

Visioneer MX 230 Digital Camera User's Guide

FOR WINDOWS



COPYRIGHT INFORMATION

Copyright © 2002 Visioneer, Inc.

Reproduction, adaptation, or translation without prior written permission is prohibited, except as allowed under the copyright laws.

The Visioneer brand name and logo are registered trademarks of Visioneer, Inc. PhotoImpressions is a trademark of ArcSoft, Inc. Adobe Acrobat is a trademark of Adobe Systems, Inc. Microsoft is a U.S. registered trademark of Microsoft Corporation. Windows is a trademark of Microsoft Corporation. Mac is a trademark of Apple Computers, Inc. Apple is a trademark of Apple Computers, Inc. All other products mentioned herein may be trademarks of their respective companies.

Information is subject to change without notice and does not represent a commitment on the part of Visioneer. The software described is furnished under a licensing agreement. The software may be used or copied only in accordance with the terms of such an agreement. It is against the law to copy the software on any medium except as specifically allowed in the licensing agreement.

No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or information storage and retrieval systems, or translated to another language, for any purpose other than the licensee's personal use and as specifically allowed in the licensing agreement, without the express written permission of Visioneer.

Part Number: 05-0549-000

Restricted Rights Legend

Use, duplication, or disclosure is subject to restrictions as set forth in contract subdivision (c)(1)(ii) of the Rights in Technical Data and Computer Software Clause 52.227-FAR14. Governmental laws and other regulations, such as copyright laws, may protect images captured by photography or video using this product. The customer is solely responsible for complying with all such laws and regulations.

Technical Support

Visit Visioneer's web site at www.visioneer.com for technical support, including help during installation, driver updates, spare parts, and documentation.



Visioneer's 90-Day Limited Product Warranty (upgradable to one year)

If you find physical defects in the materials or the workmanship used in making the product described in this document, Visioneer will repair, or at its option, replace, the product at no charge to you, provided you return it (postage prepaid, with proof of your purchase from the original reseller) during the *3-month period after the date of your original purchase of the product. Upon registration of the product with Visioneer at www.visioneer.com, the warranty is automatically extended for an additional 9 months for a total of 12 months.*

THIS IS VISIONEER'S ONLY WARRANTY AND YOUR EXCLUSIVE REMEDY CONCERNING THE PRODUCT, ALL OTHER REPRESENTATIONS, WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, WRITTEN OR ORAL, INCLUDING ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE EXPRESSLY EXCLUDED. AS A RESULT, EXCEPT AS SET OUT ABOVE, THE PRODUCT IS SOLD "AS IS" AND YOU ARE ASSUMING THE ENTIRE RISK AS TO THE PRODUCT'S SUITABILITY TO YOUR NEEDS, ITS QUALITY AND ITS PERFORMANCE.

IN NO EVENT WILL VISIONEER BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY DEFECT IN THE PRODUCT OR FROM ITS USE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

All exclusions and limitations in this warranty are made only to the extent permitted by applicable law and shall be of no effect to the extent in conflict with the express requirements of applicable law.

FCC Radio Frequency Interference Statement

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

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

This equipment has been certified to comply with the limits for a class B computing device, pursuant to FCC Rules. In order to maintain compliance with FCC regulations, shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio and TV reception. The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.

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.

TABLE OF CONTENTS

Welcome	1
Camera Features	1
Safety Information	2
What's in the Box	4
Camera Components	5
Front View	5
Back View	6
Bottom and End View	8
Getting Ready to Take Pictures	9
Install the Batteries and Memory Card	9
Set the Date and Time	11
Set the Language	13
Taking Pictures	15
Reviewing and Deleting Pictures	17
Exploring Your Camera's Features	19
Snapshot Mode	19
Video Mode	21
Preset Mode	23
Playback Mode	24
Set Up Mode	26
PC Mode	32
The LCD	33
Connecting to a Computer	37

Install Software on Your Computer	38
Connect to Your Computer the First Time	40
Copying Images to Your Computer	42
Using Your Camera as a PC Camera	46
Connecting to a Television	50
Printing Directly to a Printer	51
Troubleshooting	52
Uninstalling the Visioneer Digital Camera Utility	54
US and Canada Technical Support	55
International Technical Support	55
MX 230 Digital Camera Specifications	57

WELCOME

Congratulations on the purchase of your Visioneer MX 230 digital camera. This user's guide will step you through the set up, configuration, and use of your camera.

CAMERA FEATURES

- Digital Zoom (up to 3x)
- Optical Zoom (up to 3x)
- Up to 2048 x 1536 resolution
- Color LCD viewfinder screen
- Video clip recording (up to 1 minute)
- Microphone and speaker for recording and playback of the audio component of video clips
- USB 1.1 interface
- Auto exposure, user-defined exposure, auto focus
- Flash: Auto / Always on / Red-eye reduction / Off
- White balance modes: Auto / Daylight / Shade / Tungsten / Fluorescent
- 10-second timer mode
- Full-screen or thumbnail photo review

SAFETY INFORMATION

- **Do not look at the sun through the viewfinder.** Viewing the sun or other strong light source through the viewfinder could cause permanent visual impairment.
- **Do not disassemble the camera.** Touching the camera's internal parts could result in injury. In the event of malfunction, only a qualified technician should repair your camera. Should the camera break as a result of a fall or other accident, take it to an authorized service center.
- **Avoid contact with the liquid crystal.** Should the liquid crystal display (LCD) break, care should be taken to avoid injury due to broken glass and to prevent the liquid crystal from touching the skin or entering the eyes or mouth.
- **Do not use the camera in the presence of flammable gas.** Using electronic equipment near flammable gas could result in explosion or fire.
- **Observe proper precautions when handling batteries.** Use only size AA alkaline or NiMH batteries. Batteries may leak or explode if handled improperly. Remove the batteries (and the memory card) from the camera if you are going to store the camera for an extended period of time. Ensure the camera is turned off before inserting or removing batteries. Do not insert batteries backwards or upside down. Do not disassemble batteries or expose them to flame or excessive heat. Do not

immerse batteries in or expose them to water. Discontinue use immediately if you notice any changes in the batteries such as discoloration, deformation, or leakage.

- **Use caution when operating the flash.** Do not use the flash in close proximity to human or animal eyes. Exposure to the intense light produced by the flash may damage eyesight. Particular care should be used when photographing infants—keep the flash at least three feet from infant's eyes.

WHAT'S IN THE BOX

Before using your digital camera, check the contents of the box to make sure that all parts are included. If any items are missing or damaged, contact the dealer where you purchased the camera.



MX 230 Digital Camera



USB Cable



Video Cable



Software CD



2 AA Alkaline or
NiMH Batteries



Carrying Case



User's Guide



Quick Start Guide

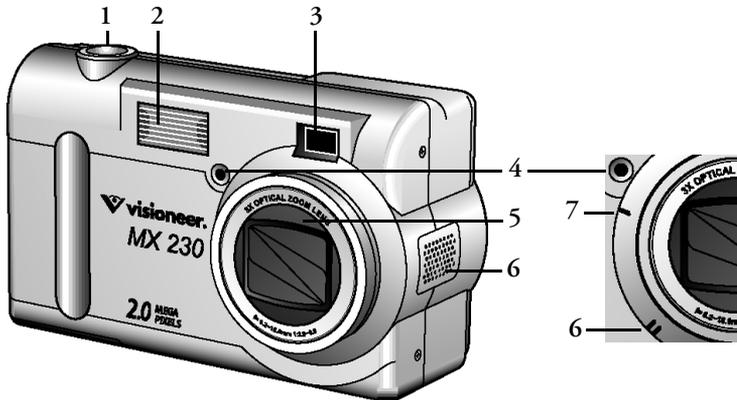


Hand Strap

CAMERA COMPONENTS

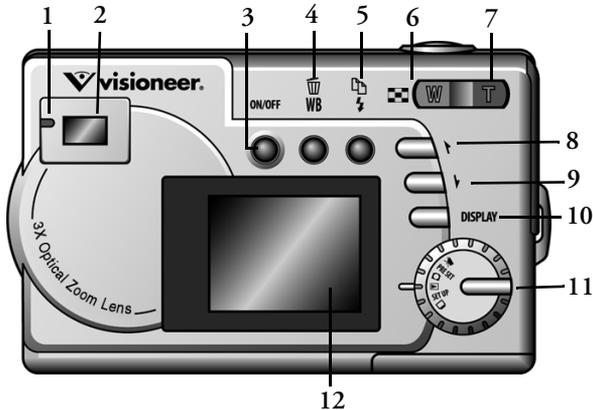
The following pages show the components of your camera.

FRONT VIEW



1. **Shutter Button**—Used to take a picture.
2. **Built-in Flash**—Allows picture taking in low light.
3. **Viewfinder**—Frames the picture you are taking.
4. **Light Sensor**—Determines whether or not the flash is needed.
5. **Optical zoom lens**—Zooms up to x3.0.
6. **Microphone and Speaker**—Used to record and play back the audio portion of movie clips.
7. **Self-timer LED**—Blinks for ten seconds before takes a picture.

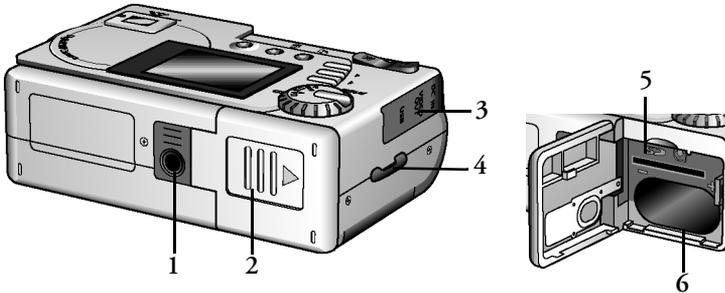
BACK VIEW



1. **Status LED**—Shows the picture-taking status of the camera. When the camera is available to take a picture or accept user commands, the LED is a solid green light. When the camera is unavailable, the LED flashes.
2. **Viewfinder**—Used to frame the picture you are taking.
3. **On/Off button**—Used to turn the camera on and off.
4. **Delete/WB**—In Snapshot mode, cycles through white balance setting options. In Playback mode, deletes selected photos.
5. **Flash/Copy**—In Snapshot mode, cycles through flash setting options. In Playback mode, copies pictures from the internal to the external menu, and vice versa.

6. **Wide Angle/Thumbnail**—In Snapshot mode, the camera zooms out from the subject. In Playback mode, the LCD switches between full-screen and thumbnail views.
7. **Telephoto**—In Snapshot mode, the camera zooms in on the subject. In Playback mode, the LCD zooms in on an image.
8. **Up Button**—Cycles through menu items in Set Up mode and photos in Playback mode.
9. **Down Button**—Cycles through menu items in Set Up mode and photos in Playback mode.
10. **Display**—Cycles through display options for the LCD. Also used to select items when in Set Up mode.
11. **Mode Dial**—Selects the camera's mode: Video, Preset, Snapshot, Playback, Set Up, and PC.
12. **LCD**—Based on the selected mode, the LCD is used to preview photos, playback existing photos, view messages, and configure camera settings.

BOTTOM AND END VIEW



1. **Tripod Connector**—Attaches the camera to a tripod.
2. **Battery/Memory Card Cover**—Covers the battery chamber and memory card slot.
3. **USB, Video Out, and DC In Ports**
 - The USB (Universal Serial Bus) port connects the camera to a computer.
 - The Video Out port connects the camera to a television.
 - The DC In port connects an AC adapter to an external source of electricity (purchased separately).
4. **Hand Strap Loop**—Connects the camera to the hand strap.
5. **Memory Card Slot**—Holds a Secure Digital memory card (purchased separately).
6. **Battery Chamber**—Holds two AA alkaline or NiMH batteries.

GETTING READY TO TAKE PICTURES

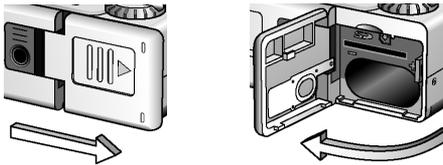
Complete the following installation and setup steps to prepare your camera for taking pictures.

INSTALL THE BATTERIES AND MEMORY CARD

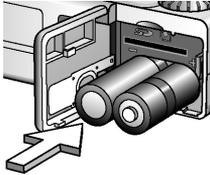
Note: If you prefer to store your photos on the camera's internal memory, you do not need to install a memory card.

To install the batteries:

1. Open the battery/memory card cover.
 - Press on the cover and slide it in the direction of the arrow, toward the outside edge of the camera.
 - Lift the cover to its fully open position.

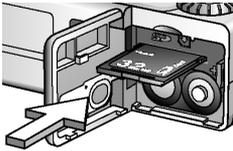


2. Insert the batteries into the battery chamber making sure they are oriented as indicated above the battery chamber.
 - The battery nearest the outside edge of the camera has its positive end on top and the battery furthest from the outside edge has its negative end on top.

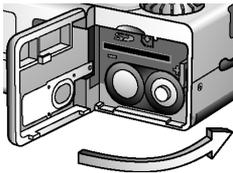


To install the memory card:

1. Insert the Secure Digital memory card with the notched corner facing the inside edge of the camera.



2. Close the battery/memory card cover.
 - If you have difficulty closing the cover, ensure that the memory card is installed correctly.



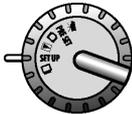
Note: After initial setup of your camera, turn the camera off prior to opening the battery/memory card cover.

SET THE DATE AND TIME

When you transfer a photo to a computer or print a photo, the time and date the photo was taken are shown.

To set the display style:

1. Rotate the Mode dial to Set Up. **SET UP**



2. Press the On/Off button, located on the back of the camera, to turn the camera on.
3. Use the Down button ↓, located on the back of the camera, to select **Date/Time**, and then press the Display button.



4. Select the **Style** option and then press the Display button.



5. Use the Up \uparrow or Down \downarrow buttons to select the **Month/Day** or **Day/Month** display style.
6. Press the Display button to save your selection.

To set the date and time:

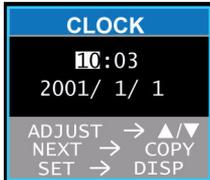
1. On the Set Up menu, select **Date/Time**, and then press the Display button.



2. Use the Down \downarrow button to select **Clock**, and then press the Display button.



- Use the Up  or Down  buttons to set the correct hour (using a 24-hour clock). When finished, press the Copy button  to move to the minutes area.



- Repeat the procedure in Step 3 to set the minutes, year, month, and day.
- When finished, press the Display button.

Note: To exit at any time without saving changes, press the Delete button. 

SET THE LANGUAGE

Your camera can display text and messages in English, Spanish, German, French, Italian, and Japanese.

To change the language setting:

- Rotate the Mode dial to Set Up. **SET UP**



14 VISIONEER MX 230 DIGITAL CAMERA USER'S GUIDE

2. If the camera is not already on, press the On/Off button located on the back.
3. Use the Down  button to select **Language**, and then press the Display button.



4. Use the Up  and Down  buttons to select a language, and then press the Display button to save the change.

16 VISIONEER MX 230 DIGITAL CAMERA USER'S GUIDE

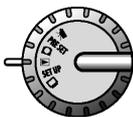
5. Press the Shutter button half-way down to initiate the camera's automatic image processing functions.
6. Press the Shutter button all the way down to take the picture.
7. Turn the camera off when you are finished taking pictures to conserve the batteries.

REVIEWING AND DELETING PICTURES

After you take a picture, you can immediately review the results. You can then keep or discard the picture.

To review pictures:

1. Rotate the Mode dial to Playback  and turn the camera on.



2. Press the Up  and Down  buttons to scroll through the pictures you've taken.
3. Press the Telephoto button **T** to see more details of a picture.
 - The default zoom setting is x1.0. Each time you press the Telephoto button, the zoom ration increases as follows: x1.5, x2.5, x3.0, x3.5, x4.0.
4. Press the Wide Angle button **W** to decrease the zoom ratio.
5. To view up to nine pictures at once, press the Thumbnail button  when the zoom ratio is at the default, x1.
 - Press the Up  and Down  buttons to scroll through screens of thumbnails. Press the Shutter button or the Wide Angle button **W** to return to the full-screen view.

To delete a picture:

1. While in Playback mode, press the Up  and Down  buttons to scroll and find the photo to delete.
2. Press the Delete button  to select the photo for deletion.
3. Press the Display button to delete the photo from memory.

EXPLORING YOUR CAMERA'S FEATURES

You now know how to take pictures using the snapshot and review features of your camera. There are many other features available to customize and enhance your picture-taking experience. These features are accessed using the Mode dial. This section describes the features of the six modes, and the function of the buttons in each mode.

SNAPSHOT MODE

As you have seen, Snapshot mode is used for taking pictures.

Button functions in Snapshot mode:

↑ Up Button: Increases the camera lens' exposure value, which allows more light into the lens.

↓ Down Button: Decreases the camera lens' exposure value, which allows less light in the lens.

DISPLAY Display Button: Cycles through LCD display options:

- **LCD on:** Status information is displayed.
- **LCD on:** No status information is displayed.
- **LCD off:** The LCD is turned off. This is the default display option when the camera is first turned on.

⚡ Flash: Cycles through settings for the flash.

- **Auto:** The camera determines when the flash is needed.
- **On:**  The flash is always on, whether needed or not.
- **Red-eye reduction:**  Reduces the appearance of red-eye in photos caused by flash reflection off of the subject's eyes. The camera flashes quickly before the picture is taken to reduce the occurrence of red-eye.
- **Off:**  The flash is off, whether needed or not.

WB White Balance: Cycles through settings for white balance.

- **Auto:** Camera determines the white balance setting.
- **Daylight:**  Used in bright daylight, to reduce the effect of whitewashed pictures.
- **Shade:**  Used in the shade, or if the picture is dark.
- **Incandescent light:**  Used under incandescent light.
- **Fluorescent light:**  Used under fluorescent light.

T Telephoto: Narrows the field framed by the camera's lens.

- When you press the Telephoto button, the optical zoom is activated. The field is narrowed from x1.0 to x3.0 in increments of .25. If you continue to press the Telephoto button the digital zoom is activated. The digital zoom narrows the field from x1.0 to x3.0 in increments of .2.

W Wide Angle: Widens the field framed by the camera's lens.

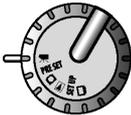
VIDEO MODE

Video mode allows you to record up to 60-second, audio movies.

Note: The length of time available for recording a video clip is dependent on the available memory on the Secure Digital card (or the internal memory).

To record a video clip:

1. Turn the Mode dial to Video.



2. Press the Shutter button to begin recording. The microphone turns on automatically.
 - By default the camera records for 60 seconds (or the time available) and then stops recording. The time remaining is displayed on the upper-right corner of the LCD. However, if you press the Shutter button a second time, recording stops before the time limit is reached.
3. Switch to the Playback mode to view and listen to the video clip. See “Playback Mode” on page 24.

Button functions in Video mode:

Use the buttons during recording of the video clip.

↑ Up Button: Increases the camera lens' exposure value, which allows more light into the lens.

↓ Down Button: Decreases the camera lens' exposure value, which allows less light in the lens.

T Telephoto: Narrows the field framed by the camera's lens.

- When you press the Telephoto button during recording of a video clip, the optical zoom is activated. The field is narrowed from x1.0 to x3.0 in increments of .25. If you continue to press the Telephoto button the digital zoom is activated. The digital zoom narrows the field from x1.0 to x2.0 in increments of .2.

W Wide Angle: Widens the field framed by the camera's lens.

PRESET MODE PRE SET

Preset mode provides five preset settings that are optimized for taking specific types of pictures as described below. Use the Up  and Down  buttons to select the option for the type of picture you want to take.

Preset options:

 **Landscape:** Optimized for taking landscape pictures, with the lens focus evenly distributed to encompass everything within the frame. The flash is set to *Off* and white balance to *Daylight*.

 **Portrait:** Optimized for taking a head shot, with the lens focused on the center of the frame.

 **Night Scene:** Optimized for taking photos at night, with the lens aperture open wider and longer to gather as much ambient light as possible. The flash is set to *Off*. When using this preset, hold the camera as still as possible (or place on a steady surface) to minimize blurring that may result from the longer exposure.

 **Self-Timer:** Takes a picture after a 10-second delay.

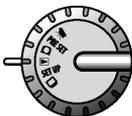
 **Macro:** Optimized for taking close-up shots of objects or people within one foot or less of the camera. The red-eye reduction feature is turned *on*.

PLAYBACK MODE

Playback mode is used to view the photos or video clips stored in the internal memory or on the Secure Digital card.

To review photos and video clips:

1. Turn the Mode dial to Playback.



Button functions in Playback mode:

↑ Up Button: Moves to the next image.

↓ Down Button: Moves to the previous image.

DISPLAY Display Button: Cycles through LCD display options:

- LCD on, status information displayed
- LCD on, no status information displayed

T Telephoto: Narrows the field framed by LCD, from x1.0 to x4.0. The default zoom setting is x1.0. Each time you press the Telephoto button, the zoom ration increases as follows: x1.5, x2.5, x3.0, x3.5, x4.0.

W Wide Angle: Widens the field framed by the LCD, from x4.0 to x1.0.

- If you press the Thumbnail button  when the zoom ratio is at x1, the LCD displays up to nine thumbnail images at once.

Press the Up  and Down  buttons to scroll through screens of nine thumbnails at a time. Press the Wide Angle or the Shutter button to return to the full-screen view.

 **Copy:** Copies the selected image from the internal memory to the memory card or vice versa.

 **Delete:** Deletes the selected image.

Note: If an image is a video clip, a video camera icon appears in the upper-left corner of the image. To view and listen to the video clip, press the Shutter button. To stop the video clip, press the shutter button again.

SET UP MODE SET UP

Set Up mode is used to configure your camera. When you turn the Mode dial to Set Up, the following menu displays on the LCD. Each menu option is described below.

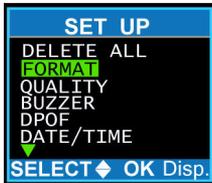
Note: To exit a Set Up mode selection without saving changes, press the Delete button. 

Delete All: This option is used to delete all images from the internal memory or the Secure Digital card. To determine, or change, the current memory type, refer to “Memory Type” on page 31.



1. From the Set Up menu, press the Up  or Down  buttons to select **Delete All**, and then press the Display button.
2. On the Delete All screen, press the Up  or Down  buttons to select **No** or **Yes**, and then press the Display button.

Format: This option is used to erase and reformat the Secure Digital card. You should occasionally format the Secure Digital card to ensure it functions optimally.



1. From the Set Up menu, press the Up \blacktriangleright or Down \blacktriangleleft buttons to select **Format**, and then press the Display button.
2. On the Format screen, press the Up \blacktriangleright or Down \blacktriangleleft buttons to select **No** or **Yes**, and then press the Display button.

Quality: This option is used to adjust the quality and resolution of your pictures. The higher the quality, the clearer your pictures. However, higher quality images are larger, meaning that you cannot store as many in memory. Generally, Normal quality (800 x 600) is satisfactory for most uses.

You can choose from five resolutions. The approximate number of pictures you can store in the internal memory for each resolution is shown below.

■ 2048 x 1536 (Super)	7
■ 1600 x 1200 (Fine)	7
■ 1600 x 1200 (Normal)	16
■ 800 x 600 (Fine)	27
■ 800 x 600 (Normal)	60



1. From the Set Up menu, press the Up \uparrow or Down \downarrow buttons to select **Quality**, and then press the Display button.
2. On the Quality screen, press the Up \uparrow or Down \downarrow buttons to select the desired picture quality, and then press the Display button.

Buzzer: This option is used to set the camera to beep when you push its buttons or rotate the Mode dial.



1. From the Set Up menu, press the Up \uparrow or Down \downarrow buttons to select **Buzzer**, and then press the Display button.
2. On the Buzzer screen, press the Up \uparrow or Down \downarrow buttons to select **On** or **Off**, and then press the Display button.

DPOF: This option (Digital Printer Order Format) allows you to print photos directly to a printer that supports this protocol. For more details, see “Printing Directly to a Printer” on page 51.



1. From the Set Up menu, press the Up  or Down  buttons to select **DPOF**, and then press the Display button.
2. On the DPOF screen, press the Up  or Down  buttons to choose to set print options for selected images or all images on the storage device. After selecting, press the Display button.

If you choose the Select Images option:

- Press the Up  and Down  buttons to select an image to print. The order in which you select the images is the order in which they will print.
- Press the Copy  button to highlight **Copies**.
- Press the Up  and Down  buttons to select the number of copies of the image to print.
- Press the Copy  button to highlight **Date**.
- Press the Up  and Down  buttons to select **Yes** or **No** to indicate whether or not to print the date on the photos.
- Press the Display button to save the settings.

If you choose the All Images option:

- Press the Copy  button to highlight **Copies**.
- Press the Up  and Down  buttons to select the number of copies of the image to print.
- Press the Copy  button to highlight **Date**.
- Press the Up  and Down  buttons to select **Yes** or **No** to indicate whether or not to print the date on the photos.
- Press the Display button to save the settings. The settings apply to all of the images.

To reset or edit settings:

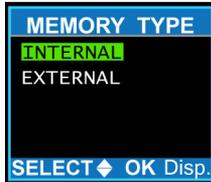
- On the DPOF screen, press the Up  and Down  buttons to choose the **Select Images** or **All Images** option. After making your selection, press the Display button.
- Press the Up  and Down  buttons to select the **Reset** or **Edit** option.

The Reset option erases all of the DPOF settings, and the Edit option allows you to change current Copies and Date settings for selected images or all images.

- Press the Display button to reset or save the edits.

Date/Time: This option is used to set the time and date associated with each photo that you take. See “Set the Date and Time” on page 11 for details.

Memory Type: This option is used to set where photos are stored; in the internal memory or on the Secure Digital card.



1. From the Set Up menu, press the Up \blacktriangleright or Down \blacktriangleleft buttons to select **Memory Type**, and then press the Display button.
2. On the Memory Type screen, press the Up \blacktriangleright or Down \blacktriangleleft buttons to select **Internal** or **External** (Secure Digital card), and then press the Display button.

Language: This option is used to set the display language for menus and the LCD. The following languages are available; English, Spanish, German, French, Italian, and Japanese. See “Set the Language” on page 13 for details.

Video Out: This option is used when you are connecting your camera to a television set using the video cable. You must choose a transmission format that is compatible with your television if you want to record the transmitted video images with a VCR.



1. From the Set Up menu, press the Up  or Down  buttons to select **Video Out**, and then press the Display button.
2. On the Video Out screen, press the Up  or Down  to select **NTSC** or **PAL**, and then press the Display button.

Note: The NTSC format is typically used in North America and the PAL format is typically used outside of North America.

PC MODE

PC mode is used to allow your camera to be used as a PC camera. After connecting your camera to your PC via the USB port, you can use your camera to create videos and snapshots directly on your computer.

For details, see “Connecting to a Computer” on page 37 and “Using Your Camera as a PC Camera” on page 46.

To use your camera as a PC camera:

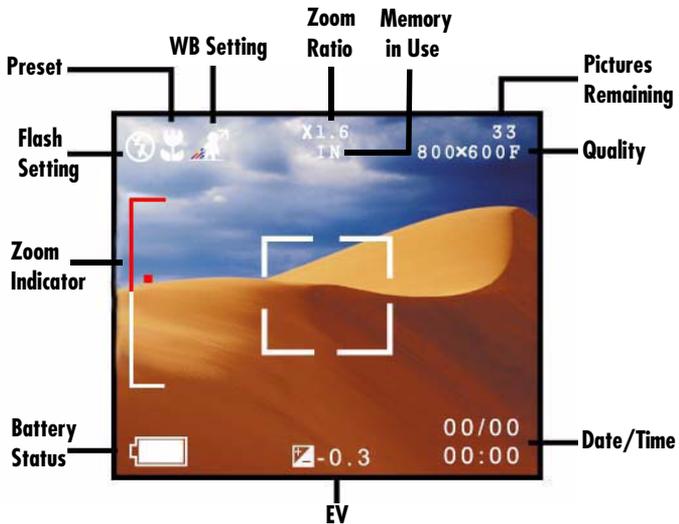
1. Turn the Mode dial to PC.



2. Use the supplied USB cable to connect the camera to your PC.

THE LCD

When your camera is in any mode, other than Set Up and PC, current camera settings are displayed as icons on the LCD. This section describes each display area and the associated icons.



ZOOM INDICATOR

Indicates the zoom level when in Snapshot mode. The lower (white) portion of the bar indicates the optical zoom and the upper (red) portion of the bar shows the digital zoom.

FLASH SETTING

Indicates the current flash setting. No flash icon means the camera is set to automatically determine whether or not the flash is needed.

 **Flash Off:** The flash is turned off, whether needed or not.

 **Red-Eye Reduction:** Reduces the appearance of red-eye in photos caused by flash reflection off of the subject's eyes.

 **Flash On:** The flash is always on, whether needed or not.

PRESET

Indicates the current Preset mode setting, if any. See “Preset Mode” on page 23 for additional details.

 **Landscape:** Optimized for taking landscape pictures.

 **Portrait:** Optimized for taking a head shot.

 **Night Scene:** Optimized for taking photos at night.

 **Self-Timer:** Takes a picture after a ten-second delay.

 **Macro:** Optimized for taking shots within one foot or less.

WHITE BALANCE SETTING

Indicates the current White Balance (WB) setting. If there is no setting indicated, the camera is set to automatically determine the appropriate white balance.

 **Daylight:** For taking pictures in bright daylight, to reduce the effect of whitewashed pictures.

 **Shade:** For taking pictures in the shade, or if picture is dark.

 **Incandescent:** For taking pictures under incandescent light.

 **Fluorescent:** For taking pictures under fluorescent light.

MEMORY IN USE

Indicates the current memory type in use. See “Memory Type” on page 31 for setup details.

IN: Indicates the camera’s internal memory is currently in use.

EX: Indicates the external memory (Secure Digital) is in use.

ZOOM RATIO

Indicates the current digital zoom setting as follows:

- In Snapshot mode, from x1.0 to x3.0.
- In Playback mode, (on upper-left of LCD) from x1.0 to x4.0.
- In Video mode, from x1.0 to x2.0.

PICTURES REMAINING

Indicates the number of pictures remaining on the selected memory (internal or external). The number is based on the available space in memory and the quality/resolution setting. If the camera is in Video mode, the available recording time is indicated.

QUALITY

Indicates the current selection for picture quality and resolution. See “Quality” on page 27 for setup details.

DATE / TIME

Indicates the date and time, as defined in the Set Up area of your camera. See “Set the Date and Time” on page 11 for setup details. In Playback mode, the date and time indicates when the picture was taken.

EXPOSURE VALUE (EV)

When in Snapshot or Video modes, indicates the current exposure value. Increasing the exposure value allows more light into the lens. You can increase or decrease the exposure value by pressing the Up  and Down  buttons.

BATTERY STATUS

 Indicates the level of battery power remaining.

CONNECTING TO A COMPUTER

This section describes the procedures to install software and connect your camera to your computer. You can then copy photos to your computer or use it as a PC camera.

COPYING PHOTOS AND VIDEO CLIPS TO A COMPUTER

Your digital camera stores images as digital data, rather than on film. This means you can copy your photos and video clips to a computer for storage, viewing, printing, and distribution.

After copying to your computer, you can delete the copies stored on the camera's internal memory or the Secure Digital card. Deleting images from your camera frees up space for new photos and video clips.

USING YOUR CAMERA AS A PC CAMERA

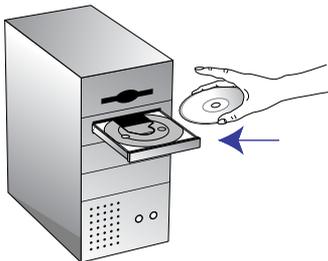
With your camera in PC mode, you can use it with the supplied Visioneer Digital Camera Utility software to create your own video clips. You can also use other commercially available video capture software and real-time video conferencing software such as Microsoft NetMeeting™.

INSTALL SOFTWARE ON YOUR COMPUTER

Before connecting your camera, you must install software on your computer. This is a one-time procedure that installs the TWAIN drivers and utility program that allow your camera to communicate with your computer via the USB cable.

To install the software:

1. Insert the installation CD that came with your camera into your computer's CD-ROM drive.



The CD automatically starts.

Note: If the CD does not start, check the following:

- Make sure the CD drive's door is completely shut.
 - Click the My Computer icon on your desktop. Double-click the icon for your CD-ROM drive. From the list of files on the CD, double-click the file named SETUP.EXE.
-

2. From the main menu screen, click **Install Visioneer Camera**.
3. On the Choose Setup Language screen, select the desired language from the drop-down list, and then click **OK**.
4. Follow the installation instructions as described below:
 - On the Welcome screen, click **Next**.
 - On the Select Components screen, click **Next**.
 - On the Microsoft DirectX 8.1 Setup screen, read the license agreement. If you accept the terms, click **Yes**.
 - On the DirectX(R) Setup screen, click **Install**.
 - On the DirectX Setup completion message, click **OK**.
5. On the Setup Complete window, select **Yes, I want to restart my computer now**, remove the CD, and then click **Finish**.

CONNECT TO YOUR COMPUTER THE FIRST TIME

The first time you connect your camera to your computer, the computer recognizes the camera as a new piece of hardware and leads you through the installation. This is a one-time procedure.

To install your camera to copy photos and video clips:

1. Connect the small connector of the USB cable to the USB port on the camera. See “Back View” on page 6 for the position of the USB port on the camera.



2. Connect the large end of the USB cable to an empty USB slot on your computer. To locate a USB slot, look for the USB icon next to the connection slot. 



3. Set the camera's Mode dial to any mode **except** PC. 
4. Turn on the camera.
5. Your computer detects the connection to the camera and initiates installation of the new hardware.
 - Depending on the Windows operating system installed on your computer, the installation may proceed automatically, or you may be asked to follow the instructions in a new hardware installation wizard.

Note: If your computer is running the Windows XP operating system, you may see a screen indicating that the camera has not passed Windows Logo testing. If this screen appears, click **Continue Anyway**. The function of your camera is not affected.

6. When installation is finished, turn off the camera.

To install your camera for use as a PC camera:

1. Set the camera's Mode dial to PC. 
2. Turn on the camera.
3. Your computer detects the connection to the camera and initiates installation of the new hardware.
 - Depending on the Windows operating system installed on your computer, the installation may proceed automatically, or you may be asked to follow the instructions in a new hardware installation wizard.

Note: If your computer is running the Windows XP operating system, you may see a screen indicating that the camera has not passed Windows Logo testing. If this screen appears, click **Continue Anyway**. The function of your camera is not affected.

4. When installation is finished, turn off the camera.

COPYING IMAGES TO YOUR COMPUTER

When connected to your computer, your digital camera behaves like any other drive attached to your computer.

There are two ways to copy photos and videos from your camera to your computer: using Windows Explorer or using the Visioneer Digital Camera Utility software. The Visioneer Digital Camera Utility contains more copy and delete options.

Note: Before copying images to your computer, you must install the software from the CD and setup your camera as new hardware on your computer. See page 38 and page 40 for details.

To connect your camera:

1. Connect the small connector of the USB cable to the USB port on the camera. See “Back View” on page 6 for the position of the USB port on the camera.



2. Connect the large end of the USB cable to an empty USB slot on your computer. To locate a USB slot, look for the USB icon next to the connection slot. 



3. Turn on the camera with the Mode dial set to any mode **except** PC. 

To copy using Windows Explorer:

1. On your computer, open Windows Explorer.

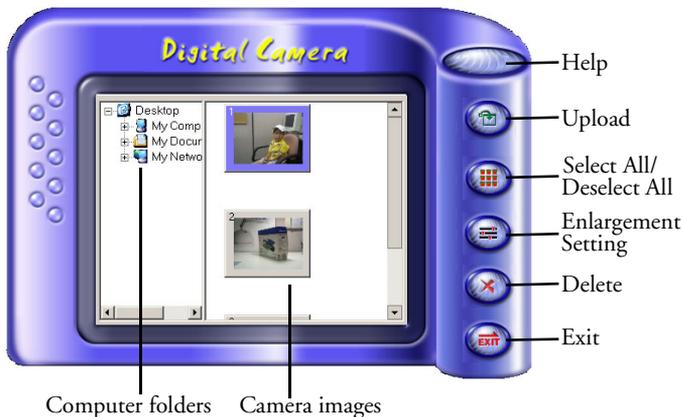
The contents of your computer is displayed, including all drives. The drive called Removable Disk represents your camera.
2. In Windows Explorer, select the **Removable Disk** drive.
3. Double-click to open the **DCIM** folder.

The images in the camera's memory are grouped in folders whose names are based on the date the photos were taken.
4. Double-click to open a folder and view its list of photos.

The list of photos and videos is dependent upon the current memory selection (internal or external) on your camera. For more details see "Memory in Use" on page 35.
5. Select the desired photos and videos, and then drag and drop into a folder on your computer's hard drive.
6. You can now delete the copied photos and videos from your camera's memory. See page 17 for details.
7. When finished, turn your camera off.

To copy using the Visioneer Digital Camera Utility:

1. On your computer desktop, click **Start**, point to **Programs**, point to **Visioneer Digital Camera Utility**, and then click **Visioneer Digital Camera Utility**.



The Visioneer Digital Camera Utility opens in Digital Camera mode. The right side of the window displays thumbnail images of the photos on your camera and the left side shows the directories and folders on your computer.

2. To copy an image to your computer, select an image from the right side of the window and drag it into a folder on the left side of the window (or click the **Upload** button to select the desired folder).
 - To select multiple images, press the **Shift** or **Ctrl** key on your keyboard before clicking an image.

- To select all of the images, click the **Select All/Deselect All** button.
3. To delete images from you camera's memory, select the images you want to delete, click the **Delete** button, and then click **Yes** in the message box to confirm the deletion.
 4. To set the size of the image during export, click the **Enlargement Setting** button.
 - Select **Original** to keep the original size or **Enlargement** to create a larger image.
 5. When finished, click **Exit** to close the Visioneer Digital Camera Utility and then turn off your camera.

USING YOUR CAMERA AS A PC CAMERA

With your camera in PC mode, you can use it with the supplied Visioneer Digital Camera Utility software to create videos and snapshots directly on your computer.

Note: To use your camera as a PC camera, you must install the software from the CD and setup your camera as new hardware on your computer. See page 38 and page 40 for details.

To connect your camera:

1. Connect the small connector of the USB cable to the USB port on the camera. See “Back View” on page 6 for the position of the USB port on the camera.



2. Connect the large end of the USB cable to an empty USB slot on your computer. To locate a USB slot, look for the USB icon next to the connection slot. 



3. Turn on the camera with the Mode dial set to PC. 

Note: Before switching to and from PC mode, disconnect the USB cable from your camera.

Note: To use the Visioneer Digital Camera Utility with your camera in PC mode, your computer monitor's display must be set to 24 bit or higher color depth.

- Right-click on your desktop and select Properties.
 - On the Display Properties window, click the Settings tab.
 - Set the Colors value to True Color (24 bit) or higher.
-

To record a video clip:

1. On your computer desktop, click **Start**, point to **Programs**, point to **Visioneer Digital Camera Utility**, and then click **Visioneer Digital Camera Utility**.



Video Viewfinder

The Visioneer Digital Camera Utility opens in Video mode. The Video Viewfinder displays the view through the camera's viewfinder.

2. To start recording a video, click the **Record** button.
3. On the Capture Setting dialog box, set a time limit and destination for the saved video.
4. Click **OK** on the dialog box to start recording.
5. When the time limit is reached, or you press the **Record** button again, recording is stopped. Click **OK** to acknowledge the message box.
6. When finished, click **Exit** to close the Visioneer Digital Camera Utility and then turn off your camera.
7. To view the video, locate the .avi file in the destination folder in which it was saved.
8. Double-click the file to open and play the video.

Note: To play a video on your pc, you must have an application capable of playing .avi files (such as Windows Media Player) installed on your computer.

To take a snapshot:

1. Open the **Visioneer Digital Camera Utility**.
2. Click the **Snapshot** button to take a picture of the view in the Video Viewfinder.
3. On the Save Picture to File dialog box, enter a file name, select a destination, and select a file format (JPEG, BMP, or TIF) for the picture.
4. Click **Save** on the dialog box to save the snapshot.
5. When finished, click **Exit** to close the Visioneer Digital Camera Utility and then turn off your camera.
6. To view the snapshot, locate the file in the destination folder in which it was saved.
7. Double-click the file to open and view the snapshot.

To change video parameter settings:

1. Open the **Visioneer Digital Camera Utility**.
2. Click the **Setting** button and choose either **Video Format** or **Video Source** to open dialog boxes to adjust video settings.
On the dialog boxes, you can adjust video options such as brightness, frame rate, and output size.
3. When finished, click **OK** on the dialog box, click **Exit** to close the Visioneer Digital Camera Utility, and then turn off your camera.

CONNECTING TO A TELEVISION

You can connect your camera to a television and view the camera's LCD display on the television screen. You can change modes using the Mode dial and perform camera functions including Snapshot, Playback, Set Up, and Video.

To connect your camera to a television:

1. Using the supplied video cable, connect the small, black end of the cable to the Video Out jack on your camera.
2. Connect the larger, yellow end of the video cable to the Video Input jack on the television set. This jack is usually yellow.



3. Turn on your television and set it to the Video In mode.
If needed, refer to your television's user guide for specific directions to do this.
4. Turn on your camera.
The camera's LCD display appears on the television.
5. Use the Mode dial, to change modes and use the camera buttons to perform functions associated with each mode.

PRINTING DIRECTLY TO A PRINTER

Two methods are available to print pictures from your camera to a printer that supports the DPOF (Digital Print Order Format).

DIRECT CONNECTION FROM YOUR CAMERA TO THE PRINTER

The user guide supplied with the printer will include instructions for connecting and printing directly from a camera.

Note: The printer must support DPOF, as well as connections to cameras from different manufacturers.

INSERTING THE SECURE DIGITAL CARD INTO THE CARD READER ON THE PRINTER

If your printer has a card reader that is compatible with your Secure Digital card, you can remove the card from your camera and insert it in the printer's card reader. You can then print images directly from the Secure Digital card.

Note: For the printer's card reader to recognize the images on the Secure Digital card, the printer must support DPOF. You must also use the DPOF setting on your camera to set the DPOF printing options for the images you want to print. For details, see the "DPOF" section under "Set Up Mode" on page 26.

TROUBLESHOOTING

If you are having problems using your camera, refer to the troubleshooting procedures in this section. If you are still having difficulties, refer to the technical support section in this guide on page 52. Also, visit our web site at www.visioneer.com for additional support information.

Problem: The camera has no power.

Possible Cause	Solution
The camera is turned off.	Press the On/Off button to turn the camera on.
The batteries are discharged.	Replace the batteries.
The batteries are inserted incorrectly.	Check the battery orientation. See page 9 for details.

Problem: The camera won't take a picture.

Possible Cause	Solution
The green camera-ready LED is not on.	Wait until the light stops flashing and is steady green.
The camera is connected to a computer, causing the buttons not to function.	Disconnect the camera from the computer.

Problem: The flash doesn't work.

Possible Cause	Solution
The flash is not turned on.	Ensure that the flash is set to the Automatic or Always On options. Refer to page 34.
The batteries are weak and the flash is unable to recharge.	Turn the camera off and wait a few seconds before turning it back on. If this doesn't work, replace the batteries.

Problem: When turned on, the LED flashes green, red, orange, and green. Then the camera does not function.

Possible Cause	Solution
The Secure Digital card is not inserted correctly.	Turn the camera off. Remove and reinstall the Secure Digital card, see page 9 for details.

Problem: The Visioneer Digital Camera Utility will not run when the camera is set to PC mode.

Possible Cause	Solution
Your computer monitor's display is set to less than 24 bit color depth.	Right-click your desktop and select Properties. On the Display Properties window, click the Settings tab. Set the Colors value to True Color (24 bit) or higher.

UNINSTALLING THE VISIONEER DIGITAL CAMERA UTILITY

Complete the following steps to uninstall the Visioneer Digital Camera Utility. This will not impact photos and videos that are on your computer.

To uninstall the Visioneer Digital Camera Utility:

1. On the Windows taskbar, click **Start**, point to **Programs**, point to **Visioneer Digital Camera Utility**, and then click **Uninstall Visioneer Digital Camera Utility**.
2. On the Visioneer Digital Camera Utility Uninstall window, click **Yes** to start the uninstall process.
3. When the uninstall process completes, click **OK** in response to the completion message.

US AND CANADA TECHNICAL SUPPORT

Support on the Web	www.visioneer.com
Support by Fax	(541) 884-8474
Support by Telephone (8:00 am - 5:00 pm Pacific Time, Monday-Friday) Long distance charges may apply	(541) 884-5548
Express Telephone Support (8:00 am - 5:00 pm Pacific Time, Monday-Friday)	(900) 776-5724 (Nominal per-minute fee)

INTERNATIONAL TECHNICAL SUPPORT

Visioneer provides technical support to all registered users in English and German. Please see the chart below for contact telephone numbers.

For Latin America, call U.S. Technical Support (1-541-884-5548).

Visioneer bietet allen registrierten Benutzern technische Unterstützung auf Deutsch und Englisch. Die Kontakttelefonnummern können Sie der folgenden Tabelle entnehmen.

Usuarios en Latinoamérica, sírvanse llamar al teléfono de apoyo técnico en los (1-541-884-5548).

Country	Telephone
Monday - Friday	
UK	0870 161 3003
Germany	0180 5 103 003
Rest of Europe	49 1805 440466
Visit www.visioneer-europe.com for more information	

Important: Contact information is subject to change. Please visit our Web site at www.visioneer.com for the latest details.

MX 230 DIGITAL CAMERA SPECIFICATIONS

Sensor	2 megapixel CCD
Resolution output	3 megapixel
Optical zoom	3x
Advanced Stepless Digital Zoom (Superior ADZ)	2x ADZ™ for video clip capture 3x ADZ™ for still image capture 3x ADZ™ for picture displayed on LCD
TFT color LCD	1.5 inch 280x220, 61K pixel
Memory	Internal: 8MB Flash External: Secure Digital memory card
USB interface	USB 1.1
MAC compatibility	MSD support
TV output	NTSC and PAL
Lens	Auto focus
Focus range	Normal: 0.5m ~ infinity Macro: 0.2m ~ 0.5m
Focal length	40 ~ 120 mm (35mm camera equivalent) 6.2 ~ 18.6 (actual)
F/no	F2.8/F8
View angle	53 degrees

Viewfinder	Optical type: reverse Galileo image
Still image capture	3M, 2048 x 1536, Normal 2M, 1600 x 1200, Fine 2M, 1600 x 1200, Normal XGA, 800 x 600, Fine XGA, 800 x 600, Normal
Video clip mode	320 x 240, 15fps, AVI format, 60 sec. max./file
Audio	Built-in microphone and speaker
PC camera mode	160 x 120, 30 fps 320 x 240, 15 fps
A/D conversion	10 bits
ISO speed	100
Auto-exposure	Compensation +/- 2EV in 1/3 increments
White balance	Auto/Daylight/Shade/Tungsten/Fluorescent
Flash mode	Auto/Always on/Red-eye reduction/Off
Shutter speed	Mechanical: 1 ~ 1/500 seconds Electronic: 1/30 ~ 1/4000 seconds
Self-timer	10 seconds
Power source	Two AA type alkaline or NiMH batteries
Regulation and certification	FCC Class B, CE

INDEX

B

batteries

- installing 9
- safety 2
- status 36

button

- Copy 25
- Delete 25
- Display 19, 24
- Down 19, 22, 24
- Flash 20
- Telephoto 17, 20, 22, 24
- Thumbnail 17, 25
- Up 19, 22, 24
- White Balance 20
- Wide Angle 17, 20, 22, 24

buzzer 28

C

camera

- back view 6
- bottom view 8
- components 5
- connecting to a computer 40, 42
- connecting to a television 50
- copying photos and videos
 - from 37
- end view 8
- features 1
- front view 5
- parts 4

- safety information 2
- troubleshooting 52
- using as a PC camera 37, 46

components

- back 6
- bottom 8
- end 8
- front 5

computer

- connecting camera to 40, 42
- copying photos and videos to 37, 42

Copy button 25

copying photos and videos

- from external to internal memory 25
- from internal to external memory 25
- to a computer 37, 42
- using the Visioneer Digital Camera Utility 44
- using Windows Explorer 43

D

date and time 30

- on LCD 36
- setting 11

delete all 26

Delete button 25

deleting pictures 18

Digital Camera mode 44

Digital Printer Order Format 29

Display button 19, 24

Down button 19, 22, 24
DPOF 29, 51

E

exposure value
 in Snapshot mode 19
 in Video mode 22
 on LCD 36

F

features 1, 19
flash
 safety 3
 settings 20
Flash button 20
flash setting
 on LCD 34
format 26

L

landscape 23
language 31
 setting 13

LCD

 battery status 36
 date and time 36
 display description 33
 exposure value 36
 flash setting 34
 memory in use setting 35
 pictures remaining 36
 preset mode setting 34
 quality setting 36
 white balance setting 35

 zoom indicator 34
 zoom ratio setting 35

M

macro 23
memory
 copying photos from external to
 internal 25
 copying photos from internal to
 external 25
memory card
 installing 9
memory type 31
mode
 PC 32
 Playback 24
 Preset 23
 Set Up 26
 Snapshot 19
 Video 21
Mode dial 19

N

night scene 23

P

parts 4
PC mode 32
pictures
 reviewing 17
 taking 15
Playback mode 24
 buttons 24
 video clips 25

- portrait 23
- Preset mode 23
 - landscape option 23
 - macro option 23
 - night scene option 23
 - on LCD 34
 - options 23
 - portrait option 23
 - self-timer option 23
- Printing
 - to a printer 51

Q

- quality 27
 - on LCD 36

R

- reviewing pictures 17

S

- safety information 2
- self-timer 23
- Set Up mode 26
 - buzzer 28
 - date and time 30
 - delete all 26
 - DPOF 29
 - format 26
 - language 31
 - memory type 31
 - quality 27
 - video out 31
- Snapshot mode
 - buttons 19

- software
 - installation 38
- specifications 57
- support
 - technical 55

T

- taking pictures
 - basic steps 15
 - getting ready 9
- technical support 55
- Telephoto button 17, 20, 22, 24
- television
 - connecting camera to 50
 - Set Up mode 31
- thumbnail images 25
- troubleshooting 52

U

- uninstall
 - Visioneer Digital Camera Utility 54
- Up button 19, 22, 24

V

- video clip
 - recording 21, 47
 - viewing 25, 48
- Video mode 47
 - buttons 21
- video out 31
- Visioneer Digital Camera Utility 42
 - copying photos and videos using 44

Digital Camera mode 44
uninstall 54
using to take a snapshot 49
Video mode 47

W

White Balance button 20
White balance setting
on LCD 35

Wide Angle button 17, 20, 22, 24
Windows Explorer
copying photos and videos
using 43

Z

zoom ratio
on LCD 35