 will allow the camera to be hand-held in low-light conditions without the need of a flash.

## *Flash range and camera sensitivity*

The flash range is measured from the CCD. 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 setting | Flash range (wide angle) | Flash range (telephoto) |
|:---:|:---:|:---:|
| AUTO | 0.5m ~ 2.9m (1.6 ft. ~ 9.5 ft.) | 0.5m ~ 1.7m (1.6 ft. ~ 5.6 ft.) |
| 100 | 0.5m ~ 2.0m (1.6 ft. ~ 6.6 ft.) | 0.5m ~ 1.2m (1.6 ft. ~ 3.9 ft.) |
| 200 | 0.5m ~ 2.9m (1.6 ft. ~ 9.5 ft.) | 0.5m ~ 1.7m (1.6 ft. ~ 5.6 ft.) |
| 400 | 0.5m ~ 4.1m (1.6 ft. ~ 13.5 ft.) | 0.5m ~ 2.4m (1.6 ft. ~ 7.9 ft.) |
| 800 | 0.5m ~ 5.8m (1.6 ft. ~ 19.0 ft.) | 0.5m ~ 3.4m (1.6 ft. ~ 11.2 ft.) |

# Digital Effects Control

Changes in color, sharpness, contrast, and saturation can be made using the custom 2 section of the multi-function recording mode menu (p. 56). These imaging controls give photographers the ability to optimise the image information at the scene. For example, if a scene is too contrasty, information can be lost in the shadows and highlights; decreasing the contrast will bring out more detail.

Any changes made with these functions are applied to the live image on the monitor. The color mode, sharpness, contrast, and color saturation levels must be set before the image is recorded. These functions can be used individually or in combination. Turning the camera off will not reset these functions; they must be manually reset using the menu.
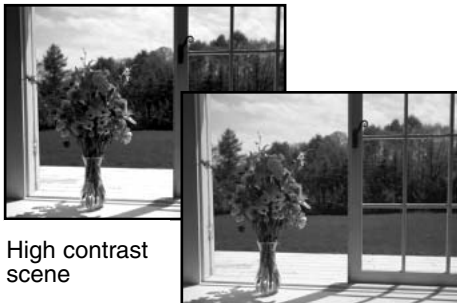


High contrast scene

After compensation (–)

**Color mode** – to select between Natural Color, Vivid Color, and black and white images. Vivid Color has increased saturation.

**Sharpness** – to accent or soften details in an image in three levels: hard (+), normal, and soft (–).

**Contrast** – to increase or decrease the contrast of the scene in three levels: high (+), normal, and low (–).

**Color saturation** – to accent or subdue the color of a scene in three levels: high (+), normal, and low (–).

To change color, sharpness, contrast, or saturation, select the setting from the Digital Effects Control option in the custom 2 section of the multi-function recording mode menu; the setting screen will open.
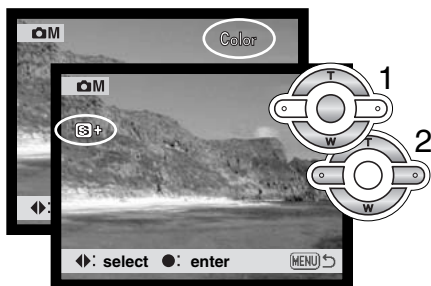


Use the left/right keys of the controller (1) to select the color mode, or level of sharpness, contrast, or saturation; an icon is displayed on the screen and the live image shows the effect of each setting. Press the central button of the controller (2) to apply the setting.

The setting will remain in effect until it is changed. If sharpness, contrast, or color saturation is set to any setting other than normal, an icon will be displayed indicating an increase (+) or decrease (–) in the quality selected. If the Vivid Color is selected, "VIVID" will be displayed at the top of the monitor.

Unlike the display on a computer, changes made with sharpness, contrast, and color saturation may be difficult to see on the LCD monitor. However, when viewed with imaging software, the changes will be evident.

# Date imprinting

The date of recording can be printed directly on the image. The imprinting function must be activated before the image is taken. Once activated, the date will continue to be imprinted until the function is reset; a yellow bar is displayed behind the frame counter on the monitor to indicate the imprinting function is active. Date imprinting is activated with the custom 2 section of the multi-function recording menu (p. 56).

Date-imprinting indicator
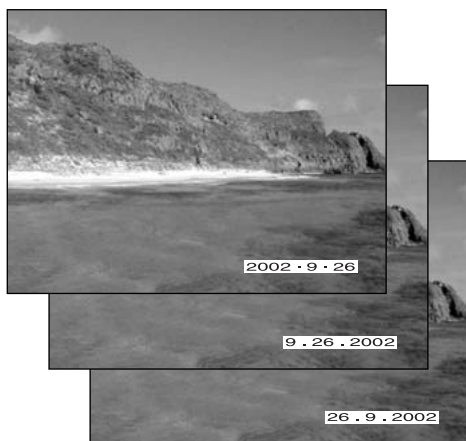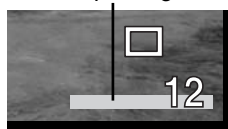


The date is imprinted in the lower right corner of the image when viewed horizontally. It is printed directly on the photograph writing over the image information. The date can be imprinted in three formats: year/month/day, month/day/year, and day/month/year. The date and date format are set in the custom 2 section of the setup-mode menu (p. 96).



2002 · 9 · 26

9 . 26 . 2002

26 . 9 . 2002

## Camera Notes

Every time a still image is recorded, it is stored with an Exif tag that contains the date and time of recording as well as shooting information. This information can be viewed with the camera in the playback or quick-view mode, or on a computer with the DiMAGE Viewer software.

# Instant playback

After an image is captured, it can be displayed on the monitor before being saved. When used with the continuous-advance or bracketing drive modes (p. 40), thumbnails of the last six images in the series will be displayed.

Instant playback is activated in the custom 2 section of the multi-function recording menu (p. 56). A playback period of 2 or 10 seconds can be selected. When used with voice memo, the audio recording will begin after the image is played back.
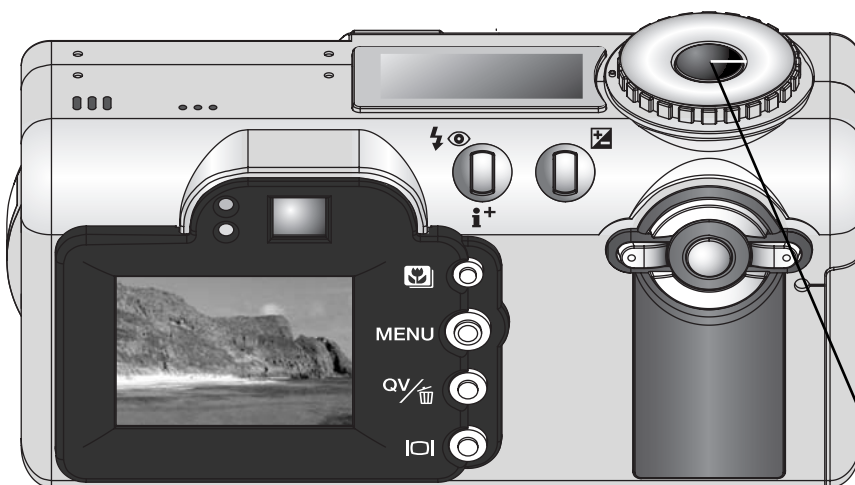


To cancel the playback and save the image before the end of the playback period, press the shutter-release button partway down.

Photography can be a rewarding pursuit. It is a broad and disciplined field that can take years to master. But the pleasure in making photographs and the joy of capturing a magical moment cannot be compared. This guide is an introduction to some basic photographic principles.

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 wide-angle position of the lens has a large depth of field; the telephoto position has a shallow depth of field.

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.





The change in aperture and shutter speed is not apparent in the live image. Unlike film cameras, test photographs can be taken and immediately viewed. For critical work, take a test photograph at the set aperture or shutter speed and view the result in Quick View (p. 34). The image can be deleted if not acceptable and another test image can be taken at a different setting.

# MOVIE RECORDING

This camera can record up to thirty-five seconds of digital video with sound. The motion JPEG image is 320 X 240 pixels (QVGA). Total recording time with an 16MB memory card is approximately 41 seconds. The digital video recording rate is approximately 340KB per second. Actual memory card capacity depends on the subject and the number of files stored on the card.

In movie recording, some functions can be used, some are fixed, and some are disabled. This mode has no menu controls. The flash and digital zoom are disabled.

| | |
|---|---|
| Exposure compensation (p. 52) | Available |
| Macro mode (p. 29) | Available |
| Focus mode (p. 64) | Single-shot AF (fixed) |
| Autofocus area | Area AF focus frames (fixed) |
| Exposure mode (p. 58) | Program (fixed) |
| Camera sensitivity (p. 67) | Auto (fixed) |
| White balance (p. 62) | Auto (fixed) |



**Total recording time for the next movie clip**

Before recording, the data-panel and monitor frame counters will show the maximum time in seconds that can be recorded on the next movie clip. A maximum of 35 seconds will be displayed until the amount of remaining time falls below the thirty-five second limit, then the remaining number of seconds that can be recorded will be displayed.

Countdown in seconds

Recording indicator
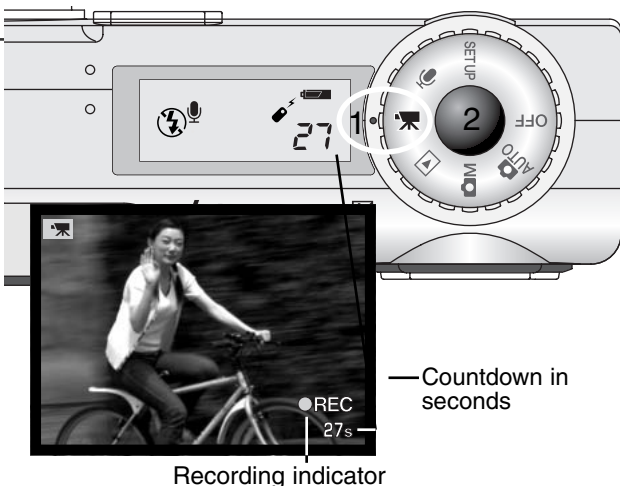
Shooting digital video is simple. Set the main dial to movie recording (1). Frame the picture as described in the basic recording operation section (p. 26). Press the shutter-release button partway down to lock the focus (2). Press the shutter-release button all the way down and release to start recording. During recording, the focus is fixed, but a stepless 2.5X digital zoom is available. The camera will continue to record until the recording time is used or the shutter-release button is pressed again. When recording, the data panel and monitor frame counters will count down the remaining time.

## Recording movies and audio with the RC-3 remote control

The RC-3 remote control (sold separately) can be used to record movie clips and audio tracks (p. 76) from up to 5m (16ft) away. Simply point the remote control toward the camera and use the release or delay button to start and stop the recording.

When the release (1) or delay (2) button is pressed, the self-timer lamp will blink once before the camera starts to record. The lamp will glow to indicate the camera is recording. Both buttons will stop the camera when pressed. The remote control may not operate with backlit subjects or under fluorescent light.

# AUDIO RECORDING

Microphone
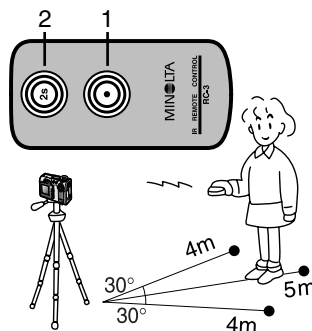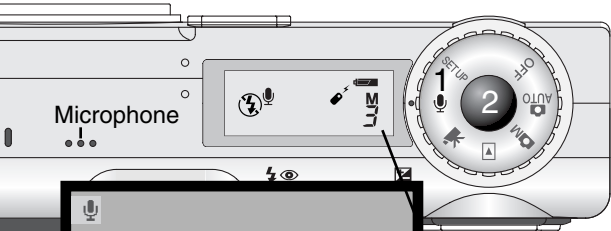
Audio can be recorded without an image. About 30 minutes of audio can be stored on a 16MB memory card. Audio is recorded at approximately 8KB/s. A maximum of 30 minutes can be recorded at one time Turn the mode dial to the audio-recording position (1); a blue screen is displayed.

PressShutterButtonToRecord.

3:00
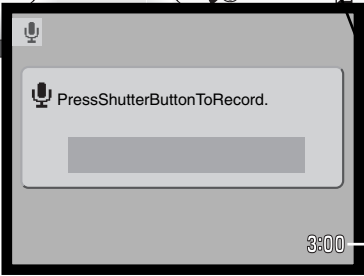
Stand-by

Remaining recording time

In stand-by, the monitor and data panel show the approximate recording time available. Above the data panel frame counter, the unit of the remaining time is displayed: M – minute, S – second.

Recording audio.
Press shutter to stop.

3

2:14

Recording countdown

To begin recording, press and release the shutter button (2). A bar graph (3) and the frame counter will display the amount of recorded time. The recording will stop when the shutter-release button is pressed again or the remaining time has elapsed.

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.

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# PLAYBACK MODE
# VIEWING AND EDITING IMAGES

## Single-frame playback and histogram display

Mode indicator

Image size (p. 46)
Image quality (p. 46)

Aperture value
Shutter speed

Time of capture

1/125   1280
F5.6   STD
AWB

White-balance setting (p. 62)

14:20   100-0056
2002.04.27 [ ] 2 [0029/0078]

ISO AUTO

Sensitivity setting (p. 67)

0

Degree of exposure compensation (p. 52)

Date of capture

MLT08

Folder name

Audio-track indicator (p. 78)

2002.04.27   100-0056

Lock indicator (p. 86)

Print indicator (p. 90)

Frame number/total number of images

Folder number – image file number

Histogram

The histogram shows the luminance distribution of the recorded image from black (left) to white (right). Each one of the 256 vertical lines indicates the relative proportion of that light value in the image. The histogram can be used to evaluate exposure, but displays no color information.

**i⁺** To switch between the single-frame playback and histogram display, press the information button.
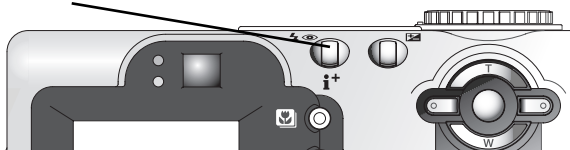
## Viewing images

Simply turn the mode dial to the playback-mode position to access images and audio tracks. Image and audio files can be deleted, locked, and copied in the playback mode.

Use the left/right keys of the controller to scroll through the image and audio files on the memory card.

### *Playing back voice memos and audio captions*

Voice memos (p. 48) and audio captions (p. 87) are indicated by the audio-track indicator displayed at the bottom of the monitor image.

Press the central button of the controller to start the audio playback.
• To cancel the playback of the voice memo or audio caption press the menu button.
• During playback, use the up/down keys to adjust the volume.

Controller

Menu button

QV/Delete button

Display button
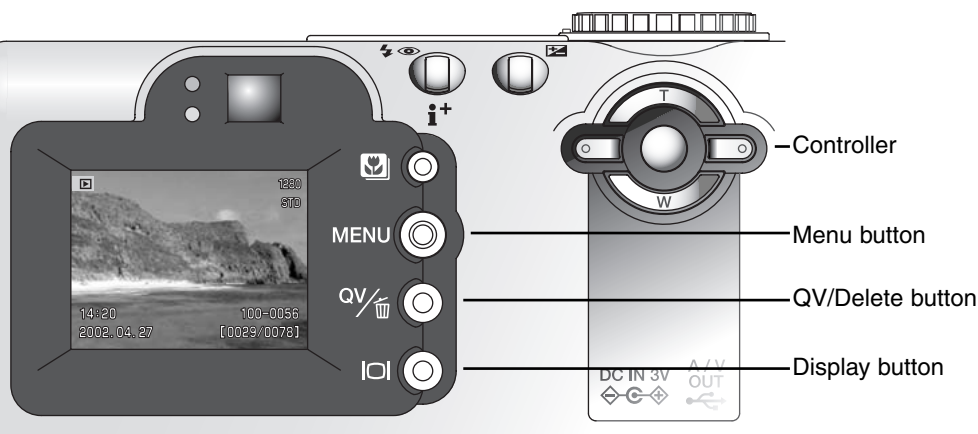
## Playing back movies and audio recordings

Movie clips and audio recordings are played back the same way. Use the left/right keys of the controller to display the movie or audio file; audio files are displayed with a blue screen.
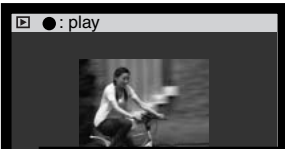
▶ ●: play

Press the center of the controller to play back a movie or audio file.
• Press the display button to view the movie with or without the guidance bar.

12:
200

▶ ● Pause MENU⤴Stop ⬍Vol 0:23

Press the controller to pause the movie or audio playback; pressing the controller again will resume the playback.

During playback, use the up/down key to adjust the volume.

To cancel the playback, press the menu button.

▶ ● Pause MENU⤴Stop ⬍Vol 0:23
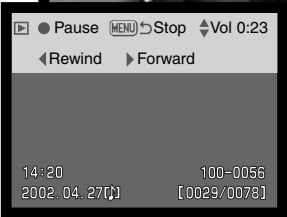
◀Rewind ▶Forward

During the audio playback, the left key will rewind the recording and the right key will forward the audio track.

14:20                      100-0056
2002.04.27[♪]        [0029/0078]

## Deleting single files

QV/🗑

To delete a displayed file, press the QV/Delete button.
• A confirmation screen will appear.

Use the left/right keys to highlight "YES."
• "NO" will cancel the operation.

Press the central button of the controller to delete the file.

**Once deleted,
a file cannot
be recovered.**

⚠ **Delete this frame?**

Yes     No

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## Enlarged playback

In Quick View or in single-frame playback, a still image can be enlarged in six steps for closer examination: 1.5X, 2.0X, 2.5X, 3.0X, 3.5X, 4.0X, 4.5X, and 5.0X.

With the image to be magnified displayed, press the up key of the controller to activate the enlarged playback mode.
• The degree of magnification is displayed on the LCD monitor.

Pressing the up key increases the image magnification. Pressing the down key decreases the magnification.

• The display button switches between showing the full display and the image only.

To scroll the image, press the central button of the controller.
• Pressing the center button switches between the enlarged-playback and scroll screens.

Use the four-way keys of the controller to scroll the image.

MENU   • To exit the enlarged playback mode, press the menu button.

80
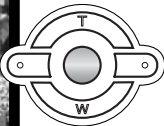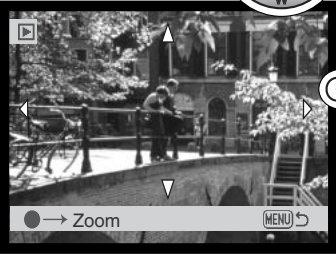
# Display button – playback mode

The display button controls the display format.
Each time the button is pressed, the display cycles
through to the next format: full display, image only,
index playback.

Full display

Image only

Display button
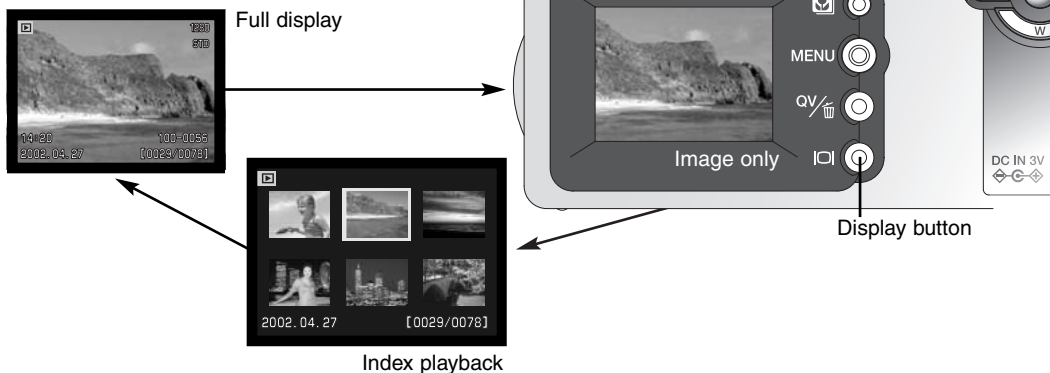
Index playback

In index playback, the four-way keys of the controller will move the yellow border. When the image is
highlighted with the border, the date of recording, voice memo icon, the lock and printing status, and
the frame number of the image are displayed at the bottom of the screen. The highlighted image can
be deleted using the QV/Delete button (p. 79), or an audio track or movie clip can be played by
pressing the central button of the controller. When the display button is pressed again, the highlighted
image will be displayed in the single-frame playback mode.

## Navigating the playback-mode menu

In playback mode, the menu button turns the menu on and off. The four-way keys of the controller are used to move the cursor in the menu. Pressing the center of the controller will enter a setting.

Activate the playback menu with the menu button. The "Basic" tab at the top of the menu will be highlighted. Use the left/right keys of the controller to highlight the appropriate menu tab; the menu will change as the tabs are highlighted.

When the desired menu section is displayed, use the up/down keys to scroll through the menu options. Highlight the option whose setting needs to be changed.

With the menu option to be changed highlighted, press the right controller key; the settings will be displayed with the current setting highlighted.
• To return to the menu options, press the left key.

Use the up/down keys to highlight the new setting.
• If "Enter" is displayed, press the center button to continue.

Press the central button of the controller to select the highlighted setting.

Once a setting has been selected, the cursor will return to the menu options and the new setting will be displayed. Changes can continue to be made. To return to the playback mode, press the menu button.

| Basic | | | |
|---|---|---|---|
| Delete | This frame | | |
| | All frames | | **Yes** **No** |
| | Marked frames | | Choosing "Yes" will execute the operation, "No" will cancel it. |
| Lock | This frame | | |
| | All frames | | |
| | Marked frames | | |
| | Unlock frames | | |
| Audio caption | Enter | | 🎤 **Recording audio** |

| Custom 1 | | |
|---|---|---|
| Slide show | Start | |
| Duration | 1 – 60 sec. | For information on frame-selection screens, see page 84. |
| Repeat | Yes / No | |

Pressing the down key of the controller will cancel the slide show and return to the menu.

| Custom 2 | | | |
|---|---|---|---|
| Print | This frame | | |
| | All frames | | |
| | Marked frames | | Number of copies |
| | Cancel all | | |
| Index print | Yes | | |
| | No | | |
| Copy | This frame | | 1 Copying to camera memory. |
| | Marked frames | | 2 Change card. |
| E-mail Copy | This frame | | 3 Copying to memory card. |
| | Marked frames | | 4 Copying completed. |

New folder name

Refer to the following sections for descriptions of the menu options and their settings.

## Frame-selection screen

When a marked-frames setting is chosen on a menu, the frame selection screen will appear. This screen allows multiple images to be chosen.



The left/right keys of the controller move the yellow border to select the image.

MENU

The menu button cancels the screen and any operation made.
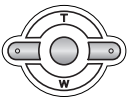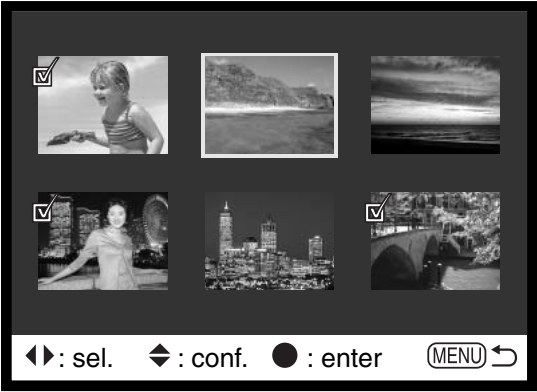
The up key of the controller selects the frame; when selected, an icon will appear next to the image. The down key will deselect the image removing the icon.

◀▶: sel.     ◆: conf.     ●: enter     (MENU) ↩

The garbage-can icon indicates the image is selected for deletion.

The key icon indicates the image is locked or selected to be locked.

The check icon indicates the image is selected for the slide show or to be copied to another memory card.

The printer icon indicates the image is selected for printing. The number next to the icon shows the number of copies requested.

## Deleting files

Deleting permanently erases the file. Once deleted, a file cannot be recovered.
Care should be taken when deleting images.

Single, multiple, or all files on the memory card can be deleted in the basic section of the playback-mode menu (p. 82). Before a file is deleted, a confirmation screen will appear; choosing "Yes" will execute the operation, "No" will cancel the operation. The delete option has three settings:

**This frame** – The file displayed or highlighted in playback mode will be deleted.

**All frames** – All unlocked files will be deleted.

**Marked frames** – To delete multiple files. When this setting is chosen, the frame-selection screen will be displayed. Use the left/right keys of the controller to highlight the first file to be deleted. Pressing the up key will mark the thumbnail with the garbage-can icon. To deselect a file for deletion, highlight it with the yellow border and press the down key; the garbage-can icon will disappear. Continue until all the files to be deleted are marked. Press the central button of the controller to continue (the confirmation screen will appear), or press the menu button to cancel the operation and return to the playback menu. On the confirmation screen, highlighting and entering "Yes" will delete the marked files.

The delete function will only erase unlocked files. If a file is locked, it must be unlocked before it can be deleted.

## Locking files

Single, multiple, or all files can be locked. A locked file cannot be deleted by either the playback-mode menu functions or the QV/Delete button. Important images and audio recordings should be locked. The lock function is in the basic section of the playback menu (p. 82). The lock option has four settings:

**This frame** – The file displayed or highlighted in playback mode will be locked.

**All frames** – All files on the memory card will be locked.

**Marked frames** – To lock or unlock multiple files. When this setting is chosen, the frame-selection screen will be displayed. Use the left/right keys of the controller to highlight the file to be locked. Pressing the up key will mark the file with the key icon. To unlock a file, highlight it with the yellow border and press the down key; the key icon will disappear. Continue until all the files to be locked are marked. Press the central button of the controller to lock the marked thumbnails, or press the menu button to cancel the operation and return to the playback menu.

**Unlock frames –** All files on the memory card will be unlocked.

Locking a file will protect it from a delete function. However, the formatting function (p. 98) will erase all files on a memory card whether locked or not.

# Audio captioning

A still image can have a fifteen-second audio caption attached to it. This function will also replace a voice-memo audio track recorded with an image. Audio captions cannot be attached to movie clips, nor can they overwrite audio recordings.

Display the image to which the audio caption will be attached. If the image is locked, unlock it using the basic section of the playback menu (p. 82).
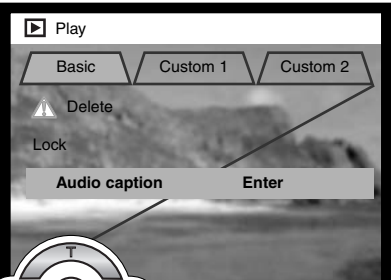
On the playback menu, highlight the enter setting in the audio-caption option.

Press the central button of the controller (1) to start recording.
• If an audio track is already attached to the image, a confirmation screen will appear. Choosing and entering "Yes" will start the audio caption recording replacing the previous audio track. "No" will cancel the audio-caption operation.
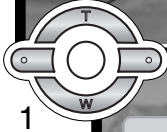
The audio caption can be stopped during the fifteen-second recording period by pressing the central button of the controller (1).

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## Slide show

The custom 1 section of the playback-mode menu controls the slide-show function. This function automatically displays all still images on the memory card in order.



[009/028] — Frame countdown/total number of images in the presentation.
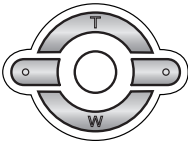
 Press the central button of the controller to pause and restart the presentation.
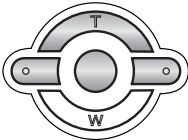
 To cancel the presentation, press the down key.

| Menu options | Settings | |
| --- | --- | --- |
| Slide show | Enter | To start the slide-show presentation. Pressing the central button of the controller will pause the presentation. During the slide show, press the down key of the controller to stop the presentation and return to the playback-mode menu. |
| Playback | All frames | To select all the images on the memory card to be displayed in the slide-show presentation. |
| | Marked Frames | To select specific images to be displayed in the slide-show presentation. When this setting is chosen, the frame-selection screen will be displayed. Use the left/right keys of the controller to highlight the image to be included in the presentation. Pressing the up key will mark the image with a check icon. To deselect a marked image, highlight it with the yellow border and press the down key; the check icon will disappear. Continue until all the images have been edited. Press the controller to set the marked frames, or press the menu button to cancel the operation and return to the playback menu. |
| Duration | 1 – 60s. | To select the period each image will be displayed during the slide show. |
| Repeat | Yes/No | Selecting "Yes" will cause the slide show to repeat until it is canceled using the down key of the controller. "No" will end the slide show presentation and return to the playback-mode menu when all the images have been displayed once. |

## About DPOF

This camera is supported by DPOF™ version 1.1. The DPOF (Digital Print Order Format) allows direct printing of still images from digital cameras. After the DPOF file is created, the memory card is simply taken to a photofinishing service or inserted into the memory-card slot of DPOF compatible printers. When a DPOF file is created, a misc. folder is automatically created on the memory card to store it (p. 112).

## Creating a DPOF Print Order

The print menu option is used to set an order for standard prints from still images on the memory card. Single, multiple, or all images can be printed. Print orders are created in the custom 2 section of the playback-mode menu (p. 82). The print menu option has four settings:

**This-frame** – To create a DPOF file for the image displayed or highlighted in playback mode.

**All-frames** – To create a DPOF file for all images on the memory card.

**Marked frames** – To chose a group of images to be printed or when the number of copies of each image varies. When selected, the frame selection screen will appear. Use the left/right keys of the controller to highlight an image to be printed. Pressing the up key will mark the image with the printer icon. The number next to the icon indicates the number of copies that will be printed. Pressing the up key will increase the number of copies, pressing the down key will decrease the number. A maximum of nine copies can be ordered. To deselect an image for printing, press the down key until the number of copies reaches zero and the printer icon disappears. Continue until all the images to be printed are marked. Press the central button of the controller to create the DPOF file, or press the menu button to cancel the operation and return to the playback menu.

**Cancel all** – To delete the DPOF file. When the setting is selected, a confirmation screen will appear; choosing and entering "Yes" will execute the operation and cancel the print order.

When the this-frame or all-frames setting is chosen, a screen will appear requesting the number of copies of each image; a maximum of nine copies can be ordered. Use the up/down keys of the controller to set the number of copies desired. If the all-frames setting was used to create a print order, any additional images saved afterwards in the folder will not be included in the order.

DPOF files cannot be created for images captured with another camera. DPOF data created on other cameras will not be recognized. After the pictures have been printed, the DPOF file will still remain on the memory card and must be canceled manually.

## Ordering an Index Print

To create an index print of all the images in the folder, select "Yes."
To cancel an index print, simply change the setting to "No." If an
index-print order is created, any additional images saved afterwards
in the folder will not be included in the index print. The number of
images printed per sheet differs between printers. The information
printed with the thumbnails can vary.

# Copy and E-mail Copy

The copy function makes exact copies of audio or image files and can store the copied image on another memory card. E-mail Copy makes a standard 640 X 480 (VGA) JPEG copy of the original still image so that it may be easily transmitted by e-mail. If an economy image is selected for E-mail Copy, the image quality will not change. The copy functions are selected in the custom 2 section of the playback-mode menu (p. 82).

Every time a copy function is used, a new folder is automatically created for the files (p. 112); copy files are placed in a folder with a name ending in CP, and E-mail Copy images are placed in a folder ending in EM. Images with voice memos are copied with their audio files. Copies of locked images are unlocked. DPOF information is not copied.

The copy and E-mail copy functions have two menu options:

**This frame** – To copy the file displayed or highlighted in playback mode.

**Marked frames** – To copy single or multiple files. When selected, the frame-selection screen will appear; highlight the file to be copied with the yellow border and then press the up key of the con-troller to mark it with the check icon. To deselect a file to be copied, highlight the selected thumbnail and press the down key; the check icon will disappear. Continue until all the files to be copied are marked. Press the central button of the controller to continue, or press the menu button to cancel the operation and return to the playback menu.

If too many images have been selected, a warning will appear and the copy routine will be canceled. Divide the number of images into two or three batches. Up to 14.5 MB of data can be copied and 9 MB of data can be converted into E-mail copies. When making E-mail copies, only one super fine image can be converted at a time.

```
Copy
1  Copying to camera memory.
▼
2  Change card.
▼
3  Copying to memory card.
▼
4  Copying completed.
●  Enter                        (MENU) ↩
```
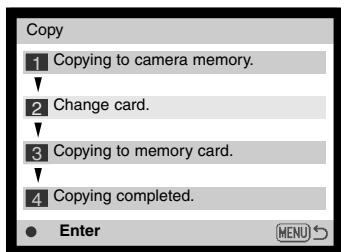
When the image(s) to be copied or converted to an e-mail file are selected, a screen with four messages is displayed. The messages are highlighted during the copying procedure.
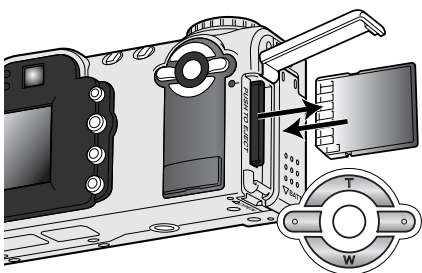


When the change-card message is highlighted, remove the camera's memory card and insert the card to which the image should be copied. Press the central button of the controller to continue or the menu button to cancel the copy operation.



```
<101MLTEM>
   OK
            <101MLTCP>
               OK
```
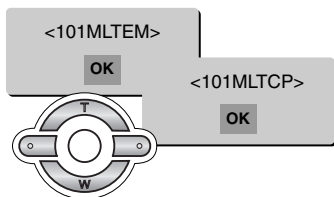
After the copy-completed message is highlighted, a new screen will appear to indicate the name of the new folder containing the copied images; press the central button of the controller to return to the menu. If two files with identical names are selected to be copied, two consecutive folders will be creates to contain them.

The copy-unsuccessful message will appear when one or all of the images could not be copied. Check the second memory card to see which files were copied and then repeat the procedure for the images that were not transferred.

## Viewing images on a television

It is possible to view camera images on your television. The camera has a video-out terminal to make the connection using the supplied AV cable. The camera is compatible with the NTSC and PAL standards. The video-output setting can be checked and set in the custom 2 section of the setup menu (p. 96).

2

3
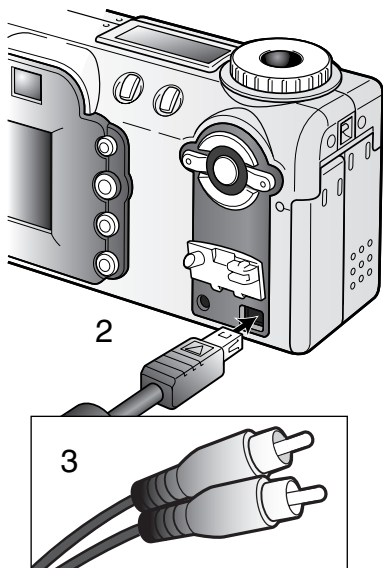
1. Turn off the television and the camera.

2. Insert the mini-plug end of the AV cable into the camera's AV-out terminal.

3. Plug the other end of the AV cable into the video and audio input terminals on the television.
   • The yellow plug is for the video output. The white plug is for the monaural audio output.

4. Turn the television on.

5. Change the television to the video channel.

6. Turn the camera's mode dial to the playback position.
   • The camera's monitors will not activate when the camera is attached to a television. The playback-mode display will be visible on the television screen.

7. View images as described in the playback section.

# SETUP MODE
# CONTROLLING THE CAMERA'S OPERATION

The setup mode is used to control the camera's functions and operation as well as to select image folders. The navigating the setup menu section covers the operation of the menu. The section is followed by detailed descriptions of the settings.

## Minolta History



Innovation and creativity has always been a driving force behind Minolta products. The Electro-zoom X was purely an exercise in camera design. It was unveiled at Photokina in Germany in 1966.

The Electro-zoom X was an electronically controlled aperture-priority mechanical SLR with a built-in 30 – 120mm f/3.5 zoom lens giving twenty 12 X 17mm images on a roll of 16mm film. The shutter-release button and battery chamber are located in the grip. Only a few prototypes were built making it one of Minolta's rarest cameras.

## Navigating the setup menu

To access the menu, simply turn the mode dial to the setup position. The four-way keys of the controller are used to move the cursor in the menu. The central button of the controller will enter a setting.

The "Basic" tab at the top of the menu will be highlighted. Use the left/right keys of the controller to highlight the appropriate menu tab; the menu will change as the tabs are highlighted.

When the desired menu section is displayed, use the up/down keys to scroll through the menu options. Highlight the option whose setting needs to be changed.

With the menu option to be changed highlighted, press the right controller key; the settings will be displayed with the current setting highlighted.
• To return to the menu options, press the left key.

Use the up/down keys to highlight the new setting.
• If "Enter" is displayed, press the center button to continue.

Press the central button of the controller to select the highlighted setting.

Once a setting has been selected, the cursor will return to the menu options and the new setting will be displayed. Setting can continue to be made.

Setup

Basic  Custom1  Custom2

| LCDbrightness | – |
| Format | – |
| Power save | 3 min. |
| Language | English |

MENU

QV

DC IN 3V

A / V OUT

| Basic | | |
|---|---|---|
| LCD brightness | Enter | |
| Format | Enter | |
| Power save | 1, 3, 5, 10 min. | |
| Language | Japanese | |
| | English | |
| | Deutsch | |
| | Français | |
| | Español | |



Use the left/right keys to adjust the monitor brightness. press the central button to set the level.

Choosing "Yes" on the confirmation screens will execute the operation, "No" will cancel the operation.

| Custom 1 | | |
|---|---|---|
| File # memory | Enter | |
| Folder name | Standard form | |
| | Date form | |
| Audio signals | 1 | |
| | 2 | |
| | Off | |
| Shutter FX | 1 | |
| | 2 | |
| | Off | |
| Volume | 3 (High) | |
| | 2 | |
| | 1 (Low) | |

Yes   No

Refer to the following sections for descriptions of the menu options and their settings.

On the date/time setting screen, use the left/right keys of the controller to select the year, month, day, hour, or minute. The up/down keys are used to change the value. Press the central button of the controller to set the calendar and clock.

| Custom 2 | | |
|---|---|---|
| Reset default | Enter | |
| Date/Time set | Enter | |
| Date format | YYYY/MM/DD | |
| | MM/DD/YYYY | |
| | DD/MM/YYYY | |
| Video output | NTSC | |
| | PAL | |

Yes   No

Setup      Date/Time set      (MENU) : ↰

▲
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▼

● Enter

## LCD monitor brightness

The brightness of the LCD monitor can be set in eleven levels. The brightness setting screen is opened from the basic section of the setup menu (p. 96). Use the left/right keys of the controller (1) to adjust the brightness; the monitor image will change accordingly. Press the central button of the controller (2) to set the brightness level.
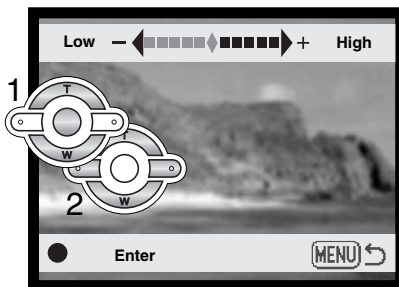


## Formatting memory cards

**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. Locking images will not protect 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.

When the format option is selected and entered in the basic section of the setup menu (p. 96), a confirmation screen will appear. Choosing "Yes" will format the card, choosing "No" will cancel the formatting operation. A screen will appear to indicate the card has been formatted; press the central button of the controller to return to the setup menu.

If the card-not-recognized message appears, the inserted card in the camera may need to be formatted. A memory card used in another camera may have to be formatted before being used. If the unable-to-use-card message appears, the card is not compatible with the camera and cannot be formatted.

## Auto Power Save

To conserve battery power, the camera will shut down if no operation is made within a certain period. The length of the auto-power-save period can be changed to 1, 3, 5, or 10 minutes. When the camera is connected to a computer, the auto-power-save period is fixed at ten minutes.

## Language

The language used in the menus can be changed.

## File Number (#) Memory

If file number memory is selected, when a new folder is created, the first file stored in the folder will have a number one greater than the last file saved. If the file number memory is disabled, the image file name will have a number one greater than the last image saved in the folder.

If file number memory is active and the memory card is changed, the first file saved to the new card will have a number one greater than the last file saved on the previous card if the new card does not contain an image with a greater file number. If it does, the file number of the new image will be one greater than the greatest on the card.

## Folder name

All recorded images are stored in folders on the memory card. Folder names come in two formats: standard and date.

Standard folders have an eight character name. The initial folder is named 100MLT08. The first three digits are the folder's serial number, which will increase by one each time a new folder is created. The next three letters refer to Minolta, and the last two numbers indicate the camera used; 08 indicates a DiMAGE F100.

100MLT08
(Standard)

A date folder name also starts with the three digit serial number and is followed by one figure for the year, two figure for the month, and two figure for the day: 101YMMDD. The folder 10120412 was created in 2002 on April 12th.

10120412
(Date)

With the date folder format selected, when an image is recorded a new folder with the day's date will be created. All images recorded that day will be placed in that folder. Images recorded on a different day will be placed in a new folder with the corresponding date. If the file number memory function is off (p. 99), when a new folder is created, the serial number in the image-file name is reset to 0001. For more information on folder organization and file names, see page 112.

## Audio signals

Every time a button is pressed, an audio signal will give a positive confirmation of the operation. The audio signals can be turn off in the custom 1 section of the setup menu (p. 96). The tone of the signal can also be changed; signal 1 is mechanical and signal 2 is electrical.

## Shutter FX

When the shutter is released, a shutter sound effect will give a positive confirmation of the operation. The sound effect can be turn off in the custom 1 section of the setup menu (p. 96). Two shutter effects are available; signal 1 is mechanical and signal 2 is electrical. The mechanical shutter sound was taken from the legendary Minolta CLE, a compact rangefinder that represents the pinnacle of the development of the Leitz-Minolta CL.

## Volume

The volume of the audio signals and sound effects can be increased or decreased in the custom 1section of the setup menu (p. 96). This affects the camera's audio signals only and will not change the playback levels of an audio track.

## Reset default

This function affects all modes. When selected, a confirmation screen will appear; choosing "Yes" resets the following functions and settings, "No" cancels the operation.

| | | |
|---|---|---|
| Exposure mode | Program | p. 58 |
| Focus mode | Area AF with single-shot AF* | p. 64 |
| Full-time AF | Off (Multi-function recording mode) | p. 65 |
| Digital zoom | Off | p. 49 |
| Drive mode | Single-frame advance | p. 40 |
| Flash mode | Autoflash | p. 32 |
| Image quality | Standard | p. 46 |
| Image size | 2272 X 1704 | p. 46 |

| Metering mode | Multi-segment | p. 66 |
|---|---|---|
| Exposure compensation | 0.0 | p. 52 |
| Camera sensitivity (ISO) | Auto | p. 67 |
| White balance | Auto | p. 62 |
| AF sensor display | On | p. 66 |
| Voice memo | Off | p. 48 |
| Date imprinting | Off | p. 70 |
| Instant playback | Off | p. 71 |
| Color mode | Natural Color | p. 68 |
| Sharpness | Normal | p. 68 |
| Contrast | Normal | p. 68 |
| Color-saturation | Normal | p. 68 |
| Date format | YYYY/MM/DD | p. 103 |
| Duration (Slide Show) | 5 seconds | p. 88 |
| Repeat (Slide Show) | No | p. 88 |
| Index print | No (Canceled) | p. 91 |
| LCD monitor brightness | Normal | p. 98 |
| Auto-power-save period | 3 minutes | p. 99 |
| Audio signals | 1 | p. 100 |
| Sound FX | 1 | p. 101 |
| Volume | 2 | p. 101 |
| File number memory | Off | p. 99 |
| Folder name | Standard | p. 100 |

* Focus mode is reset to Area AF and Subject Tracking AF in auto-recording mode.

## Setting the date and time

It is important to accurately set the clock. When a still image or a movie clip is recorded, the date and time of the recording are saved with the image and are displayed during playback or can be read with the DiMAGE Viewer software included on the CD-ROM. The camera's clock is also used with date imprinting (p. 70).

When the Date/Time-set option is selected and entered, the date/time screen will be displayed. The left/right keys of the controller are used to select the item to be changed and the up/down keys are used to change the value. From left to right, the screen shows the year, month, day, hour, and minute. When the date and time have been adjusted, set the clock by pressing the central button of the controller.

| Setup | Date/Time set | (MENU) : ↰ |
|---|---|---|

▲

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▼
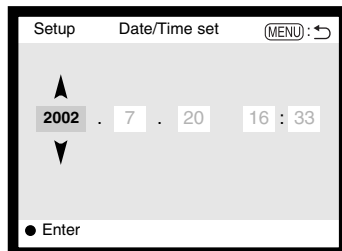
● Enter

## Setting the date format

The date format that is displayed or imprinted can be changed: YYYY/MM/DD (year, month, day), MM/DD/YYYY (month, day, year), DD/MM/YYYY (day, month, year). Simply select the format and enter it by pressing the central button of the controller; the new format will be displayed on the menu.

## Video output

Camera images can be displayed on a television (p. 94). The video output can be changed between NTSC and PAL. North America uses the NTSC standard and Europe uses the PAL standard. Check which standard is used in your region to play back images on your television set.

# DATA-TRANSFER MODE
# CONNECTING TO A COMPUTER

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.

## QuickTime system requirements

| IBM PC / AT Compatible |
| --- |
| Pentium-based computer |
| Windows 95, 98, 98SE, NT, Me, 2000 Professional, or XP. |
| 32MB or more of RAM |
| Sound Blaster or compatible sound card |
| DirectX 3.0 or later recommended |

To install QuickTime, follow the instructions in the read-me folder and 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.

### Camera Notes

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.

## 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:

| IBM PC / AT Compatible | Macintosh |
| --- | --- |
| Windows 98, 98SE, Me, 2000 Professional, and XP. | Mac OS 8.6 – 9.2.2 and Mac OS X 10.1.1 – 10.1.3 |

The check the Minolta web site for the latest compatibility information:
North America: http://www.minoltausa.com
Europe: http://www.minoltaeurope.com/pe/digital/languages_stage.html.

Users with Windows 98 or 98 second edition will need to install the driver software on the included DiMAGE software CD-ROM (p. 108). Users with Mac OS 8.6 will need to download and install a USB mass-storage device from the Apple web site (p. 111).

Customers who have bought a DiMAGE 7, 5, S304, S404, X, or 2330 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 software CD-ROM is required for the operation of the DiMAGE F100 with a computer. The new software will have no affect on the performance of the DiMAGE 7, 5, S304, S404, X, or 2330.

## 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, 98SE, or Mac OS 8.6, read the respective sections on how to install the necessary USB driver before connecting the camera to a computer (Windows 98 – p. 108, OS 8.6 – p. 111).

1 Start up the computer.
   • The computer must be turned on before connecting the camera.

2 Insert the memory card into the camera.
   • Confirm that the correct card is in the camera. To change the memory card while the camera is connected to a computer, see page 116.
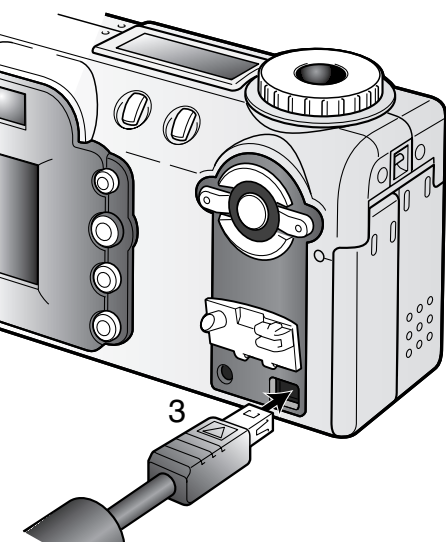
3 Remove the USB-port cover. Attach the smaller plug of the USB cable to the camera.
   • Make sure the plug is firmly attached.
   • The USB-port cover is attached to the body to prevent loss.

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.
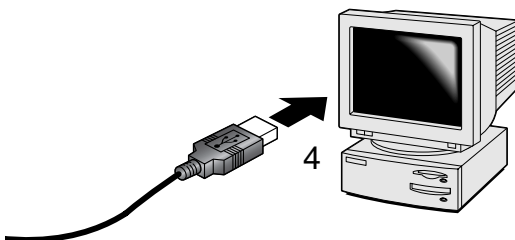
5 Turn the mode dial to any position to initiate the USB connection.
  • While the camera is connected to a computer, the data-transfer screen will be displayed.

When the camera is properly connected, a drive icon will appear on the computer. When using Windows XP, the removable-disk window will be displayed.

Thu 02:28:35 PM  🖳 Finder

untitled

My Computer

File  Edit  View  Favorites  Tools  Help

← Back  →  ⤴  ⬚  🔍 Search  ⏴ Folders  ⏳ History  ⬚ ⬚ ⤬ ⤼  ⬚ ⬚

Address  🖳 My Computer                                    ▼  ∂Go

My Computer

Select an item to view description.

Displays the files and your computer

See also:
My Documents
My Network Places
Network and Dial-up Connections

(G:)    Removable    Cont
        Disk (H:)

8 object(s)                                              🖳 My Computer
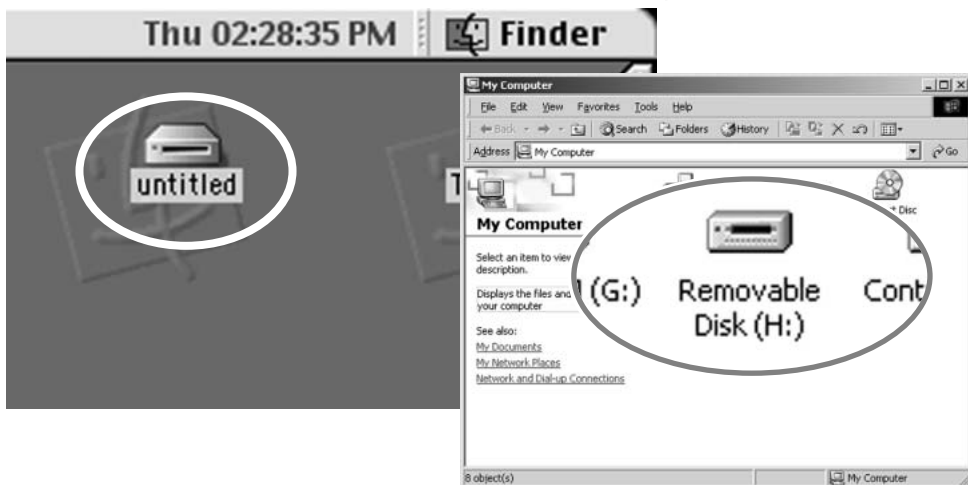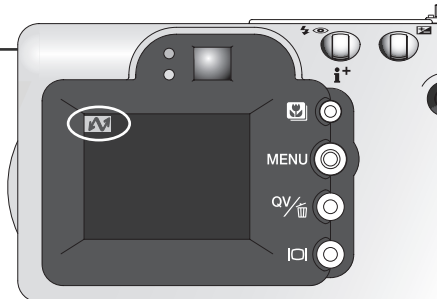
If the computer does not recognize the camera, disconnect the camera and restart the computer. Repeat the connection procedure above. For users with Windows operating systems, the driver software can be uninstalled in the event of an error during installation. See page 120 for instructions.

## Connecting to Windows 98 and 98SE

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, inset it into the CD-ROM drive and follow the accompanying instructions on the screen.

### *Automatic Installation*
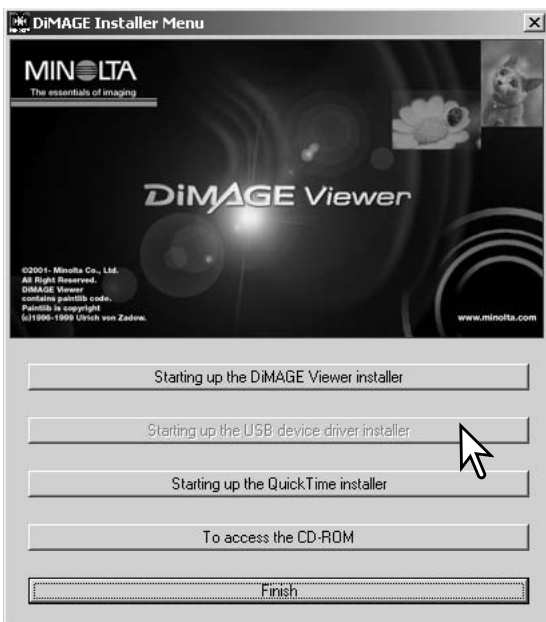


Before connecting the camera to the computer, place the DiMAGE software CD-ROM in the CD-ROM drive. The DiMAGE installer menu should automatically activate. To automatically install the Windows 98 USB driver, click on the starting-up-the-USB-device-driver-installer button. A window will appear to confirm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

When the driver has been successfully installed, a window will appear. Click "OK." Restart the computer before connecting the camera (p. 106).

## Manual Installation

To install the Windows 98 driver manually, follow the instructions in the connecting-the-camera-to-a-computer section on page 106.

When the camera is plugged into the computer, the operating system will detect the new device and the add-new-hardware-wizard window will open. Place the DiMAGE software 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. When the location is shown in the window, click "Next."
• The driver should be located in the CD-ROM drive at :\Win98\USB.

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DATA-TRANSFER MODE



The add new hardware wizard will confirm the location of the driver. Click "Next" to install the driver in the system.

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

• The letter designating the CD-ROM drive will vary between computers.

The last window will confirm the driver has been installed. Click "Finish" to close the add new hardware wizard. Restart the computer.
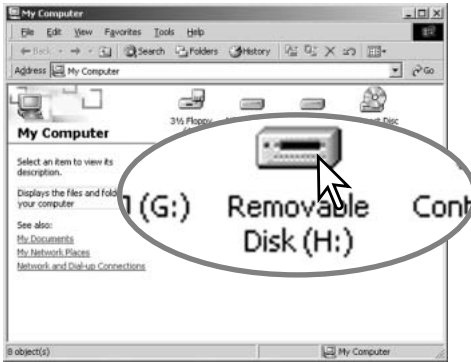




When the my-computer window is opened, a new removable-disk icon will be displayed. Double click on the icon to access the camera's memory card; see page 112.

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## Connecting to Mac OS 8.6

To access this camera with a computer with Mac OS 8.6, the USB storage support 1.3.5.smi must be installed first. This software is supplied by Apple Computer, Inc. free of charge. It can be downloaded from the Apple Software Updates web site at http://www.apple.com/support.



USB Storage Support 1.3.5.smi

To download and install this software, follow the instruction on the Apple web site. Always read the attached terms and conditions before installing any new software.

## Auto power save (data-transfer mode)

If the camera does not receive a read or write command within ten minutes, it will shut down to save power. When the camera shuts down, an unsafe-removal-of-device warning may appear on the computer monitor. Click "OK." Neither the camera nor computer will be damaged in this operation.

Turn off the camera with the mode dial. Remake the USB connection by turning on the camera with the mode dial.

DATA-TRANSFER MODE

## Memory card folder organization

**Drive Icon**

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. 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.

Dcim      Misc

The misc. folder contains DPOF print files (p. 90).

100MLT08    10120801    102MLTCP    103MLTEM

PICT0001.TIF

PICT0001.THM
Super-fine image

PICT0002.JPG
Fine, standard, or economy image

PICT0002.WAV
PICT0002's voice-memo or audio-caption file

PICT0003.MOV
Movie clip

PICT0004.WAV
Audio recording

Image and audio file names begin with "PICT" followed by a four-digit file number and a tif, jpg, mov, or thm extension. Voice-memo and audio caption files have a wav extension and the file name corresponds to its image file. Audio recordings also use the wav extension. The thumbnail images (thm) are produced with super-fine images and are only used in camera operation.

Copy images (p. 92) are placed in a folder with a name ending in "CP." E-mail Copy images are placed in a folder ending in "EM." When a new folder is created, the first three digits in the folder name will be one greater than the largest folder number on the card. When the index number in the image file name exceeds 9,999, a new folder will be created with a number one greater than the greatest folder number on the memory card: e.g. from 100MLT08 to 101MLT08.

The index number on the image file may not correspond to the frame number of the image. As images are deleted in the camera, the frame counter will adjust itself to show the number of images on the card and reassign the frame numbers accordingly. The index numbers on the image files will not change when an image is deleted. When a new image is recorded, it will be assigned a number one greater than the largest index number in the folder. File numbers can be controlled with the file-number-memory function in the custom 1 section of the setup menu (p. 99).

## 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 rename the image file before saving to protect the exif tag data.

## Disconnecting the camera from the computer

**Never disconnect the camera when the access lamp is red – the data or memory card may permanently be damaged.**

### Windows 98 and 98SE

Confirm that the access lamp is not red. Turn the camera off and then disconnect the USB cable.

### Windows ME, 2000 professional, and XP

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

Stop USB Mass Storage Device - Drive(H:)

9:52 AM
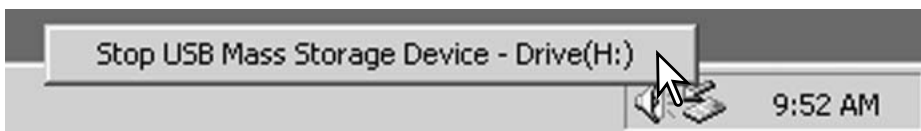
Click on the small window to stop the device. The safe-to-remove-hardware window will appear. Click "OK." Turn the camera off and then disconnect the USB cable.

**Safe To Remove Hardware**

The 'USB Mass Storage Device' device can now be safely removed from the system.

OK

When more than one external device is connected to the computer, repeat the procedure above except right click on the unplug-or-eject-hardware icon. This will open the unplug-or-eject-hardware window after clicking on the small window indicating the device.
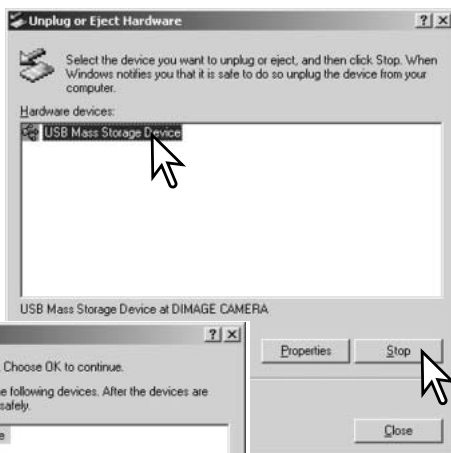
On the unplug-or-eject-hardware window, the hardware devices to be stopped will be displayed. Highlight the device by clicking on it then click "Stop."

A confirmation screen will appear to indicate the devices to be stopped. Clicking "OK" will stop the device.

A third and final screen will appear to indicate the camera can be safely disconnected from the computer. Turn the camera off and then disconnect the USB cable.

## Macintosh

Confirm that the access lamp is not lit and then drag the mass-storage device icon and drop it into the trash.

Turn the camera off and disconnect the USB cable.
• If the USB cable is disconnected before performing the first step, an alert message will appear. Always complete the first step before disconnecting the USB cable.

# Changing the memory card (Data-transfer mode)

Care should be taken when changing memory cards while the camera is attached to the computer. Data could be lost or damaged if the camera is not properly disconnected.

> Always confirm the access lamp is not red
> before removing the memory card.

## *Windows 98 and 98SE*

1. Turn off the camera.
2. Change the memory card.
3. Turn on the camera to remake the USB connection.

## *Windows ME, 2000 professional, and XP*

1. Stop the USB connection using the unplug-or-eject-hardware routine (p. 114).
2. Turn off the camera.
3. Change the memory card.
4. Turn on the camera to remake the USB connection.

## *Macintosh*

1. Stop the USB connection by dragging the drive icon into the trash (p. 115).
2. Turn off the camera.
3. Change the memory card.
4. Turn on the camera to remake the USB connection.

The section covers minor problems with basic camera operation. For major problems or damage, or if a problem continues to reoccur frequently, contact a Minolta service facility listed on the back cover of this manual.

| Problem | Symptom | Cause | Solution |
|---|---|---|---|
| The camera will not work. | Nothing displayed on the data panel or the monitors. | The battery is dead. | Replace battery (p. 14). |
| | | AA Ni-MH batteries are inserted incorrectly. | Reinsert the batteries taking care that the negative and positive terminals are orientated as indicated on the inside of the battery chamber (p. 15). |
| | | The AC adapter is not connected properly. | Check that the adapter is connected to the camera and a live electrical outlet (p. 16). |
| Shutter will not release. | "000" is displayed on the frame counter. | Memory card is full and unable to store an image at the image-quality or image-size setting on the camera. | Insert a new memory card (p. 18), delete some images (p. 82), or change the image-quality or image-size setting (p. 38, 56). |
| | No-card warning appears on the monitors. | No memory card in the camera. | Insert a memory card (p. 18). |

| Problem | Symptom | Cause | Solution |
|---------|---------|-------|----------|
| Pictures are not sharp. | Focus signal is red. | Subject is too close. | Make sure the subject is within the autofocus range (p. 24) or use the macro mode (p. 29). |
| | | The camera is in macro mode. | Cancel the macro mode setting (p. 29). |
| | | A special situation is preventing the autofocus system from focusing (p. 27) | Use the focus-lock function to focus on an object at the same distance as the subject (p. 51) or use manual focus (p. 65). |
| | Pictures are taken indoors or in low-light situations without flash. | Slow shutter speeds result in blurred images when the camera is hand-held. | Use a tripod, change the camera sensitivity to a higher setting (p. 56), or use the flash (p. 32). |
| Continuous advance and bracketing drive mode does not work. | The image quality is set to super fine. | | Change the image-quality setting (p. 38, 56). |
| While using flash, the pictures are too dark. | | The subject is beyond the flash range (p. 67). | Move closer to the subject or change the camera sensitivity to a higher setting (p. 56). |

| Problem | Symptom | Cause | Solution |
|---------|---------|-------|----------|
| Shooting data is displayed, but live image is entirely black or white. | Camera set to manual-exposure mode (M). | Shutter speed and aperture combination is extremely under or over-exposing the live image. | Change the shutter speed or aperture value until an image appears on the monitor (p. 60). |

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

The camera temperature rises with extended periods of use. Care should be taken to avoid burns when handling the camera, batteries, or memory card.

## About Ni-MH batteries

When using Ni-MH batteries, clean both battery terminals with a dry cloth to wipe off any dirt or residue. Because of the sophisticated computer system, the camera critically monitors power levels. If the battery terminals are dirty, the camera may give a false low-battery warning. If battery performance is unusually low, wipe the battery terminals with a clean, dry cloth.

Ni-MH battery performance will decrease if the batteries are often recharged before they have been fully discharged. Completely exhaust the Ni-MH batteries using the camera before charging.

## 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.

## 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, if necessary, moisten a lens tissue or soft cloth with lens cleaning fluid and gently wipe the lens.
- 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.

## OPERATING TEMPERATURES AND CONDITIONS
• This camera has been designed for use in temperatures from 0°C to 40°C (32°F to 104°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.

## Memory cards

SD Memory Cards and MultiMediaCards 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.
• The disuse of a card for an extended period.
• Using the card beyond its life. Purchasing a new card periodically may be necessary.

The storage capability of the memory card will diminish with extended use. 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.

• Remove the batteries when the camera is not in use for an extended period. Leaking battery fluid may damage the battery-chamber.

• If batteries have been exhausted when used in the camera, do not reload them even if their charge seems to recover over time. These batteries will interfere with normal camera operation.

• When installing batteries, make sure the battery terminals are clean. Residue or dirt on the terminals can sometimes cause a false low-battery warning. Always use a clean, dry cloth to clean batteries.

## LCD MONITOR CARE

• Although the LCD monitor is manufactured using high precision technology, there may occasionally be a lack of color or bright points on the LCD monitor.

• Do not apply pressure to the surface of the LCD monitor; it may be permanently damaged.

• In a cold environment, the LCD monitor may become temporarily dark. When the camera warms up, the display will function normally.

• The LCD monitor may be slow to react in low temperatures or may turn dark in a hot environment. When the camera reaches normal operating temperature, the display will function normally.

• 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.

## BEFORE IMPORTANT EVENTS OR JOURNEYS
• Check the camera's operation; take test pictures and purchase spare batteries.
• Minolta has no responsibility for any damage or loss incurred by equipment malfunction.

## QUESTIONS AND SERVICE
• If you have questions about your camera, contact your local camera dealer or write to the Minolta distributor in your area.
• Before shipping your camera for repair, please contact a Minolta Service Facility.

The following marks may be found on the product:

**VCI**

This mark certifies that this camera meets the requirements concerning interference causing equipment regulations in Japan.

**CE**

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).

| Digital Camera: DiMAGE F100 |
| --- |
| **FC** Tested To Comply With FCC Standards |
| FOR HOME OR OFFICE USE |

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.
Tested by the Minolta Corporation
101 Williams Drive, Ramsey, New Jersey 07446, U.S.A.

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Do not remove the ferrite cores from the cables.

| | |
|---|---|
| Number of effective pixels: | 3.95 million |
| CCD: | 1/1.8-type interline complementary-color CCD with a total of 4.13 million pixels. |
| Camera sensitivity (ISO): | Auto and 100, 200, 400, and 800 ISO equivalents. |
| Aspect ratio: | 4:3 |
| Lens construction: | 8 elements in 7 groups |
| Maximum aperture: | f/2.8 (wide-angle position), f/4.7 (telephoto position) |
| Focal length: | 7.8 – 23.4 mm (35mm equivalent: 38 – 114 mm) |
| Focusing range (from the CCD): | 0.5 m - ∞ / 1.6 ft - ∞ |
| | 0.2 – 0.6 m / 0.7 – 2.0 ft in macro mode |
| Autofocusing system: | Video AF |
| Shutter: | CCD electronic shutter plus mechanical shutter |
| Shutter speeds: | 1/1000 – 4s, bulb (15s maximum) |
| Built-in flash recycling time: | 5s (approx) |
| Viewfinder: | Optical real-image zoom viewfinder. |
| Monitor LCD: | 38 mm (1.5 in) TFT color |
| Monitor field of view: | Approximately 100% |
| A/D conversion: | 12 bits |
| Recording media: | SD Memory cards and MultiMediaCards |
| File formats: | JPEG, TIFF, Motion JPEG (mov), WAV. |
| | DCF 1.0 and DPOF compliant. |
| Printing output control: | Exif print, Print Image Matching |
| Menu languages: | Japanese, English, German, French, and Spanish |
| Video output: | NTSC and PAL |

| | |
|---|---|
| Batteries: | One CR-3V lithium battery or two AA Ni-MH batteries. |
| External power source: | AC-6 adapter |
| Dimensions: | 111.0 (W) X 52.3 (H) X 32.0 (D) mm |
| | 4.4 (W) X 2.1 (H) X 1.3 (D) in |
| Weight: | Approximately 185g / 6.5 oz. |
| | (without batteries or memory card) |
| Operating temperature: | 0° – 40°C / 32° – 104°F |
| Operating humidity: | 5 – 85% (noncondensing) |

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

# MINOLTA