

# Using the KODAK DCS with Your Macintosh Computer

This section describes the steps to follow when using the KODAK Professional Digital Camera System with your Macintosh computer. We assume that you are familiar with the operation of your Macintosh computer. If you are not, refer to the manuals and other learning materials that accompany that computer before continuing.

The KODAK Professional Digital Camera System is designed to be used with a computer by connecting the Digital Storage Unit (DSU) to your computer. Once connected, you can use the copy of a software driver supplied by Kodak to acquire images onto your computer hard disk. You can then edit images and can save images on your computer hard disk for use with other products.

You can connect both the camera and the computer to the DSU and use them simultaneously.

This section of the manual contains the following material.

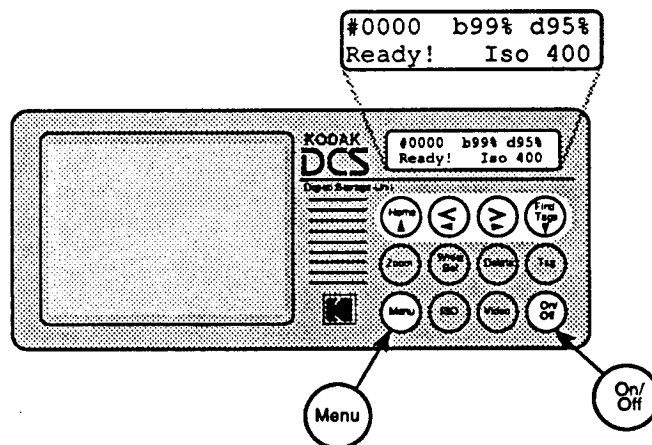
- Setting the SCSI ID on the KODAK Digital Storage Unit.
- Connecting the DSU to your Macintosh computer.
- Using the KODAK Driver for Adobe Photoshop Software, including required software and hardware, a tutorial, and a variety of reference material on this driver.

## Setting the SCSI ID on the KODAK DSU (Menu Key)

In these steps you will set the SCSI identification (ID) number for the DSU. Each SCSI device connected to the same computer must have a different ID number. Your Macintosh computer is number 7, and your internal hard disk is probably number 0. The DSU must have a unique SCSI ID.

**Note:** The DSU should not be connected to the Macintosh computer when you change the SCSI ID on the DSU. If it is connected, turn off the DSU and the computer, and then disconnect the DSU before completing these steps. Then reconnect it as described next in "Making the SCSI Connection." (The Macintosh computer may lock up if you change the SCSI ID while the devices are connected.)

1. If SCSI devices other than the DSU are connected to your Macintosh computer, determine their SCSI identification numbers so that you can select a different number for the DSU. (If necessary, refer to the instructions for those devices to determine how to find their numbers.)
2. Turn on the DSU by pressing the On/Off key; you will see a text display like the one below. (If a camera is not connected, you will see NoCAMERA instead of the ISO number.)



3. Press the Menu key; you see a display of text like the following on the image display.

**Notes:** If you press the Menu key again, you turn off the image display.

When operating the DSU from a battery, the image display will turn off after 30 seconds of inactivity on the keypad. Press Menu again to reactivate it. When operating from the AC adapter, the image display remains on after you press Video.

```
▶ Disk save:      OFF ON COMPRESS
Balance: DAY TUNG FLUOR (WHITE)
Winder:  OFF SINGLE SLOW FAST

Exposure Indicator: OFF ON
Video bright:  LOW 2 3 HIGH

SCSI ID: 0 1 2 3 4 5 6 7

Clock: 99/04/26 21:35:46 Set >>

Press "Delete" to erase disk
Hours: 00010 Exposures: 00125
Version: 01-31-99
```

The top row of keys on the keypad no longer means Home, <, >, and Find Tags. Instead, they are directional arrows that, when pressed, move you around on the image display.

Make choices from the options by pressing keys on the DSU keypad. Notice the line indicator triangle (▶) at the left of a row on the image display; it

indicates that you are making choices from that row. To make choices from other rows, press ▼ (Find Tags) or ▲ (Home). They move the line indicator up or down a row.

1. Press ▼ (Find Tags) repeatedly until the triangle (▶) is at the left of the SCSI ID line. If you move past that line, press ▲ (Home) to return to it.
2. Press ◀ or ▶ to move across the SCSI ID row, highlighting one after another of the SCSI ID choices. Stop when the choice you want is highlighted.
3. Press Menu to leave the menu selections.
4. Press On/Off to turn off the DSU.

**Note:** The SCSI ID you assign is saved when you turn off the DSU.

## Making the SCSI Connection

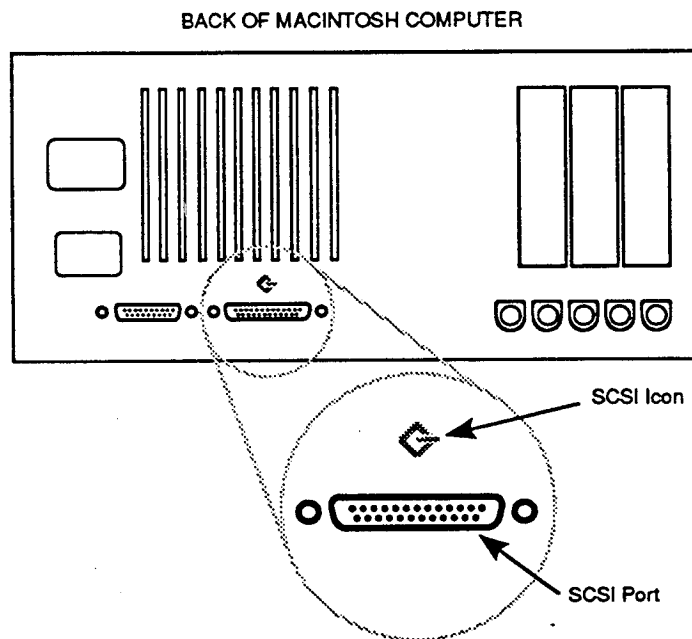
The DSU is a non-terminated SCSI device that connects to your Macintosh computer with one of the included SCSI cables. In normal usage you may connect and disconnect the DSU from the Macintosh computer on a regular basis; for this reason you may want to position your computer so that its SCSI connector is readily accessible.

The back of the Macintosh computer has a number of connectors and accompanying icons, including a SCSI connector (also called a port) and icon.

Find that SCSI port now, and determine whether or not a device is attached.

Two sets of instructions follow, depending on whether or not other external SCSI devices are connected to your computer.

The camera may be connected to the DSU while you complete these steps.



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## ***KODAK DSU is the Sole SCSI Device***

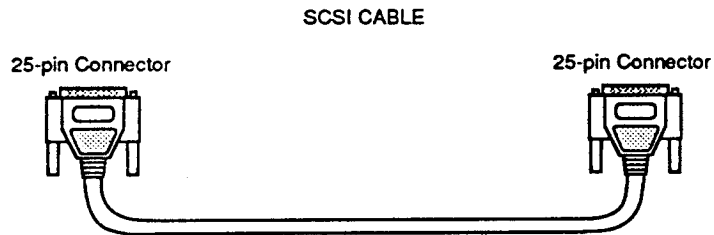
Follow these steps if you will connect the DSU as the sole external SCSI device attached to your Macintosh computer; otherwise continue at the next section entitled "KODAK DSU Used with Other SCSI Devices."

1. Turn off the DSU and the Macintosh computer.

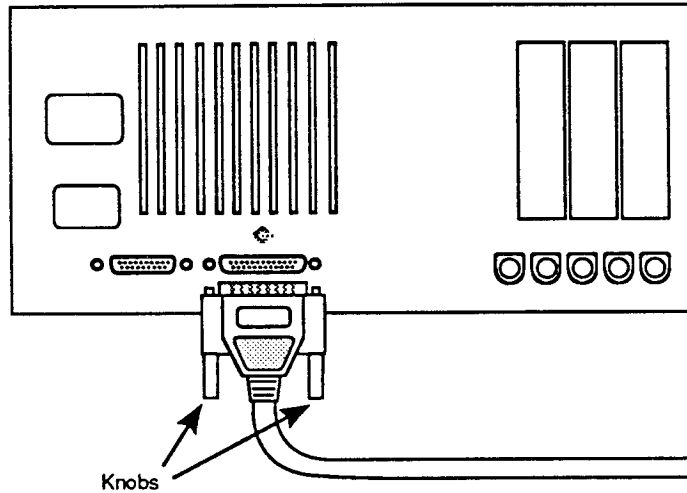
**Note:** When you connect and disconnect the Macintosh computer and the DSU later, make sure that both of them are off.

2. Place the DSU in a convenient position next to your Macintosh computer.
3. Select the SCSI cable with the 25-pin connectors at both ends.

**Important:** Use only the supplied cables; do not use substitute cables.

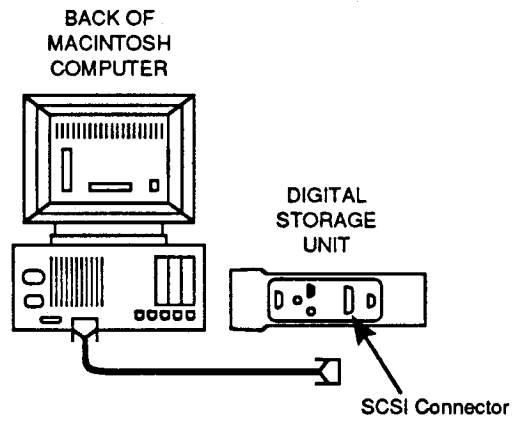


4. Attach one 25-pin connector to the SCSI port on the back of the Macintosh computer. Make sure the connector is well seated by pressing it into place firmly, and then tighten both knobs on the cable connector.



USING THE  
DCS & MAC

5. Attach the other end of the SCSI cable to the connector on the DSU labeled "SCSI."



Skip the next section and continue at "Using the Kodak Driver for Adobe Photoshop Software."



## **KODAK DSU Used with Other SCSI Devices**

Follow these steps if one or more external SCSI devices are already connected to your Macintosh computer; otherwise continue at the next section entitled "Using the Kodak Driver for Adobe Photoshop Software."

Multiple SCSI devices are connected to the Macintosh computer in a chain. If the DSU is one of multiple SCSI devices connected to your Macintosh computer, it must be connected as the last device in the chain of SCSI devices since it only includes one SCSI connector.

The total cable length connecting all devices must not exceed 15 feet (4.6 meters).

You will need to determine if the connected SCSI devices are terminated or not. To do so, first look for an external SCSI terminator on the devices. Because some devices contain internal terminators, also check the instructions for your devices to determine if they are terminated internally.

We provide two sets of instructions. Follow the first set if none of the connected devices are terminated or if one of the devices is terminated externally. Follow the second set if one of the devices is terminated internally.

### **Follow these steps if none of the connected devices are terminated or if one of the devices is terminated externally.**

1. Turn off the DSU, the Macintosh computer, and all connected SCSI devices.

**Note:** When you connect and disconnect the Macintosh computer and the DSU later, make sure that all devices are off.

2. Place the DSU in a convenient position next to the last device in the SCSI chain of devices connected to your Macintosh computer.

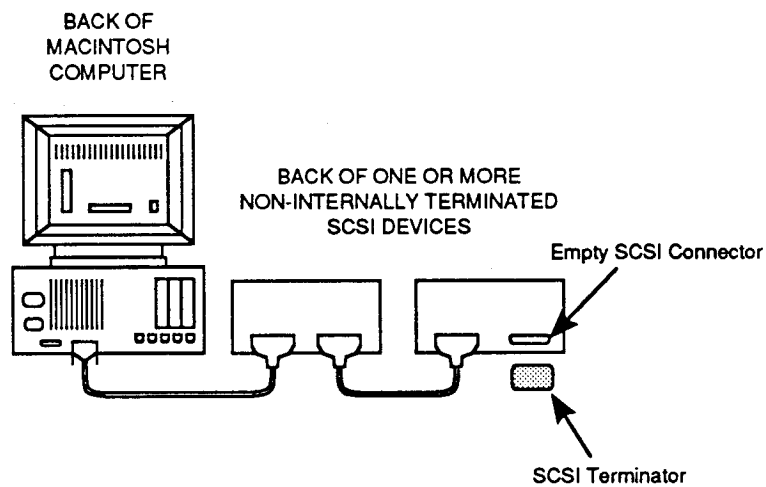
3. If there is an external terminator on an otherwise empty SCSI connector on the last device, leave it in place.

If there is an external SCSI terminator between the end of a cable and a SCSI connector on a device, remove the terminator. Reconnect the cable.

**Note:** If you remove the DSU cable later, remember to replace this terminator.

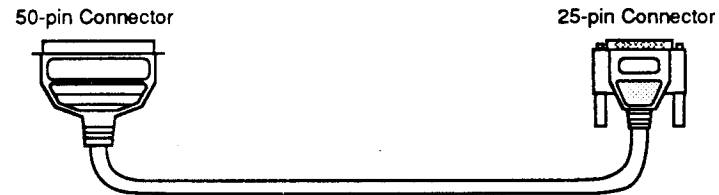
4. If no terminator is connected to the empty SCSI connector on the last device in the chain, connect the SCSI terminator supplied by Kodak, as shown in the illustration below. Make sure the terminator is well seated by pressing it into place firmly, and then pinch the thin wire clamps over its base.

**Note:** If you have a Macintosh IIfx computer, you cannot use the SCSI terminator supplied by Kodak; instead you must supply the appropriate SCSI terminator for that computer system.

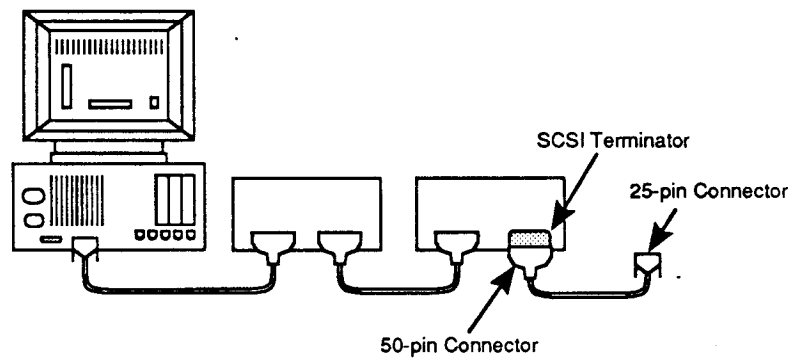


5. Select the SCSI cable with the 50-pin connector at one end and the 25-pin connector at the other end.

**Important:** Use only the supplied cables; do not use substitute cables.

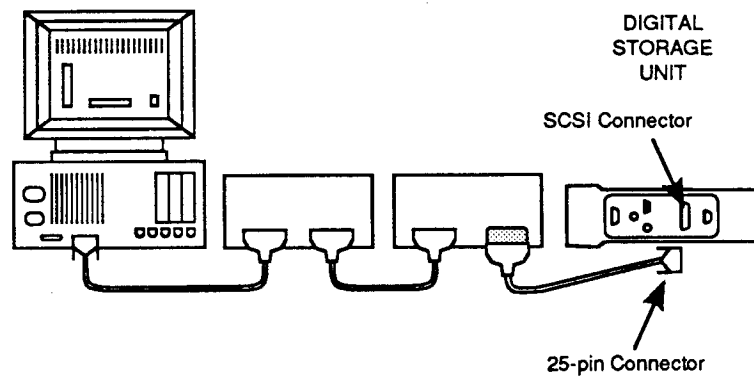


6. Connect the 50-pin connector to the terminator on the last SCSI device in the chain. Make sure the connector is well seated by pressing it into place firmly, and then pinch the thin wire clamps over its base.



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7. Attach the other end of the SCSI cable to the connector on the DSU labeled "SCSI."



Skip the next section and continue at "Using the KODAK Driver for Adobe Photoshop Software."

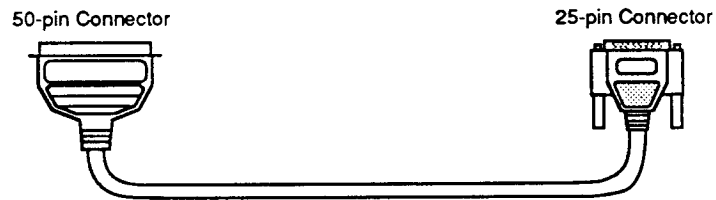
**Follow these steps if the last connected device is terminated internally.**

1. Turn off the DSU, the Macintosh computer, and all connected SCSI devices.

**Note:** When you connect and disconnect the Macintosh computer and the DSU later, make sure that all devices are off.

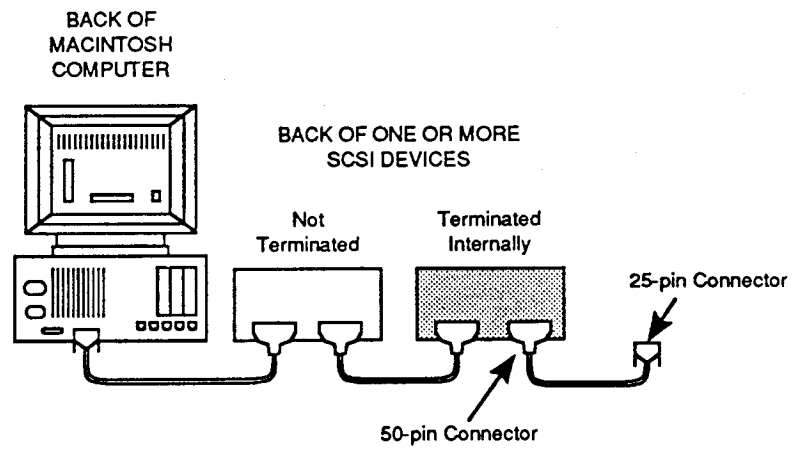
2. Place the DSU in a convenient position next to the last device in the SCSI chain of devices connected to your Macintosh computer.
3. Select the SCSI cable with the 50-pin connector at one end and the 25-pin connector at the other end.

**Important:** Use only the supplied cables; do not use substitute cables.

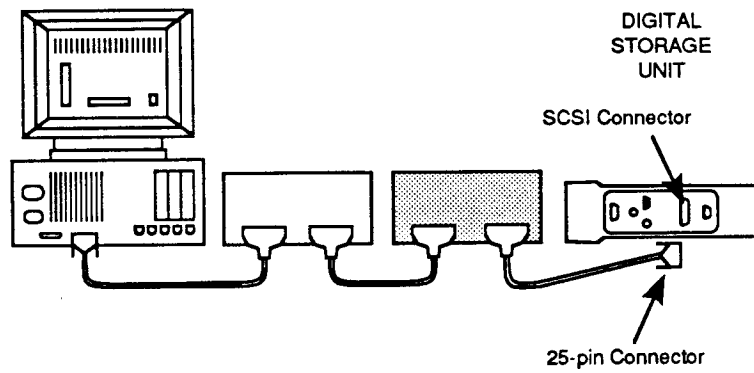


USING THE  
DCS & MAC

4. Connect the 50-pin connector to the empty SCSI connector of the device that is terminated internally. Make sure the connector is well seated by pressing it into place firmly, and then pinch the thin wire clamps over its base.



5. Attach the other end of the SCSI cable to the connector on the DSU labeled "SCSI."



## ***Using the KODAK Driver for Adobe Photoshop Software***

You can move images from the DSU hard disk to your Macintosh computer with the KODAK Driver for Adobe Photoshop Software. This section includes a listing of required software and hardware to use this driver, a tutorial on the driver, and a variety of reference material on the driver.

**Note:** We assume that you are familiar with the operation of the Macintosh computer and with Adobe Photoshop. If you are not, refer to the instruction manuals that accompany those products.

### ***Required Software and Hardware***

The computer software and hardware in the following list are required to run the Kodak Driver for use with Adobe Photoshop Software.

#### **Required Applications Software**

Adobe Photoshop, 1.0.7 (or higher).

#### **Required Systems Software**

Apple System software V 6.0.5 or later, and 32-Bit QuickDraw software.

#### **Required Computer Hardware**

Apple Macintosh II computer product lines, or the Macintosh LC computer, with sufficient memory to run Adobe Photoshop.

Hard disk, 20 MB minimum. We recommend 80 MB or greater.

#### **Required Monitor and Display Card**

A color monitor is required for color work. You need the appropriate display card for the monitor in use; we recommend an 8-bit or 24-bit video display card.



## ***Tutorial: KODAK Driver for Adobe Photoshop Software***

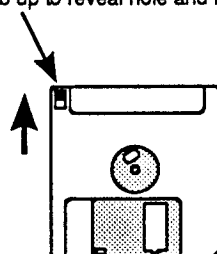
This section includes a step-by-step tutorial on installing and using the driver.

### **Installing the KODAK Driver for Adobe Photoshop Software**

In this section you will install the software driver provided by Kodak for use with Adobe Photoshop software. It allows you to acquire images from the DSU into Adobe Photoshop. (Installing the driver is a one-time action; you complete these steps once, and do not repeat them each time you want to acquire images.)

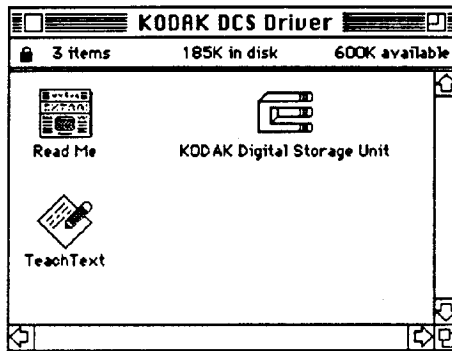
1. Turn on your Macintosh computer; after a short wait you will be in the Finder. (If your Macintosh computer has been configured to open applications other than the Finder, return to the Finder now.)
2. Locate the diskette labeled "KODAK Driver for ADOBE PHOTOSHOP Software."
3. If the diskette is not locked, lock it by sliding the tab (on the back) to reveal a small hole. (This will prevent the contents of the disk from being changed inadvertently, and may aid in preventing the spread of computer viruses to this diskette.)

BACK OF DISKETTE  
Slide tab up to reveal hole and lock disk.



USING THE  
DCS & MAC

4. Place this diskette into the internal drive of your computer. You should see this window; if you do not, double-click on the KODAK DCS DRIVER icon to display the window.



5. Double-click on the READ ME file on the diskette and read its contents; then choose QUIT from the FILE menu to return to the Finder.
6. Drag the KODAK DIGITAL STORAGE UNIT icon into the folder on your hard disk containing the Photoshop PS PREFS file (the icon for the "prefs" file is shown below); wait while the file is copied.

**Note:** If you do not place the KODAK DIGITAL STORAGE UNIT file in the same folder as PS PREFS, you will not be able to acquire images.



**PS Prefs**

7. Eject the KODAK DCS DRIVER disk by dragging its icon to the TRASH icon.
8. Store the KODAK DCS DRIVER disk for possible future use.

## Acquiring Images In Adobe Photoshop

Repeat the steps below each time you want to acquire images from the DSU into Adobe Photoshop software.

**Note:** If you encounter difficulties while following these steps, refer to "Messages: KODAK Driver for Adobe Photoshop Software" or "Troubleshooting: KODAK Driver for Adobe Photoshop Software."

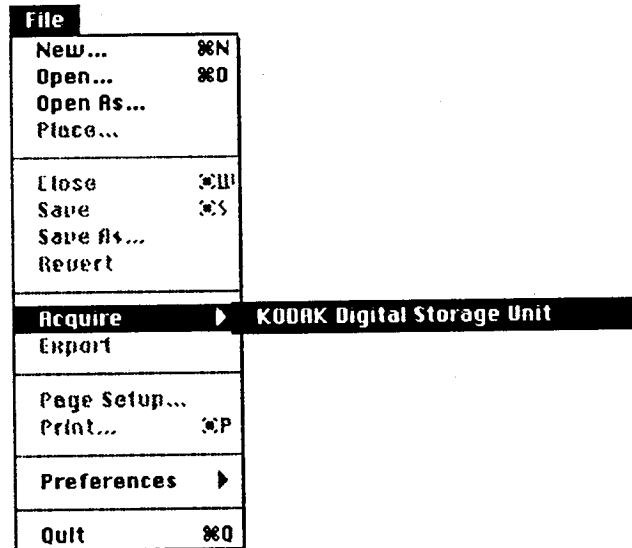
1. If the DSU and your Macintosh computer are not connected, turn both off and connect them now by following the directions in "Making the SCSI Connection" earlier in this manual.
2. Once connected to the DSU, turn on the Macintosh computer.
3. Wait until you are in the Finder.
4. Turn on the DSU by pressing its On/Off key.

**Note:** Do not turn off the DSU while acquiring images from it.

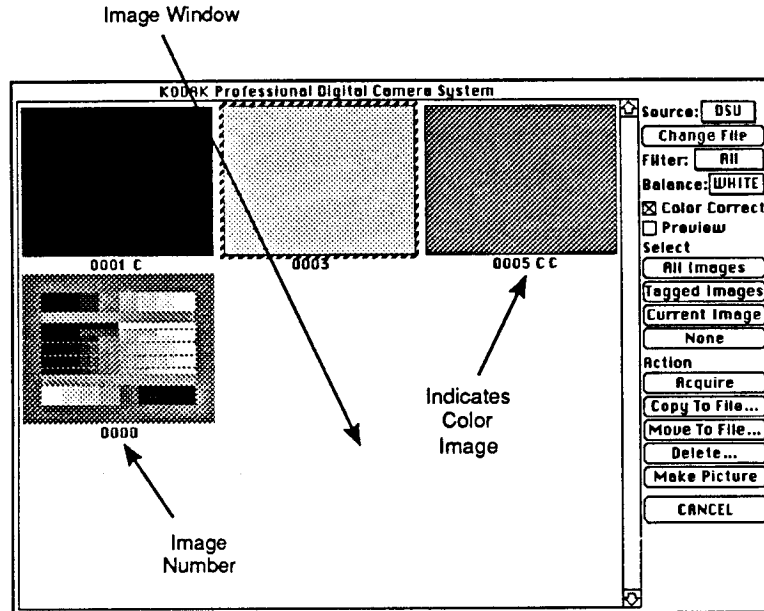
5. Run Adobe Photoshop by double-clicking on its icon.

6. On the Macintosh computer, pull down the Adobe Photoshop **FILE** menu and choose **KODAK DIGITAL STORAGE UNIT** from the **ACQUIRE** submenu. (The **ACQUIRE** submenu may show other options.)

**Note:** **OPEN** from the **FILE** menu will not acquire images from the **DSU**.



7. Wait as this dialog box appears. (You will see actual images instead of the shaded boxes used in the figure to represent images.)

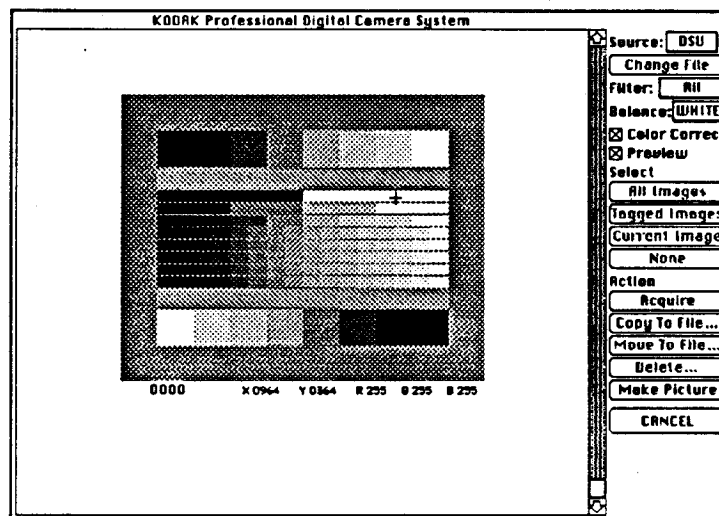


The image window in this dialog box will display thumbnails of images from the DSU hard drive. (A thumbnail is a subsample of data from the full image.) The thumbnails, including the test pattern, appear in the image window in the same logical order that images appear on the DSU hard disk. The four-digit image numbers that appear beneath each image correspond to the image numbers used on the DSU. Depending on the size of your monitor, you will see either two or more thumbnails on each row, and two or more rows of thumbnails.

You can scroll through the images by moving the vertical scroll bar on the window, or by pressing the Page Up, Page Down, Home, or End keys on the Macintosh keyboard.

8. Scroll, if needed, until the image you want to acquire appears in the image window.
9. Click once on the image you want. A narrow border appears on the screen, surrounding the image in the window, as illustrated by image number 0003 in the figure above.
10. (Optional) Click on PREVIEW.

You see a single, enlarged version of the image — in color if the image is color. The example below shows the preview of the test pattern. Data below the image indicate the image number, the current X and Y pixel location of the crosshair cursor on the preview image, and the red, green, and blue values at the current cursor location.



11. Click on the **ACQUIRE** button; this progress box appears. You can cancel acquiring by pressing **⌘.** (command-period).

**Note:** You can also double-click on the thumbnail image (not the preview image) as an alternate to steps 9 and 11.



12. Wait as the **KODAK DIGITAL STORAGE UNIT** dialog box closes and the image appears in a Photoshop window.
13. (Optional) Edit the acquired image using Photoshop features.

**Notes:** The software driver provided by Kodak for use with Adobe Photoshop software incorporates color-correcting algorithms. They operate while acquiring an image by using data stored on the DSU with the image. For additional information on the color data stored with the image refer to the "White Bal Key" section.

You can use a color camera as a monochrome camera by exposing as you would for a color capture. Then, after acquiring the image into Photoshop, choose **SPLIT CHANNELS** from the **MODE** menu and work only with the data from the green plane. This produces a sharper image than reducing the other color levels to zero, since three out of four pixels in the imager are green. As a result, the green plane has the most information when images are acquired in Photoshop.

If you are in Photoshop, but not within the driver, you can bypass several steps and acquire the current image (its image number is shown on the text display) directly, without the need to open the acquire dialog box. Press and hold the command key (**⌘**). Then choose **KODAK DIGITAL STORAGE UNIT** from the **ACQUIRE** submenu of the Adobe Photoshop **FILE** menu. Continue to depress the key. The acquire progress box will appear. Then release the command key. Wait as the image is acquired and appears in a Photoshop window.

If the camera is connected to the DSU, and the DSU is connected to a Macintosh computer running Adobe Photoshop, and if the acquire dialog box is open, the burst rate of the camera is one less than the maximum rate.

## Cropping and Saving an Image

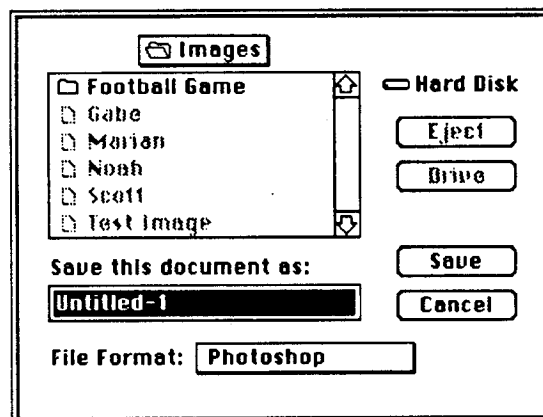
In this section you will crop the image to reduce its size (optional), and then save it.

If you know that you will be using only a cropped portion of the image, you may want to complete that cropping now while in Photoshop. This will result in a smaller file when saved to disk, and will reduce transmission time if the file is transmitted to a remote site.

1. (Optional) Crop the image. If needed, refer to the Photoshop manual for a discussion of available techniques.
2. Begin to save the image on your Macintosh hard disk by choosing **SAVE** from the Adobe Photoshop **FILE** menu. You will see a **SAVE As** dialog box like the one below.

**Notes:** You cannot save the image on the DSU hard disk.

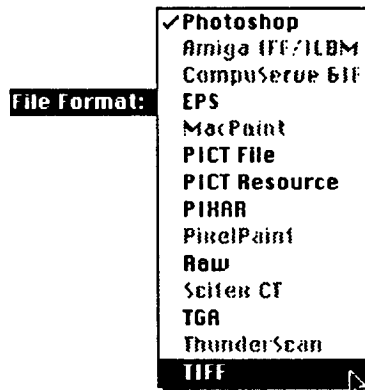
If you click in the close box of the window, or choose **CLOSE** from the **FILE** menu, the window will close without asking you if you want to save it. Therefore, be sure you save any acquired images you do not want to lose before closing the image windows.





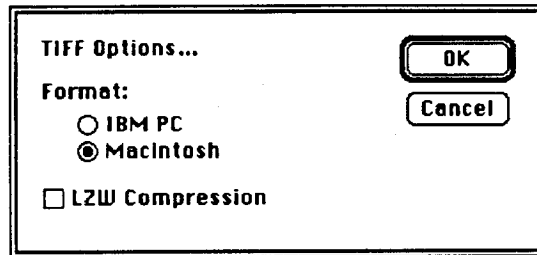
3. Type a filename. For this example you may wish to use TEST IMAGE as the filename.
4. Choose the format you want by:
  - A. Moving the mouse over the FILE FORMAT popup menu.
  - B. Dragging to the choice you want.
  - C. Releasing the mouse.

**Note:** If you intend to compress the file and send it to another location using the KODAK Communications Software, use TIFF format at this point.



USING THE  
DCS & MAC

5. Click on **SAVE**.
6. If you have chosen the TIFF file format, you will see this dialog box. Click on **OK** without making changes; wait as the file is saved (a progress box appears).



7. (Optional) Acquire and save additional images.

### Quitting

Complete these steps if you have completed your work with the Macintosh computer and DSU.

1. Choose **QUIT** from the **FILE** menu to quit Photoshop.
2. Turn off the DSU by pressing **On/Off**.
3. Choose **SHUT DOWN** from the **Macintosh SPECIAL** menu.
4. Disconnect the DSU from the computer.

## **Additional Features of the KODAK Driver for Adobe Photoshop Software**

The driver supplied by Kodak for use with Adobe Photoshop software provides a variety of additional features that allow you to work with images on the DSU hard disk and on the Macintosh hard disk. The driver allows you to return from a photographic shoot, rapidly view some or all of the images from the DSU, and transfer selected images (perhaps only tagged images) to the Macintosh hard disk for archival purposes or for later retrieval into Photoshop. You can then delete some or all of the images on the DSU hard drive in preparation for making additional images.

The next section of this manual, "Reference: KODAK Driver for Adobe Photoshop Software," describes all of these features in detail.

USING THE  
DCS & MAC

## ***Reference: KODAK Driver for Adobe Photoshop Software***

The driver supplied by Kodak for use with Adobe Photoshop software provides a variety of features that allow you to work with images on the DSU hard disk and on the Macintosh hard disk. The driver allows you to:

- Acquire single images from the DSU hard disk into Adobe Photoshop. You can then edit the images using Photoshop features and save them to the Macintosh hard disk in a variety of file formats.
- Select one or more images in the image window, select all images, select tagged images, or select the "current" image from the DSU .
- Copy one or more selected images from the DSU hard disk to a file, called an image archive or archive file, on the Macintosh hard disk. Copy one or more selected images from one archive file to a new archive file.
- Move one or more selected images from the DSU hard disk to a file on the Macintosh hard disk or from one archive file to a new archive file. Unlike copying images, this action also allows you the option of deleting images from the DSU hard disk after moving them to the new archive file on the Macintosh hard disk.
- Delete selected images from the DSU hard disk or delete images from an image archive file on the Macintosh hard disk previously saved by this driver.

## Camera File Format Used on the Macintosh Computer for Image Archives

Images saved to the Macintosh hard drive from the Photoshop driver supplied by Kodak can be read only using the Photoshop driver. One archive file on the Macintosh hard disk can include multiple images. In addition to image data, an archive file includes thumbnails for each of its images, a four-digit image number for each of its images (matching the DSU image number), color correction data for each image, and tags for images that were tagged on the DSU hard disk.

Color and monochrome images in these Macintosh archive files are composed of uninterpolated data; they have not been "acquired" into Photoshop. This means they contain the 1.3 megabytes of data generated from the 1280 x 1024-pixel array in the camera back and stored on the DSU hard disk. If you select ten images (color or monochrome) from the DSU and copy or move them to a single image archive file on the Macintosh hard disk the size of the file will be approximately 13 megabytes. If you use the Photoshop driver to interpolate a single color image by acquiring it into Photoshop, the size of the single image file will be approximately 3.9 megabytes. Ten "acquired" color images will occupy 39 megabytes. (Each acquired monochrome image saved in Photoshop format is 1.3 megabytes.)

Opening one of these archive files from the Macintosh Finder places you in Adobe Photoshop with no windows opened. (Each of the images within a single archive file does not open into a separate Photoshop window.) In order to work with an image from an archive file you must acquire the file as described in the next section. You can then select a single image from an archive file, acquire it into a Photoshop window, edit the data, and save the image as a Photoshop file.

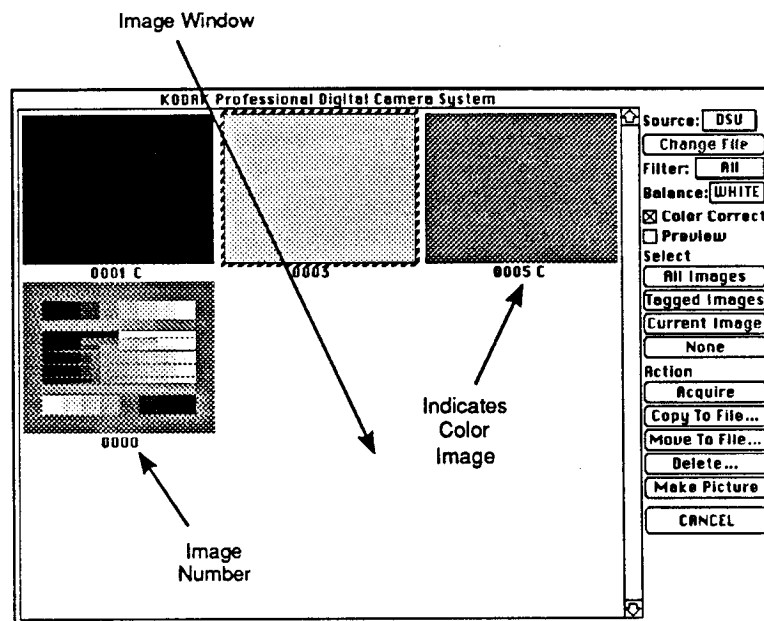
USING THE  
DCS & MAC

## Commands

To use these features, you must first install the driver by following the series of one-time steps described in "Installing the KODAK Driver for Adobe Photoshop Software." Then each time you want to use the driver, you run Photoshop, and choose KODAK DIGITAL STORAGE UNIT from the ACQUIRE submenu of the Photoshop FILE menu.

When you choose KODAK DIGITAL STORAGE UNIT, you will see the following dialog box on your Macintosh monitor. The image window displays thumbnails, either from images on the DSU hard drive or from image archives previously saved in a file on the Macintosh hard drive by this driver. Four-digit image numbers appear beneath each image. A "C" after the image number — if it appears — indicates a color image (all thumbnails appear in monochrome). When working with a file from the Macintosh hard disk, the filename appears at the top of the image window.

Thumbnails appear in the image window in the same logical order that images appear on the DSU hard disk or in the Macintosh file. You can scroll through the images by moving the vertical scroll bar on the window, or by pressing the Page Up, Page Down, Home, or End keys on the Macintosh keyboard. Depending on the size of your monitor, you will see either two or more thumbnails on each row, and two or more rows of thumbnails.



An explanation of each option on the dialog box follows:

**SOURCE** Allows you to work with images from the DSU (choose DSU from the popup menu) or from a file on the Macintosh (choose FILE from the popup menu). DSU is the default. When working with a Macintosh file, the filename appears at the top of the image window instead of the words KODAK PROFESSIONAL DIGITAL CAMERA SYSTEM.

**Note:** Do not turn off the DSU while acquiring images from it.

USING THE  
DCS & MAC

- CHANGE FILE** Allows you to close the current archive file (its contents are shown in the image window), and open another archive file from the Macintosh hard disk. Click on this button to display a standard Macintosh open file dialog box. This button is dimmed unless you select FILE as the SOURCE.
- FILTER** Controls the display of thumbnails in the image window. Choose whether you want to see ALL images or only TAGGED images. These choices are available when working with images from the DSU or from a Macintosh file. ALL is the default.
- BALANCE** This option applies only to color images.
- Allows you to override the original lighting condition values stored with the image on the DSU hard disk. Those values were stored when the image was made. Unless you change the BALANCE with this option by making a choice other than WHITE (the default), the original values stored with the image on the DSU hard disk are used for color correction by the driver when the image is acquired.
- Suppose that you have made an image with tungsten (TUNG) as the selected balance setting under the Menu key on the DSU. The tungsten color-correcting values are saved with the image on the hard disk, and are used by the driver for color correcting the image while acquiring it.
- However, suppose that you realize (perhaps after acquiring the image with the original tungsten setting), that you should have changed the balance



setting on the DSU from tungsten to daylight before making the image. It may be too late to make the image again. The **BALANCE** popup menu on this dialog box allows you to select substitute color-correction values. In this example you would choose **DAY** to override the original incorrect setting stored with the image, and to substitute the desired daylight values.

The original values remain stored on the hard disk with the image; the values associated with the option chosen from this **BALANCE** popup menu are substituted only during the current acquire action.

The color correction values obtained when you choose **DAY**, **TUNG**, or **FLUOR** from this popup menu are identical to those obtained when you choose the same options from the **BALANCE** choice under the **Menu** key on the DSU.

This popup menu provides the following choices.

<b>WHITE</b>	Uses the color-correction values originally stored with the image.
<b>DAY</b>	Substitutes daylight color-correction values for the color-correction values stored with the image.
<b>TUNG</b>	Substitutes tungsten color-correction values for the color-correction values stored with the image.
<b>FLUOR</b>	Substitutes fluorescent color-correction values for the color-correction values stored with the image.

## CLICK

Allows you to provide color balancing data by clicking on a white area of a thumbnail or a preview of an image. After choosing **CLICK**, the mouse pointer becomes a crosshair. Click on a white area of the image in a thumbnail that is not overexposed. White balance values are calculated based on the point at which you clicked. The values are used for color balancing this and subsequent images you acquire until you change the values by choosing **CLICK** or another item from the **BALANCE** popup menu.

When using **CLICK**, we suggest that you view the image you want with **PREVIEW**, which displays a larger image and allows you to find a white area that is not overexposed. With the image you want displayed in preview mode, and with **CLICK** chosen from the **BALANCE** popup menu, move the crosshair cursor to a white area. If any or all of the red (R), green (G), or blue (B) values below the image are 255, move the cursor to another spot where each of the color values is as high as possible, but lower than 255.

While in **PREVIEW** mode, after you click, you view the result of the change on the preview image.

If you do click on a spot where one or more of the values is equal to 255, you will see the message: ONE OF THE COLORS IS SATURATED. PLEASE PICK ANOTHER POINT FOR BALANCING. As prompted, click on another point.

NONE

Substitutes a unity gain ("1" is used as the color correction value for red, green, and blue), for the color correction values stored with the image. This choice may be useful for images made under unusual lighting conditions when the other choices do not provide the desired results.

COLOR CORRECT

Enhances the color in many images when you acquire the image. The default is on (an X appears in the check box to the left of this option). If the acquired image quality is unsatisfactory, turn this option off and acquire the image again; no color correction will be applied.

PREVIEW

Presents a single, enlarged version of the image — in color if the image is color — on the image window. Data below the preview image indicate the image number, the current X and Y pixel location of the crosshair cursor on the preview image, and the red, green, and blue values at the current cursor location. (Refer to the "CLICK" just above for an explanation of the use of PREVIEW with that feature.)

USING THE  
DCS & MAC

**SELECT** Highlights images. These choices (buttons) are useful for selecting images to delete, or to copy or move to the Macintosh hard disk.

**Important:** **SELECT** chooses images from the DSU (or from an archive file), not just thumbnails in the image window. For example, suppose you click on **TAGGED IMAGES** and then click on **DELETE**. This action will delete all tagged images from the DSU hard disk (or from an archive file), not merely from computer memory.

Additionally, these actions work with images not currently visible in the image window. For example, clicking on **TAGGED IMAGES** selects thumbnails of all tagged images not only those visible in the image window; if you scroll the image window, you will see that other tagged images are also selected.

**ALL IMAGES** Highlights all images.

**TAGGED IMAGES** Highlights all images that you previously tagged while working with the DSU.

**CURRENT IMAGE** Highlights the current image — the image whose number is currently visible on the DSU text display. (This may be the test pattern.) This choice is dimmed when the **SOURCE** is a **FILE**.

**NONE** Click on this button to deselect all highlighted images.

**Notes:** You can also select a single image by clicking on it. You can select multiple images by clicking on one image and then adding to the selection by shift-clicking on other images (hold down the Shift key while you click on additional images).

**SELECT** choices are dimmed when **PREVIEW** is on.

**ACTION** Provides the following capabilities.

**ACQUIRE** Allows you to acquire a single highlighted image into Adobe Photoshop. You can achieve the same effect by double-clicking on the thumbnail.

If more than one image is currently highlighted, you will acquire only the first of the selected images.

(Photoshop allows you to acquire only one image at a time.)

You do not acquire the thumbnail, tag (if present), color correction data, and image number; you only acquire image data.

**Notes:** If you are in Photoshop, but not within the driver, you can bypass several steps and acquire the current image (its image number is shown on the text display of the DSU) directly, without the need to open the acquire dialog box. Press and hold the command key (⌘). Then choose KODAK DIGITAL STORAGE UNIT from the ACQUIRE submenu of the Adobe Photoshop FILE menu. Continue to depress the key. The acquire dialog box will appear. Then release the command key. Wait as the image is acquired and appears in a Photoshop window.

IPTC-ANPA data are not acquired; only image data are retained in Adobe Photoshop.

**COPY TO FILE...** Copies highlighted images, whether currently visible in the image window or not, to a single image archive file on the Macintosh hard disk. The **SOURCE** can be either **DCS** or **FILE**. A standard Macintosh save dialog box appears. Image data, a thumbnail, an image number (matching the original number used for the image on the **DSU**), color correction data, and a tag (if present) are saved for each image.

**Note:** Although **IPTC-ANPA** data are stored in archive files, there is no way to access these data; later when you acquire these images, only image data are available in Adobe Photoshop.

**MOVE TO FILE...** Performs the same function as **COPY TO FILE**, but in addition deletes the highlighted images, whether currently visible in the image window or not, from the **DSU** hard drive or archive file on the Macintosh hard disk. A dialog box provides you with the option of deleting the images.

**Note:** Although **IPTC-ANPA** data are stored in archive files, there is no way to access these data; later when you acquire these images, only image data are available in Adobe Photoshop.

DELETE...	Deletes highlighted images, whether currently visible in the image window or not, from their source (either the DSU hard drive or the Macintosh archive file). A dialog box warns you that images will be deleted. If all images in an archive file are deleted, the complete file is deleted.
MAKE PICTURE	Issues a command that causes the camera to make a picture. To make a picture the camera must be connected to the DSU, the DSU must be connected to the Macintosh computer, the SOURCE must be DSU, and the DSU must be turned on.
CANCEL	Exits from the dialog box. Alternately, press Escape to exit from the dialog box.

### Messages: KODAK Driver for Adobe Photoshop Software

You can use Adobe Photoshop software on your Macintosh computer to acquire images from the Digital Storage Unit (DSU); to do so, you must choose KODAK DIGITAL STORAGE UNIT from the ACQUIRE submenu of the Photoshop FILE menu. The DCS Photoshop software driver was designed by Kodak specifically for this purpose. That driver adds several new messages to Photoshop. Each message should help as you acquire images. An explanation of those messages follows.

**Note:** For an explanation of other Adobe Photoshop messages, refer to the instructions for that product.

<i>Message</i>	<i>Possible Cause</i>	<i>Suggested Solution</i>
"A colon (:) is not allowed in a filename."	During a "Copy to File" or "Move to File" operation, you have entered a colon as part of a filename.	Use a filename without a colon.
"Cannot have same file open for acquiring from and saving to."	While working with an archive file (the Source is File), you have selected images, chosen "Copy to File" or "Move to File," and tried to save the images using the same filename as the opened acquire file.	Try again, but this time enter a filename different from the name of the open archive file.



<i>Message</i>	<i>Possible Cause</i>	<i>Suggested Solution</i>
"Could not save because the disk is full. XXXXX kilobytes disk space needed to save."	You are trying to save a file that is larger than the available space on the selected disk.	Select another disk if available, or delete files from the disk and try again. The message indicates the total amount of kilobytes needed to save the file.
"Delete ALL images on DSU? "	You are about to delete all images on the digital storage unit (not only the images in the image window).	Click on OK to delete all images, or on Cancel to cancel the operation.
"Delete ALL images in File? "	You are about to delete all images in an archive file on your hard disk (not only the images in the image window).	Click on OK to delete all images, or on Cancel to cancel the operation.
"Driver may not be compatible with this version of Photoshop."	The driver and your version of Adobe Photoshop are incompatible.	Adobe Photoshop version 1.0.7 or higher is required. Upgrade if necessary.
"DSU (Digital Storage Unit) has been disconnected or shut off."	The DSU was turned off (by pressing On/Off), or the cable between the DSU and the computer has been disconnected.	Turn on the DSU and choose KODAK Digital Storage Unit again from the Acquire submenu of the Photoshop File menu, or turn off the computer, reconnect the cable, and try again.

<i>Message</i>	<i>Possible Cause</i>	<i>Suggested Solution</i>
<p>"DSU (Digital Storage Unit) was not found. Turn on DSU power, check all cables, and check for SCSI ID conflict."</p> <p><i>Continued on next page.</i></p>	<p>You chose KODAK Digital Storage Unit from the Acquire submenu of the Photoshop File menu while the power to the DSU is off.</p>	<p>Press On/Off to turn on the DSU.</p>
	<p>The SCSI cable is not connected properly.</p>	<p>Verify that the SCSI cable is connected properly between the computer and the DSU. If not, turn off the power to both and reconnect the cable.</p>
	<p>The DSU SCSI ID is set improperly.</p>	<p>Reset the DSU SCSI ID so that it is different from other devices connected to the computer. To do so, turn off the DSU and then the computer. Turn on the DSU, press Menu and reset the SCSI ID. Turn off the DSU. Restart.</p>

<i>Message</i>	<i>Possible Cause</i>	<i>Suggested Solution</i>
<p><i>Continued from previous page.</i></p> <p>"DSU (Digital Storage Unit) was not found. Turn on DSU power, check all cables, and check for SCSI ID conflict."</p>	<p>You have connected the DSU to a different computer (or to the same computer to which you connected an additional SCSI device), resulting in a SCSI ID conflict.</p>	<p>Reset the DSU SCSI ID so that it is different from other devices connected to the computer. To do so, turn off the DSU and then the computer. Turn on the DSU, press Menu and reset the SCSI ID. Turn off the DSU. Restart.</p>
	<p>The DSU was turned on before the computer was turned on, or the computer was restarted while the DSU was on.</p>	<p>Turn off the DSU, turn on the DSU, and try the driver again.</p>
<p>"DSU (Digital Storage Unit) was not found. Turn on DSU power, check all cables, and check for SCSI ID conflict. Switching source to File now."</p>	<p>Same as previous message.</p>	<p>Same as previous message. The driver switches the source of image data from DSU (the default), to File. This means the driver asks you to supply the name of an archive file from your computer hard disk instead of looking for images on the DSU.</p>

<i>Message</i>	<i>Possible Cause</i>	<i>Suggested Solution</i>
"Internal error xxx. Restart MACINTOSH computer and try driver again. Or replace driver from original disk."	There is an unusual condition with the driver for Photoshop.	Choose the driver again from the Acquire submenu. If the problem recurs, shut down your Macintosh computer; restart the computer and Photoshop, and try the driver again.  If the condition persists, delete the KODAK Digital Storage Unit file from your hard disk, and install a new copy of the same file as described in "Installing the Kodak Driver for Adobe Photoshop Software."
"Last file is invalid. Requesting new file."	You have switched from Photoshop to the Finder while under the MultiFinder. While in the Finder you have changed the location of an opened file.	Choose a file from the Open dialog box.
	You have a damaged hard drive on your computer	Have the hard drive repaired.

<i>Message</i>	<i>Possible Cause</i>	<i>Suggested Solution</i>
"More than one image was selected. Only the first one will be acquired."	You have selected more than one image and then clicked Acquire.	Click OK to acquire the first image of the selected thumbnails. Or click Cancel, select a single image, and then click on Acquire.
"No images are selected. Select an image(s) before selecting the Copy to File button."	You did not select an image(s) before clicking on "Copy to File."	Select an image, then click on "Copy to File."
"No images are selected. Select an image(s) before selecting the Delete button."	You did not select an image(s) before clicking on Delete.	Select an image, then click on Delete.
"No images are selected. Select an image(s) before selecting the Move to File button."	You did not select an image(s) before clicking on "Move to File."	Select an image, then click on "Move to File."
"No images on the DSU (Digital Storage Unit)."	There are no images on the DSU.	Work with files you have saved previously to the computer hard disk.

<i>Message</i>	<i>Possible Cause</i>	<i>Suggested Solution</i>
"No images on the DSU (Digital Storage Unit). Switching source to File."	There are no images on the DSU.	The driver switches the source of image data from DSU (the default), to File. This means the driver asks you to supply the name of an archive file from your computer hard disk instead of looking for images on the DSU.
"No image was selected. Select an image before selecting the Acquire button."	You did not select an images(s) before clicking on Acquire.	Select an image, then click on Acquire.
"No tagged images present. Switching Filter to All Images."	You are trying to access tagged images when none are present.	No action required; the Filter setting is changed automatically to All images.
"Not enough memory. Try closing windows or increasing application memory size."	There is not enough memory to complete the operation.	<p>If unneeded windows are opened, close them and try the operation again.</p> <p>Or quit Photoshop and increase its Application Memory Size. (Select Photoshop on the Finder. Choose Get Info from the File menu. Increase the Application Memory Size.) Restart Photoshop and try the operation again.</p>

<i>Message</i>	<i>Possible Cause</i>	<i>Suggested Solution</i>
"One of the colors is saturated. Please pick another point for balancing."	After choosing Click from the Balance menu you have clicked the crosshair on an overexposed area of the thumbnail.	Choose Click again from the Balance popup menu and then click on a white area that is not overexposed. (Refer to the explanation of the Click feature; it describes how to use Preview with Click to avoid choosing an overexposed area.)
"There is no Current Image at this time. Please try again."	There is no current image.	This message may appear temporarily; wait for several seconds and try the operation again.
"This archive file is corrupted."	An unusual condition is detected when reading an archive file from your hard disk.	You will not be able to access images from this file.
"This driver is not compatible with the DCS. Please get a newer driver."	The driver you are using is outdated and will not work with the current version of the digital storage unit.	Install the newest driver and try again.
"This driver requires 32-Bit Quickdraw to operate."	The driver will not work on older Macintosh computers that do not have 32-Bit Quickdraw.	You will not be able to use the driver on this computer; run the driver on a different computer.

## Troubleshooting: KODAK Driver for Adobe Photoshop Software

The previous section, "Messages: Kodak Driver for Adobe Photoshop Software," contains additional troubleshooting material.

<i>Trouble</i>	<i>Possible Cause</i>	<i>Suggested Solution</i>
The Acquire command on the File menu is dimmed, meaning that you cannot access the KODAK Digital Storage Unit choice.	The KODAK Digital Storage Unit driver is not in the same folder as the Adobe Photoshop PS Prefs file.	Quit Photoshop, copy the KODAK Digital Storage Unit driver from the KODAK Driver for ADOBE PHOTOSHOP Software diskette into the folder with the Photoshop PS Prefs file, run Photoshop, and try again.
The KODAK Digital Storage Unit choice does not appear on the Acquire submenu.	The KODAK Digital Storage Unit driver is not in the same folder as the Adobe Photoshop PS Prefs file.	Quit Photoshop, copy the KODAK Digital Storage Unit driver from the KODAK Driver for ADOBE PHOTOSHOP Software diskette into the folder with the Photoshop PS Prefs file, run Photoshop, and try again.



# Using the KODAK DCS with Your PC

This section describes the steps to follow when using the KODAK Professional Digital Camera System with your PC. We assume you are familiar with the operation of your PC. If you are not, refer to the manuals and other learning materials that accompany your computer before continuing.

The KODAK Professional Digital Camera System is designed to be used with a computer by connecting the Digital Storage Unit (DSU) to your computer. Once connected, you can use the copy of a software driver supplied by Kodak to acquire images onto your computer hard disk. You can then edit images and can save images on your computer hard disk for use with other products.

You can connect both the camera and the computer to the DSU and use them simultaneously.

This section of the manual contains the following material.

- Setting the SCSI ID on the KODAK Digital Storage Unit.
- Connecting the DSU to your PC.
- Using the KODAK DCS Driver for use with Aldus PhotoStyler Software, including required software and hardware, a tutorial, and a variety of reference material on this driver.

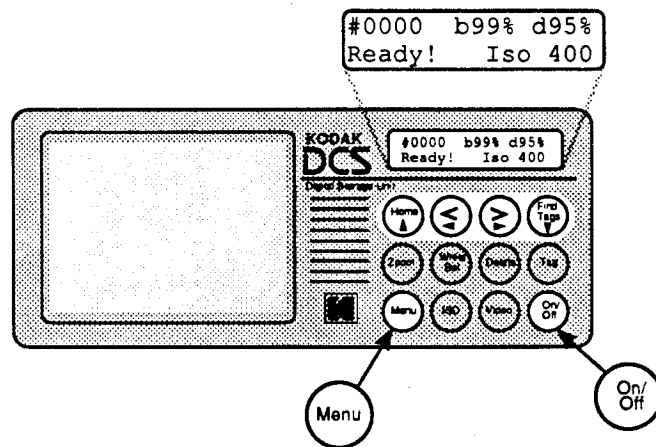
USING THE  
DCS & PC

## Setting the SCSI ID on the KODAK DSU (Menu Key)

In these steps you will set the SCSI identification (ID) number for the DSU. Each SCSI device connected to the same computer must have a different ID number. The DSU must have a unique SCSI ID.

**Note:** The DSU should not be connected to the computer when you change the SCSI ID on the DSU. If it is connected, turn off the DSU and the computer, and then disconnect the DSU before completing these steps. Then reconnect it as described next in "Making the SCSI Connection."

1. If SCSI devices other than the DSU are connected to your PC, determine their SCSI identification numbers so that you can select a different number for the DSU. (If necessary, refer to the instructions for those devices to determine how to find their numbers.)
2. Turn on the DSU by pressing the On/Off key; you will see a text display like the one below. (If a camera is not connected, you will see NoCAMERA instead of the ISO number.)



3. Press the Menu key; you see a display of text like the following on the image display.

**Note:** If you press the Menu key again, you turn off the image display.

When operating the DSU from a battery, the image display will turn off after 30 seconds of inactivity on the keypad. Press Menu again to reactivate it. When operating from the AC adapter, the image display remains on after you press Video.

```

Disk save:      OFF ON COMPRESS
Balance: DAY TUNG FLUOR (WHITE)
Winder:  OFF SINGLE SLOW FAST

Exposure Indicator: OFF ON
Video bright:  LOW 2 3 HIGH

SCSI ID: 0 1 2 3 4 5 6 7

Clock: 99/04/26 21:35:46 Set >>

Press "Delete" to erase disk
Hours: 00010 Exposures: 00125
Version: 01-31-99

```

The top row of keys on the keypad no longer means Home, <, >, and Find Tags. Instead, they are directional arrows that, when pressed, move you around on the image display.

Make choices from the options by pressing keys on the DSU keypad. Notice the line indicator triangle (▴) at the left of a row on the image display; it indicates that you are making choices from that row. To make choices from

other rows, press ▼ (Find Tags) or ▲ (Home). They move the line indicator up or down a row.

1. Press ▼ (Find Tags) repeatedly until the line indicator (▣) is at the left of the SCSI ID line. If you move past that line, press ▲ (Home) to return to it.
2. Press ◀ or ▶ to move across the SCSI ID row, highlighting one after another of the SCSI ID choices. Stop when the choice you want is highlighted. Use only SCSI IDs 0, 1, 2, 3, 4, or 5. Do not assign the number of any other attached SCSI device, and never assign 6 or 7. Assign high ID numbers to devices used most frequently.
3. Press Menu to leave the menu selections.
4. Press On/Off to turn off the DSU.

**Note:** The SCSI ID you assign is saved when you turn off the DSU.

## ***Making the SCSI Connection***

The DSU is a non-terminated SCSI device that connects to your PC. In normal usage you may connect and disconnect the DSU from the PC on a regular basis; for this reason you may want to position your computer so that its SCSI2 connector is readily accessible.

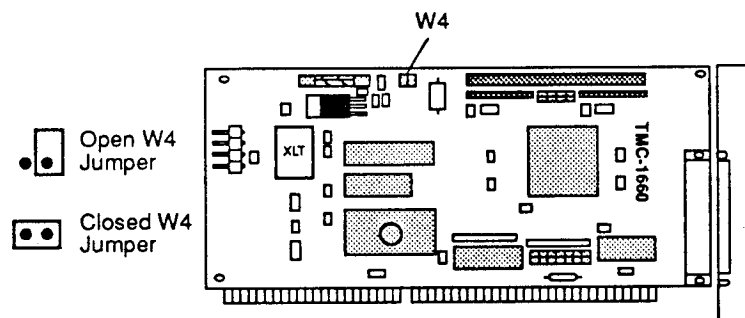
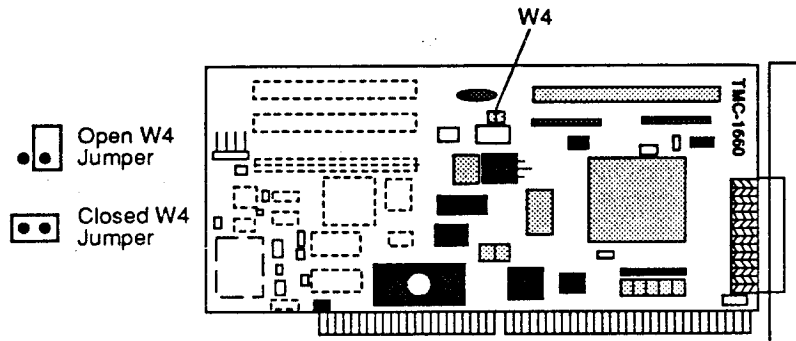
The KODAK DCS requires a SCSI Host Adapter (CAT. No. 838 0917 [AT bus], or CAT. No. 838 4763 [Micro Channel bus]) to be installed in your PC. The instructions below describe the steps required to ensure that the SCSI Host Adapter has been properly installed and configured for the DCS.

**Important:** Only trained and qualified technical personnel should perform the following procedure. Contact your computer service professional to configure and install the SCSI Host Adapter.

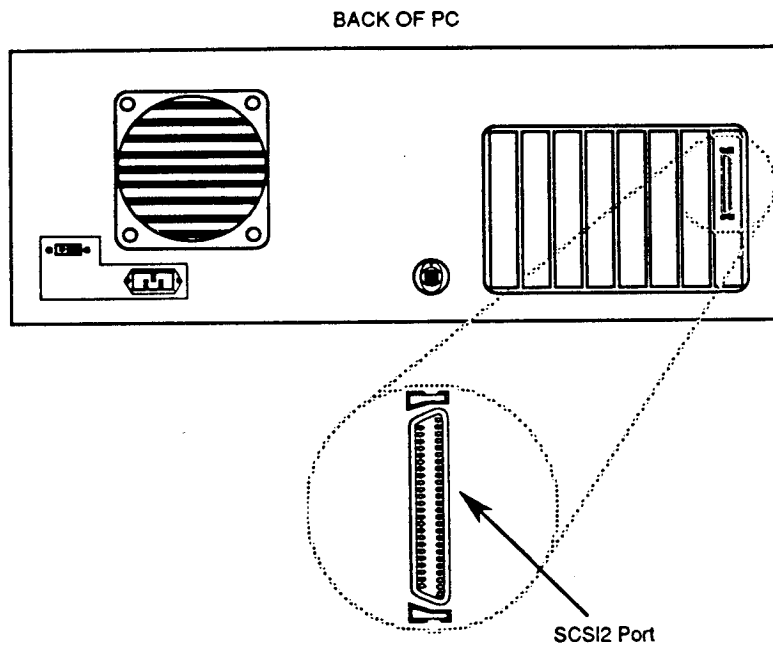
The installer should read all manufacturers' instructions for both the computer and SCSI Host Adapter before installing the adapter into your computer.

1. Turn off the power to the computer and all peripherals.
2. Install the SCSI Host Adapter for your PC according to the manufacturer's installation instructions. Use care to prevent static damage to the SCSI Host Adapter board.

3. Make sure jumper W4 on the SCSI Host Adapter board is closed. If it is not closed, move the jumper to the closed position. (Depending on your particular interface board, the W4 jumper may be in one of two positions)



4. Once the SCSI Interface has been properly installed and jumper W4 is set to "closed," close the computer housing.
5. The back of your computer, with its installed SCSI port, should now appear like the illustration below.



Two sets of instructions follow, depending on whether or not other external SCSI devices are connected to your computer.

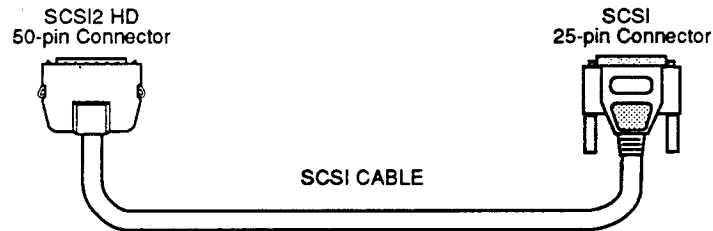
### ***KODAK DSU is the Sole SCSI Device***

Follow these steps if you will connect the DSU as the sole external SCSI device attached to your PC; otherwise continue at the next section entitled "KODAK DSU Used with Other SCSI Devices."

1. Turn off the DSU and the PC.

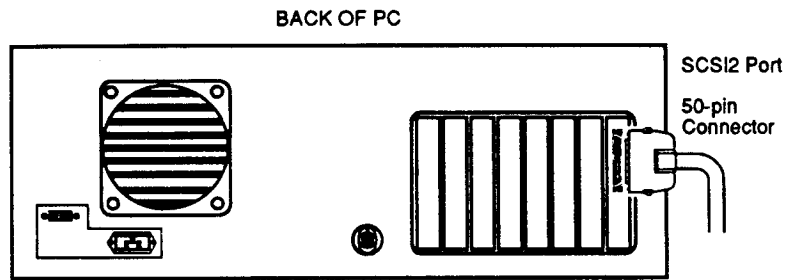
**Note:** When you connect and disconnect the PC and the DSU later, make sure that both of them are off.

2. Place the DSU in a convenient position next to your PC.
3. Select the cable with the 50-pin SCSI2 connector at one end and the 25-pin SCSI connector at the other end.

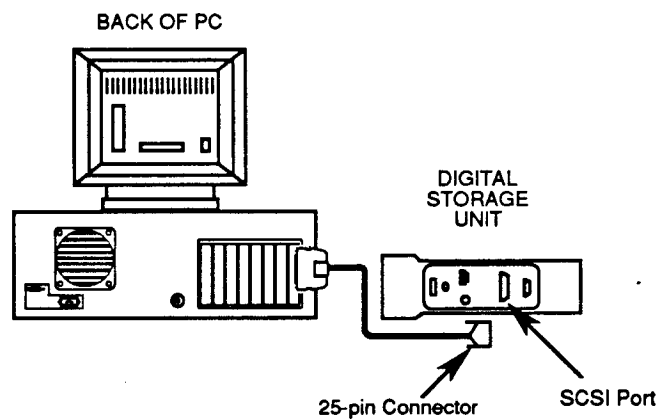




4. Attach the 50-pin SCSI2 connector to the SCSI2 port on the back of the PC. Make sure the cable connector is well seated by pressing it into place firmly, so that the spring clips on the connector snap onto the SCSI port posts.



5. Attach the other end of the cable (25-pin SCSI connector) to the SCSI port on the DSU.



Skip the next section and continue at "Using the KODAK DCS Driver for Use with ALDUS PHOTOSTYLER Software."

## **KODAK DSU Used with Other SCSI Devices**

Follow these steps if one or more external SCSI devices are already connected to your PC; otherwise continue at the next section entitled "Using the KODAK DCS Driver for Use with ALDUS PHOTOSTYLER Software."

If you are adding the DSU as one of multiple devices connected to your PC, it must be the last device in the chain of SCSI devices since it only includes one SCSI connector.

The total cable length connecting all devices must not exceed 15 feet (4.6 meters).

Determine if the connected SCSI devices are terminated or not. To do so, first look for an external SCSI terminator on the devices. Because some devices contain internal terminators, also check the instructions for your devices to determine if they are terminated internally.

We provide two sets of instructions. Follow the first set if none of the connected devices are terminated or if one of the devices is terminated externally. Follow the second set if one of the devices is terminated internally.

### **Follow these steps if none of the connected devices are terminated or if one of the devices is terminated externally.**

1. Turn off the DSU, the PC, and all connected SCSI devices.

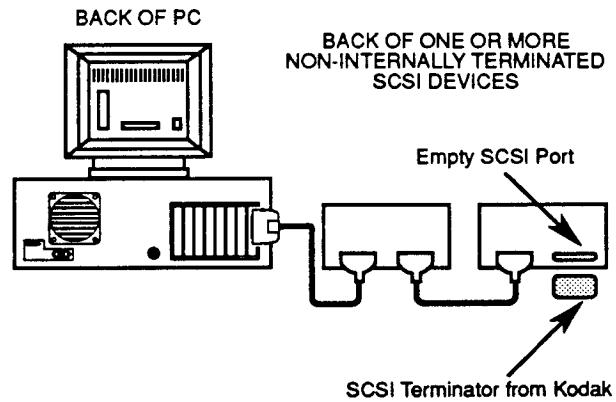
**Note:** When you connect and disconnect the PC and the DSU later, make sure that all devices are off.

2. Place the DSU in a convenient position next to the last device in the SCSI chain connected to your PC.
3. If there is an external terminator on an otherwise empty SCSI port on the last device, leave it in place.

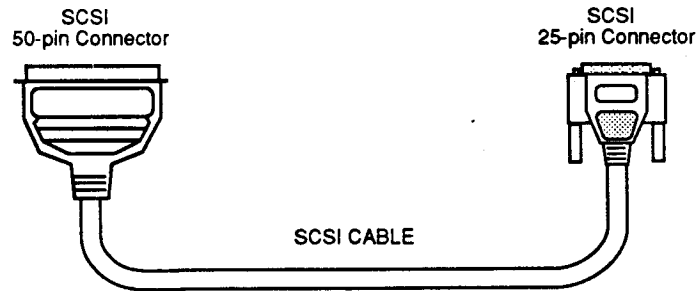
If there is an external SCSI terminator between the end of a cable and a SCSI port on a device, remove the terminator and reconnect the cable.

**Note:** When you remove the DSU cable later, remember to replace this terminator.

4. If no terminator is connected to the empty SCSI port on the last device, connect the SCSI terminator supplied by Kodak, as shown in the illustration below. Make sure the terminator is well seated by pressing it into place firmly, and then pinch the thin wire clamps over its base.

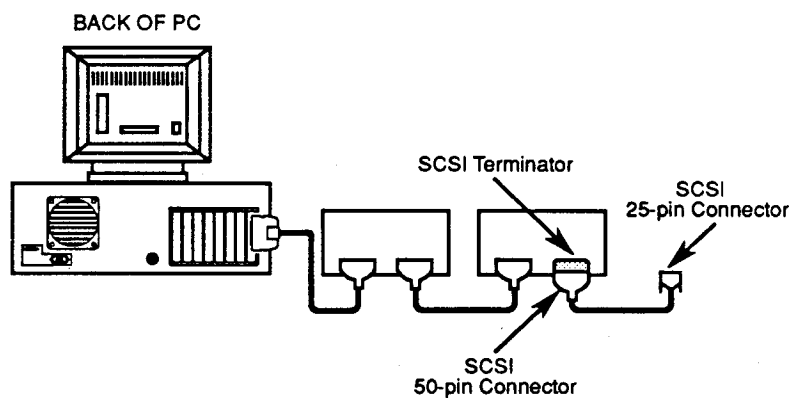


5. Select the 50-pin SCSI to 25-pin SCSI cable.

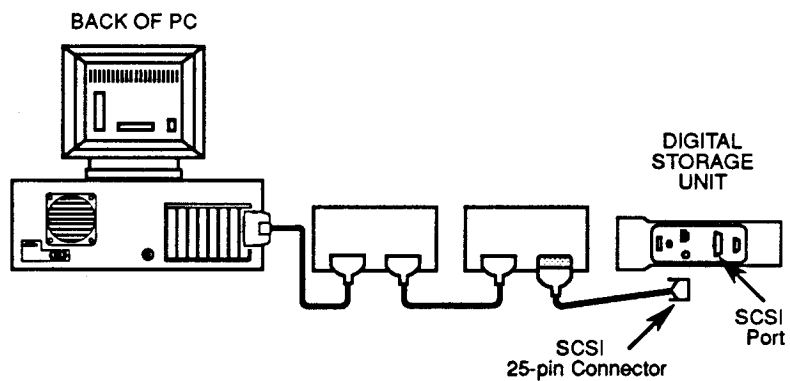


USING THE  
DCS & PC

6. Connect the 50-pin connector to the terminator on the last SCSI device in the chain. Make sure the connector is well seated by pressing it into place firmly, and then pinch the thin wire clamps over its base.



7. Attach the other end of the SCSI cable to the SCSI port on the DSU.



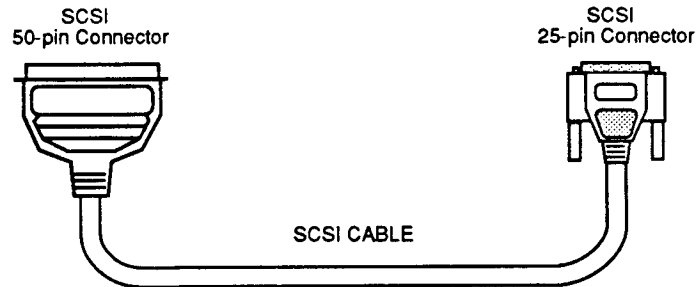
Skip the next section and continue at "Using the KODAK DCS Driver for Use with ALDUS PHOTOSTYLER Software."

**Follow these steps if the last connected device is terminated internally.**

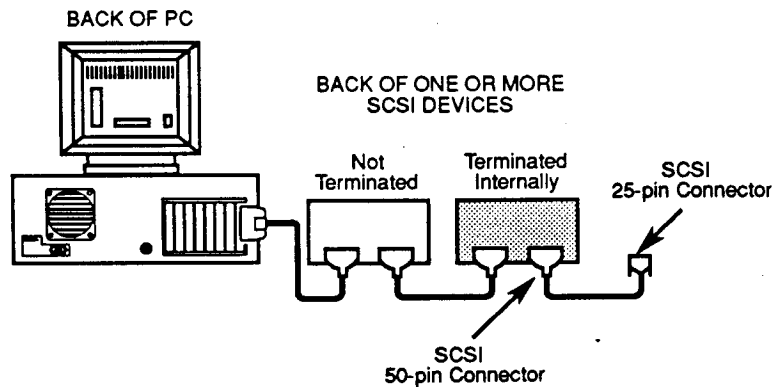
1. Turn off the DSU, the PC, and all connected SCSI devices.

**Note:** When you connect and disconnect the PC and the DSU later, make sure that all devices are off.

2. Place the DSU in a convenient position next to the last device in the SCSI chain of devices connected to your PC.
3. Select the 50-pin SCSI to 25-pin SCSI cable.

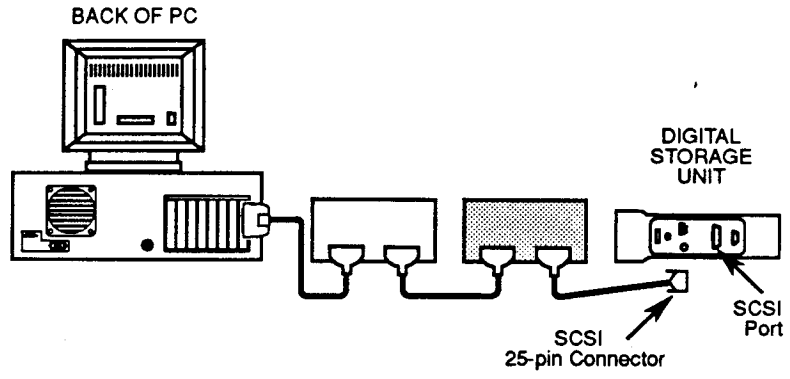


4. Connect the 50-pin connector to the empty SCSI port of the device that is terminated internally. Make sure the connector is well seated by pressing it into place firmly, and then pinch the thin wire clamps over its base.



USING THE  
DCS & PC

5. Attach the other end of the SCSI cable to the SCSI port on the DSU.



## ***Using the KODAK DCS Driver for use with ALDUS PHOTOSTYLER Software***

You can move images from the DSU hard disk to your computer with the KODAK DCS Driver for use with Aldus PhotoStyler Software. This section includes a listing of required software and hardware to use this driver, a tutorial on the driver, and a variety of reference material on the driver.

**Note:** We assume that you are familiar with the operation of your PC and with Aldus PhotoStyler. If you are not, refer to the instruction materials that accompany those products.

### ***Required Software and Hardware***

The computer software and hardware in the following list are required to run the KODAK DCS Driver for use with ALDUS PHOTOSTYLER Software.

#### **Required Applications Software**

Aldus PhotoStyler 1.1 (or higher).

#### **Required Systems Software**

- MS-DOS version 3.1 or later.
- Microsoft Windows, version 3.0 or later.

#### **Required Computer Hardware**

The KODAK DCS will function with any 80286, 80386, 80386sx, 80486, or 80486sx computer with a minimum of 4 MB RAM.

We strongly recommend a minimum computer configuration of a 20 MHz 80386sx with 8 MB RAM.

Hard disk, 20 MB minimum. We recommend 80 MB or greater.

**Required Monitor and Display Card**

VGA or compatible display is required. A high-quality color monitor provides best display results. You need the appropriate display card or graphics adapter for the monitor in use, we recommend a 16-bit VGA or 24-bit display card. A 16-bit card can display up to 32,768 colors, while a 24-bit card can display more than 16.7 million colors.



## ***Tutorial: KODAK DCS Driver for use with ALDUS PHOTOSTYLER Software***

You can move images from the DSU hard disk to your PC by acquiring them while running your copy of Aldus PhotoStyler. To do so you use the **IMPORT** submenu on the PhotoStyler **FILE** menu to access the DSU with a special software driver provided by Kodak. In the following instructions you will install the driver and use it to acquire images.

**Note:** This manual assumes that you are familiar with the operation of the PC, Microsoft Windows 3.0, and Aldus PhotoStyler. If you are not, refer to the instruction manuals that accompany those products.

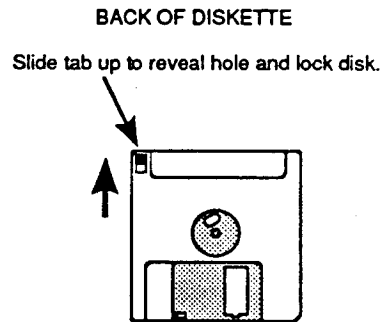
### **Installing the KODAK DCS Driver for use with ALDUS PHOTOSTYLER Software**

In this section you will install the software driver provided by Kodak for use with Aldus PhotoStyler software. It allows you to acquire images from the DSU into Aldus PhotoStyler. (Installing the driver is a one-time action; you complete these steps once, and do not repeat them each time you want to acquire images.)

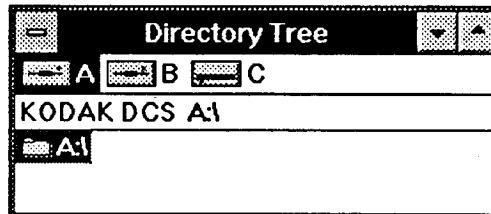
1. Turn on your PC; then start Microsoft Windows using the **WIN** or **WIN/S** command to run Windows in Standard Mode.
2. Locate the diskette labeled "KODAK DCS Driver for use with ALDUS PHOTOSTYLER Software."

USING THE  
DCS & PC

3. If the diskette is not write protected, protect the diskette: for 5.25-inch diskettes, tape the write-protect notch (at the diskette's edge, near the label); for 3.5-inch diskettes, slide the black plastic tab so that a rectangular hole appears through the diskette. (This will protect you from changing the contents of the disk inadvertently, and may aid in preventing the spread of computer viruses to this diskette.)

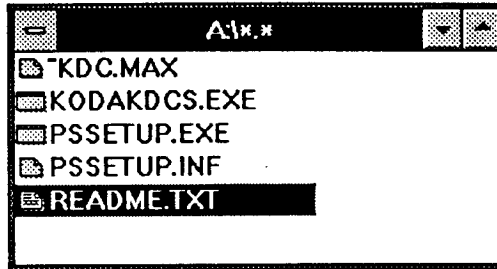


4. Place the diskette into an internal drive of your computer.
5. Open the Windows File Manager. Use the Directory Tree to locate the appropriate drive containing the diskette and open it.

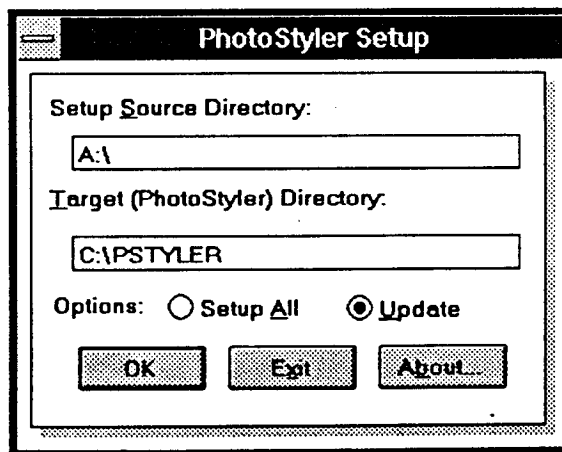


6. Before using the driver, read the README.TXT file on the driver diskette. This file contains important information regarding the DCS driver's operation that was too recent to be included in the manual.

To read the README.TXT file, double-click on the file while in the File Manager's Directory Tree. This procedure will run the Windows Notepad application and automatically open the README.TXT file so that you can read it. Read the file, then quit the Notepad application.



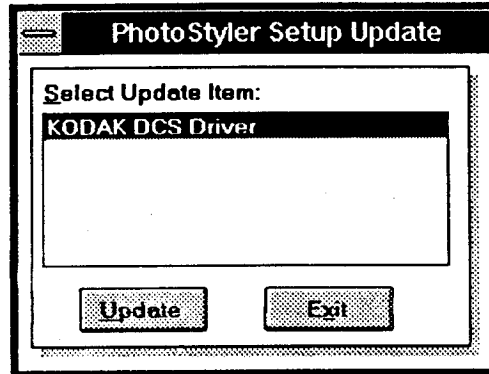
7. Double-click on the PSSETUP.EXE application to run it.
8. When the PhotoStyler Setup opening screen appears, press any key or click the mouse once. You should now see the PhotoStyler Setup dialog box asking you to verify the Setup Source Directory and the Target (PhotoStyler) Directory. Take the time now to select the proper directories if they are not already selected.
9. Because you are only installing the DCS driver, select the UPDATE option.



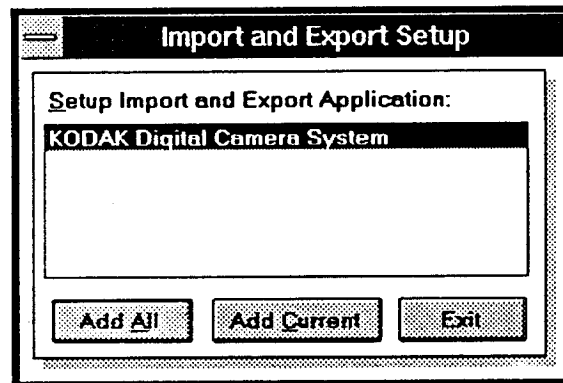
USING THE  
DCS & PC

10. Click on the OK button to continue the installation.

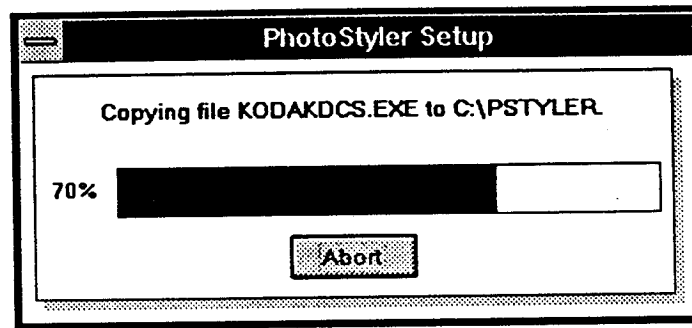
11. The PhotoStyler Setup Update dialog box will appear, with the item KODAK DCS DRIVER selected. Click on the UPDATE button to continue.



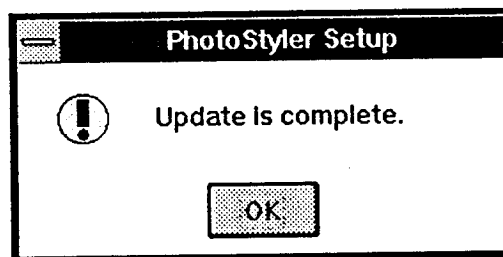
12. You should now see the Import and Export Setup dialog box, with the item KODAK DIGITAL CAMERA SYSTEM selected. Click on the ADD ALL button to continue.



A progress dialog window appears with a percentage readout indicating the installation of the "KODAKDCS.EXE" (KODAK Digital Camera SYSTEM driver).



13. When the installation is complete, a dialog box with the message "Update is complete." will appear. Click on the OK button.



14. When the PhotoStyler Setup Update dialog box appears, click on the **Exit** button. At the PhotoStyler Setup dialog box, click on the **Exit** button again to quit the setup application.  
The driver has now been installed and you will be back in the Windows File Manager.
15. Remove the diskette and store it in a safe place. (Although copying the driver is generally a one-time action, you may need the diskette again.)
16. Using the Windows File Manager, locate the KODAKDCS.EXE file in the PSTYLER directory. Select the KODAKDCS.EXE file and double-click on it. (This procedure allows the Windows operating system to record the location of the driver so that it will be active under Aldus PhotoStyler.)

## Acquiring Images In Aldus PhotoStyler

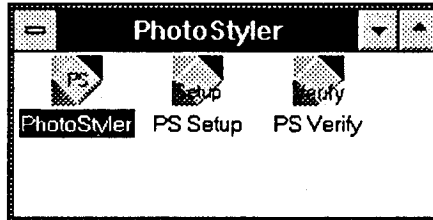
You repeat the steps below each time you want to acquire images from the DSU into Aldus PhotoStyler software.

**Note:** If you encounter difficulties while following these steps, refer to "Messages: KODAK DCS Driver for use with ALDUS PHOTOSTYLER Software" or "Troubleshooting: KODAK DCS Driver for use with ALDUS PHOTOSTYLER Software."

1. If the DSU and your PC are not connected, connect them now by following the directions in "Making the SCSI Connection" in an earlier section of this manual.
2. Once connected to the DSU, turn on the PC.
3. If the DSU is not on, turn it on by pressing its On/Off key.

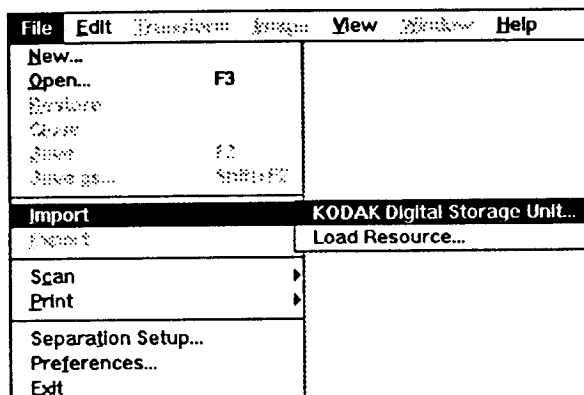
**Note:** Do not turn off the DSU while acquiring images from it.

4. Run Windows in the Standard Mode and, from Windows, run PhotoStyler.
  - At the DOS prompt, type WIN/s.
  - Open the Program Manager by double-clicking its icon (if it is not already open).
  - Locate the icon for PhotoStyler and double-click its icon to open the application. Click on the opening screen.

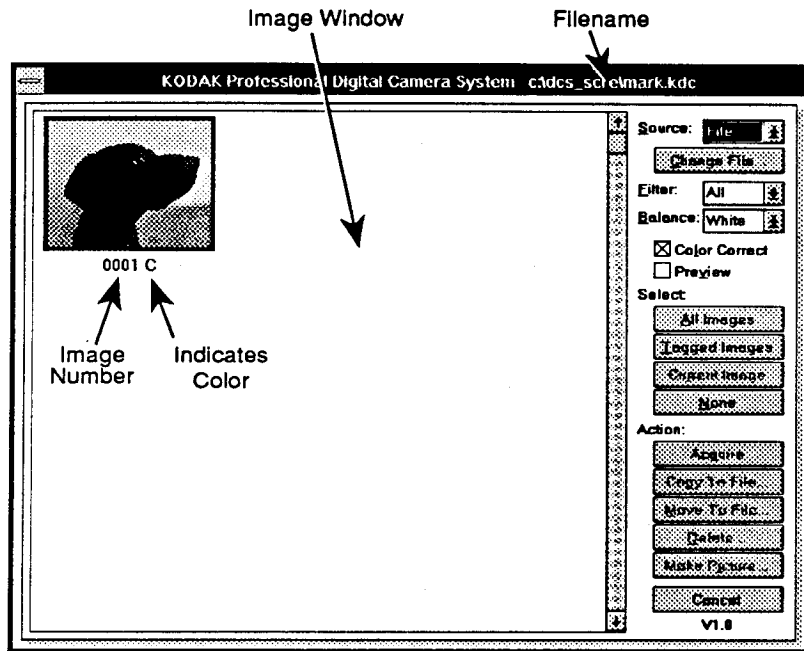


5. On the PC, pull down the Aldus PhotoStyler **FILE** menu and choose **KODAK DIGITAL STORAGE UNIT...** from the **IMPORT** submenu. (The **IMPORT** submenu may show other options too.)

**Note:** **OPEN** from the **FILE** menu will not acquire images from the DSU.



6. Wait as this window appears.



This image window will display thumbnails of images from the DSU hard drive. (A thumbnail is a subsample of data from the full image.) The thumbnails appear in the image window in the same logical order that images appear on the DSU hard disk. The four-digit image numbers that appear beneath each image correspond to the image numbers used on the DSU. Depending on the size of your monitor, you will see either two or more thumbnails on each row, and two or more rows of thumbnails.

You can scroll through the images by moving the vertical scroll bar on the window, or by pressing the Page Up or Page Down keys on the PC keyboard.



7. Scroll, if needed, until the image you want to acquire appears in the image window.
8. Click on the image you want. After you click on it, a narrow border appears on the screen, surrounding the image in the window, as illustrated by image number 0001 in the figure above.
9. (Optional) Click on **PREVIEW**.  
You see a single, enlarged version of the image — in color if the image is color. Data below the image indicate the image number, the current X and Y pixel location of the crosshair cursor on the preview image, and the red, green, and blue values at the current cursor location.
10. Click on the **ACQUIRE** button; the **KODAK DIGITAL STORAGE UNIT** dialog box closes and a progress bar appears at the bottom of the main PhotoStyler window. You can cancel acquiring by pressing **Esc**.
11. Wait as the image is acquired and it appears in a PhotoStyler window.
12. (Optional) Edit the acquired image using PhotoStyler features.

**Notes:** The software driver provided by Kodak for use with Aldus PhotoStyler incorporates color-correcting algorithms. They operate while acquiring an image by using data stored on the DSU with the image. For additional information on the color data stored with the image refer to the "White Bal Key" section.

You can use a color camera as a monochrome camera by exposing as you would for a color capture. Then, after acquiring the image into PhotoStyler, choose **SPLIT RGB TRUE COLOR** to from the **IMAGE** menu and work only with the data from the green channel or plane. This action produces a sharper image than reducing the other color levels to zero, since three out of four pixels in the image are green. As a result, the green plane has the most information when images are acquired in PhotoStyler.

If you are in PhotoStyler, but not within the driver, you can bypass several steps and acquire the current image (its image number is shown on the text display) directly, without the need to open the acquire dialog box. Press and hold the **Tab** key as you choose **KODAK DIGITAL STORAGE UNIT** from the **IMPORT** submenu of the Aldus PhotoStyler **FILE** menu. Continue to depress the key. The acquire dialog box will appear briefly and then close. The current image will appear in a PhotoStyler window. Release the **Tab** key.

If the camera is connected to the DSU, and the DSU is connected to a PC running Aldus PhotoStyler, and if the acquire dialog box is open, the burst rate of the camera is one less than the maximum rate.

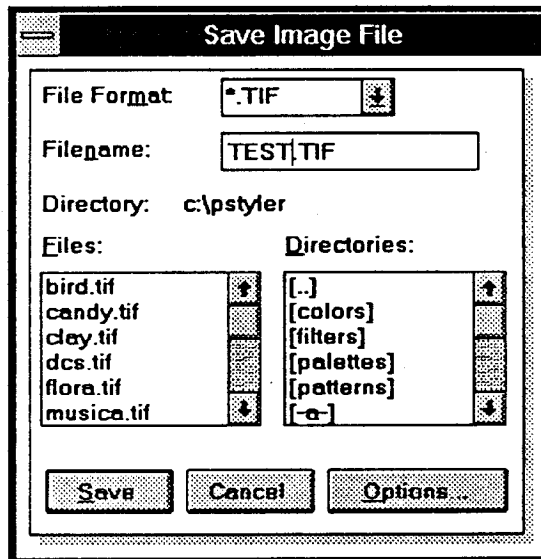
## Cropping and Saving an Image

In this section you will crop the image to reduce its size (optional), and then save it.

If you know that you will be using only a cropped portion of the image, you may want to complete that cropping now while in PhotoStyler. This will result in a smaller file when saved to disk.

1. (Optional) Crop the image. If needed, refer to the PhotoStyler manual for a discussion of available techniques.
2. Begin to save the image on your PC hard disk by choosing **SAVE** from the Aldus PhotoStyler **FILE** menu. You will see a **SAVE IMAGE FILE** dialog box like the one below.

**Note:** You cannot save the image on the DSU hard disk.

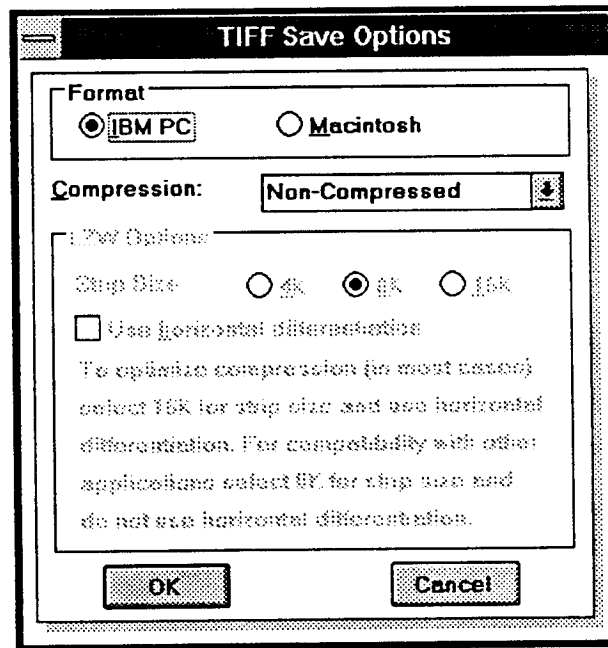


3. Type a filename. For this example you may wish to use **TEST.TIF** as the filename.

4. Choose the format you want by:
  - A. Moving the mouse over the FILE FORMAT drop-down list box.
  - B. Clicking on the choice you want.

**Note:** If you intend to share your images with other users, you should consider saving the image in TIF (TIFF) format.

5. If you have chosen the TIF file format, click on the OPTIONS button to set format (IBM or Macintosh TIFF format) and compression options for your image file. The file format option allows you to save the image for use on either IBM (PC) or Macintosh computers, while compression reduces image file size and conserves PC hard disk space.



USING THE  
DCS & PC

**Note:** To reduce image file size and conserve PC hard disk space, use the "LZW Compressed" option for file compression. Select this option in the COMPRESSION: drop-down list box. Under "LZW Options," select the 8K option button for STRIP SIZE and do not check the USE HORIZONTAL DIFFERENTIATION check box. These settings will optimize file compatibility with other users and applications.

If you do not want to use file compression, select "Non-Compressed" from the COMPRESSION: drop-down list box.



6. Click on the OK button when you have finished setting format and compression options.
7. Click on the SAVE button to save the image file, and wait as the file is saved (progress appears in the status bar at the bottom of the main PhotoStyler window).
8. (Optional) Acquire and save additional images.

### Quitting

Complete these steps if you have completed your work with the PC and DSU.

1. Choose EXIT from the FILE menu to quit PhotoStyler.
2. Choose EXIT WINDOWS... from the File menu of the Windows Program Manager.
3. Click on the OK button of the Exit Windows dialog box.
4. Turn off the DSU by pressing On/Off.
5. Turn off your PC.
6. Disconnect the DSU from the computer.

## **Additional Features of the KODAK DCS Driver for use with ALDUS PHOTOSTYLER Software**

The driver supplied by Kodak for use with Aldus PhotoStyler software provides a variety of additional features that allow you to work with images on the DSU hard disk and on the PC hard disk. In addition to allowing you to acquire single images from the DSU hard disk into Aldus PhotoStyler, the driver allows you to return from a photographic shoot, rapidly view some or all of the images from the DSU, and transfer selected images (perhaps only tagged images) to the PC hard disk for archival purposes or for later retrieval into PhotoStyler. You can then delete some or all of the images on the DSU hard drive in preparation for making additional images.

The next section of this manual "Reference: KODAK DCS Driver for use with Aldus PhotoStyler Software" describes all of these features in detail.

## **Reference: KODAK DCS Driver for use with ALDUS PHOTOSTYLER Software**

The driver supplied by Kodak for use with Aldus PhotoStyler software provides a variety of features that allow you to work with images on the DSU hard disk and on the PC hard disk. The driver allows you to:

- Acquire single images from the DSU hard disk into Aldus PhotoStyler. You can then edit the images using PhotoStyler features and save them to the PC hard disk in a variety of file formats.
- Select one or more images in the image window, select all images, select tagged images, or select the "current" image from the DSU image window.
- Copy one or more selected images from the DSU hard disk to a single file, called an image archive or archive file, on the PC hard disk. Copy one or more selected images from one archive file to a new archive file.
- Move one or more selected images from the DSU hard disk to a single file on the PC hard disk. Unlike copying images, this also deletes images from the DSU hard disk after moving them to the PC hard disk.
- Delete selected images from the DSU hard disk or delete images from a file on the PC hard disk previously saved by this driver.

### **Camera File Format Used on the PC for Image Archives**

Images saved to the PC hard drive from the PhotoStyler driver supplied by Kodak can be read only using the PhotoStyler driver. One archive file on the PC hard disk can include multiple images. In addition to image data, a file includes thumbnails for each of its images, a four-digit image number for each of its images (matching the DSU image number), color correction data for each image, and tags for images that were tagged on the DSU hard disk.

Color and monochrome images in these PC archive files are composed of uninterpolated data; they have not been "acquired" into PhotoStyler. This

means they contain the 1.3 megabytes of data generated from the 1280 x 1024-pixel array in the camera back and stored on the DSU hard disk. If you select ten images (color or monochrome) and copy or move them to a single image archive file on the PC hard disk, the size of the file will be approximately 13 megabytes. If you use the PhotoStyler driver to interpolate a single color image by acquiring it into PhotoStyler, the size of that single color image file will be approximately 3.9 megabytes. Ten "acquired" color images will occupy 39 megabytes.

In order to work with an image from a file, you must acquire the image as described in the next section. You can then select a single image from a file, acquire it into a PhotoStyler window, edit the data, and save the image as a PhotoStyler file.

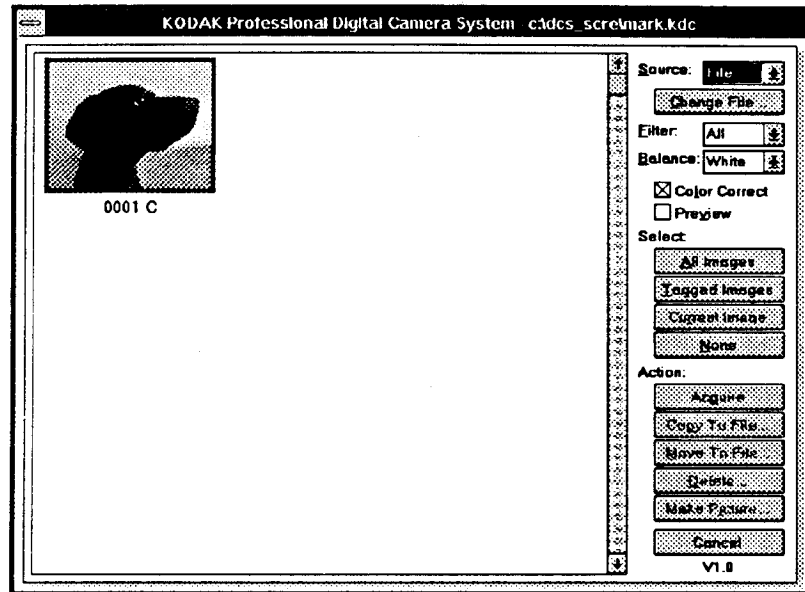
## Commands

To use these features, you must first install the driver by following the series of one-time steps described in "Installing the KODAK DCS Driver for use with Aldus PhotoStyler Software." Then each time you want to use the driver, you run PhotoStyler, and choose KODAK DIGITAL STORAGE UNIT... from the **IMPORT** submenu of the PhotoStyler **FILE** menu.

When you choose KODAK DIGITAL STORAGE UNIT..., you will see the following dialog box on your PC monitor. This dialog box displays thumbnails, either from images on the DSU hard drive or from image archives previously saved in a file on the PC hard drive by this driver. Four-digit image numbers appear beneath each image. A "C" — if it appears after the image number — indicates a color image (all thumbnails appear in monochrome). When working with a file from the PC hard disk, the filename appears at the top of the image window.

Thumbnails appear in the image window in the same logical order that images appear on the DSU hard disk or in the PC file. You can scroll through the images by moving the vertical scroll bar on the window, or by

pressing the Page Up or Page Down keys on the PC keyboard. Depending on the size of your monitor, you will see either two or more thumbnails on each row, and two or more rows of thumbnails.



An explanation of each option on the dialog box follows:

**SOURCE** Allows you to work with images from the DSU (choose DSU from the drop-down list box) or from a file on the PC (choose FILE from the drop-down list box). DSU is the default. When working with a PC file, the filename appears at the top of the image window.

**Note:** Do not turn off the DSU while acquiring images from it.

**CHANGE FILE...** Allows you to close the current file (its contents are shown in the image window), and open another file



from the PC hard disk. Click on this button to display a standard PC open file dialog box. This button is dimmed unless you select FILE as the SOURCE.

**FILTER** Controls the display of thumbnails in the image window. Choose whether you want to work with ALL images or only TAGGED images. These choices are available when working with images from the DSU or from a PC file. ALL is the default.

**BALANCE** This option applies only to color images.  
Allows you to override the original lighting condition values stored with the image on the DSU hard disk. Those values were stored when the image was made. Unless you change the BALANCE with this option by making a choice other than WHITE (the default), the original values stored with the image on the DSU hard disk are used for color correction by the driver when the image is acquired.

Suppose that you have made an image with tungsten (TUNG) as the selected balance setting under the Menu key on the DSU. The tungsten color-correcting values are saved with the image on the hard disk, and are used by the driver for color correcting the image while acquiring it.

However, suppose that you realize (perhaps after acquiring the image with the original tungsten setting), that you should have changed the balance setting on the DSU from tungsten to daylight before making the image. It may be too late to make the image again. The BALANCE drop-down list box on this dialog box allows you to select substitute color-correction values. In this example you would choose DAY to override the original incorrect setting stored with the image, and to substitute the desired daylight values.

The original values remain stored on the hard disk with the image; the values associated with the option chosen from this **BALANCE** drop-down list box are substituted only during the current acquire action.

The color-correction values obtained when you choose **Day**, **TUNG**, or **FLUOR** from this drop-down list box are identical to those obtained when you choose the same options from the **BALANCE** choice under the **Menu** key on the **DSU**.

This drop-down list box provides the following choices.

<b>WHITE</b>	Uses the color-correction values originally stored with the image.
<b>DAY</b>	Substitutes daylight color-correction values for the color-correction values stored with the image.
<b>TUNG</b>	Substitutes tungsten color-correction values for the color-correction values stored with the image.
<b>FLUOR</b>	Substitutes fluorescent color-correction values for the color-correction values stored with the image.
<b>CLICK</b>	Allows you to provide color balancing data by clicking on a white area of a thumbnail or a preview of an image. After choosing <b>CLICK</b> , the mouse pointer becomes a crosshair. Click on a white area of the image in a thumbnail that is not overexposed. White balance values are calculated based on the point at which you clicked. The values are used for color balancing this and subsequent images

you acquire until you change the values by choosing **CLICK** or another item from the **BALANCE** popup menu.

When using **CLICK**, we suggest that you view the image you want with **PREVIEW**, which displays a larger image and allows you to find a white area that is not overexposed. With the image you want displayed in preview mode, and with **CLICK** chosen from the **BALANCE** drop-down list menu, move the crosshair cursor to a white area. If any or all of the red (R), green (G), or blue (B) values below the image are 255, move the cursor to another spot where each of the color values is as high as possible, but lower than 255.

While in **PREVIEW** mode, after you click, you view the result of the change on the preview image.

If you do click on a spot where one or more of the values is equal to 255, you will see the message: **ONE OF THE COLORS IS SATURATED. PLEASE PICK ANOTHER POINT FOR BALANCING.** As prompted, click on another point.

NONE

Substitutes a unity gain ("1" is used as the color-correction value for red, green, and blue), for the color-correction values stored with the image. This choice may be useful for images made under unusual lighting conditions when the other choices do not provide the desired results.

USING THE  
DCS & PC

COLOR CORRECT	Enhances the color in many images when you acquire the image. The default is on (an X appears in the check box to the left of this option). If the acquired image quality is unsatisfactory, turn this option off and acquire the image again; no color-correction will be acquired.
PREVIEW	<p>Presents a single, enlarged version of the image—in color if the image is color—on the image window. Data below the preview image indicate the image number, the current X and Y pixel location of the crosshair cursor on the preview image, and the red, green, and blue values at the current cursor location.</p> <p>(Refer to the “CLICK” just above for an explanation of the use of PREVIEW with that feature.)</p>
SELECT	<p>Highlights images. These choices (buttons) are useful for selecting images to delete, or to copy or move to the PC hard disk.</p> <p><b>Important:</b> SELECT chooses images from the DSU (or from an archive file), not just thumbnails in the image window. For example, suppose you click on TAGGED IMAGES and then click on DELETE. This action will delete all tagged images from the DSU hard disk (or from an archive file), not merely from computer memory.</p> <p>Additionally, these actions work with images not currently visible in the image window. For example, clicking on TAGGED IMAGES selects thumbnails of all tagged images not only those visible in the image window; if you scroll the image window, you will see that other tagged images are also selected.</p> <p>ALL IMAGES      Highlights all images.</p> <p>TAGGED IMAGES      Highlights all images that you previously tagged while working with the DSU.</p>

**CURRENT IMAGE** Highlights the current image — the image whose number is currently visible on the DSU text display. This choice is dimmed when the **SOURCE** is a **FILE**.

**NONE** Click on this button to deselect all highlighted images.

**Notes:** You can also select a single image by clicking on it. You can select multiple images by clicking on one image and then adding to the selection by shift-clicking on other images (hold down the Shift key while you click on additional images).

**SELECT choices** are dimmed when **PREVIEW** is on.

**ACTION** The buttons under this section provide the following capabilities:

**ACQUIRE** Allows you to acquire a single highlighted image into Aldus PhotoStyler. You can achieve the same effect by double-clicking on the thumbnail.

The **ACQUIRE** button is gray until a single thumbnail is selected. If more than one thumbnail is selected, select a single thumbnail to enable the **ACQUIRE** button. (PhotoStyler allows you to acquire only one image at a time.)

You do not acquire the thumbnail, tag (if present), and image number; you only acquire image data.

**Notes:** If you are in PhotoStyler, but not within the driver, you can bypass several

steps and acquire the current image (its image number is shown on the text display of the DSU) directly, without the need to open the acquire dialog box. Press and hold the Tab key as you choose KODAK DIGITAL STORAGE UNIT from the IMPORT submenu of the Aldus PhotoStyler FILE menu. Continue to depress the key. The current image will appear in a PhotoStyler window. Release the Tab key.

IPTC-ANPA data are not acquired; only image data are retained in Aldus PhotoStyler.

**COPY TO FILE...** Copies highlighted images, whether currently visible in the image window or not, to a single image-archive file on the PC hard disk. A standard PC save dialog box appears. Image data, a thumbnail, an image number (matching the original number used for the image on the DSU), and a tag (if present) are saved for each image.

**Note:** Although IPTC-ANPA data are stored in archive files, there is no way to access these data; later when you acquire these images, only image data are available in Aldus PhotoStyler.

**MOVE TO FILE...** Performs the same function as COPY TO FILE, but in addition deletes the highlighted images, whether currently visible in the image window or not, from the DSU hard drive or archive

file on the PC hard disk. A dialog box warns you that images will be deleted.

**Note:** Although IPTC-ANPA data are stored in archive files, there is no way to access these data; later when you acquire these images, only image data are available in Aldus PhotoStyler.

- |                 |   |
|-----------------|---|
| DELETE...       | Deletes highlighted images, whether currently visible in the image window or not, from their source (either the DSU hard drive or the PC file). An alert box warns you that images will be deleted. If all images in an archive file are deleted, the complete file is deleted. |
| MAKE PICTURE... | Issues a command that causes the camera to make a picture. To make a picture the camera must be connected to the DSU, the DSU must be connected to the PC, and the DSU must be turned on.   |
| CANCEL          | Exits from the dialog box to Aldus PhotoStyler.   |

## Messages: KODAK DCS Driver for use with ALDUS PHOTOSTYLER Software

You can use Aldus PhotoStyler software on your PC to acquire images from the Digital Storage Unit (DSU); to do so, you must choose KODAK DIGITAL STORAGE UNIT... from the IMPORT submenu of the PhotoStyler FILE menu. The DCS PhotoStyler software driver was designed by Kodak specifically for this purpose. That driver adds several new messages to PhotoStyler. Each message should help as you acquire images. An explanation of those messages follows.

**Note:** For an explanation of other Aldus PhotoStyler messages, refer to the instructions for that product.

<i>Message</i>	<i>Possible Cause</i>	<i>Suggested Solution</i>
"Cannot find Filename."	You have specified the filename of a file that does not exist.	Specify another file that does exist.
"Cannot locate the SCSI host adapter."	You have not installed the SCSI Host Adapter in the PC.	Install the SCSI Host Adapter.
"Cannot read Filename."	The file has been corrupted, or is read protected.	If possible, recreate the file, or if the file is read protected, remove protection if desired.



<i>Message</i>	<i>Possible Cause</i>	<i>Suggested Solution</i>
"Cannot read <i>Filename</i> . Invalid file format."	The file you are trying to read is not in the correct file format.	Specify another file in the required format.
"Cannot save because the disk is full. XXXXX KB needed to save."	You are trying to save a file that is larger than the available space on the selected disk.	Select another disk if available, or delete files from the disk and try again. The message indicates the total amount of kilobytes needed to save the file.
"Cannot write <i>Filename</i> . Check your disk space or write protection."	There is not enough disk space to write the file, or your storage media is write protected.	Free up disk space, use another diskette, or if desired, remove write protection from the media.
"DSU (Digital Storage Unit) has been disconnected or shut off."	The DSU was turned off (by pressing On/Off), or the cable between the DSU and the computer has been disconnected.	Turn on the DSU and choose KODAK Digital Storage Unit again from the Import submenu of the PhotoStyler File menu, or turn off the computer, reconnect the cable, and try again.

<i>Message</i>	<i>Possible Cause</i>	<i>Suggested Solution</i>
"DSU was not found. Turn on DSU power, check all cables, and check for SCSI ID conflict."	You chose KODAK Digital Storage Unit from the Import submenu of the PhotoStyler File menu while the power to the DSU is off.	Press On/Off to turn on the DSU.
	The SCSI cable is not connected properly.	Verify that the SCSI cable is connected properly between the PC and the DSU. If not, turn off the power to both and reconnect the cable.
	The DSU SCSI ID is set improperly.	Reset the SCSI ID — by pressing menu, then choosing the SCSI ID setting — so that it is different from other devices connected to the PC.
	You have connected the DSU to a different PC (or to the same computer to which you connected an additional SCSI device), resulting in a SCSI ID conflict.	Reset the DSU SCSI ID — by pressing Menu, then choosing the SCSI ID setting — so that it is different from other devices connected to the PC.

<i>Message</i>	<i>Possible Cause</i>	<i>Suggested Solution</i>
"No images on the DSU."	There are no images on the DSU.	Work with files you have saved previously to the PC hard disk.
"No tagged images present. Switching Filter to All Images."	You are trying to access tagged images when none are present.	No action required; the Filter setting is changed automatically to All Images.
"Not enough disk space."	There is not enough disk space to load or acquire the image.	Free up disk space, perhaps by deleting files, so that the operation can be completed.
"Not enough memory."	There is not enough memory (RAM) in your computer to complete the operation.	<p>Close unneeded windows or DOS applications. Save and close other acquired images or PhotoStyler documents.</p> <p>If this suggestion fails, you may need more RAM for your PC.</p>
"One of the colors is saturated. Please pick another point for balancing."	After choosing Click from the Balance menu you have clicked the crosshair on an overexposed area of the thumbnail.	Choose Click again from the Balance popup menu and then click on a white area that is not overexposed. (Refer to the explanation of the Click feature; it describes how to use Preview with Click to avoid choosing an overexposed area.)

<i>Message</i>	<i>Possible Cause</i>	<i>Suggested Solution</i>
"Parity error detected during transfer."	A problem occurred with the SCSI adapter hardware.	<p>Verify that the SCSI cable is connected properly between the computer and the DSU. If not, turn off the power to both and reconnect the cable.</p> <p>If the problem persists, have your computer service professional reconfigure and reinstall — or replace — the SCSI adapter.</p>
"Timeout during Command phase."	A problem occurred with the SCSI adapter hardware.	<p>Verify that the SCSI cable is connected properly between the computer and the DSU. If not, turn off the power to both and reconnect the cable.</p> <p>If the problem persists, have your computer service professional reconfigure and reinstall — or replace — the SCSI adapter.</p>

<i>Message</i>	<i>Possible Cause</i>	<i>Suggested Solution</i>
"Timeout during Data phase."	A problem occurred with the SCSI adapter hardware.	<p>Verify that the SCSI cable is connected properly between the computer and the DSU. If not, turn off the power to both and reconnect the cable.</p> <p>If the problem persists, have your computer service professional reconfigure and reinstall — or replace — the SCSI adapter.</p>
"Timeout during Message phase."	A problem occurred with the SCSI adapter hardware.	<p>Verify that the SCSI cable is connected properly between the computer and the DSU. If not, turn off the power to both and reconnect the cable.</p> <p>If the problem persists, have your computer service professional reconfigure and reinstall — or replace — the SCSI adapter.</p>

<i>Message</i>	<i>Possible Cause</i>	<i>Suggested Solution</i>
"Timeout during Selection phase."	A problem occurred with the SCSI adapter hardware.	<p>Verify that the SCSI cable is connected properly between the computer and the DSU. If not, turn off the power to both and reconnect the cable.</p> <p>If the problem persists, have your computer service professional reconfigure and reinstall — or replace — the SCSI adapter.</p>
"Timeout during Status phase."	A problem occurred with the SCSI adapter hardware.	<p>Verify that the SCSI cable is connected properly between the computer and the DSU. If not, turn off the power to both and reconnect the cable.</p> <p>If the problem persists, have your computer service professional reconfigure and reinstall — or replace — the SCSI adapter.</p>

<i>Message</i>	<i>Possible Cause</i>	<i>Suggested Solution</i>
"Timeout waiting for initial bus free phase."	A problem occurred with the SCSI adapter hardware.	<p>Verify that the SCSI cable is connected properly between the computer and the DSU. If not, turn off the power to both and reconnect the cable.</p> <p>If the problem persists, have your computer service professional reconfigure and reinstall — or replace — the SCSI adapter.</p>
"This driver is not compatible with the DSU. Please get a new driver."	You have a newer version of the DSU.	Get the newest driver.

## Troubleshooting: KODAK DCS Driver for use with ALDUS PHOTOSTYLER Software

<i>Trouble</i>	<i>Possible Cause</i>	<i>Suggested Solution</i>
The KODAK Digital Storage Unit choice does not appear on the Import submenu.	The driver has not been properly installed.	Quit PhotoStyler, install the driver from the KODAK DCS Driver for use with ALDUS PHOTOSTYLER Software diskette, run PhotoStyler, and try again.



# Specifications

## ***KODAK Camera Back***

- 1280 x 1024-pixel CCD full-frame imager, 16 x 16-micrometer pixel size
- Color imaging back with built-in color filter array (EI equivalent to ISO 100, 200, 400, 800,\* and 1600\*)
- Monochrome imaging back (EI equivalent to ISO 200, 400, 800, 1600,\* and 3200\*)

## ***KODAK Camera Winder***

- 2½ images/sec maximum burst rate with motor winder
- Coiled cable (3 to 8-feet)
- Tripod mount

## ***KODAK Digital Storage Unit, DSU***

- 200 megabyte Winchester disk (Stores 156 uncompressed images on a DSU without a compression board. On a DSU with a compression board, stores 142 images if compression is off, and 400 to a maximum of 699 images if compression is on.)
- 8-megabyte dynamic random-access memory (DRAM) buffer, 6-frame burst, (optional upgrade to a total of 32-megabytes of DRAM for 24-image burst)
- Built-in liquid-crystal-display (LCD) monitor for monochrome viewing of color or black-and-white images
- 12-volt, 2.3 ampere-hour camcorder battery
- 12-button operator control keypad and 2-line, 16-character backlit LCD alphanumeric display

SPECIFICATIONS

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\* You can obtain these speeds, but a loss of some image quality may occur (similar to when push-processing film).

- SCSI 25-pin, female, subminiature D connector with standard pin assignments for Macintosh II computer
- NTSC video interface — 75 ohm BNC jack, male, for external monochrome monitor (RS-170)
- Remote shutter release — Subminiature phone jack (2.5 mm diameter)
- Camera Connector — 15-pin, female, subminiature D connector
- Outputs — Serial interface, RS-232 DIT protocol, ITPC-ANPA format for units with transmission features. Parallel interface, SCSI
- Remote power adapter connector IEC 320, male connector
- Exposure feedback indicator: under, normal, over
- Dimensions: 4.05 in. (10.29 cm) high x 10.30 in. (26.16 cm) wide x 13.18 in. (33.48 cm) deep.

### ***Software for KODAK Professional Digital Camera System***

- Drivers for use with image-editing software
- KODAK Communications Software for use with the KODAK Professional Digital Camera System

### ***Other***

- Nikon Type B focusing screen modified for imager size
- Dimensions (camera body with KODAK Camera Back and KODAK Camera Winder attached): 5.31 in. (13.49 cm) high x 5.79 in. (14.71 cm) wide x 3.89 in. (9.88 cm) deep. KODAK Camera Winder contributes 1.63 in. (4.14 cm) to height.

# Index

12-volt AC adapter ..... *See* AC adapter  
 12-volt DC ..... 5-47  
 2 (Video Bright) ..... 5-32  
 20 pin header ..... 5-3, 5-82, 5-91 to 5-92  
 3 (Video Bright) ..... 5-32  
 32-Bit QuickDraw ..... *See* Systems software  
 < key ..... 3-17 to 3-18, 5-12 to 5-13  
 > key ..... 3-17 to 3-18, 5-14 to 5-15  
 ▲ ◀ ▶ ▼ ..... 3-14 to 3-15, 3-26 to 3-27, 5-18, 5-26, 5-57, 6-4, 7-4  
 ■ ..... *See* Line indicator

## A

A (telephone number) ..... 4-17, 5-57, 5-58  
 AC adapter ..... 2-1 to 2-2, 3-29, 5-42, 5-47 to 5-49  
     Troubleshooting ..... 5-69 to 5-70  
 Acquire ..... 2-2  
     Driver for Adobe Photoshop ..... 5-28, 6-19 to 6-24, 6-37  
     Driver for Aldus PhotoStyler ..... 5-28, 7-22 to 7-25, 7-37 to 7-38  
 Action  
     Driver for Adobe Photoshop ..... 6-37 to 6-39  
     Driver for Aldus PhotoStyler ..... 7-37 to 7-39  
 Add (send files) ..... 4-45  
 Adobe Photoshop ..... 1-2, 3-33, 6-16 to 6-48  
     Messages ..... 6-40 to 6-47  
     PICT files (saving caption data) ..... 4-36, 4-37  
     Troubleshooting ..... 6-48  
 Aldus PhotoStyler ..... 1-2, 7-17 to 7-48  
     Messages ..... 7-40 to 7-47  
     Troubleshooting ..... 7-48  
 Aliasing ..... *See* Color, Aliasing  
 All Images  
     Driver for Adobe Photoshop ..... 6-32, 6-36  
     Driver for Aldus PhotoStyler ..... 7-33, 7-36

Alt key .....	4-5, 5-51
Always Wait for Connect .....	4-24, 4-48
American Newspaper Publishers Association .....	<i>See</i> IPTC-ANPA
Analog to digital conversion .....	2-1, 5-3
Answer Phone After 1 Rings .....	4-47
Answer time .....	4-18, 5-59
Apple Macintosh computer printers .....	1-2
Apple Modem cable .....	<i>See</i> Modem, Cables
Apple Modem Tool .....	4-24
Apple Systems software .....	<i>See</i> Systems software
Archive files	
Driver for Adobe Photoshop .....	6-29
Driver for Aldus PhotoStyler .....	7-30 to 7-31
Artificial light .....	3-15, 5-21
ASA/ISO film speed dial .....	3-10, 3-32, 3-33, 5-32
Aztec batteries .....	1-3, 5-46

## B

b (Battery remaining) .....	3-12, 5-10, 5-44, 5-46
B (Balance, Click)	
Driver for Adobe Photoshop .....	6-34
Driver for Aldus PhotoStyler .....	7-35
B (telephone number) .....	4-18, 5-57, 5-58
B time exposure (Nikon F3 camera) .....	3-32
Back space key .....	4-6, 5-53
Backlight .....	8-1
BadWhite .....	3-15, 5-21, 5-63
Balance	
Driver for Adobe Photoshop .....	6-32 to 6-35
Driver for Aldus PhotoStyler .....	7-33 to 7-36
DSU menu .....	3-13, 3-14 to 3-15, 4-27, 5-26, 5-28 to 5-29
.....	<i>See also</i> Color, Balance
Battery (DSU) .....	5-39, 8-1
Camcorder .....	5-45, 8-1
Chamber .....	3-2
Cold temperature usage .....	5-45 to 5-46, 5-70
Cover .....	3-2 to 3-3
Installing .....	3-2 to 3-3
Lithium .....	3-29, 5-25, 5-33, 5-63
Nikon F3 camera .....	3-31
Remaining .....	<i>See</i> b (Battery remaining)

Replacement .....	1-3
Troubleshooting .....	3-3, 3-7, 3-8, 3-28, 5-69 to 5-70
Use with AC adapter .....	5-39
Battery charger .....	1-3, 5-45 to 5-46
Baud Rate .....	4-24
Block cursor .....	<i>See</i> Cursor
Blue .....	3-15, 5-20 to 5-21, 6-22, 7-25
Blue spectral content .....	3-33
BNC connector .....	5-7 to 5-8, 5-41, 8-2
Border in zoom .....	4-26
Brightness of image display .....	<i>See</i> Video Bright
Burst of Images .....	<i>See</i> Image, Burst
Byline field .....	5-56

## C

c (Color image DSU text display) .....	3-12, 5-10, 5-43 to 5-44
C (Color image software driver)	
Driver for Adobe Photoshop .....	6-30, 6-31
Driver for Aldus PhotoStyler .....	7-24, 7-31
C (telephone number) .....	4-18, 5-57, 5-58
Cable	
.....	<i>See</i> Interconnect cable
.....	<i>See also</i> Modem, Cables
.....	<i>See also</i> SCSI, Macintosh Computer, 25-pin to 25-pin cable
.....	<i>See also</i> SCSI, Macintosh Computer, 25-pin to 50-pin cable
.....	<i>See also</i> SCSI, PC, 25-pin to 50-pin cable
Calibration image .....	5-20 to 5-21
Camcorder battery .....	<i>See</i> Battery (DSU)
Camera .....	<i>See</i> Nikon F3 camera
Camera back .....	2-1, 3-5, 3-31, 5-2, 8-1, 8-2
Cleaning .....	<i>See</i> Cleaning the imager
Camera connector .....	3-4, 5-40, 5-41
Camera equipment, optional .....	1-2
Camera equipment, required .....	1-1
Camera winder .....	2-1, 3-5, 3-31, 5-3 to 5-4, 5-26, 5-30, 8-1, 8-2
Troubleshooting .....	5-75
CANCEL	
Driver for Adobe Photoshop .....	6-39
Driver for Aldus PhotoStyler .....	7-39
Caps key .....	4-7

Caption .....	2-2, 4-6 to 4-8, 4-35 to 4-36, 5-52 to 5-53
Editing .....	4-6 to 4-8
Key .....	4-7
Screen (DSU) .....	4-7 to 4-8, 5-52 to 5-53
Text Window (KODAK Communications Software) .....	4-35 to 4-36
Writer (field) .....	4-9, 5-56
Carrying case .....	<i>See</i> Soft pack (carrying case)
Category field .....	5-56
CCD imager .....	2-1, 3-31, 8-1
CD switch, Telebit T2500 modem .....	4-16, 4-23
Change file	
Driver for Adobe Photoshop .....	6-32
Driver for Aldus PhotoStyler .....	7-32 to 7-33
Chinon batteries .....	1-3, 5-46
City field .....	5-56
Cleaning kit .....	5-80
Cleaning the imager .....	5-77 to 5-92
Click (Balance)	
Driver for Adobe Photoshop .....	6-34 to 6-35
Driver for Aldus PhotoStyler .....	7-34 to 7-35
Clock .....	5-26, 5-33, 5-34
Close .....	4-39
Color	
Aliasing .....	5-76
Balance .....	3-13 to 3-15, 6-34 to 6-35
Calibration Matrix Table .....	5-61 to 5-62
Camera .....	5-2
Camera, use as a monochrome camera .....	3-33, 5-2, 6-23, 7-25
Correction	
Driver for Adobe Photoshop .....	6-23, 6-32 to 6-33
Driver for Aldus PhotoStyler .....	7-25, 7-33 to 7-35
Correction, DSU .....	<i>See</i> Balance, DSU menu
Film .....	3-31 to 3-32
Filter array .....	8-1
ISO recommended settings .....	3-10
Model .....	2-1, 8-1
.....	<i>See also</i> Balance
Color Correct	
Driver for Adobe Photoshop .....	6-23, 6-35
Driver for Aldus PhotoStyler .....	7-25, 7-36
Telecommunications .....	4-19 to 4-20, 4-27, 5-61 to 5-62

Color mode .....	4-19 to 4-20, 5-61 to 5-62
Color/Monochrome indicator .....	5-10
Comma (,) .....	4-17, 5-58
Command key shortcut .....	6-23, 6-37
Communications .....	<i>See</i> KODAK Communications Software
Compress (Disk save) .....	5-27
Compressing files	
KODAK Communications Software .....	4-37 to 4-39
Telecommunications .....	4-19, 5-60
.....	<i>See also</i> KIC
Compression board .....	2-2, 5-43
Configuring a modem .....	<i>See</i> Modem, Configuration
Connect .....	5-63
Connect (PhoneLink menu) .....	4-48
Connect key .....	4-25, 4-29
Connection Settings .....	4-42, 4-47
Connector panel .....	<i>See</i> Digital Storage Unit, Connector panel
Control Panel .....	4-12, 4-34
Copy to file	
Driver for Adobe Photoshop .....	6-38
Driver for Aldus PhotoStyler .....	7-38
CORRECTION .....	4-20, 5-62
Country code field .....	5-56
Creation Date (IPTC-ANPA) .....	5-33
Creation Time (IPTC-ANPA) .....	5-33
Crop	
Driver for Adobe Photoshop .....	6-24
Driver for Aldus PhotoStyler .....	7-26
DSU for file transfer .....	4-26, 4-27, 5-63
Cropped .....	4-26
Current Image	
Driver for Adobe Photoshop .....	6-36
Driver for Aldus PhotoStyler .....	7-37
Current image number .....	5-10, 5-13, 5-15, 5-17
Current ISO setting .....	3-9
Cursor .....	4-8
<b>D</b>	
d (Disk filled) .....	3-12, 5-44
D (telephone number) .....	4-18, 5-57, 5-58

Data key .....	4-9
Data screen .....	4-9, 5-6, 5-54 to 5-56
Date, DSU .....	5-33
Day (daylight balance)	
Balance .....	3-13, 3-15, 5-28 to 5-29
Driver for Adobe Photoshop .....	6-33
Driver for Aldus PhotoStyler .....	7-33, 7-34
Daylight .....	<i>See</i> Day (daylight balance)
DeadLith .....	5-63
Default PhoneLink .....	4-24
Delete	
Driver for Adobe Photoshop .....	6-36, 6-39
Driver for Aldus PhotoStyler .....	7-36, 7-39
Delete key .....	3-21 to 3-22, 5-22, 5-34 to 5-35
Deleted .....	3-22, 5-22, 5-63
Deleted Images .....	<i>See</i> Image, Deleting
Dial mode .....	4-18, 5-59
Dial Phone Number .....	4-47
Dial string .....	4-18, 5-58
Dialing .....	4-25, 5-63
Digital data .....	2-1
Digital Storage Unit .....	2-1, 5-5 to 5-62
Battery .....	<i>See</i> Battery (DSU)
Connector panel .....	5-40 to 5-41
Hard disk .....	3-12, 5-10, 5-43 to 5-44, 8-1
Spin-up .....	3-19 to 3-20, 4-6, 5-43
Optional features .....	5-50 to 5-63
Readying .....	3-2 to 3-4
SCSI ID .....	6-2 to 6-4, 6-5, 7-2
Telecommunications .....	4-11 to 4-32, 5-50 to 5-63
Termination .....	6-5, 7-5
Troubleshooting .....	5-47, 5-69 to 5-73
Turn off .....	3-28
Turn on .....	3-7 to 3-8
Dimensions .....	8-2
Disconnect .....	4-30
Disk .....	<i>See</i> Digital Storage Unit, Hard disk
Disk filled .....	<i>See</i> d (Disk filled)
Disk save .....	5-26, 5-27
Disk status information .....	5-43 to 5-44
Display .....	<i>See</i> Video display (external)



Display card	
Driver for Adobe Photoshop .....	6-16
Driver for Aldus PhotoStyler .....	7-16
DIT 3.0 Tool .....	4-24, 4-44, 8-2
Done .....	5-35, 5-64
DRAM .....	<i>See</i> Dynamic Random Access Memory
Drivers .....	2-2, 3-13
.....	<i>See also</i> Adobe Photoshop
.....	<i>See also</i> Aldus PhotoStyler
DskERROR .....	5-64
DskFULL .....	5-64
DSU .....	<i>See</i> Digital Storage Unit
DSU (Source choice)	
Driver for Adobe Photoshop .....	6-31
Driver for Aldus PhotoStyler .....	7-32
DSU Hot .....	5-64
DSUFAILED .....	5-64
Dynamic Random Access Memory .....	2-2, 3-12, 3-19 to 3-20, 5-3, 5-45, 8-1
Upgrade .....	3-19, 8-1

## E

ECM .....	<i>See</i> Enhanced Communications Mode, Telebit T2500
Edit captions .....	4-6
Editing images .....	<i>See</i> Image, Editing software
EI equivalent .....	8-1
End key (Macintosh computer) .....	6-30
Enhanced Communications Mode, Telebit T2500 .....	4-16, 4-23
Erase hard disk .....	5-34 to 5-35, 5-44
Erased .....	5-35, 5-64
Esc key .....	7-25
ESD wrist strap .....	5-80, 5-85 to 5-91
Exit .....	7-28
Exposure compensation dial .....	3-32, 3-33, 5-32
Exposure feedback indicator .....	8-2
.....	<i>See also</i> Exposure Indicator
.....	<i>See also</i> Overexposure
.....	<i>See also</i> Underexposure
Exposure index .....	2-1, 5-2, 5-6 to 5-7
.....	<i>See also</i> ISO
Exposure Indicator .....	3-8, 3-12, 3-32, 3-33, 5-6 to 5-7, 5-31 to 5-32
External video display .....	<i>See</i> Video display (external)

## **F**

Failed .....	5-64
Fast (Winder) .....	5-30
File (Source)	
Driver for Adobe Photoshop .....	6-31, 6-38
Driver for Aldus PhotoStyler .....	7-32, 7-37
File format .....	<i>See</i> Save, Format
File menu	
Driver for Adobe Photoshop .....	6-20
Driver for Aldus PhotoStyler .....	7-23
KODAK Communications Software .....	4-30
File Transfer Settings .....	4-44
Filenames on received files .....	4-29 to 4-30, 4-48
Film .....	2-1, 3-31
Film comparison .....	3-31, 5-36 to 5-37
Film speed equivalent .....	2-1
Filter	
Driver for Adobe Photoshop .....	6-32
Driver for Aldus PhotoStyler .....	7-33
Find Tags key .....	3-13, 3-24, 5-16 to 5-17, 5-24
Finder (Macintosh computer) .....	6-17, 6-19
Finding images .....	<i>See</i> Image, Finding
Flash .....	3-32
Flashing areas on image display .....	<i>See</i> Exposure Indicator
Fluor (Balance) .....	3-14, 3-15, 5-28 to 5-29
Driver for Adobe Photoshop .....	6-32 to 6-33
Driver for Aldus PhotoStyler .....	7-34
Fluorescent .....	3-32
.....	<i>See also</i> Fluor (Balance)
Focal length .....	3-5, 3-31
Focus .....	3-11
Focusing screen .....	3-11
.....	<i>See also</i> Nikon Type B focusing screen
Format (Save) .....	<i>See</i> Save, Format
Frame counter .....	5-74

## **G**

### **G (Balance, Click)**

Driver for Adobe Photoshop .....	6-34
Driver for Aldus PhotoStyler .....	7-35

Gray cards .....5-20  
 Green .....3-15, 5-20 to 5-21, 6-22, 7-25  
 Green plane, Adobe Photoshop .....3-33, 5-20 to 5-21

## H

HangUp .....4-25, 4-28, 5-64  
 Hard disk  
     Macintosh computer .....6-16  
     PC .....7-14  
         .....*See also* Digital Storage Unit, Hard disk  
 Hardware, optional .....1-2  
 Hardware, required .....1-1 to 1-2, 6-16, 7-15 to 7-16  
 Header .....*See* 20 pin header  
 High (Send compress) .....4-19, 5-60  
 High (Video Bright) .....5-32  
 HOLD KEY .....3-22, 5-22, 5-34 to 5-35, 5-64  
 Home key  
     DSU .....3-14, 3-17, 5-11  
     Macintosh computer .....6-30  
 Host Adapter .....*See* SCSI, PC, Host Adapter

## I

IBM computer .....7-1 to 7-48  
     Printers .....1-2  
 ID .....*See* SCSI, Macintosh Computer, ID number  
 IEC 320 .....8-2  
 Illuminants .....3-33  
 Image  
     Archive files .....*See* Archive files  
     Burst .....2-2, 3-19 to 3-20, 5-4, 5-45, 5-70, 7-25, 8-1  
     Compress .....2-3, 3-30  
     Deleting .....3-21 to 3-22  
     Display .....3-8, 3-12, 5-5 to 5-8, 5-38  
         Troubleshooting .....5-71 to 5-72  
     Editing software .....2-2, 3-33, 6-23, 8-2  
     Finding .....3-24 to 3-25  
     New, placement .....3-23  
     Number .....3-12, 5-10, 5-34, 5-44, 6-30, 7-30, 7-31  
     Number stored on DSU .....2-2, 5-43  
     Quality .....3-10, 5-7, 5-76

Image, Quality (continued)	
Troubleshooting .....	5-76
Recovery .....	5-34 to 5-35
Size .....	3-19, 5-2
Stored on DSU .....	8-1
Tag .....	3-19
Troubleshooting .....	3-24 to 3-25, 5-73
Window	
Driver for Adobe Photoshop .....	6-21 to 6-23
Driver for Aldus PhotoStyler .....	7-24 to 7-25
Imager .....	5-2, 8-1
Cleaning .....	5-77 to 5-92
Import menu .....	7-23, 7-31
Indicators .....	<i>See</i> Exposure Indicator
Information Interchange Model .....	2-2, 3-29 to 3-30
Ins key .....	4-6, 5-53
Installing software	
.....	<i>See</i> KODAK Communications Software
.....	<i>See also</i> Systems software
Interconnect cable .....	3-3, 5-4, 8-1
International calls .....	4-18, 5-59
International Organization for Standardization .....	<i>See</i> ISO
International Press Telecommunications Council—American Newspaper Publishers Association .....	<i>See</i> IPTC-ANPA
IPTC-ANPA .....	2-2, 3-29 to 3-30, 5-52, 5-55 to 5-56
Caption .....	5-52
Data in image files .....	5-52
Entering data on DSU .....	4-1 to 4-10
File format .....	4-30, 4-37, 5-55 to 5-56
Transmitting data .....	4-2, 4-29 to 4-30
ISO	
Color and monochrome settings .....	2-1, 5-2, 5-37, 8-1
ISO key .....	3-9, 3-10, 5-36 to 5-37
Recommendation .....	3-10, 3-32
Setting the ISO .....	3-9, 3-10
Troubleshooting .....	5-76

## J

JPEG compression/decompression .....	4-38
--------------------------------------	------

## K

Keyboard .....	2-2, 3-29, 4-1, 4-3 to 4-6, 5-51
Cable .....	4-3
Connector/port .....	4-2, 4-3, 4-11, 5-40, 5-41
Port .....	5-51
Keypad .....	2-2, 5-11 to 5-39, 8-1
Keywords field .....	5-56
KIC .....	4-37
KODAK Camera Back .....	<i>See</i> Camera back
KODAK Camera Winder .....	<i>See</i> Camera winder
KODAK Communications folder .....	4-23
KODAK Communications Software ....	3-30, 4-2, 4-23 to 4-49, 5-61 to 5-62, 8-2
KODAK DCS Communications application.....	4-23
KODAK DCS Driver for use with Aldus PhotoStyler .....	7-15 to 7-48
Installation .....	7-17 to 7-21
KODAK Digital Storage Unit icon .....	6-18
KODAK Driver for Adobe Photoshop Software .....	6-17 to 6-48
Installation .....	6-17 to 6-18
KODAK Gray Cards .....	3-15, 5-20
Kodak Image Compression .....	<i>See</i> KIC
KODAK SV630 Interface Kit .....	1-2
KODAK Thermal Printer S6600 .....	1-2
KODAK XL7700 Digital Continuous Tone Printer .....	1-2
KODAK XL7700 Export Module .....	1-2
KODAK XLT7720 Digital Continuous Tone Printer .....	1-2

## L

LCD display .....	5-9 to 5-10, 8-1
LEDs, Telebit T2500 modem .....	4-16, 4-23
Lens .....	3-5, 3-31, 5-78
Lighting conditions .....	3-32, 3-33
.....	<i>See also</i> Artificial light
.....	<i>See also</i> Day (daylight balance)
.....	<i>See also</i> Fluorescent
.....	<i>See also</i> Tungsten
Line indicator ..	3-14 to 3-15, 4-7, 4-8, 4-9, 5-26, 5-34, 5-57, 6-3 to 6-4, 7-3 to 7-4
Liquid crystal display .....	<i>See</i> LCD display
Lithium battery .....	<i>See</i> Battery (DSU), Lithium
Loaded .....	3-17, 3-22, 5-65
Loading .....	3-17, 3-19, 3-23, 5-65

Local calls .....	4-18, 5-59
Low (Send compress) .....	4-19, 5-60
Low (Video Bright) .....	5-32
Low Batt .....	5-46, 5-65
LZW Compressed .....	7-28

## M

M3 .....	<i>See</i> CCD imager
Macintosh computer .....	6-1 to 6-48
Communications .....	4-11 to 4-32, 4-33 to 4-49
II .....	6-16, 8-2
IIfx .....	6-10
LC .....	6-16
Telecommunications .....	4-21 to 4-49
Macintosh Display Card 8•24 .....	4-12, 4-34
Make Picture	
Driver for Adobe Photoshop .....	6-39
Driver for Aldus PhotoStyler .....	7-39
Med (Send compress) .....	4-19, 5-60
MemError .....	5-65
Memory	
Macintosh Requirements .....	6-16
PC Requirements .....	7-15
Menu key .....	3-14 to 3-15, 3-29, 5-6, 5-25 to 5-35, 7-3
Menu screen .....	3-14 to 3-15
Message area .....	5-10
Messages	
KODAK Driver for Adobe Photoshop Software .....	6-40 to 6-47
KODAK Driver for Aldus PhotoStyler .....	7-40 to 7-47
KODAK DSU Text Display (LCD) .....	5-63 to 5-67
Microsoft Windows .....	<i>See</i> Systems Software, PC
Mode menu, Adobe Photoshop .....	3-33, 5-26-23
Modem .....	1-2
Cables .....	4-12, 4-14 to 4-15, 4-21 to 4-32, 4-34
Configuration .....	4-16, 4-40
Connector/port .....	5-40, 5-41
Key .....	4-16
Screen .....	4-16 to 4-20, 4-25, 5-57 to 5-62
Setup .....	4-18 to 4-19, 5-59 to 5-60
Tool .....	<i>See</i> Apple Modem Tool
.....	<i>See also</i> Telebit T2500

MonImage .....	3-15, 5-20, 5-65
Monitor	
DSU .....	2-2, 8-1
Macintosh .....	6-16
PC .....	7-16
MONO (Color Mode) .....	4-19 to 4-20, 5-61 to 5-62
Monochrome image .....	3-12 to 3-33
ISO recommended settings .....	3-10
Monochrome camera .....	5-2, 8-1
Motor drive .....	2-1, 3-16, 5-3, 5-4, 5-30
Move to file	
Driver for Adobe Photoshop .....	6-38
Driver for Aldus PhotoStyler .....	7-38 to 7-39
MR switch, Telebit T2500 modem .....	4-16, 4-23

## N

New, PhoneLink .....	4-41 to 4-44
Nikon F3 camera .....	2-1
Advice .....	3-31 to 3-33
Manual .....	3-1
Readying .....	3-5 to 3-6
Troubleshooting .....	5-74
Nikon Type B focusing screen .....	8-2
nn % Sent .....	4-27, 5-65
NoCamera .....	3-7, 5-65
Driver for Adobe Photoshop .....	6-2
Driver for Aldus PhotoStyler .....	7-2
NoDELETE .....	5-22, 5-66
Noise in the image .....	5-76
None (Balance)	
Driver for Adobe Photoshop .....	6-35
Driver for Aldus PhotoStyler .....	7-35
None (Select)	
Driver for Adobe Photoshop .....	6-36
Driver for Aldus PhotoStyler .....	7-37
Norm (Color mode) .....	4-19 to 4-20, 5-61 to 5-62
Norm (Modem setup) .....	4-18 to 4-19, 5-59 to 5-60
Normal exposure .....	3-12
NoTags .....	5-66
NTSC video interface .....	5-7 to 5-8, 5-41, 8-2

## O

Obj Name field .....	5-56
Off	
Disk Save .....	5-27
Exposure Indicator .....	5-31
Send compress .....	4-19, 5-60
Winder .....	5-30
OffLine .....	4-28, 5-66
On	
Disk Save .....	5-27
Exposure Indicator .....	5-31
On Line .....	4-26, 5-66
On/Off key .....	3-7, 3-28, 5-39
OnLine! .....	4-27, 5-66
Open (Image files) .....	4-30, 4-35
Open Default PhoneLink .....	4-24
Open Received Files .....	4-24, 4-48
Optional camera equipment .....	<i>See</i> Camera equipment, optional
Optional hardware .....	<i>See</i> Hardware, optional
Overexposure .....	3-12, 3-32, 5-6 to 5-7, 5-31 to 5-32

## P

Page Down key	
Driver for Adobe Photoshop .....	6-30
Driver for Aldus PhotoStyler .....	7-32
Page Up key	
Driver for Adobe Photoshop .....	6-30
Driver for Aldus PhotoStyler .....	7-32
Panasonic batteries .....	1-3, 5-46
Parallel interface .....	8-2
Pause .....	4-17, 5-58
PC .....	4-16, 4-23, 7-1 to 7-48
PEP LED, Telebit T2500 modem .....	4-16, 4-23
Philips batteries .....	1-3, 5-46
PhoneLink	
File .....	4-40 to 4-44
Menu .....	4-24, 4-30, 4-42 to 4-46
New .....	4-41
.....	<i>See also</i> Default PhoneLink
Photoshop .....	<i>See</i> Adobe Photoshop



PhotoStyler	<i>See</i> Aldus PhotoStyler
PICT (Photoshop saving caption) .....	4-36, 4-37
Pictures	
Making .....	3-11, 3-12
.....	<i>See also</i> Image
Pin header .....	<i>See</i> 20 pin header
Pixels .....	5-2, 6-22, 6-29, 7-31, 8-1
Dimensions .....	2-1, 5-2, 5-20, 8-1
Port, modem .....	4-14
Power interruption .....	5-47
Power switch, Nikon F3 .....	3-31
Power winder .....	<i>See</i> Motor drive
Press "Delete" .....	5-34 to 5-35
Preview	
Adobe Photoshop .....	6-22, 6-34 to 6-35
Aldus PhotoStyler .....	7-25, 7-35, 7-36
Printers .....	1-2
Process .....	4-27, 5-66
Product field .....	5-56
PS Prefs .....	6-18
Pulse (telephone line) .....	4-18, 5-59
Pushing the camera .....	3-33, 5-2

## Q

Quality of image .....	<i>See</i> Image, Quality
Queue files for transmission	
DSU .....	4-27
Quit	
Adobe Photoshop .....	6-26
Aldus PhotoStyler .....	7-28
KODAK Communications Software .....	4-30

## R

R (Balance, Click)	
Adobe Photoshop .....	6-34
Aldus PhotoStyler .....	7-35
RAM .....	<i>See</i> Memory
Read Me files	
Macintosh .....	6-18
PC .....	7-18 to 7-19
Ready! .....	3-7, 5-66

Receiving files .....	4-46 to 4-48
Recover .....	5-35, 5-66
Recovery .....	<i>See</i> Image, Recovery
Red .....	3-15, 5-20 to 5-21, 6-22, 7-25
Remote power adaptor .....	5-40, 5-42, 8-2
.....	<i>See also</i> AC adapter
Remote shutter release .....	5-40, 5-41
Required camera equipment .....	<i>See</i> Camera equipment, required
Required hardware .....	<i>See</i> Hardware, required
Required software .....	<i>See</i> Software, required
Requirements	
Macintosh .....	6-16
PC .....	7-15 to 7-16
Retry delay .....	4-18, 5-59
Retry times .....	4-18, 5-59
Return key .....	4-9, 5-53
RGB .....	4-37
RS-232 .....	8-2
RS-170 .....	5-8, 5-41, 8-2

## **S**

SAT1 (modem setup) .....	4-18 to 4-19, 5-59 to 5-60
SAT2 (modem setup) .....	4-18 to 4-19, 5-59 to 5-60
SAT3 (modem setup) .....	4-18 to 4-19, 5-59 to 5-60
Satellite 1 PhoneLink .....	4-19, 5-60
Satellite 2 PhoneLink .....	4-19, 5-60
Satellite 3 PhoneLink .....	4-19, 5-60
Satellite 1 PhoneLink 59 .....	4-19, 5-60
Satellite 2 PhoneLink 59 .....	4-19, 5-60
Satellite 3 PhoneLink 59 .....	4-19, 5-60
Satellite modem setups .....	4-19, 5-59 to 5-60
Save	
As (KODAK Communications Software) .....	4-30, 4-38 to 4-39
Driver for Adobe Photoshop .....	6-24
Format .....	6-29
Driver for Aldus PhotoStyler .....	7-26 to 7-28
Format .....	7-30 to 7-31
Format .....	4-38 to 4-39, 6-25 to 6-26
Saved .....	3-12, 4-8, 5-66
Saving .....	4-8, 5-67

Screen saver .....	4-12, 4-34
Scroll image window	
Driver for Adobe Photoshop .....	6-21, 6-30
Driver for Aldus PhotoStyler .....	7-25, 7-31 to 7-32
Scroll zoomed image display .....	<i>See</i> Zoom
SCSI	
DSU .....	6-2 to 6-4, 7-2 to 7-4
.....	<i>See also</i> Digital Storage Unit, SCSI ID
Macintosh Computer .....	6-5 to 6-15
25-pin to 25-pin cable .....	6-6 to 6-8
25-pin to 50-pin cable .....	6-11, 6-13 to 6-15
Connector (port) .....	5-40, 5-42, 6-5, 6-7, 6-15, 8-2
ID number .....	5-26, 5-32 to 5-33
Length limitation .....	6-9
Message .....	6-42 to 6-43
Termination .....	6-9 to 6-16
Terminator .....	6-10, 6-11
PC .....	7-5 to 7-14
25-pin to 50-pin cable .....	7-8 to 7-9, 7-11 to 7-14
Connector (SCSI2 port) .....	7-7
Host Adapter .....	7-5 to 7-7
Length limitation .....	7-10
Termination .....	7-10 to 7-14
Terminator .....	7-10 to 7-12
Select	
Driver for Adobe Photoshop .....	6-36
Driver for Aldus PhotoStyler .....	7-36
Send (DSU keyboard) .....	4-27
Send (KODAK Communications Software) .....	4-46
Send compress .....	4-19, 5-60
Send Files .....	4-44
Send key .....	4-27
SendFail .....	5-67
Sent .....	4-27, 5-67
Service field .....	5-56
Set>> .....	5-34
Shipping with a battery .....	5-46
Show	
Caption Text Window .....	4-36
IPTC-ANPA Window .....	4-30, 4-37

Shutter release button .....	2-1, 3-11, 3-16, 3-31, 5-78
Camera winder .....	2-1, 3-11, 5-3, 5-4
Nikon F3 camera .....	2-1, 3-11, 5-4, 5-78
Shutter speed .....	3-32
Single (Winder) .....	3-33, 5-30
Size .....	<i>See Image, Size</i>
Slow (Winder) .....	3-33, 5-30
Sodium vapor illuminants .....	3-33
Soft pack (carrying case) .....	2-2, 3-11
Software drivers .....	2-2, 3-13
.....	<i>See also Adobe Photoshop</i>
.....	<i>See also Aldus PhotoStyler</i>
Software, required .....	1-1 to 1-2, 6-16, 7-15
Source	
Driver for Adobe Photoshop .....	6-31
Driver for Aldus PhotoStyler .....	7-32, 7-37
Specifications .....	8-1 to 8-2
Spin-up time of disk .....	<i>See Digital Storage Unit, Hard disk, Spin-up</i>
Split Channels, Adobe Photoshop .....	3-33, 5-2, 6-23
Split RGB True Color .....	7-25
Spot meter .....	5-20
State field .....	5-56
Storm Technology .....	4-37
Sup Cat field .....	5-56
Systems software	
Macintosh .....	4-11, 4-33, 6-16
32-Bit QuickDraw .....	4-11, 4-33, 6-16
Installation .....	4-11
Requirements .....	6-16
PC	
Microsoft Windows .....	7-15, 7-22
MS-DOS .....	7-15

## T

T (Tagged image) .....	3-25, 5-10, 5-23, 5-43 to 5-44
T time exposure .....	3-32, 5-78 to 5-79
T/D switch, Telebit T2500 modem .....	4-16, 4-23
T2500 .....	<i>See Telebit T2500</i>
Tab key shortcut .....	7-25, 7-38
Tag indicator .....	5-10

- Tag key ..... 3-24 to 3-25, 5-23 to 5-24
- Tagged images (Filter)
  - Driver for Adobe Photoshop ..... 6-32, 6-36
  - Driver for Aldus PhotoStyler ..... 7-33, 7-36
- Tagging images ..... *See* Image, Tag
- Telebit T2500 ..... 1-2, 2-2, 3-29, 4-12, 4-13, 4-21, 4-22, 4-34
  - Problems ..... 4-19, 5-60
- Telecommunications ..... 2-2 to 2-3
  - DSU to Macintosh computer ..... 4-11 to 4-32
  - Macintosh to Macintosh ..... 4-33 to 4-49
  - Summary, DSU to Macintosh computer ..... 4-31 to 4-32
  - ..... *See also* KODAK Communications Software
- Telephone line ..... 4-12
- Telephone number (communications) ..... 4-17, 4-25, 5-57, 5-58
- Temperature, battery ..... 5-45 to 5-46
- Terminal Settings ..... 4-43
- Termination, SCSI, DSU ..... *See* Digital Storage Unit, Termination
- Test pattern ..... 3-8, 4-5, 4-27, 5-5, 5-38
- Text display ..... 2-2, 3-7, 3-12, 5-9 to 5-10, 5-46, 5-63, 8-1
- Thumbnail
  - Driver for Adobe Photoshop ..... 6-21
  - Driver for Aldus PhotoStyler ..... 7-24, 7-30, 7-31
  - DSU ..... 3-18, 5-5, 5-13, 5-15, 5-17
- TIFF
  - Driver for Adobe Photoshop ..... 6-25 to 6-26
  - Driver for Aldus PhotoStyler ..... 7-27 to 7-28
  - KODAK Communications Software ..... 4-37
- Time, DSU ..... 5-33
- Title field ..... 5-56
- Tone (telephone line) ..... 4-18, 5-59
- Transmitting files ..... 4-44 to 4-46
- Tripod mount ..... 8-1
- Troubleshooting
  - Camera and DSU ..... 3-28, 5-68 to 5-76
  - Driver for Adobe Photoshop ..... 6-48
  - Driver for Aldus PhotoStyler ..... 7-48
- TTL flash ..... 3-32
- TTY Tool ..... 4-24
- Tung (Balance) ..... 3-14, 3-15, 5-28 to 5-29, 6-32 to 6-33, 7-33, 7-34
- Tungsten ..... 3-32, 3-33

Tungsten (continued)	
Driver for Adobe Photoshop .....	6-32 to 6-33
Driver for Aldus PhotoStyler .....	7-33, 7-34
DSU .....	3-14
.....	<i>See also Tung (Balance)</i>
Turn off DSU .....	<i>See Digital Storage Unit, Turn off</i>
Type B focusing screen .....	8-2
Type-over mode .....	4-6

## U

Unattended Mode .....	4-24, 4-48
Underexposure .....	3-12, 3-33, 5-6 to 5-7, 5-31 to 5-32

## V

Version .....	5-35
VGA display .....	7-16
Video Bright .....	5-6, 5-32, 5-71
Video display card .....	6-16
Video display (external) .....	1-2, 5-7 to 5-8, 5-19, 5-41
Video key .....	3-8, 5-38
Video output .....	5-8, 5-40, 5-41
Viewfinder .....	3-11
Virus	
Driver for Adobe Photoshop .....	6-17
Driver for Aldus PhotoStyler .....	7-18

## W

W (wait in telephone number) .....	4-17, 5-58
W4 jumper (SCSI Host Adapter) .....	7-6 to 7-7
Wait! .....	5-67
White (Balance)	
Driver for Adobe Photoshop .....	6-33
Driver for Aldus PhotoStyler .....	7-33, 7-34
DSU (Balance) .....	3-14, 3-15, 4-47, 5-28 to 5-29
White Bal key .....	3-13, 3-15, 5-20 to 5-21
White card .....	3-15, 5-20
WhiteBal .....	3-15, 5-20, 5-67
Win (Microsoft Windows) .....	7-17
Win/s (Microsoft Windows) .....	7-17
Winder .....	<i>See Camera winder</i>

Winder (Menu key) .....5-30  
 Windows .....*See* Systems software, PC  
 Winchester disk .....*See* Digital Storage Unit, Hard disk  
 Wrist strap .....*See* ESD wrist strap

## **X**

X pixel location

Driver for Adobe Photoshop .....6-22, 6-35  
 Driver for Aldus PhotoStyler .....7-25, 7-36

## **Y**

Y pixel location

Driver for Adobe Photoshop .....6-22, 6-35  
 Driver for Aldus PhotoStyler .....7-25, 7-36

## **Z**

Zoom .....3-26 to 3-27, 4-26, 5-6, 5-18, 5-67  
 Zoom key .....3-26 to 3-27, 5-6, 5-18 to 5-19, 5-34  
 Zooming image display (DSU) .....3-26 to 3-27





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