



# ***Kodak Digital Science(TM)*** **DC50 zoom camera**

*User's Guide*

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Petition for *Inter Partes* Review  
of U.S. Pat. No. 7,477,284

**IPR2013-00219**  
EXHIBIT

**Sony-1007**

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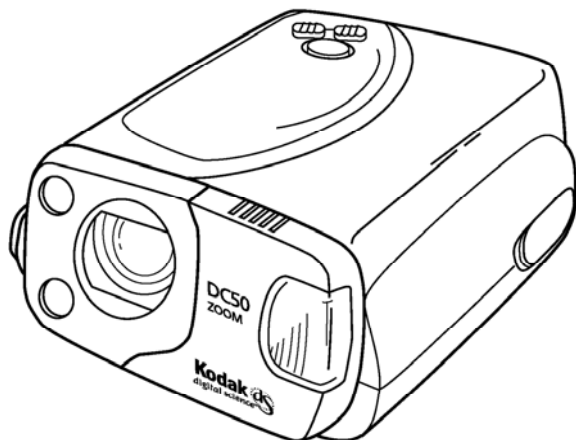
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# Introduction

The *Kodak Digital Science* (TM) DC50 zoom camera (DC50 zoom camera) allows you to take pictures and transfer them to your computer where you can save them, manipulate them using image editing software, or print them on your printer.



## Features

The easy-to-use DC50 zoom camera offers the following features:

- automatic focus
- zoom lens
- flash settings
- timer settings
- exposure settings
- removable memory card
- “power save” mode
- power supply choice: batteries or AC power adapter
- battery use indicator
- standard tripod mount

## Checking Package Contents

The following items are included with your new DC50 zoom camera:

- DC50 zoom camera
- four (4) lithium batteries
- serial cable for use with Macintosh systems
- serial cable for use with Windows systems
- 9-pin adapter for a 25-pin serial port
- camera software application kit
- Quick Reference Guide
- *Kodak Digital Science* (TM) Digital Camera Reference CD on which you will find the following items:
  - \* ADOBE Acrobat (TM) Reader software (one for Macintosh systems and one for Windows systems)
  - \* an ADOBE Acrobat(TM) “pdf” format file of this User’s Guide (one for Macintosh systems and one for Windows systems)
  - \* warranty registration card
  - \* various other information which may help you use your DC50 zoom camera

# Using the Camera

This section provides instructions for using your new DC50 zoom camera to take pictures. However, you should also become familiar with the DC50 zoom camera buttons and features which are described in the *Camera Features* section.

The DC50 zoom camera focuses on subjects from distances of 2.3 feet (70 cm) to infinity. Pictures taken with subjects closer than 2.3 feet (70 cm) may appear blurry. The close-up mode allows you to take pictures of subjects from distances of 1.6 feet (50 cm). For more information about focus modes, refer to the *Camera Features* section.

The DC50 zoom camera can store 7 to 22 pictures in its internal memory, depending on the features you select. The Images Remaining Counter in the Liquid Crystal Display (LCD) on the back of the camera shows you the number of pictures that you can take before the camera is full. As you take pictures, the number in the Images Remaining Counter decreases. When the camera memory is full, "FUL" appears in the Images Remaining Counter. You cannot take any more pictures until the camera memory is erased.

NOTE: For detailed information about the DC50 zoom camera's features, refer to the *Camera Features* section.

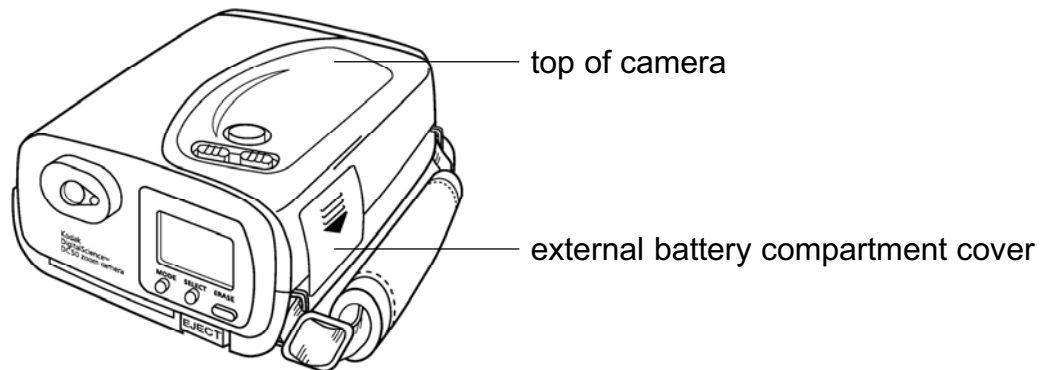
Pictures can also be stored on optional removable memory cards. For information about using memory cards in the DC50 zoom camera, refer to the *Using Removable Memory Cards* section.

## Installing the Batteries

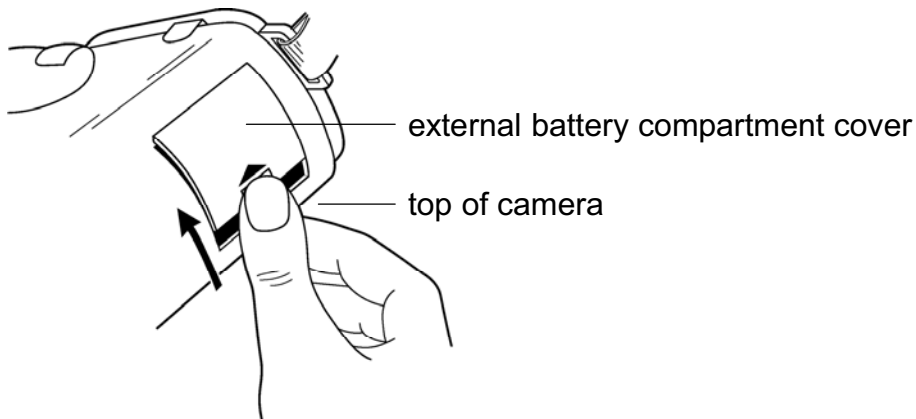
Four lithium batteries are included with your DC50 zoom camera. You can also use rechargeable NiCad (nickel-cadmium) or AA alkaline batteries. Refer to the *Batteries* section for more information about batteries.

**WARNING: *Mixing battery types in the camera may cause a fire or explosion. Only use batteries that are all the same type.***

1. Push firmly on the external battery compartment cover and slide the cover down in the direction of the arrow on the battery cover.



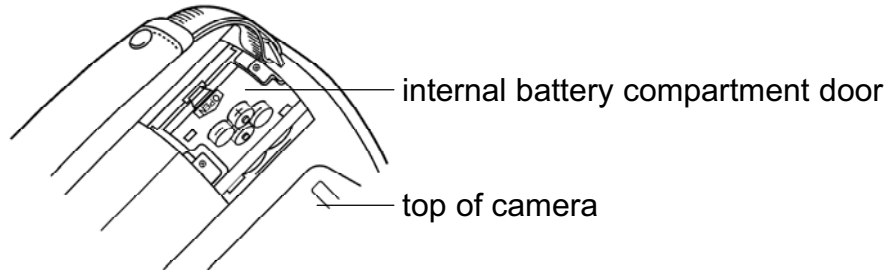
The cover slides along its track.



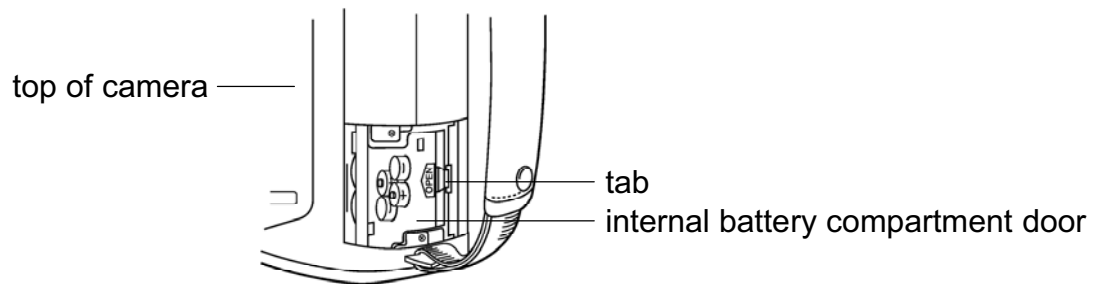


2. Remove the external battery compartment cover from the camera and set it aside.

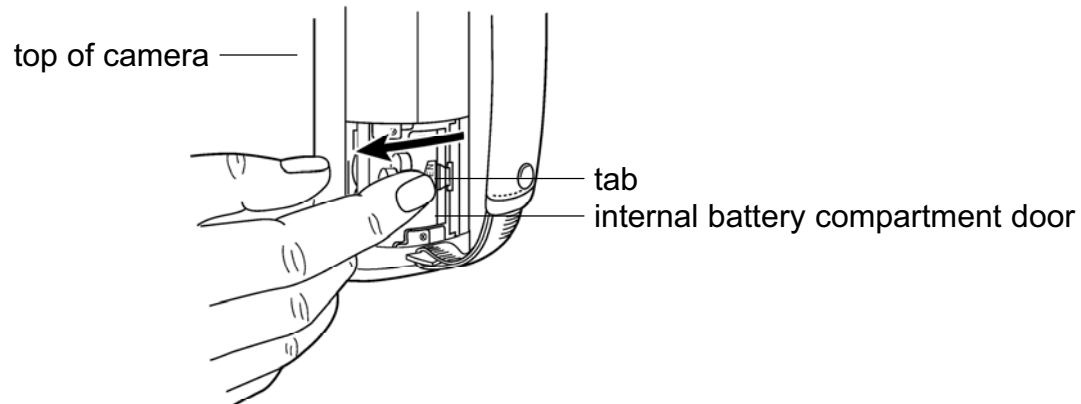
The internal battery compartment door is exposed.



3. Turn the camera over so the top of the camera is on your left and the front of the camera faces up.
4. Locate the small tab that is just beneath the word OPEN on the internal battery compartment door.



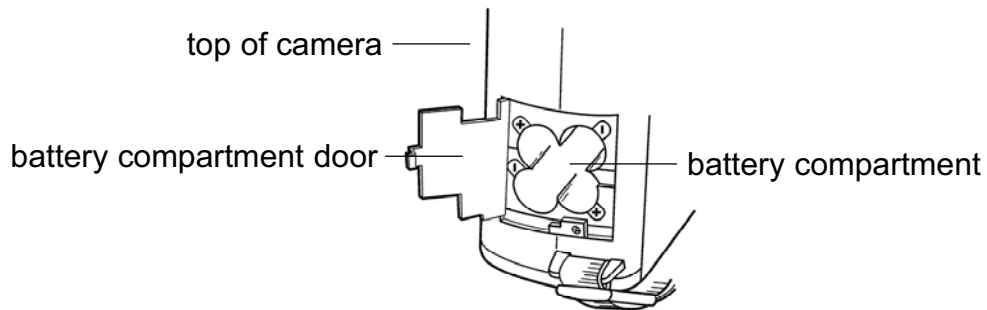
5. Pull gently on the tab in the direction of the arrow on the door.



The door slides along its track and is released from its latch.

6. Lift up the door.

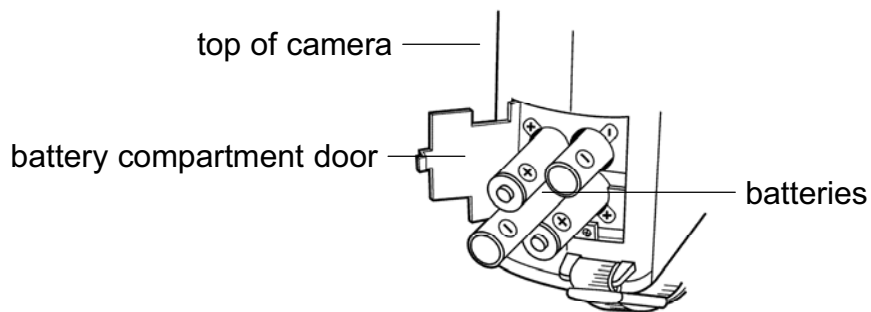
The battery compartment is exposed.



NOTE: The proper battery positions are indicated on the internal battery compartment door, as well as inside the battery compartment.

7. Place four batteries in the proper position in the battery compartment.

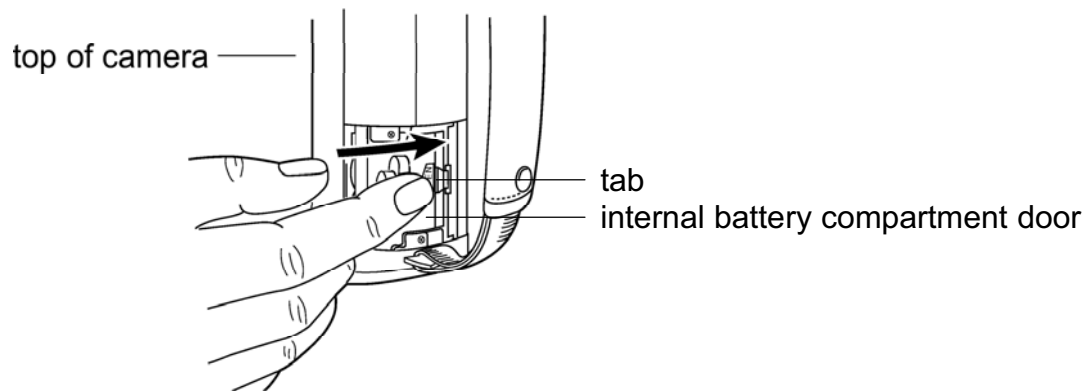
**WARNING:** *Mixing battery types in the camera may cause a fire or explosion. Only use batteries that are all the same type.*



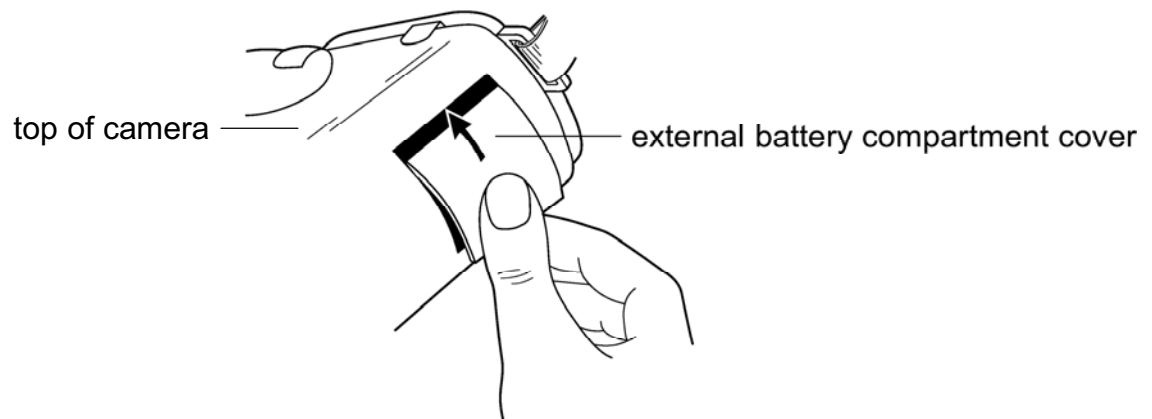
**IMPORTANT:** *Make sure that you insert the batteries in the orientation shown in the above illustration.*

8. Close the internal battery compartment door.

9. Push firmly on the door and slide the door until it locks into place.



10. Position the external battery compartment cover in its track.



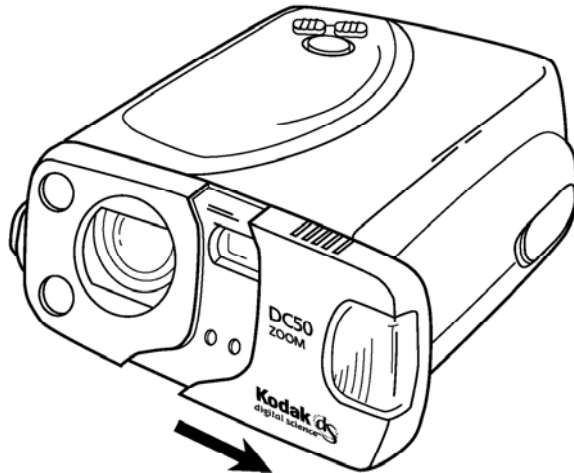
11. Slide the external battery compartment cover up until it locks into place.

## Turning the Camera On and Off

The camera is either on, off, or in the battery-saving power save mode. For more information about the on, off, and power save modes, refer to the *Camera Features* section.

### Camera On

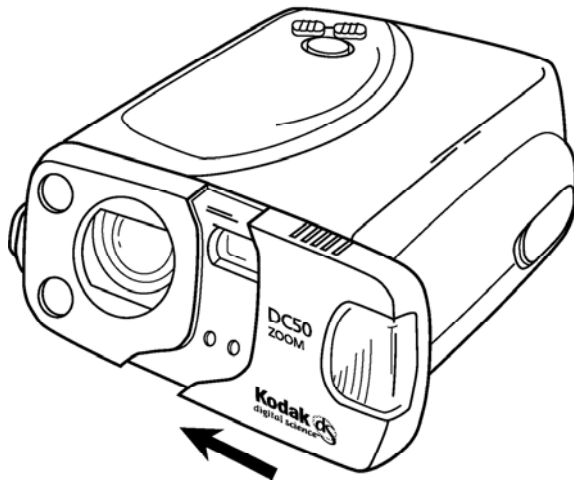
Pull the sliding cover gently away from the camera to turn on the camera.



The camera turns on automatically. Icons appear in the LCD.

## Camera Off

Push the sliding cover gently toward the camera until it stops to turn off the camera.



The camera turns off and the feature icons disappear from the LCD.

## Power Save

The DC50 zoom camera automatically turns off the camera after 60 seconds without use, even if you are using an AC adapter. Press any button on the camera to return the camera to its active state.

You can specify a number between 60 and 255 seconds at a host computer to change the number of seconds before the camera goes into the power save mode.

## Flashing Indicator Lights and Icons

The lights and icons on the DC50 zoom camera flash at varying speeds for different purposes.

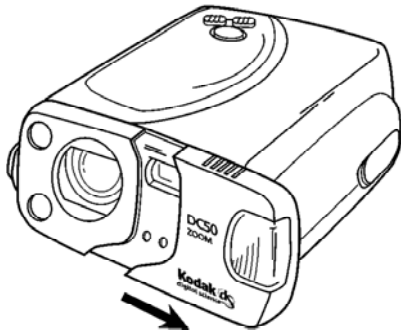
## Taking Pictures

Following are steps for taking a picture with your DC50 zoom camera using the camera's default values. For detailed information about the DC50 zoom camera's features and settings, refer to the *Camera Features* section.

**IMPORTANT:** *When you take pictures, make sure that your fingers or hands do not cover the flash unit, camera lens, viewfinder window, Auto Exposure photometric unit, or Auto Focus sensors on the camera.*

## Turning On and Positioning the Camera

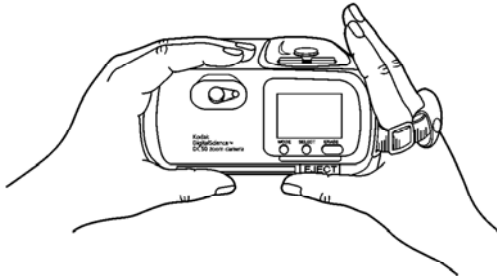
1. Pull the sliding cover gently away from the camera.



The camera is on. Icons appear on the LCD.

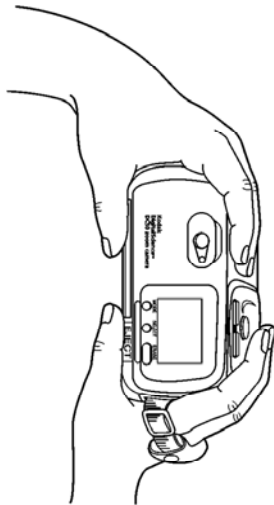
2. Hold the camera with both hands with the handstrap on the right side and the top of the camera facing up.

3. Slide your right hand fingers under the handstrap on the right side of the camera and allow the camera to rest on your right thumb.



Your index finger should rest on the shutter button.

NOTE: If you want to frame the picture like a portrait, turn the camera so it is vertically oriented (with the flash at the top).

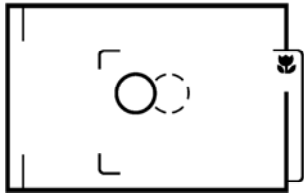


Most image editing software packages allow you to rotate pictures within the application, if necessary.

You also can mount the camera on a tripod using the mounting socket on the bottom of the camera.

## Framing Your Subject in the Viewfinder

1. Look through the viewfinder on the back of the camera.



2. Position the Auto Focus (AF) target marks in the viewfinder frame on your subject.

NOTE: The Auto Focus (AF) target marks are the solid and dotted circles in the viewfinder frame. The solid circle is the target mark for distances to infinity and the dotted circle is the target mark for the closest distance (to 70 cm). Use the smaller frame to the right (the one with the little flower 🌸 in it) when you select the close-up focus mode.

The picture includes an area slightly larger than the image you see framed in the viewfinder frame.



## Capturing the Image

Hold the camera as steady as possible when you press the shutter button. Moving the camera while pressing the shutter button will cause your pictures to be blurry.

1. Press the shutter button halfway down.

NOTE: The shutter button is the purple button on the top of the camera.

The camera measures the ambient lighting and sets the exposure and white balance, and automatically focuses the lens. The green light on the right of the viewfinder illuminates.

NOTE: The green light on the viewfinder flashes if your subject is too close or too far away. You can specify a close-up focus or move closer or further away from your subject.

2. Press the shutter button all the way down.

After you press the shutter button, be sure to hold the camera steady until the green light on the viewfinder flashes. There is a brief delay between the time the shutter button is pressed and the time the picture is actually taken and processed by the camera.

The Images Remaining Counter flashes, then the number of remaining pictures is displayed. The number in the Images Taken Counter increases by one. You cannot take another picture until the green light on the viewfinder stops flashing.

# Camera Features

This four-part section describes the DC50 zoom camera features.

**Camera Front**—describes the front of the DC50 zoom camera.

- sliding cover/power switch
  - camera on
  - camera off
  - power save mode
- front indicator light
- exposure sensor
- focus sensors
- flash unit

**Camera Top**—describes the buttons on top of the DC50 zoom camera.

- shutter button
- zoom buttons
  - Telephoto (T)
  - Wide Angle (W)

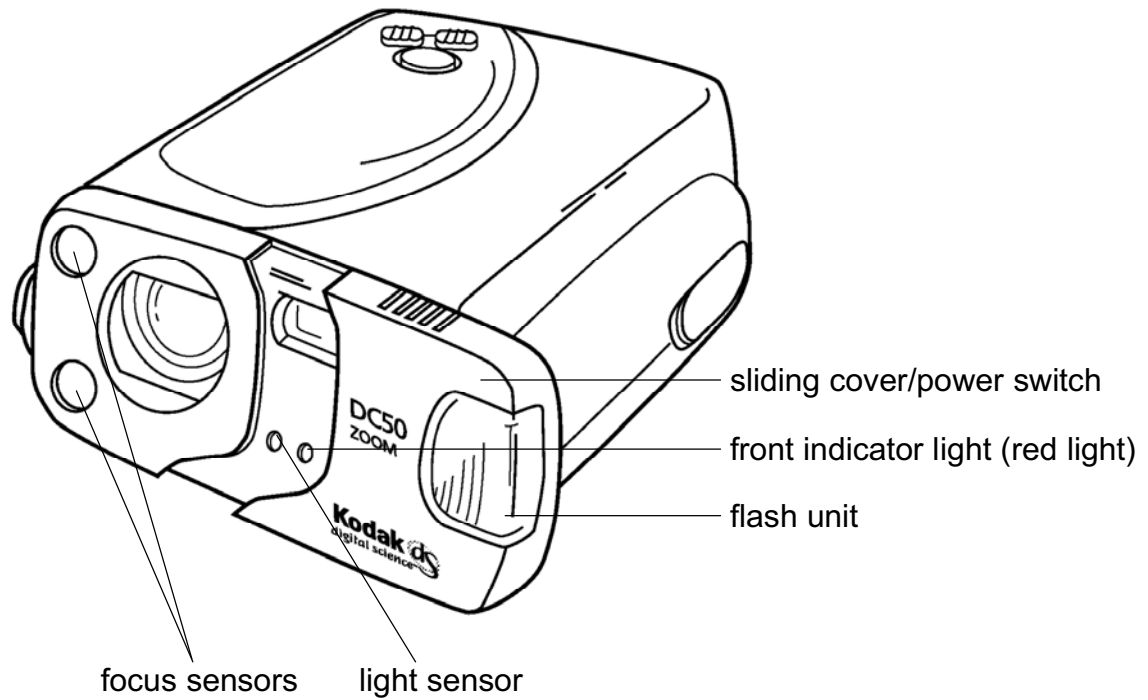
**Camera Back**—describes the viewfinder and the buttons on the back of the DC50 zoom camera.

- viewfinder
- selection buttons
  - MODE
  - SELECT
  - ERASE
- EJECT button

**DC50 zoom camera LCD Icons**—describes the icons in the Liquid Crystal Display (LCD) on the back of the DC50 zoom camera.

- LCD icons and settings:
  - Auto Focus
  - Exposure Compensation
  - Flash
  - Image Quality
  - Timer
  - Battery
  - Images Remaining Counter
  - Images Taken Counter
  - Erase Images
  - Memory Card
  - Copy Images

## Camera Front



NOTE: A standard tripod mount (not shown) is located on the bottom of the camera.

## Sliding Cover/Power Switch

The sliding cover acts a power switch for the camera.

### Camera On

When the sliding cover is opened, the camera turns on. Icons appear in the LCD and all buttons are enabled. The camera is ready for use. If auto flash or fill flash is specified, the flash charge is initiated. The camera can receive host commands in this state.

When the camera is on, the following settings are always selected:

**Auto Focus**—auto focus with multi-spot

**Exposure Compensation**—no offset

**Flash**—auto flash

**Image Quality**—image quality selection previously selected

**Timer**—off

NOTE: These features and their settings are discussed in the *DC50 zoom camera LCD Icons* section.

### Camera Off

When the sliding cover is closed or power is not supplied from an AC adapter or the batteries, the camera is off. No icons appear in the LCD, the flash is not kept charged, no buttons are enabled, and the camera cannot communicate with the host computer.

If you close the sliding cover while the camera is actively storing an image in the camera's internal memory or on a memory card, or it is copying or erasing images, the camera will turn off after it completes the task.

## **Power Save Mode**

The DC50 zoom camera power save mode is a battery-saving feature that automatically turns off the camera after 60 seconds without use, even if you are using an AC adapter. No icons appear in the LCD and the flash is not kept charged.

NOTE: You can specify a number between 60 and 255 seconds at a host computer to change the number of seconds before the camera goes into the power save mode.

Press any button on the camera to return the camera to its active state (“wake” it) after it goes into power save mode. Only the timer is affected by the power save mode. Pressing a button when the camera is in power save mode only turns the camera back on. No action happens. However, the camera turns off if you close the sliding cover when the camera is in power save mode.

NOTE: When the camera is in power save mode and it receives a host command or break signal from the host, the camera turns back on.

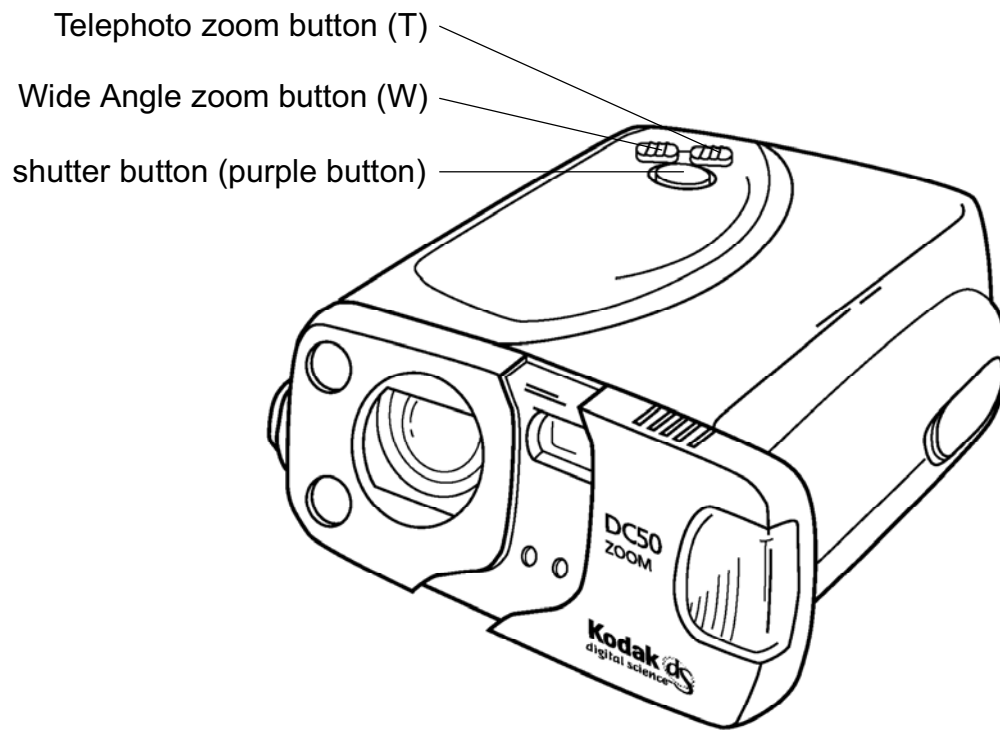
## **Front Indicator Light**

The red light on the front of the camera indicates that a picture is being taken or the timer is working (counting down). The red light illuminates for a second when an image is being captured. If a timed shutter release is set up, the red light illuminates for eight seconds and then flashes for the last two seconds before the picture is taken.

## **Auto Focus Sensors**

Two sensors on the front of the camera measure distances and adjust the camera’s focus.

## Camera Top



## Shutter Button

The shutter button is the purple button on top of the camera. You take a picture by pressing the shutter button that is on top of the DC50 zoom camera. When you lightly press the shutter button halfway down, the exposure and focus are measured automatically (AE/AF).

When you press the shutter button all the way down, the image is captured after the exposure and focus are measured. The numbers in the Images Remaining and Images Taken Counters change, and the captured image is stored on the memory card or in the camera's internal memory if there is no memory card in the camera.

No action occurs when you press the shutter button in the following cases:

- The camera does not have enough space to save captured images.
- The flash is required, but it is not charged.
- The camera is saving a captured image.
- The camera is copying images.
- The camera is erasing images.
- The camera is off.
- The camera is using the timer and is counting down to exposure.
- The zoom button is being pressed.
- The camera is in power save mode.
- The battery is empty.

If there is not enough space to store the captured image in the camera's internal memory or on a memory card, "FUL" appears in the Images Remaining Counter.



## **Zoom Buttons**

The DC50 zoom camera allows you to zoom in on your subject. There are two zoom buttons: Telephoto and Wide Angle.

### **Telephoto (T) Button**

When you press the Telephoto (T) button, the zoom lens moves from its current position up to the maximum zoom range in the telephoto position. When you release the Telephoto button, the zoom lens stops moving at that point. The maximum field of view is equivalent to using a 111 mm zoom lens on a 35 mm camera.

If you press the Wide Angle button or the shutter button while the zoom lens is moving to a telephoto position, the button press is ignored. No action occurs when you press the Telephoto button in the following cases:

- The camera is storing, copying, or erasing images.
- You have specified close-up focus.
- You pressed the Wide Angle button while the zoom lens was moving to a telephoto position.

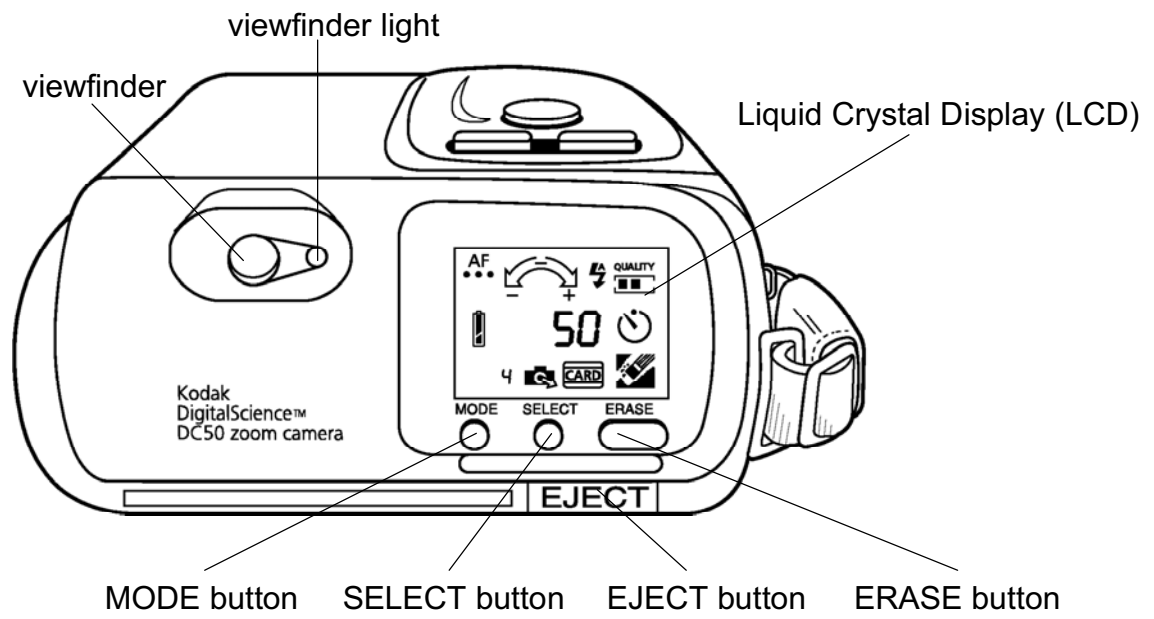
### **Wide Angle Button (W)**

When you press the Wide Angle (W) button, the zoom lens moves from its current position up to the maximum zoom range in the wide angle position. When you release the Wide Angle button, the zoom lens stops moving at that point. The maximum field of view is equivalent to using a 37 mm zoom lens on a 35 mm camera.

If you press the Telephoto button or the shutter button while the zoom lens is moving to a wide angle position, the button press is ignored. No action occurs when you press the Wide Angle button in the following cases:

- The camera is storing, copying, or erasing images.
- You have specified close-up focus.
- You pressed the Telephoto button while the zoom lens was moving to a wide angle position.

# Camera Back



## Viewfinder

The viewfinder on the back of the camera contains a green light which indicates the camera status.

When you lightly press the shutter button halfway down, the green light on the viewfinder illuminates. You can then press the shutter button all the way down to take a picture. While the captured image processes, the green light flashes. You cannot use the camera during this time. When the image processing is complete, the green light turns off.

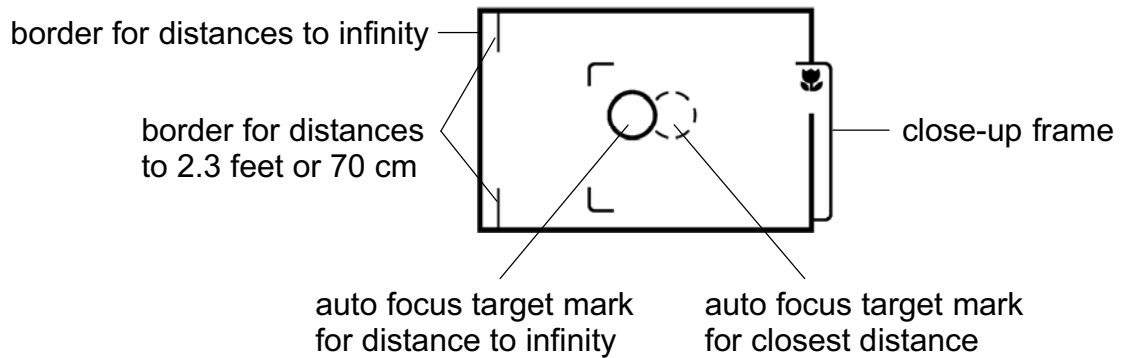
NOTE: The green light flashes if your subject is too close or too far away. You can specify a close-up focus or move closer or further away from your subject.

The green light does not illuminate even when the shutter button is pressed in the following cases:

- There is no memory space for storing captured images.
- The flash is not charged.
- The camera is copying images to the memory card.
- The camera is erasing images.
- The battery is empty.

## Viewfinder Frame

When you look through the viewfinder, you see the viewfinder frame. The viewfinder frame indicates frames and target marks for several focus modes.



Consider the relationship of frames and focusing before you take a picture. The Auto Focus (AF) target marks are the solid and dotted circles in the viewfinder frame. The solid circle is the target mark for distance to infinity and the dotted circle is the target mark for the closest distance (up to 2.3 feet or 70 cm). If you are using the close-up focus mode, frame your subject within the small frame with the flower on the right side.

The two lines on the left side of the viewfinder frame are borders for the closest subject distance (up to 2.3 feet or 70 cm). The left edge of the viewfinder frame is a border for distances to infinity.

## EJECT Button

The EJECT button allows you to eject a memory card from the camera. The memory card can be ejected at any time, even when the camera is performing a process such as copying images. If the EJECT button is pressed when the camera is accessing the memory card, the camera will be reset.

## MODE Button

The MODE button allows you to move through the icons in the LCD. Each time you press the MODE button, a feature icon flashes to indicate that it is currently selected and active.

NOTE: The icons in the LCD are described in the *DC50 zoom camera LCD Icons* section.

The camera is at the “home” position before you press the MODE button. Press the MODE button to step through the icons in the LCD. When the selected icon flashes, you can specify a feature for that icon by pressing the SELECT button. After you make selections, the camera returns to the “home” position.

Mode selection is done and the camera returns to the “home” position in the following cases:

- The shutter button is pressed.
- A zoom button (telephoto or wide angle) is pressed.
- The ERASE button is pressed (except when the Erase Images icon is selected).
- No action is taken within eight seconds after the MODE button is pressed.

## **SELECT Button**

The SELECT button allows you to move through the selections that are available for each feature. Each time the SELECT button is pressed, a feature setting flashes to indicate that it is currently selected and active.

A selected feature returns to the “home” position after a selection is made in the following cases:

- The MODE button is pressed.
- The shutter button is pressed.
- A zoom button (telephoto or wide angle) is pressed.
- The ERASE button is pressed.
- No action is taken within four seconds after the SELECT button is pressed.

## **ERASE Button**

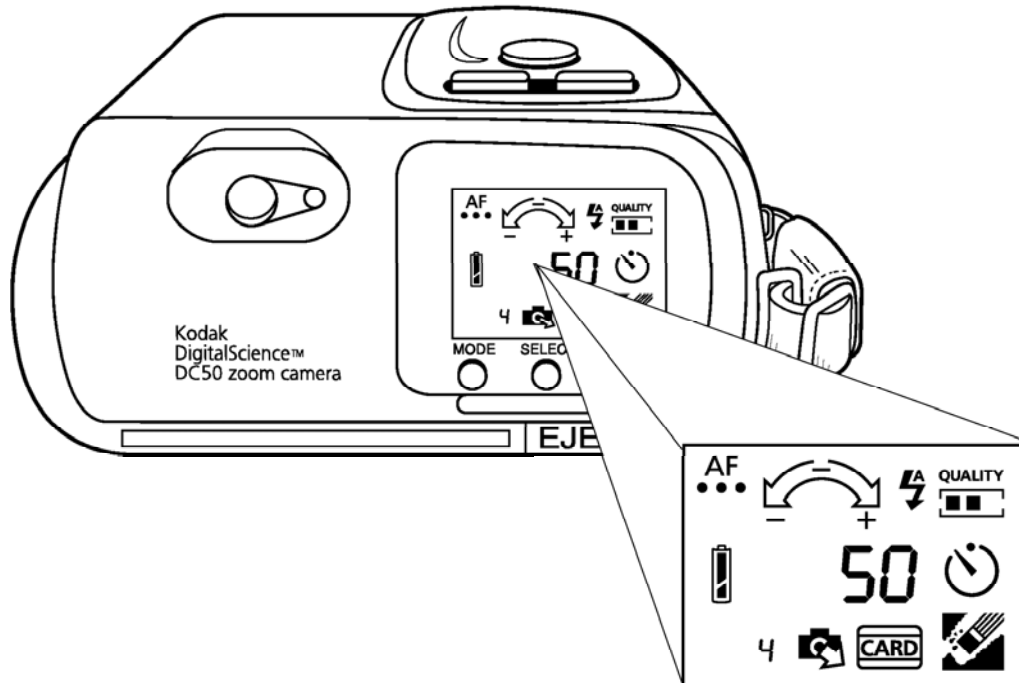
The ERASE button allows you to erase all of the pictures that are stored in the camera’s internal memory or on an optional memory card. The ERASE button can be used only when the Erase Images icon is selected.

NOTE: Refer to “Erasing Pictures” in the *DC50 zoom camera LCD Icons* section for step-by-step instructions for erasing pictures from the camera or the memory card.

Erasing a memory card is also described in the *Using Removable Memory Cards* section.

## DC50 zoom camera LCD Icons

The DC50 zoom camera features appear as icons in the Liquid Crystal Display (LCD) and are manipulated using the buttons on the back of the camera.



All features except Image Quality revert to their default settings when the camera is turned off and on again. Settings remain in place when the camera is “wakened” from an inactive state.

## **Auto Focus**

The Auto Focus icon allows you to select from three focus settings: multi-spot auto focus, single-spot auto focus, and close-up focus. When you use the MODE button to select the Auto Focus icon, the current setting appears.

The green light on the viewfinder flashes in the following cases:

- The distance is too close at the normal mode.
- The distance is too close or too far at the close-up mode.

The selected focus setting is canceled when you turn the camera off. When you turn the camera back on, automatic focus with multi-spot is the default setting.

## **Multi-spot Auto Focus**

When auto focus with multi-spot is selected, the distances of subjects are measured with two sensors. These sensors measure the distance in three horizontal points. The focus is adjusted to the closest distance. Multi-spot auto focus is the default focus setting.

## **Single-spot Auto Focus**

When auto focus with single-spot is selected, the focus is adjusted to the distance measured by the center sensor.



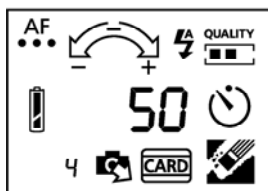
## Close-up Focus

When the close-up setting is selected, the focus is adjusted to approximately 1.6 feet (50 cm) from the front of the camera to the subject. The zoom lens moves to the close-up position. Any zoom button presses are ignored.

When you take a close-up picture, center your subject in the small viewfinder frame (the one with the flower on the right side).

### Making a Focus Selection

1. Press the MODE button until the Auto Focus icon flashes.



NOTE: The picture includes an area slightly larger than the image you see framed in the viewfinder frame.

2. Press the SELECT button to advance through the focus selections until you see the one you want.

## Exposure Compensation

The Exposure Compensation icon allows you to change the exposure to adjust the camera for too dim or too bright lighting. For example, if the primary source of light is behind your subject, you may want to change the exposure to the highest setting.

The exposure value is automatically measured by the camera (auto exposure). You can select an exposure value up to plus or minus two steps from the automatically measured value. One step equals 0.5 EV increments. A picture taken with “auto exposure +2” is brighter than a picture taken with “auto exposure.”

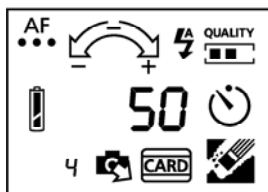
−1.0 EV → −0.5 EV → auto exposure → +0.5 EV → +1.0 EV

When you select the Exposure Compensation icon with the MODE button, the current setting flashes. Press the SELECT button to move through and specify an exposure value.

Any selected exposure value is canceled when you turn the camera off. When you turn the camera back on, auto exposure with no offset is the default setting.

### Making an Exposure Value Selection

1. Press the MODE button until the Exposure Compensation icon flashes.



2. Press the SELECT button to move the selector indicator in the Exposure Compensation icon to the exposure value that you want.

## Flash

The Flash icon allows you to select from three flash settings: automatic flash, flash off, and flash on (fill flash). When you use the MODE button to select the Flash icon, the current setting appears.

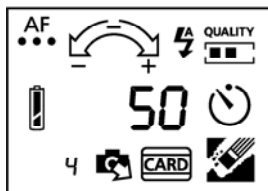
The effective range for the flash in telephoto mode is between 2.3 and 9 feet (70 and 270 cm). The effective range for the flash in wide angle mode is between 2.3 and 13.7 feet (70 and 415 cm).

In order for the flash to have an impact on the picture, make sure you are 2.3 to 9 feet (70 to 270 cm) away from the subject. If you want to take pictures of subjects that are closer than 2.3 feet (70 cm), you can use the close-up mode to take pictures of subjects that are as close as 1.6 feet (50 cm).

The selected flash setting is canceled when you turn the camera off. When you turn the camera back on, automatic flash is the default setting.

## Automatic Flash

In automatic flash, the camera determines if the flash should be used based on the existing light. To use automatic flash, you do not have to make any changes to the flash feature. Automatic flash is the default flash setting.

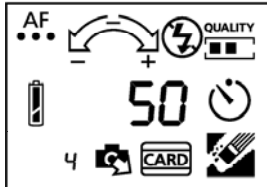


## Flash Off

The flash is not used even if the existing light is dim.

### To turn off the flash:

1. Press the MODE button until the Flash icon flashes.
2. Press the SELECT button until the Flash Off icon appears in the LCD.

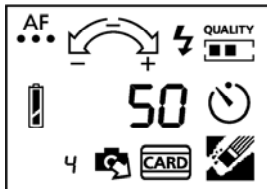


## Flash On (Fill Flash)

The flash is used for all pictures, even if the existing light is bright. For example, if the primary source of light is behind your subject, you may want to change the flash setting to Flash On.

### To turn on the flash:

1. Press the MODE button until the Flash icon flashes.
2. Press the SELECT button until the Flash On icon appears in the LCD.



## Image Quality

The Image Quality icon allows you to select from three image quality settings that are used to capture images.

 Best

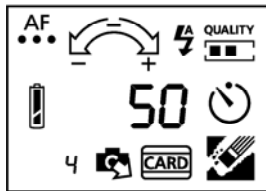
 Better

 Good

Use the SELECT button to specify an image quality setting. The selected image quality setting remains in effect even if you turn the camera off. The selected feature is maintained until another image quality setting is selected.

### Selecting an Image Quality

1. Press the MODE button until the Image Quality icon flashes.
2. Press the SELECT button until the image quality setting you want to use appears and flashes in the LCD.



The number of pictures that are available in the Images Remaining Counter changes depending on the image quality you select. The number of images is an approximate number and will vary depending on the types of pictures you take.

**NOTE:** You can store pictures with different image quality settings in the camera's internal memory or on a memory card.

## Timer

The Timer icon allows you to specify the period of time that the camera waits to take a picture after you press the shutter button. This allows you to set the timer and then move in front of the camera so you can be in the picture.

When you use the MODE button to select the Timer icon, the icon flashes. Press the SELECT button to specify “timer on” or “timer off.” The Timer icon flashes quickly (1/4 second on, 1/4 second off) for “timer on” and slowly (1/2 second on, 1/2 second off) for “timer off.”

When “timer on” is specified, the Timer icon flashes quickly until the shutter button is pressed, then it flashes slowly. The Timer icon does not flash unless it is selected.

When the timer is being selected and you use the MODE button to advance to the Timer icon, the icon flashes slowly so you can make a selection.

When the camera is counting down, you can press the MODE button to cancel the countdown, but the timer is still available. Any other button presses during the countdown is ignored.

The selected timer setting is canceled in the following cases:

- After an image has been taken.
- When the camera is turned off.
- When the camera enters the power save mode.

## No Wait

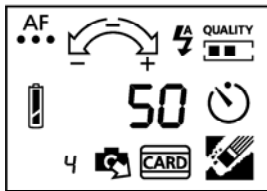
To take pictures immediately, do not make any changes to the timer feature. The camera takes the picture as soon as the shutter button is pressed. “No wait” is the default timer setting.

## Ten Seconds

With this timer setting, the camera waits ten seconds after the shutter button is pressed before it takes the picture. When the shutter button is pressed with “timer on,” the timer icon flashes slowly for 10 seconds. The red light on the front of the camera illuminates for eight seconds, flashes slowly for two seconds, and then the camera takes the picture.

## Setting the Timer

1. Press the MODE button until the Timer icon flashes.
2. Press the SELECT button until the Timer icon flashes quickly.



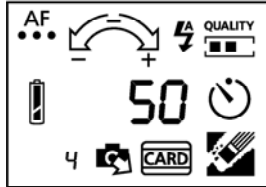
3. Press the shutter button twice.

The timer is set. The green light to the right of the viewfinder lights up. The picture will be taken automatically approximately 10 seconds after the shutter button is pressed the second time.

The timer is off after the picture has been taken.

## Battery

The Battery icon indicates the battery level as Full, Low, or Empty. The Battery icon does not appear in the LCD if the camera is connected to an AC adapter which is plugged into an electrical outlet.



- When the icon appears full, the batteries are fully charged.
- When the icon appears partially filled, the battery charge is getting low.
- When the icon appears empty, you must replace the batteries.

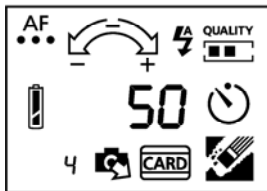
NOTE: Pictures remain stored in the computer's internal memory even if the camera batteries are empty.



## Image Counters

### Images Remaining Counter 20

The larger number that appears near the center of the LCD is the Images Remaining Counter. This number is the approximate number of pictures that you can still take at the current image quality in the camera's internal memory or on the memory card. This number can be up to three digits, but the leading zeros do not appear. When you take a picture, this number decreases by one. If no space is left in the memory, "FUL" appears in the LCD instead of "0."



When a memory card is in the camera, the Images Remaining Counter indicates the remaining number of pictures that the card can hold. If you use a memory card that can hold over 1,000 images, "999+" appears in the Images Remaining Counter. This means that no more than 1,000 pictures can be taken, even if the memory card can hold more than 1,001 pictures. When the LCD shows "999+" and you take a picture, the "+" disappears and "999" is displayed. If the memory card is ejected, the Images Remaining Counter shows the number of pictures available in the camera's internal memory.

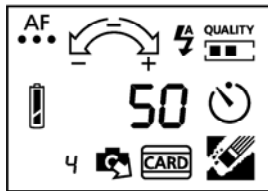
**NOTE:** The camera firmware rearranges the image storage memory space after each picture is taken. If the Images Remaining Counter does not decrease after you have taken a picture, it is probably because the camera has found space for one more image.

When Erase Images is selected, the Images Remaining Counter changes after all of the images are erased, and the maximum number of pictures that are available at the current image quality for the camera's internal memory or a memory card appears in the LCD.

When Copy Images is selected, the Images Remaining Counter indicates how many additional images the memory card can hold. This number decreases as images are copied to the card from the camera's internal memory.

## Images Taken Counter 4

The smaller number that appears near the lower left corner of the LCD is the Images Taken Counter. This number is the number of the last picture that was taken for storage in the camera's internal memory or on the memory card. This number can be up to three digits, but the leading zeros do not appear. The Images Taken Counter begins at "0." When you take a picture, this number increases by one. If the number exceeds 1,000, "999+" appears in the Images Taken Counter.



When Erase Images is selected, "0" appears in the Images Taken Counter after all of the pictures are erased.

When Copy Images is selected, the Images Taken Counter indicates the number of pictures in the camera's internal memory. The Images Taken Counter always shows the last image number for the card at any time. This number never decreases (except for the last picture), even if the pictures in the card are deleted or renamed.

## Erase Images

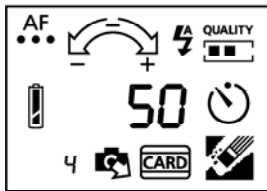
The Erase Images icon appears only when pictures are in the camera's internal memory or on the memory card in the camera. After you have transferred the camera pictures to your computer, you should erase the pictures in the camera to make room for new pictures.

When you erase pictures, **all** pictures are deleted from the camera memory. You cannot specify pictures to delete.

**IMPORTANT:** *When a memory card is in the camera, the Erase Images operation erases **all** of the images on the memory card. Images in the camera's internal memory will not be affected.*

### Erasing Pictures

1. Press the MODE button until the Erase Images icon flashes.



2. Press the ERASE button and hold it down for two seconds.

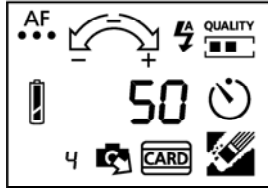
The Erase Images icon flashes, indicating that the pictures are being erased from the camera's internal memory or from the memory card, if one is in the camera.

3. Release the ERASE button.

When all pictures are deleted, the Erase Images icon disappears, the Images Remaining Counter indicates the maximum number of pictures available at the current image quality for the memory (camera internal memory or memory card), and the Images Taken Counter returns to "0."

## Memory Card

When an optional memory card is inserted in the camera, the Memory Card icon appears in the LCD. The Images Remaining Counter shows the number of pictures that you can still take at the current image quality on the memory card. The Images Taken Counter shows the number of the last picture that was taken for storage on the memory card.



The Memory Card icon flashes when pictures are being copied from the camera's internal memory onto the memory card. The Memory Card icon does not appear unless a card is in the camera.

For more information about memory cards, refer to the *Using Removable Memory Cards* section.

## Copy Images

The Copy Images icon allows you to copy pictures from the camera's internal memory to a memory card that is inserted in the camera.

NOTE: When no memory card is in the camera, the Copy Images icon does not appear in the LCD.

When images in the camera's internal memory are copied, the file names for these images are changed to meet the file name convention for the PCMCIA-ATA memory card.

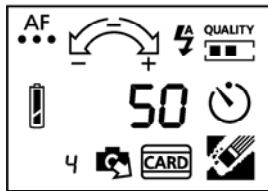
For example: three best images named DCI001L.KDC, DCI002L.KDC, and DCI003L.KDC are in the camera's internal memory. The highest image number in the memory card is "7." When the files are copied to the memory card, they will be renamed DC0008L.KDC, DC0009L.KDC, and DC0010L.KDC.

NOTE: Image numbers begin at 001 or 0001 and go up to 1000.

## Copying Images to a Memory Card

1. Insert a memory card in the camera.

The Memory Card and Copy Images icons appear on the LCD.



2. Press the MODE button until the Copy Images icon flashes.

NOTE: The Images Remaining and Images Taken Counters also flash.  
The Images Taken Counter indicates the number of images taken in the internal memory.

3. Press the SELECT button.

The Copy Images and Memory Card icons and the Images Remaining and Images Taken Counters flash. The number in the Images Remaining Counter varies (it counts down), but the number in the Images Taken Counter remains the same.

All of the images in the camera's internal memory are copied onto the memory card. The dates of the copied files change to the date when the copy takes place.

When the copy operation is finished, the Copy Images icon disappears from the LCD and the Memory Card icon and the Images Remaining and Images Taken Counters stop flashing. The Images Taken Counter indicates the number of images taken on the memory card.

## Continuing the Copy Operation

During a copy operation, if the memory card becomes full, “FUL” appears and flashes in the Images Remaining Counter. You can continue copying after you insert another memory card or cancel the rest of the copy operation. If you specify any other operation, an error code may appear in the LCD.

1. Eject and remove the memory card from the camera.
2. Insert a new memory card in the camera.
3. Press the SELECT button.

The copy operation continues. When all of the pictures in the camera’s internal memory have been copied, the Copy Images icon disappears from the LCD, the Memory Card icon and the Images Taken and Images Remaining Counters stops flashing. The Images Taken Counter indicates the number of images taken on the memory card.

**NOTE:** You cannot stop the copy operation during the time it is copying images to a memory card. You can only stop a copy operation after it has paused to allow you to insert another memory card.

The copy operation will be canceled in the following cases:

- An incompatible memory card is inserted into the camera.
- The camera goes into the power save mode before you can press the SELECT button.

All button presses during a copy operation are ignored. The copy operation may become corrupted if not enough power is available.

## Canceling the Copy Operation

If the memory card to which you are copying images is full and you do not have another card or you do not want to copy the rest of the images to another card, you can stop the copy operation.

NOTE: You can only stop a copy operation after it has paused to allow you to insert another memory card. You cannot stop the copy operation during the time it is copying images to a memory card.

Press the MODE button to stop the copy operation. The icons stop flashing and the Copy Images icon disappears from the LCD. "FUL" appears in the Images Remaining Counter and the number of uncopied images is displayed in the Images Taken Counter.

The status is reset when the memory card is ejected from the camera, the camera is turned off, or the camera goes into the power save mode.



# Using Removable Memory Cards

You can save pictures you take with your DC50 zoom camera on optional removable “Flash” or PCMCIA–ATA memory cards. Using a memory card in the DC50 zoom camera allows you to take and save many more pictures. You can insert a PCMCIA–ATA memory card in a PCMCIA–ATA card reader slot (if there is one) on your computer and download the pictures on the card.

Memory cards are about the size of a credit card and hold 2 MB to 40 MB of data. SanDisk (TM) PCMCIA–ATA memory cards have been tested for use in the DC50 zoom camera.

You can purchase a 4 MB SanDisk (TM) memory card (Kodak catalog number 802 7138) from the retailer who sold you the camera. If your retailer does not stock the memory cards, call the technical support telephone number that is listed in the *Troubleshooting* section.

NOTE: If you try to use a memory card that is not compatible with the DC50 zoom camera, “Er 1” appears in the LCD.

The following chart shows the approximate number of pictures you can save on different size memory cards that you can use with the DC50 zoom camera.

	Size of Memory Card			
	4 MB	10 MB	20 MB	40 MB
Image Quality	Maximum Number of Pictures on Card			
Good	69	180	360	720
Better	40	104	208	416
Best	26	70	140	280

## Inserting a Memory Card

When a memory card is in place in the camera, the Memory Card icon appears in the LCD and the pictures that you take are recorded directly on the card. No pictures are saved to the camera's internal memory.

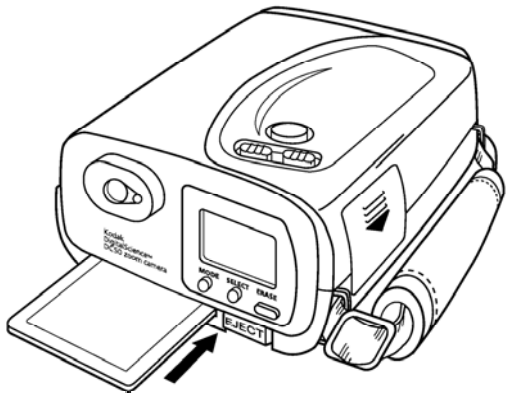
You can insert a memory card in the DC50 zoom camera while the camera is on (called hot insertion). However, when possible, you should turn off the camera before you insert a memory card.

**IMPORTANT:** *Inserting a memory card in the camera at the same time the camera is processing a picture may cause damage to the picture.*

1. Push the sliding cover gently toward the camera until it stops.

The camera is off.

2. Hold the memory card face up and with the connecting end pointed at the camera.
3. Insert the card into its slot in the camera.



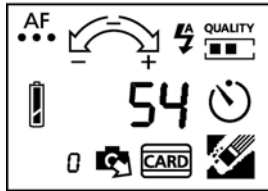
4. Push the card all of the way in the memory card slot.

The card is connected to the camera. The EJECT button protrudes slightly from the back of the camera.

NOTE: If you try to use a memory card that is not compatible with the DC50 zoom camera, "Er 1" appears in the LCD.

5. Pull the sliding cover gently away from the camera.

The camera is on. The Memory Card icon appears in the LCD.



## Removing a Memory Card

Remove the memory card from the camera when the card is full or you want to change memory cards. You also must remove the memory card when you want to save your pictures on the camera's internal memory.

You can remove a memory card from the DC50 zoom camera while the camera is on. However, when possible, you should turn off the camera before you remove a memory card.

**IMPORTANT:** *Removing a memory card in the camera at the same time the camera is processing a picture may cause damage to the picture.*

1. Press the EJECT button.

NOTE: The EJECT button is at the right of the memory card slot.

The camera will be reset if an image is being accessed when the EJECT button is pressed.

The memory card is partially ejected from the camera. The Memory Card and Copy Images icons disappear from the LCD. Any pictures you take will be saved in the camera's internal memory.

2. Grasp the visible end of the memory card and pull it out of the slot.

NOTE: You may need to tilt the camera down slightly to help the memory card slide out of its slot. Make sure that the card does not fall out of the camera or it may be damaged.

## Copying Pictures from the Camera to a Memory Card

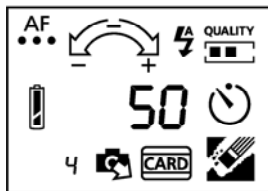
You can copy pictures that are stored in the camera's internal memory onto a memory card.

The Copy Images icon appears in the LCD only when a memory card is inserted in the camera and pictures are saved in the camera's internal memory.

1. Insert the memory card to be copied in the camera.
2. Pull the sliding cover gently away from the camera.

The camera is on.

The Memory Card icon appears in the LCD. The Copy Images icon appears if any pictures are stored in the camera's internal memory.



3. Press the MODE button until the Copy Images and Images Remaining Counter icons flash.
4. Press the SELECT button.

All pictures in the camera's internal memory are copied to the memory card. The pictures that were copied remain in the camera's internal memory.

## Erasing a Memory Card

Once you have transferred stored pictures to your computer, you should erase the pictures from the memory card to make room for new pictures. When you erase pictures, all pictures are deleted from the memory card. You cannot specify individual pictures to delete.

**NOTE:** Erase pictures from the memory card only when the card is in the DC50 zoom camera. If you delete pictures from a memory card when it is in a PCMCIA–ATA card reader, the camera will not be able to track the numbers of any pictures remaining on the memory card.

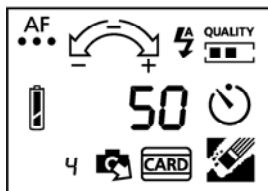
1. Insert the memory card to be copied in the camera.
2. Pull the sliding cover gently away from the camera.

The camera is on.

The Memory Card icon appears in the LCD. The Erase Images icon appears if any pictures are saved in the camera's internal memory or on the memory card.

**IMPORTANT:** *Make sure that the Memory Card icon appears in the LCD. If you press the ERASE button with no memory card in the camera, any pictures stored in the camera's internal memory will be erased.*

3. Press the MODE button until the Erase Images icon flashes.



4. Press the ERASE button and hold it down for two seconds.

The Erase Images and Memory Card icons flash, indicating that the pictures are being erased from the memory card.

5. Release the ERASE button.

When the pictures have been deleted, the Erase Images icon disappears, the Images Remaining Counter indicates the maximum number of pictures available in the memory card at the current image quality for the memory, and the Images Taken Counter returns to "0."

## File Name

All images in the internal memory or the PCMCIA–ATA memory card are stored as files as shown below.

Source	File Name
Internal memory	DCI <i>nnns</i> .KDC
PCMCIA–ATA memory card	DC <i>nnns</i> .KDC

- *nnn* or *nnnn* is the image number starting with 001 or 0001 and going up to 1000.
- **s** is the image quality where
  - S** = good image quality
  - M** = better image quality
  - L** = best image quality

Image files for the PCMCIA–ATA memory card will be written in the DC50IMG directory. This directory is written automatically by the DC50 zoom camera when the memory card is inserted in the camera.



# Batteries

The DC50 zoom camera comes with four AA lithium batteries. You can also use rechargeable NiCad (nickel-cadmium) or AA alkaline batteries. NiCad or lithium batteries perform better than alkaline batteries.

## Battery Life

Using the flash and transferring pictures to the computer both require more of the battery charge. If you take pictures using the flash 50% of the time and download the pictures to a computer, you can use NiCad batteries for approximately 100 images and lithium batteries for approximately 260 images (based on Kodak's standard battery test).

**IMPORTANT:** *Rapid repetition of image captures using the flash will affect battery life.*

You can save your batteries by purchasing a power adapter to use when taking pictures inside and when transferring files. Refer to the *Using a Power Adapter* section for information about the power adapters that can be used with the DC50 zoom camera.

**WARNING:** *Mixing battery types in the camera may cause a fire or explosion. Use only batteries that are all the same type.*

*Lithium batteries contain toxic substances. These batteries should be disposed of properly. Follow the battery manufacturer's disposal instructions or the guidelines recommended for your area.*

## Storing the Camera

Remove the batteries from the DC50 zoom camera if it will not be used for an extended period of time. This prevents possible damage to the camera from battery leaks or corrosion.

## Battery Charge Level

The level of charge remaining in the batteries is shown by the Battery icon in the LCD. This icon gives you an estimate of how much charge is left in the batteries.

NOTE: The Battery icon does not appear when a power adapter is in use.

- When the icon appears full, the batteries are fully charged.
- When the icon appears partially filled, the battery charge is getting low.
- When the icon appears empty, you must replace the batteries.

NOTE: Pictures remain stored in the computer's internal memory even if the camera batteries are empty.

## **Improving Battery Performance**

Follow these guidelines to extend battery life.

- Replace all four batteries at the same time. Mixing new or fully charged batteries with those that have been in use for some time weakens the new ones.
- Clean the contacts in the battery compartment periodically by rubbing them gently with a clean pencil eraser or a cloth.
- Keep batteries away from heat. For example, do not leave batteries in a car in hot weather.
- Store batteries at room temperature and keep them dry.
- Recharge NiCad batteries if they have not been used after six months.

## **Battery Safety Information**

Follow these guidelines when handling batteries.

- Always handle batteries carefully.
- Do not drop, puncture, disassemble, mutilate, or incinerate batteries.
- If you touch both terminals of a battery with a metal object, the battery will short circuit and possibly cause an explosion or a fire. Do not carry loose batteries where the contacts may touch metal objects such as coins or keys.
- Do not heat batteries to try to rejuvenate their charge.

## About NiCad Batteries

NiCad batteries can be used and recharged over and over again. When you purchase a charger for NiCad batteries, look for one that discharges the batteries completely before it recharges them. "Conditioning" batteries this way helps them hold their charge longer.

If your battery charger does not "condition" batteries, eventually the batteries may not hold their charge as long as they previously had. If this happens, try letting the batteries run out of charge completely before you recharge them. This should improve the lasting power unless the batteries are wearing out.

Follow the safety and battery charging instructions that come with your battery charger.

**WARNING: *Damaged batteries may leak and burn skin and eyes. If you come in contact with a damaged NiCad battery, rinse the affected skin with water for at least five minutes. Do not wash with soap. Never charge batteries that are not NiCad batteries in the charger.***

# Using a Power Adapter

You can plug your camera into an electrical outlet using a specific type of surge-protected power adapter. Using a power adapter saves your batteries when you take a large number of flash pictures and when you transfer the pictures to your computer.

An AC adapter connector is built into the camera. This connector is located on the side of the camera and is covered with a rubber cap.

NOTE: An RS232C/RS422 serial communication connector is also built into the camera. This connector is located next to the AC adapter connector.

When an adapter is attached to the camera and batteries are also installed, the camera draws power from the power source with the higher voltage. If the voltage in the batteries is higher than the voltage provided by the power adapter, the camera draws power from the batteries until the voltage drops below that provided by the power adapter.

You can purchase a custom universal adapter for your DC50 zoom camera. If your retailer does not stock the adapter, call the technical support telephone number that is listed in the *Troubleshooting* section.

**WARNING:** *Using power adapters other than those recommended for use with the DC50 zoom camera voids the camera's warranty, and may result in fire, electrical shock, or damage to the camera.*

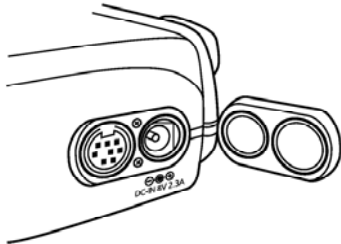
## Connecting a Power Adapter to the Camera

1. Push the sliding cover closed.

The camera is off.

2. Lift the rubber tab located on the left side of the camera.

The camera's serial and AC power adapter ports are exposed.



3. Plug the cable end of the AC power adapter into the AC adapter port.
4. Plug the box end of the AC power adapter into an electrical outlet.
5. Pull the sliding cover away from the camera.

The camera is on.

# Connecting to a Computer

When you are finished taking pictures with your DC50 zoom camera, you can transfer the pictures to your computer. You can then use the pictures or save them on your hard drive. Use the RS232C/RS422 serial cables that are included with the DC50 zoom camera to connect the camera to a Macintosh computer or an IBM-PC or compatible computer running Windows software.

The RS232C/RS422 serial communication connector is built into the camera. This connector is located on the side of the camera and is covered with a rubber cap.

NOTE: An AC adapter connector is also built into the camera. This connector is located next to the RS232C/RS422 serial communication connector.

If you want to connect a serial communication cable to the camera, pull the rubber cover away from the connectors and plug the cable in its connector. When a serial communication cable is plugged into the camera, a three-digit animation appears in the LCD.

## MACINTOSH Systems

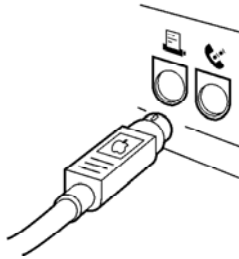
You can connect the DC50 zoom camera to a serial port on your Macintosh computer.

**IMPORTANT:** *Use only the cable that is provided with the DC50 zoom camera.*

1. Push the sliding cover closed.

The camera is off.

2. Plug one end of the Macintosh cable into the modem port or printer port on the back of your Macintosh computer.

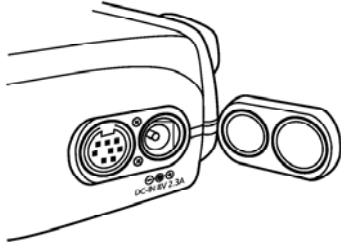


**NOTE:** If both ports are in use, disconnect the cable from one of the ports and connect the camera cable. Make sure that the cable is correctly oriented. Refer to your computer manuals for information about the ports on your computer.

3. Lift the rubber tab located on the left side of the camera.



The camera's serial and AC power adapter ports are exposed.



4. Plug the other end of the Macintosh cable into the camera's serial port.

You are now ready to transfer the DC50 zoom camera pictures to your computer using the software provided with the camera.

**NOTE:** Before you run the software provided with the camera, turn off AppleTalk and specify an external modem if your system has an internal modem.

## Systems Running WINDOWS Software

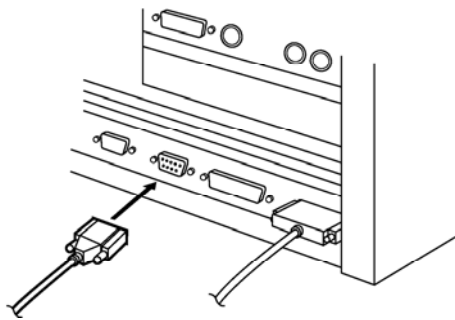
Your IBM-PC or compatible computer has either a 9-pin or a 25-pin serial port. The cable supplied with the DC50 zoom camera uses a 9-pin connector. If you are using a 25-pin serial port, you must use the adapter provided with the camera.

**IMPORTANT:** *Use only the cable that is provided with the DC50 zoom camera.*

1. Push the sliding cover closed.

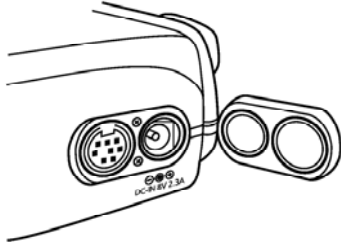
The camera is off.

2. Attach the 9-pin adapter to the 25-pin port **if** your computer has a 25-pin port.
3. Plug the cable's 9-pin connector into the serial port or the adapter on the back of your computer.



4. Tighten the connector's thumbscrews.
5. Lift the rubber tab located on the left side of the camera.

The camera's serial and AC power adapter ports are exposed.



6. Plug the other end of the cable into the camera's serial port.

You are now ready to transfer the DC50 zoom camera pictures to your computer using the software provided with the camera.

# Maintenance

## General Guidelines

- Keep the DC50 zoom camera away from moisture and high temperatures.
- If the outside of the camera needs to be cleaned, wipe it with a clean, dry cloth. Never use harsh or abrasive cleaners or organic solvents on the camera or any of its parts.
- Keep the sliding cover closed whenever the camera is not in use.

## Cleaning the Camera Lens

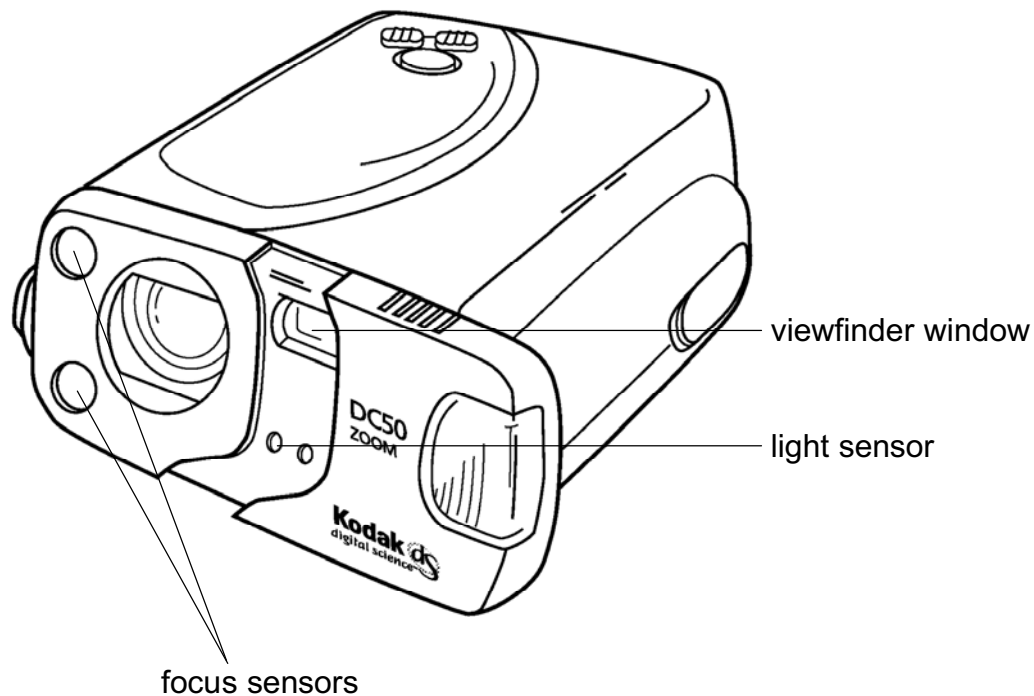
The steps below describe how to clean the camera lens.

**IMPORTANT:** *Do not use cleaning solutions unless they are designed specifically for camera lenses. Do not use chemically treated eyeglass lens tissues to wipe the camera lens because they may scratch the lens.*

1. Blow gently on the lens to remove loose dust and dirt.
2. Moisten the lens by breathing lightly on it.
3. Wipe the lens gently with a soft, lint-free cloth or an untreated lens-cleaning tissue.

## Cleaning the Light Sensor and Focus Sensors

The light sensor is located below the viewfinder window on the front of the camera. The auto focus sensors are also on the front of the camera.



Clean the light sensors and focus sensors by rubbing them gently with a soft, dry cloth. Do not use any organic solvents to clean the sensors.

## Storing the Camera

Remove the batteries if the camera will not be used for an extended period of time. This will prevent camera damage from battery leaks or corrosion.

# Troubleshooting

This section should help you resolve any problems which you may encounter when using your DC50 zoom camera. If you still have trouble with your camera after reading this information, refer to the “Getting Help” section.

## Problems and Solutions

### LCD Display Does Not Appear

Cause	Solution
The camera is not on.	Pull the sliding cover away from the camera to turn it on.
The camera is in power save mode.	Press any button to activate (“wake”) the camera.
The batteries are low, empty, or not installed.	Replace the batteries or use a power adapter.
The batteries are not installed correctly.	Reinstall the batteries.  For information about installing batteries, refer to the <i>Using the Camera</i> section.
The power adapter was disconnected from the camera while the camera was still on.	Plug the power adapter back into the camera, turn the camera on and then off again, and then disconnect the power adapter from it.

## Nothing Happens when the Shutter Button Is Pressed

Cause	Solution
The flash is recharging.	Wait until the green light next to the viewfinder is off.
The camera does not have room for another picture.	Use a memory card to capture additional pictures. Erase the pictures stored in the camera's internal memory.  For information about erasing pictures, refer to the <i>Using the Camera</i> section.  <b>NOTE:</b> You may want to save the pictures on your computer before you delete them from the camera.
The camera is saving a captured image to memory.	Wait for the save process to finish.
The camera is copying an image to the memory card.	Wait for the copy process to finish.
The camera is erasing images.	Wait for the erase process to finish.
The camera is not on.	Pull the sliding cover away from the camera to turn it on.
The timer is counting down.	Wait for the timer to finish counting down.
The Zoom button was pressed.	Wait for the lens to adjust.

## Picture Is Not Clear

<b>Cause</b>	<b>Solution</b>
The lens is dirty.	Clean the lens as described in the <i>Maintenance</i> section.
The subject or the camera moved before the picture was taken.	Hold the camera steady until after you hear the shutter click.
The subject is too close.	Move so the subject is at least 2.3 feet (70 cm) away.
The subject is too far away for the flash to be effective.	Move so the subject is less than 9 feet (270 cm) away.
The flash should have been used but it did not go off.	Turn on the flash.
The exposure is not appropriate for the lighting.	Adjust the exposure as described in the <i>Camera Features</i> section.

## Part of a Picture Is Missing

<b>Cause</b>	<b>Solution</b>
Something was in front of the lens when the picture was taken.	Make sure that your hands, fingers, or other objects are not in front of the lens or the flash.



## Flash Does Not Work

Cause	Solution
The flash is off.	Turn the flash on as described in the <i>Camera Features</i> section.
The batteries are low.	Replace the batteries or use an AC power adapter.  For information about installing the batteries, refer to the <i>Using the Camera</i> section.
The flash tube has burned out.	Take the camera to your dealer for service.

## Picture Is Too Dark

Cause	Solution
The flash is not on.	Turn on the flash as described in the <i>Camera Features</i> section.
The subject is too far away for the flash to have an effect.	Move so there is no more than 9 feet (2.7 m) between the camera and the subject.
The exposure is not appropriate for the lighting.	Adjust the exposure as described in the <i>Camera Features</i> section.
The subject is in front of a bright light.	Change your position so the light is not behind the subject.

## Picture Is Too Light

Cause	Solution
The flash is not needed.	Change to automatic flash by following the instructions in the <i>Camera Features</i> section.
The subject is too close when the flash was used.	Move so there is at least 2.3 feet (70 cm) between the camera and the subject.
The exposure setting needs to be adjusted.	Adjust the exposure as described in the <i>Camera Features</i> section.
The light sensors are dirty.	Clean the light sensors as described in the <i>Maintenance</i> section.
The light sensors are covered.	Hold the camera so your hands or other objects do not cover the light sensors.  Refer to the <i>Camera Features</i> section for the location of the sensors.

## Error Codes in LCD

Code	Solution
Er 1	The memory card is not compatible with the DC50 zoom camera. Use a compatible card.
10	Take the camera to your dealer for service.
11	Take the camera to your dealer for service.
12	Take the camera to your dealer for service.
13	Take the camera to your dealer for service.
14	Take the camera to your dealer for service.
15	Take the camera to your dealer for service.
16	Take the camera to your dealer for service.
17	Take the camera to your dealer for service.
20	Reseat the memory card. or Replace the memory card with a known good card. or Take the camera to your dealer for service.
21	Confirm that the memory card is one that is compatible with the camera. or Reseat the memory card. or Replace the memory card with a known good card. or Take the camera to your dealer for service.

22	<p>Reseat the memory card.  or  Replace the memory card with a known good card.  or  Take the camera to your dealer for service.</p>
23	<p>Confirm that the memory card is one that is compatible with the camera.  or  Take the camera to your dealer for service.</p>
24	<p>Confirm that the memory card is one that is compatible with the camera.  or  Replace the memory card with a known good card.  or  Take the camera to your dealer for service.</p>
25	<p>Confirm that the memory card is one that is compatible with the camera.  or  Replace the memory card with a known good card.  or  Take the camera to your dealer for service.</p>

## Getting Help

If you have questions about the DC50 zoom camera, the retailer from whom you purchased the camera may be able to answer them. Eastman Kodak Company provides technical information to retailers.

In the U.S., you can also call 1–800–235–6325 for technical support on regular business days between 9:00 a.m. and 8:00 p.m. Eastern Time if:

- you have questions about your warranty.
- you want to know where to get accessories.
- you want to know where to get service.
- you want information about other Kodak products.
- you have trouble operating the camera.

# Camera Specifications

## Technical

<b>Type:</b>	CCD still frame camera
<b>Image size:</b>	756 x 504 high resolution
<b>Bit depth:</b>	24-bit color
<b>Speed:</b>	With flash—pictures can be taken every 8 seconds Without flash—pictures can be taken every 5 seconds
<b>Flash:</b>	Color temperature—5,200 K Guide number—10.4 (ISO 84)

## Zoom Lens

7 to 21 mm

## Size

Depth:	6.0 in. (152 mm)
Width:	4.7 in. (119 mm)
Height:	2.5 in. (64 mm)

## Weight

1.16 lb (525 g) without batteries

## Operating Environment

Temperature:	0° to 40° C (32° to 104° F)
Humidity:	20 to 95 percent, noncondensing

## Power Sources

Batteries: 4 AA batteries—lithium, NiCad (nickel-cadmium), or alkaline

Power adapter: 4.7 V DC/2.3 A to 8.0 V DC/2.3 A (surge protected)

## Power Consumption

Standby: <600 mW

Image capture: <4.5 W

Image processing/flash charging: <16.5 W

## Removable Memory

PCMCIA–ATA removable memory card Type I and II with DOS file format.

## Serial Cable

RS232C/RS422 cable with Mini-DIN 8-pin connector. Asynchronous serial rates up to 57K bits per second on Macintosh systems and 115K bits per second on Windows systems.

The rate may increase to 230K bits per second on some Windows systems with a special serial interface board.

NOTE: These are optimum rates. Different system configurations perform at different speeds. Your system may not perform at the optimum speed.

# Regulatory Information

## FCC Compliance and Advisory Statement

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.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed or used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: 1) reorient or relocate the receiving antenna; 2) increase the separation between the equipment and the receiver; 3) connect the equipment to an outlet on a circuit different from that to which the receiver is connected; 4) consult the dealer or an experienced radio/TV technician for additional suggestions.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Where shielded interface cables have been provided with the product or specified additional components or accessories elsewhere defined to be used with the installation of the product, they must be used in order to ensure compliance with FCC regulations.



## Canadian DOC Statement

**DOC Class B Compliance**—This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

**Observation des normes-Class B**—Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

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EASTMAN KODAK COMPANY  
Rochester, New York 14653  
USA

KODAK CANADA INC.  
Toronto, Ontario M6M 1V3  
CANADA

KODAK PATHE  
8-26 rue Villiot  
75594 Paris Cedex 12  
FRANCE

KODAK AG  
Hedelfinger Strasse  
7000 Stuttgart, 60  
GERMANY

KODAK S.A.  
Apartado de Correos 48  
28230 Las Rozas  
Madrid, ESPANA

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