

# *QuickScan 35* **Plus**

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High Resolution & Fine Gradation



Thank you for purchasing the Minolta QuickScan 35 Plus for Windows. The QuickScan 35 Plus QS-2800 makes it possible for you to scan color and black & white, negative and positive 35mm films using your personal computer.

The main features of the QuickScan 35 Plus are:

- High-speed scanning with 3-line sensors and a high-brightness fluorescent lamp
- 10 bit A/D converter
- High resolution scans up to 2820 dpi
- Easy to use, versatile software
  - TWAIN driver
  - QS utility

The Minolta QuickScan 35 Plus is packaged with TWAIN driver software and stand-alone Utility software. Before using the QuickScan 35 Plus, we recommend you have a working knowledge of the PC and its operating conventions. Familiarity with the mouse and standard PC menus and commands is necessary before operating the QuickScan 35 Plus.

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Changes or modifications not approved by the party responsible for compliance could void the user's authority to operate the equipment.

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

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the Interference-causing equipment standard entitled "Digital Apparatus," ICES-003 of the Department of Communications.

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# FOR PROPER AND SAFE USE

Various symbols are used throughout this instruction manual and on the product itself for your proper and safe use of this product, and to prevent personal injury, injury to others, or property damage. An explanation of the symbols follows. Please read and understand each caution thoroughly before reading this main text of this instruction manual.

## Examples



The outer triangle is for warning, and the symbol inside illustrates what is being warned. The example at left means beware of electric shock.














The circle with a diagonal slash is for prohibition ("don't do"), and the symbol inside illustrates what act is prohibited. The example at left means do not disassemble.





The blue circle indicates something you must do, and the symbol inside illustrates how it should be done. The example at left means you must hold the plug when removing it from the outlet.












## **WARNING**

  	<p><b>RISK OF FIRE OR ELECTRIC SHOCK</b> Do not use voltage other than what is indicated.</p>	
	<p><b>RISK OF FIRE OR ELECTRIC SHOCK</b> Do not place a container of water or other liquid on the product. If water or other liquid gets inside the product, it may cause a short resulting in fire or electric shock. Immediately unplug the unit, discontinue use, and contact a Minolta Service Facility.</p>	 
	<p><b>RISK OF FIRE OR ELECTRIC SHOCK</b> Do not insert small metal objects into the product. This may cause a short resulting in fire or electric shock. Immediately unplug the unit, discontinue use, and contact a Minolta Service facility.</p>	 
	<p><b>RISK OF FIRE OR ELECTRIC SHOCK</b> Do not misuse the power cord. Damage to the cord may result in fire or electric shock. Do not perform any of the following acts to the cord:</p> <ul style="list-style-type: none"> <li>• Scratch</li> <li>• Twist</li> <li>• Place a heavy object on</li> <li>• Heat</li> <li>• Pull</li> <li>• Modify</li> <li>• Bend</li> </ul>	
	<p><b>RISK OF FIRE OR ELECTRIC SHOCK</b> Do not use the product if there is smoke, a strange smell, or under any other unusual conditions. Use under these conditions may result in fire or electric shock. Immediately unplug, discontinue use, and contact a Minolta Service facility.</p>	 
	<p><b>RISK OF FIRE</b> Do not place the product in dusty or very humid area.</p>	

## **WARNING**

	<p><b>RISK OF FIRE</b></p> <p>This product must have sufficient ventilation while in use. If the ventilation ducts are blocked, the temperature of the interior may become hot to the extent that fire will occur. Do not perform the following:</p> <ul style="list-style-type: none"> <li>• Place the product on its side or upside down.</li> <li>• Place the product in a closet, on a shelf, or any area without sufficient ventilation.</li> <li>• Place the product on a carpet or mattress.</li> <li>• Cover the product.</li> </ul>	
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## **CAUTION**

	<p><b>RISK OF FIRE OR ELECTRIC SHOCK</b></p> <p>Grasp the plug when removing the power cord from an outlet. Pulling the cord may damage it resulting in fire or electric shock.</p>	
	<p><b>RISK OF FIRE OR ELECTRIC SHOCK</b></p> <p>Do not connect the ground to the following:</p> <ul style="list-style-type: none"> <li>• Gas pipe</li> <li>• Telephone ground</li> <li>• Water pipe</li> </ul>	
	<p><b>RISK OF ELECTRIC SHOCK</b></p> <p>Do not touch the power cord with wet hands.</p>	
	<p><b>RISK OF ELECTRIC SHOCK</b></p> <p>Do not attempt to disassemble this product. It contains high-voltage circuits. For repairs, contact a Minolta Service facility.</p>	
	<p><b>RISK OF ELECTRIC SHOCK</b></p> <p>Connect the ground before use. If the ground is not connected, an electricity leak may result in electric shock.</p>	
	<p><b>RISK OF INJURY</b></p> <p>Do not place of the product on an unstable surface.</p>	
	<p><b>RISK OF INJURY</b></p> <p>Do not sit on, stand on, or push against this product. Also, use caution when using near children.</p>	

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# BEFORE YOU BEGIN

## Package Contents

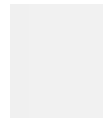
The following contents should be included in this package.

- QuickScan 35 Plus
- SCSI cable SC-6 (High density half 50 pin-full 50 pin)
- Power cord
- 35mm film holder
- SCSI terminator ST-2
- QuickScan 35 Control for Windows
- Instruction Manual
- Warranty card

## System Requirements

To use the QuickScan 35 Plus with your PC, you will need the following:

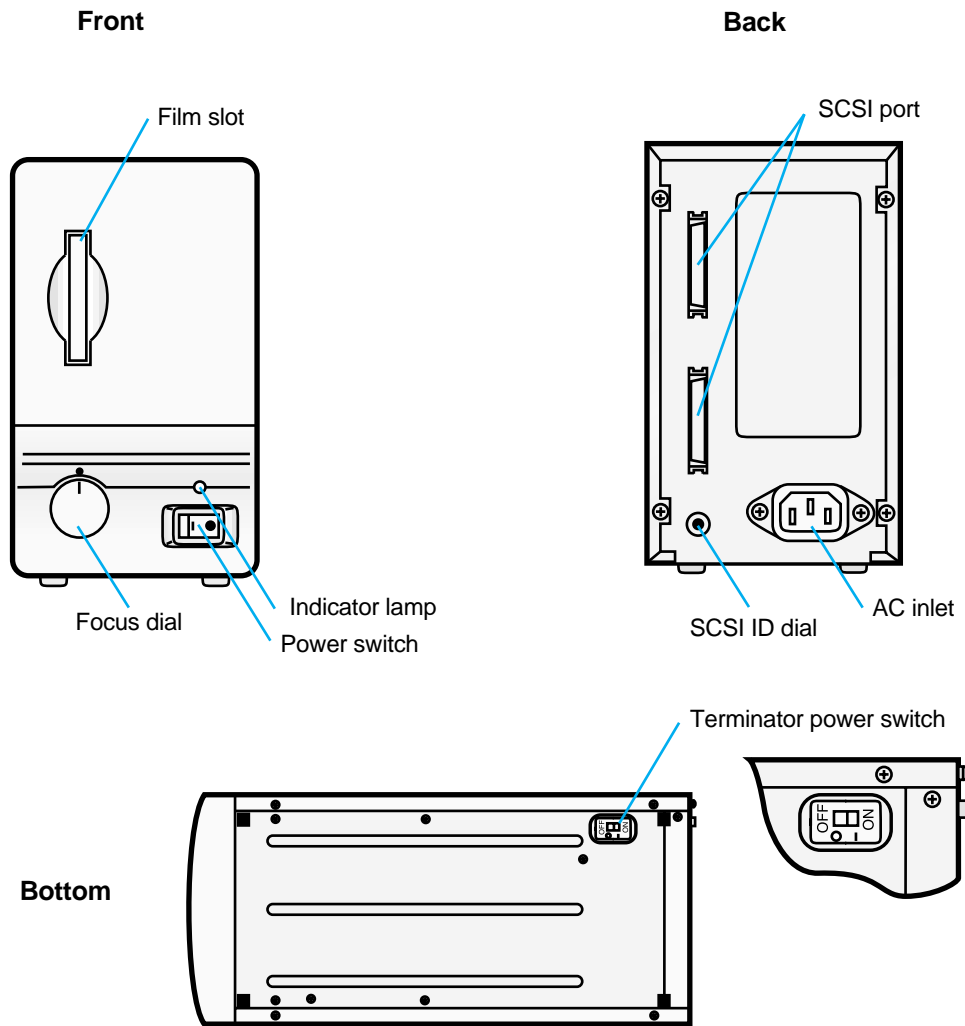
- A PC with a 486 CPU or better.
  - Microsoft Windows version 3.1 or newer.
  - A minimum of 8 MB of RAM is required.
  - A minimum of 60 MB of available hard disk space.
  - A SCSI board and ASPI driver for Windows.
    - For example, WINASPI.DLL and ASPI driver.
    - The following SCSI boards are recommended:
      - AHA-1522 series      AHA-1542 series
      - AHA-1520 series      AHA-2940 series
- (Windows 95 automatically installs an ASPI driver in PCs with SCSI boards).
- A video board and color monitor capable of displaying a minimum of 256 colors (65,000 is recommended).



# HARDWARE

# NAMES OF PARTS

## Scanner



## SETTING THE SCSI ID NUMBER

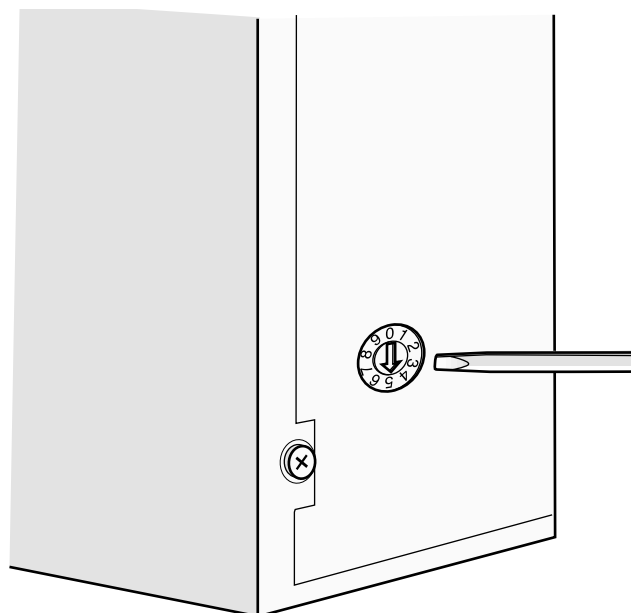
The QuickScan 35 Plus communicates with your PC through a SCSI (pronounced "Scuzzy") connection. As with all SCSI devices, you will need to set a unique SCSI ID for the QuickScan 35 Plus. The SCSI ID range of your PC is from 0 to 7. SCSI ID 7 is usually reserved for the SCSI board. The QuickScan's SCSI ID is set to 5 when the unit is shipped. If no other device connected to your computer is using this ID, there is no need to change the SCSI ID number.

- If SCSI IDs 8 or 9 are selected, they will be recognized as SCSI ID 6.

### Setting the SCSI ID

**Before starting, turn the computer and all connected devices OFF.**

1. Turn off the PC, the QuickScan 35, and all other connected SCSI devices.
2. Using a small screwdriver, select an unused SCSI ID number.
  - Two SCSI devices can not use the same SCSI ID at the same time.



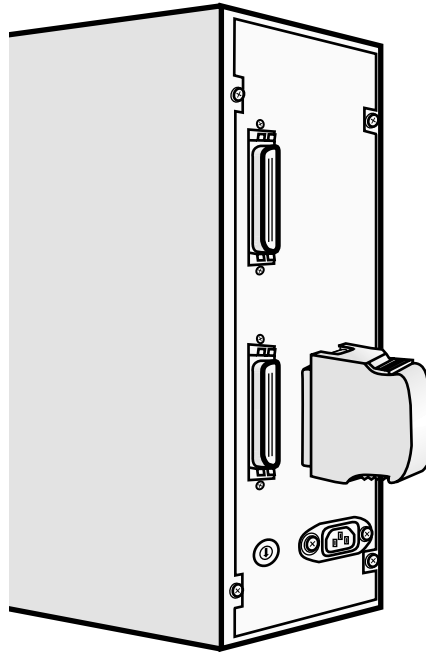
## CONNECTING THE SCANNER

**Before starting, turn the computer and all connected devices OFF.**

If the QuickScan 35 Plus is the only or last item in the SCSI chain

### Terminator

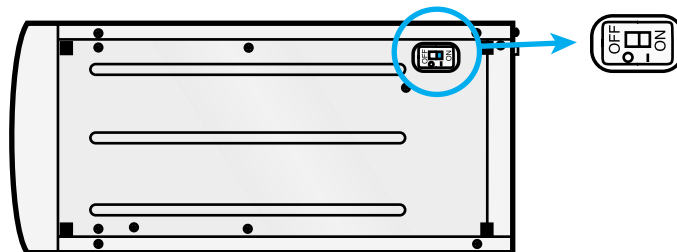
If the QuickScan 35 Plus will be the last or only device in your SCSI chain, plug the supplied terminator into an open SCSI port on the back of the QuickScan 35 Plus. Either SCSI port can be used, there is no dedicated IN or OUT port.



### If Your PC Does Not Supply Power to the Terminator

If your PC does not supply power to the SCSI terminator, set the QuickScan's terminator power switch to ON.

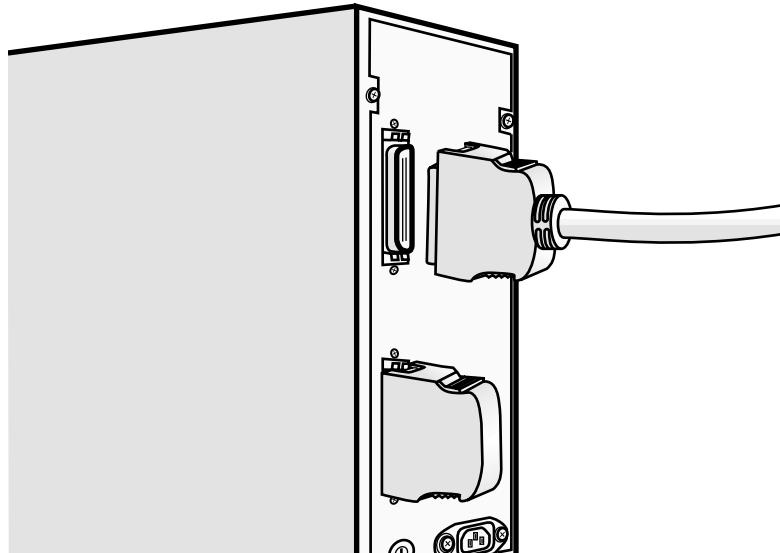
- Refer to your computer manual to determine if your PC supplies power to the terminator.



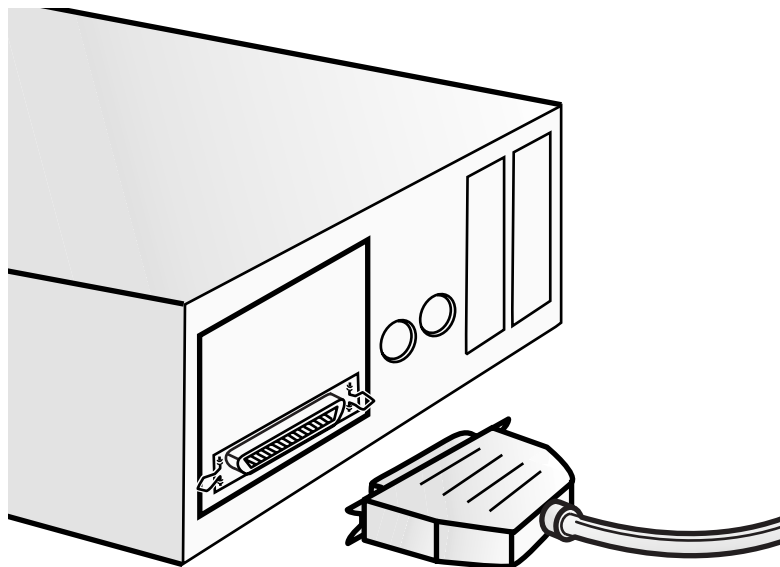
## Connecting the SCSI Cable

Your QuickScan 35 Plus scanner comes equipped with the SC-6 SCSI cable. If you require a different connector to link the QuickScan 35 Plus to your SCSI chain, see your dealer for the appropriate SCSI connector.

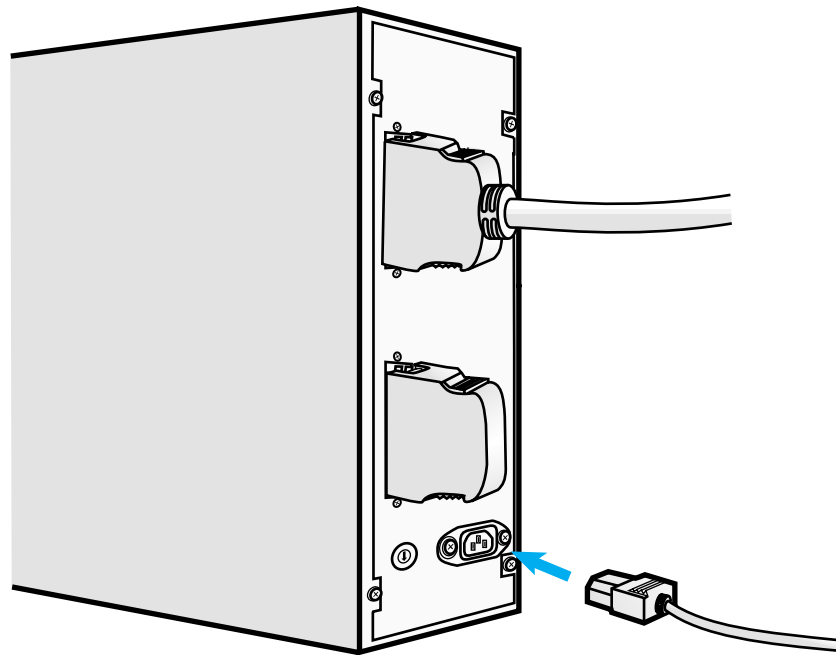
1. Plug the 50 pin half pitch end of the SC-6 SCSI cable into the open SCSI port on the rear panel of your QuickScan 35 Plus.
  - Either SCSI port can be used, there is no dedicated IN or OUT port.



2. Plug the other end of the SC-6 SCSI cable into the SCSI port on the rear of the PC.



3. Plug the power cord into the scanner's AC socket, then plug it into a grounded outlet.

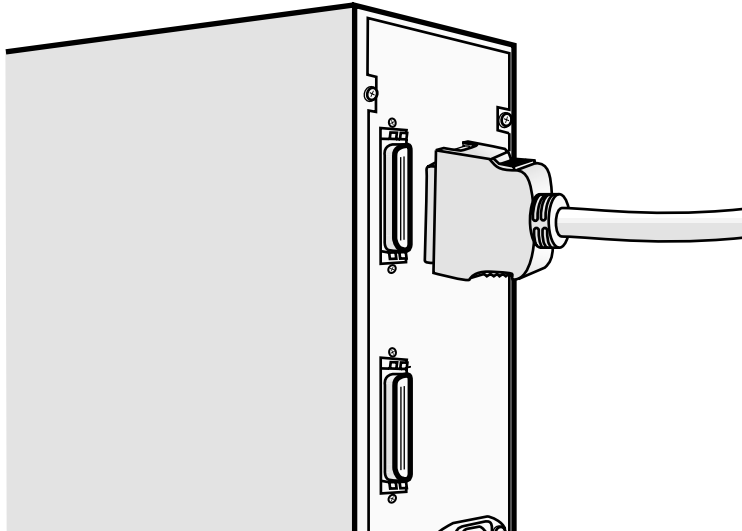


## If the QuickScan 35 Plus is in the middle of the SCSI chain

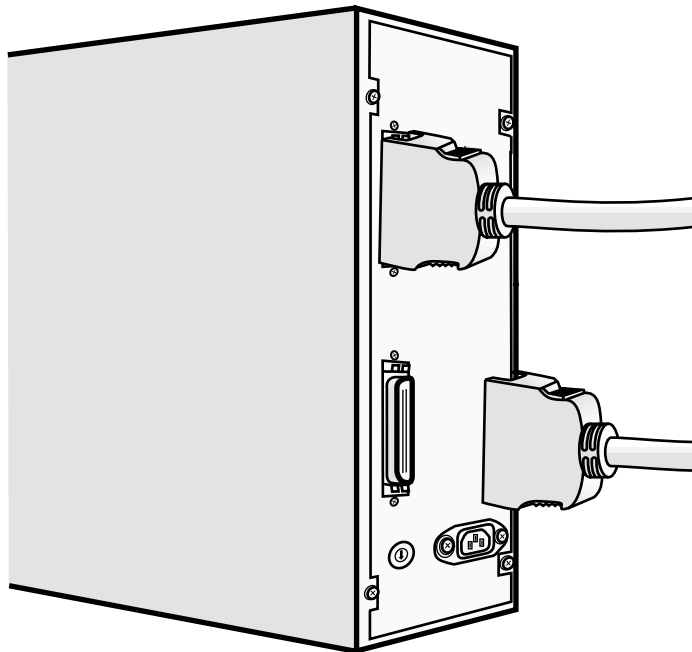
You may require a different connector to link the QuickScan 35 Plus to your SCSI chain, see your dealer for the appropriate SCSI connectors.

Before starting, turn the computer and all connected devices OFF.

1. Plug the 50 pin half pitch end of the SCSI cable into the open SCSI port on the rear panel of your QuickScan 35 Plus, then plug the other end of the SCSI cable into the SCSI port on the rear of the PC, or the next device in the SCSI chain.
  - Either SCSI port can be used, there is no dedicated IN or OUT port.

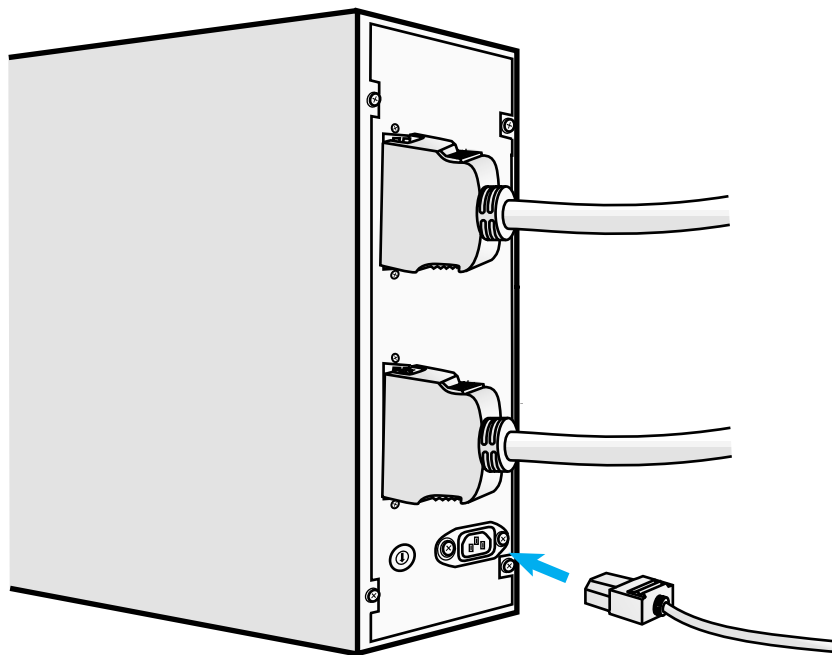


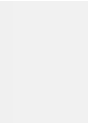
2. Plug the SCSI cable from the next device in your SCSI chain into the open port on the back of the QuickScan 35 Plus.





3. Plug the power cord into the scanner's AC socket, then plug it into a grounded outlet.





# SOFTWARE

# SOFTWARE FOR THE QUICKSCAN 35 PLUS

Before opening the envelope containing the QuickScan 35 Plus software, read the End User License Agreement on page 4.

Two pieces of software are included on the QuickScan disks:

## **TWAIN driver software**

The TWAIN driver software lets you acquire images scanned by the QuickScan 35 Plus directly into your imaging application software.

The TWAIN driver software is on the disk marked TWAIN Driver for Windows.



## **QS Utility**

Use the QS Utility software to operate the QuickScan 35 Plus if you do not have Adobe Photoshop or you have many images you want to scan at a specific file size.

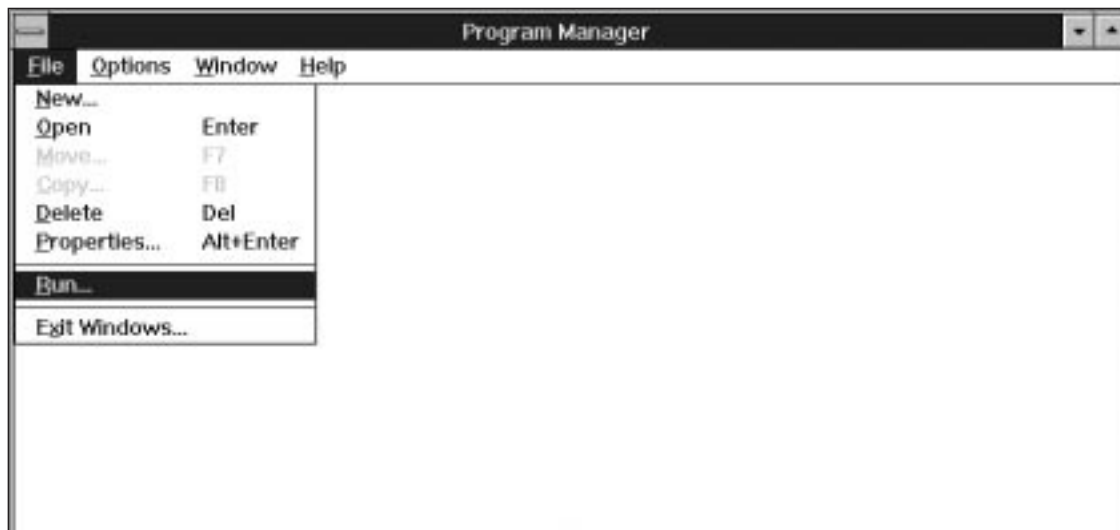
The QS Utility is on the floppy labeled QS 35 Utility for Windows.

Please refer to the system requirements listed on page 9.

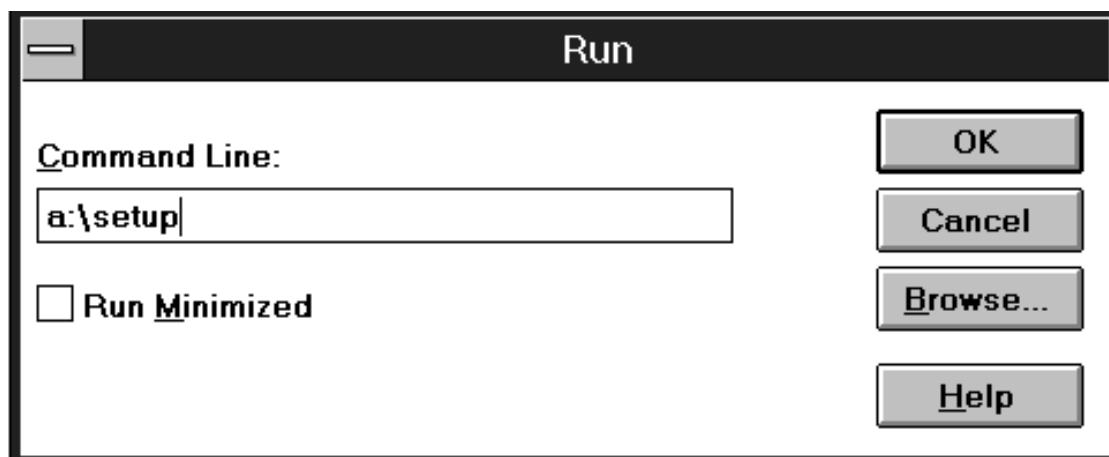
# INSTALLING THE SOFTWARE

## Installing the Software with Windows 3.1

1. Startup the PC and open the Program manager.
2. Insert the floppy marked QS35 Control for Windows into the PC.
3. Select **R**un... from the **F**ile menu.



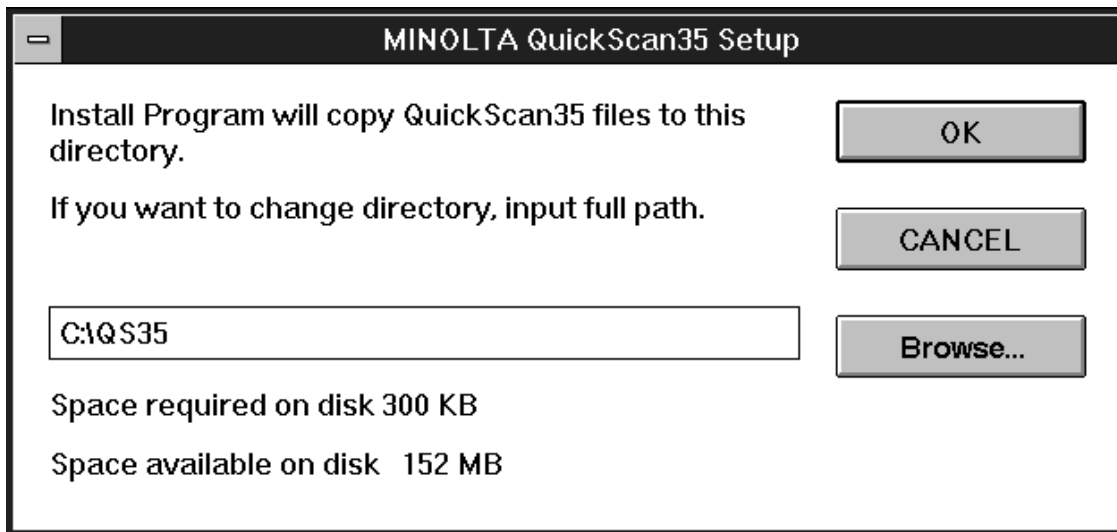
4. Type A:\SETUP and click on **OK**.
  - If your 3.5" disk drive is drive B, type B:\SETUP.



- The dialog box "Setup Initializing" will appear.
- The Install Directory dialog box will appear next.

5. Enter the install directory and click on **OK**.

- The default install directory is C:\QS35. If you want to change the directory, click on **Browse....**



6. When the install is complete, the "Install Successful" dialog box will appear. Click on **OK**.

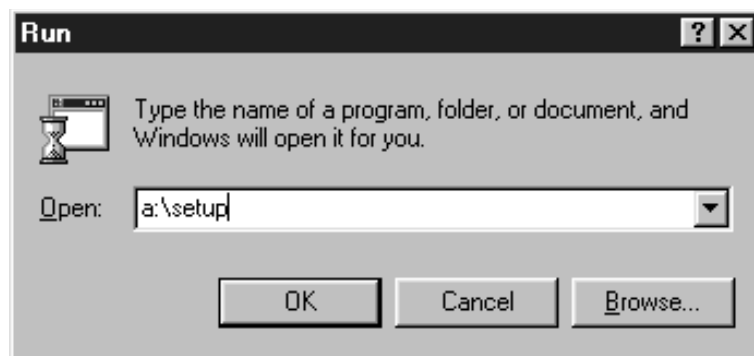


## Installing the Software with Windows '95

1. Startup the PC and open the Program manager.
2. Insert the floppy marked QS35 Control for Windows into the PC.
3. Select **Run...** from the **Start** button pulldown menu.



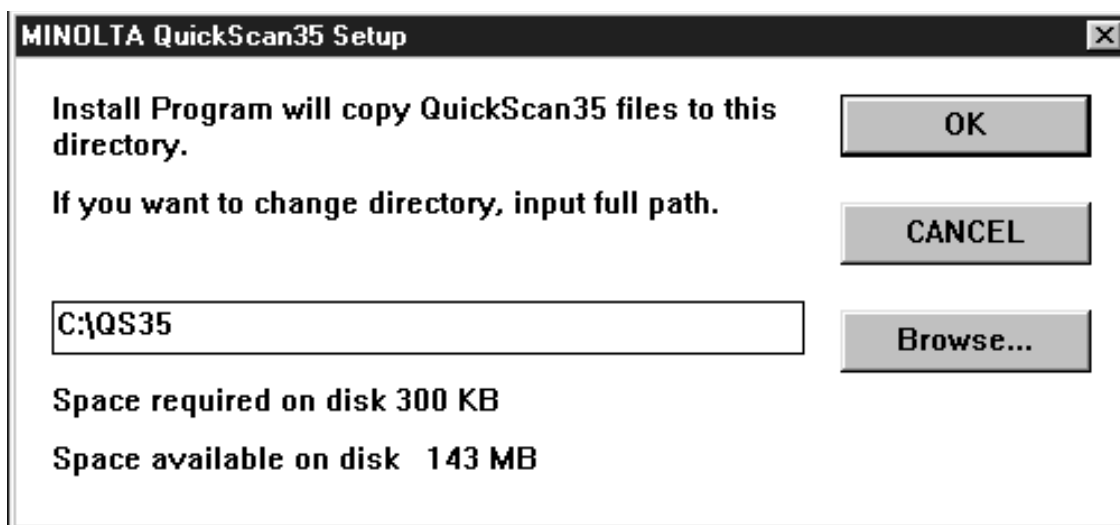
4. Type A:\SETUP and click on **OK**.
  - If your 3.5" disk drive is drive B, type B:\SETUP



- The dialog box "Setup Initializing" will appear.
- The Install Directory dialog box will appear next.

5. Enter the install directory and click on **OK**.

- The default install directory is C:\QS35. If you want to change the directory, click on **Browse...**



6. When the install is complete, the "Install Successful" dialog box will appear. Click on **OK**.

# CONTROL PANEL & DIALOG BOXES

## Control Panel

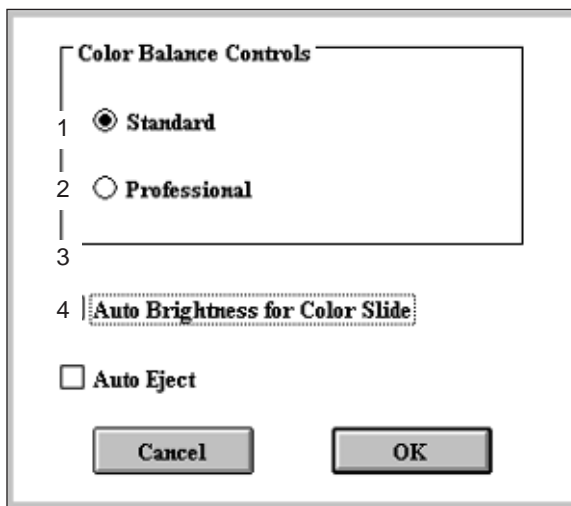


1. Preference button
2. Eject button
3. Save button
4. Load button
5. Film Type pop-up menu
6. Rotate button
7. Flip button
8. Color correction button
9. Focus button
10. Scan mode pop-up menu
11. Scan pitch pop-up menu
12. Pixel box
13. Reset button
14. PreScan button
15. Cancel button
16. Scan button
17. Disc space indicator
18. File size indicator
19. Zoom preview button
20. Image size indicator
21. Color information indicator



## Preference Dialog Box

Click on the preference button to display the preference dialog box. Here, you can select the desired color correction mode and turn the Auto Brightness and Auto Eject functions on and off.



### 1. Standard Mode check box

In standard mode, the color balance, black level, and brightness are adjusted with slider bars.

### 2. Professional Mode check box

In professional mode, the curves dialogue box and histogram dialogue box give you precise image correction capability.

### 3. Auto Brightness check box

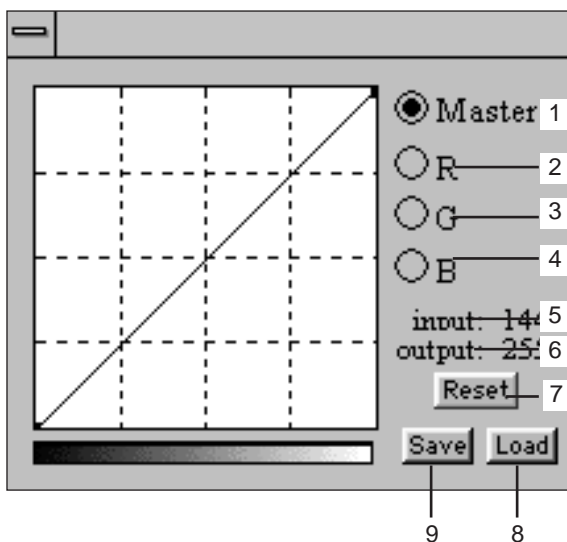
Auto Brightness automatically compensates for the density range of positive film. When scanning underexposed color slides, select Auto Brightness to obtain image data with suitable brightness values. Auto Brightness is only effective when Color Pos. has been selected in the Film Type pop-up window.

### 4. Auto Eject check box

When selected, the film is automatically ejected after the scanning operation is finished.

## Curves Dialog Box

With the curves dialog box, you can control the brightness and color of the scanned image. Changes to all curves are automatically applied to the image in the scanning window.



### 1. Master Tone Curve check box

### 2. R Tone Curve check box

### 3. G Tone Curve check box

### 4. B Tone Curve check box

### 5. Input level display

Displays the input level for the selected point on the tone curve.

### 6. Output level display

Displays the output level for the selected point on the tone curve.

### 7. Reset button

Click on the reset button to return to the curves to their original settings.

### 8. Load button

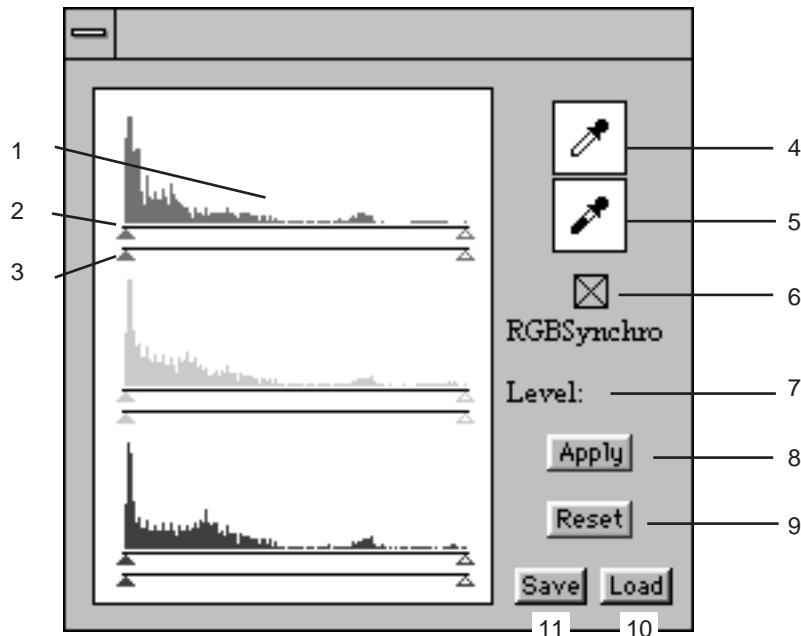
Click on the load button to load previously saved settings.

### 9. Save button

Click on the save button to save the settings currently displayed in the curves dialog box.

## Histogram Dialog Box

The histogram dialog box graphically displays the RGB levels of the image area inside the cropping frame. From here, you can control the minimum and maximum input and output levels for each color channel.



### 1. Output Histogram

The output histograms display the frequency of occurrence of each color level (0-255) for the image in the cropping frame.

### 2. Input level

The input level slider triangles set the input white and black points for the selected histogram (changes will affect all input level histograms if RGBSynchro is selected).

### 3. Output level

The output level slider triangles, set the output white and black points for the selected histogram (changes will affect all input level histograms if RGBSynchro is selected).

### 4. White Eyedropper

Use to set the brightest value for one or all three output level histograms.

### 5. Black Eyedropper

Use to set the darkest value for one or all three output level histograms.

### 6. RGBSynchro check box

When checked, changes will be reflected in all three output level histograms.

### 7. Level indicator

Displays the level for the cursers current position on the input and output scales.

### 8. Apply button

Applies changes to the histogram.

### 9. Reset button

Click on the reset button to return the levels to their original settings.

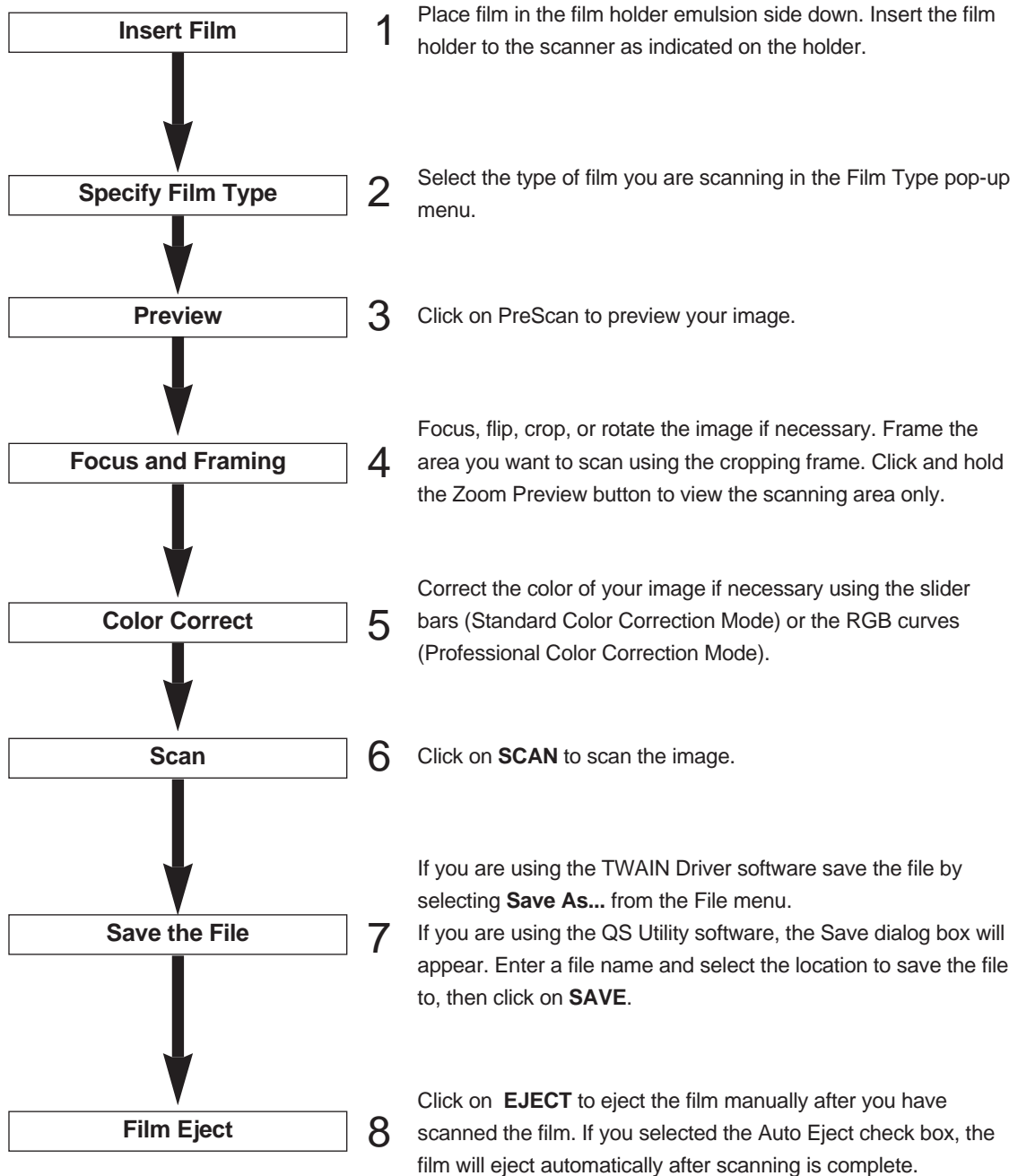
### 10. Load button

Click on the load button to load previously saved settings.

### 11. Save button

Click on the save button to save the settings currently displayed in the histogram palette window.

# SCAN FLOW CHART

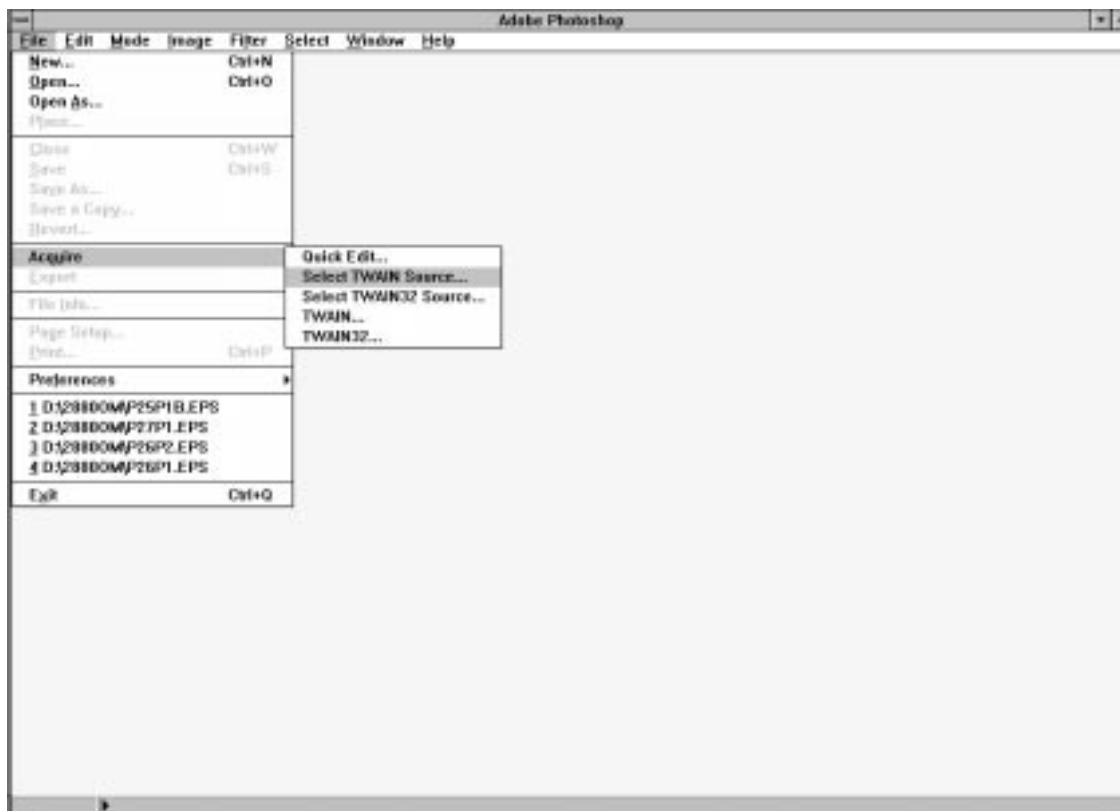


# LAUNCHING THE SOFTWARE

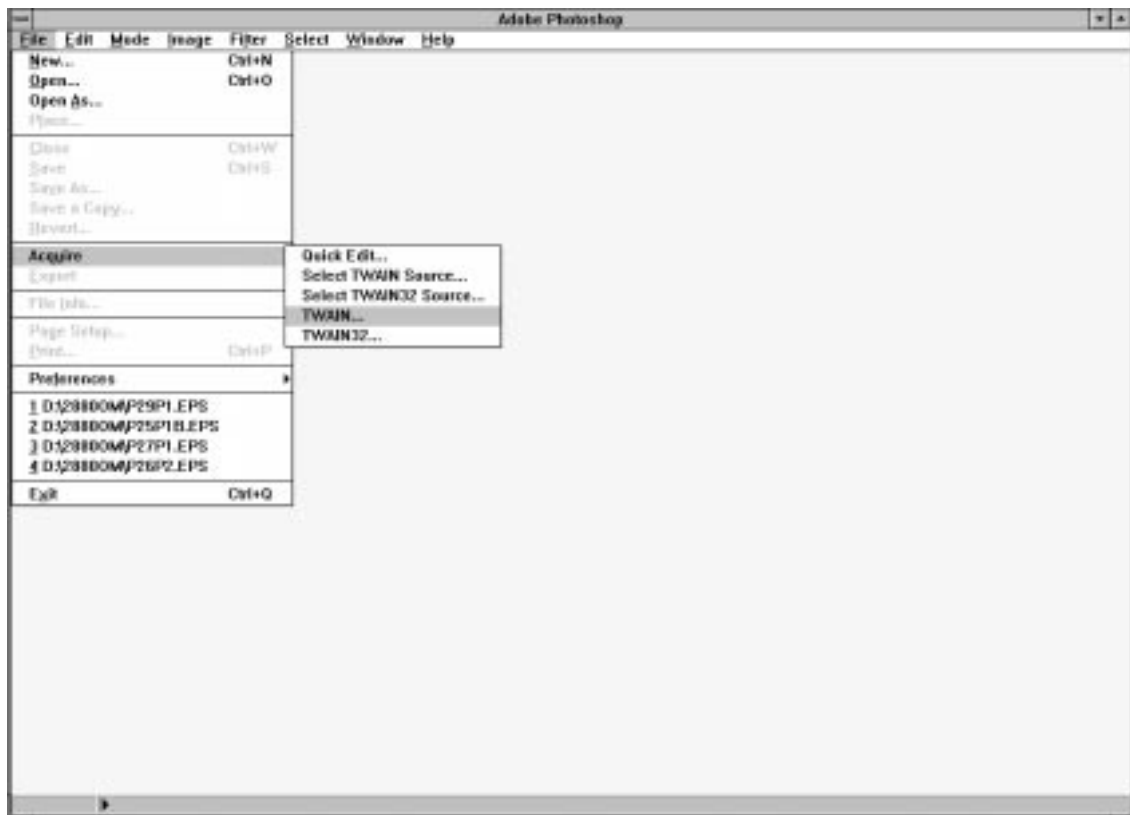
## TWAIN Driver

• This manual has been written using Adobe Photoshop 3.0 as the example imaging application. However, any imaging application capable of using TWAIN sources can be used with the QuickScan 35.

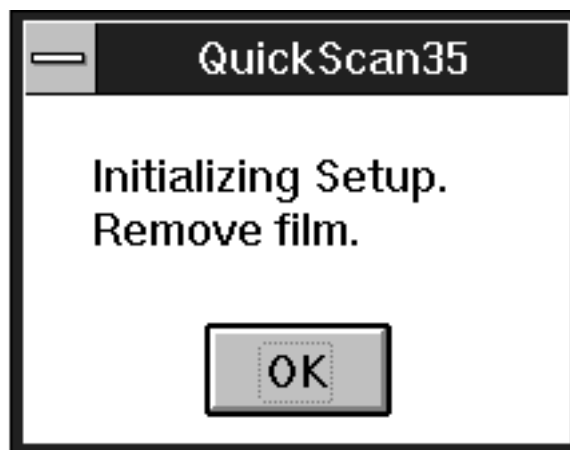
1. Turn on the QuickScan 35 Plus, then turn on your PC.
2. Launch the photo application software.
3. Choose **Acquire** from the **File** menu and choose **Select TWAIN Source...**



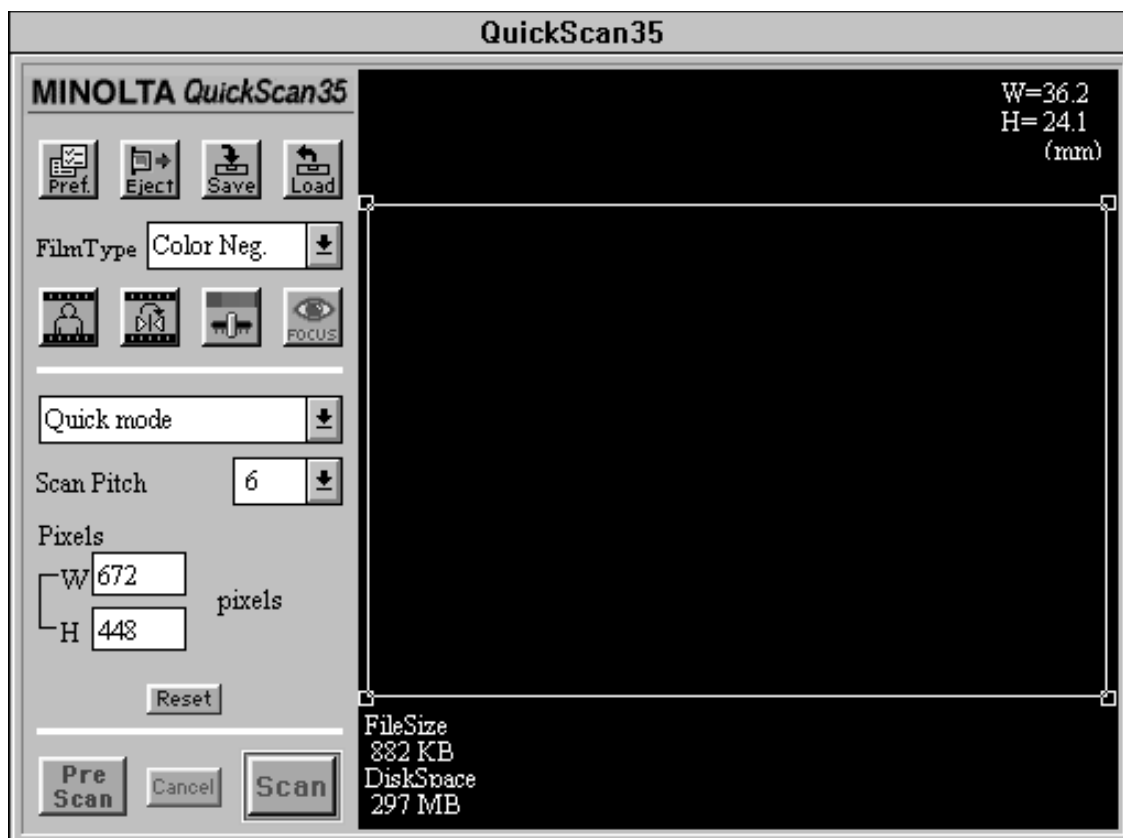
4. From the **Sources** menu, select **QuickScan 35**.
5. Select **TWAIN...** from **Acquire** in the **File** menu.



6. The following dialog box will appear. Click on **OK**.

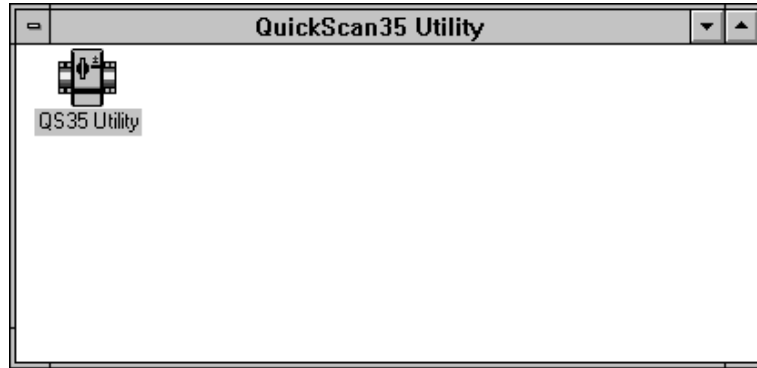


The QuickScan 35 Plus dialog box and preview window appear after setup.



## QS Utility

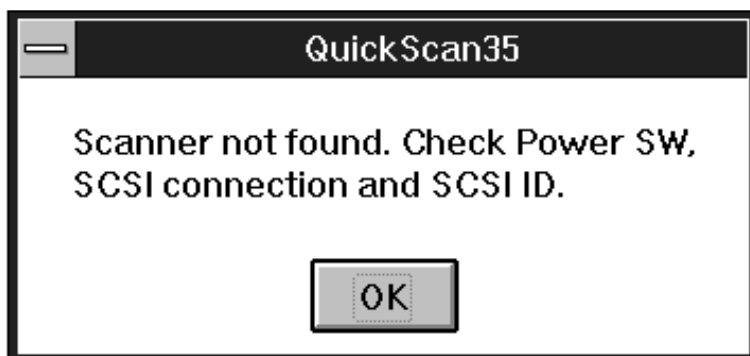
1. Turn on the QuickScan 35 Plus, then turn on your PC.
2. Double-click on the QS Utility icon.



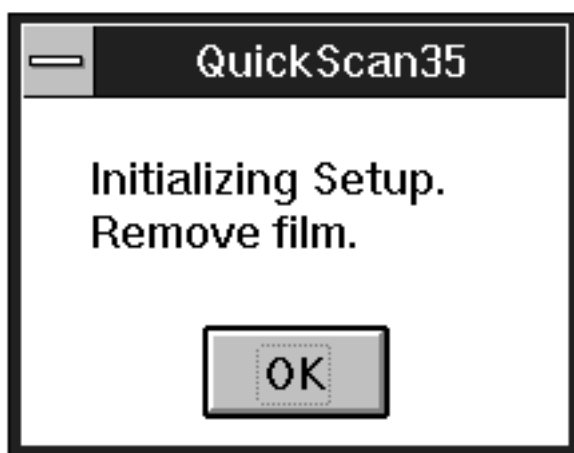
3. The software will launch automatically.

## Interface can not be Confirmed

If the computer cannot confirm interface because the QuickScan 35 Plus power is off or there is a problem with the SCSI connection or the SCSI ID number, the following dialog box will appear. Correct the problem and click on OK.



If the scanner detects that film is loaded, the following dialog box will appear. Click on **OK** and remove the film.



If you switch to the utility software after using the TWAIN driver or vice versa, you will have to reinitialize the scanner.

### **Reinitializing the TWAIN Control Software**

Press control, shift, and I keys to reinitialize the scanner.

### **Reinitializing the QS35 Utility Software**

Select **Initialize** from the File menu to reinitialize the scanner.



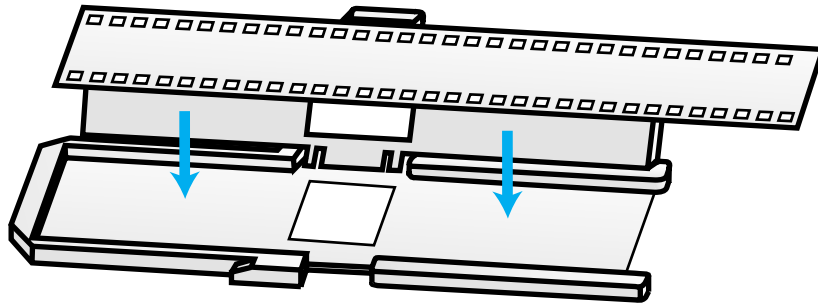
## LOADING THE FILM

The QuickScan 35 Plus can scan 35mm color and black & white, positive and negative film. Mounted film and film strips can be scanned.

### Loading Film Strips

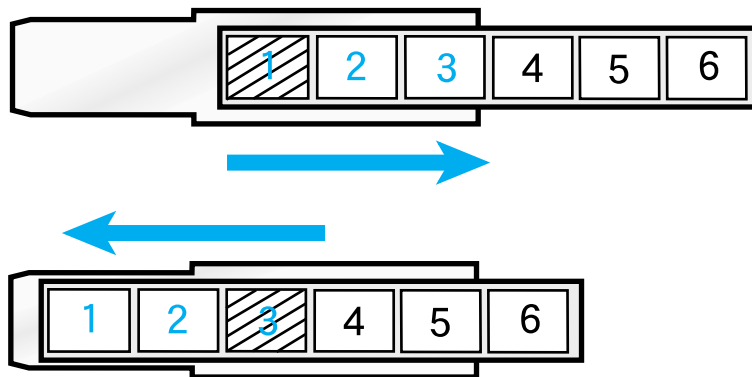
Film strips must be placed in the film holder before insertion into the scanner. The film holder will only accept film strips up to 6 frames long.

1. Open the film holder.
2. Place the film on the film holder with the emulsion side down.
3. Align the frame you want to scan within the scanning window.
4. Snap the film holder closed.

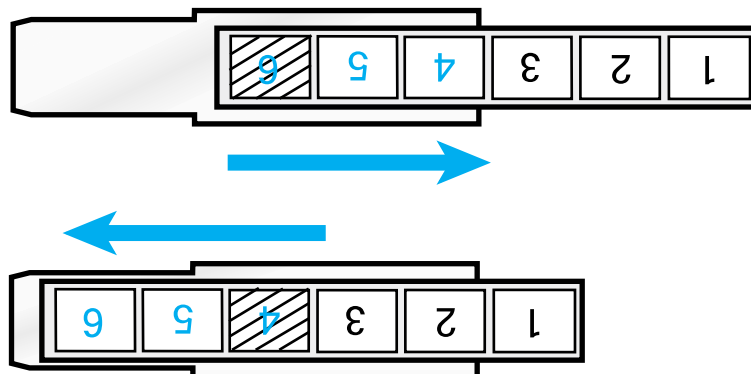


Clean the film before placing it in the film holder.

When scanning frames 1 through 3, place the filmstrip into the film holder with the image right side up.

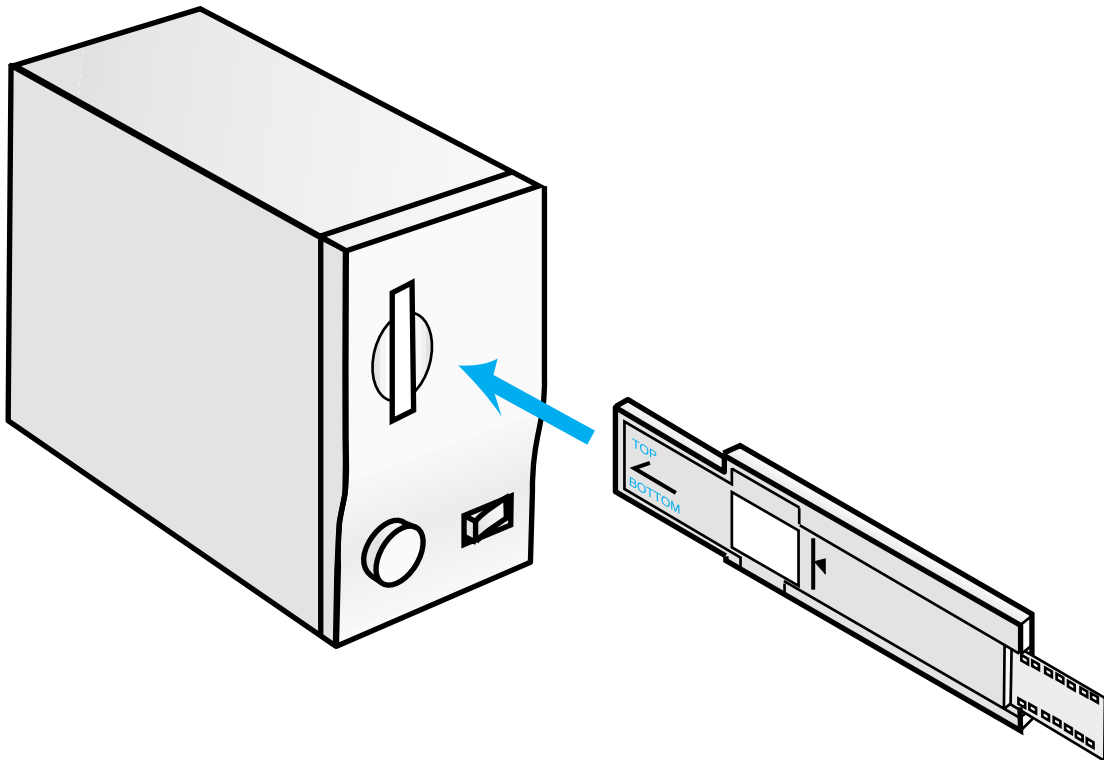


When scanning frames 4 through 6, place the filmstrip into the film holder with the image upside down. The preview image will be upside down; click on the Rotate button to correct the image.



## Inserting the Film Holder into the Scanner

Insert the film holder into the scanner film slot with the white lettering facing left. Slide the film holder in until resistance is met. The white line on the film holder should be aligned with the front of the film slot.

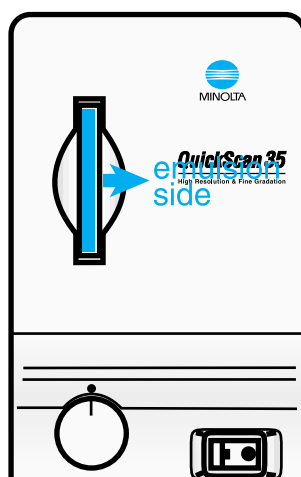


Be careful not to scratch the film not protected by the film holder.

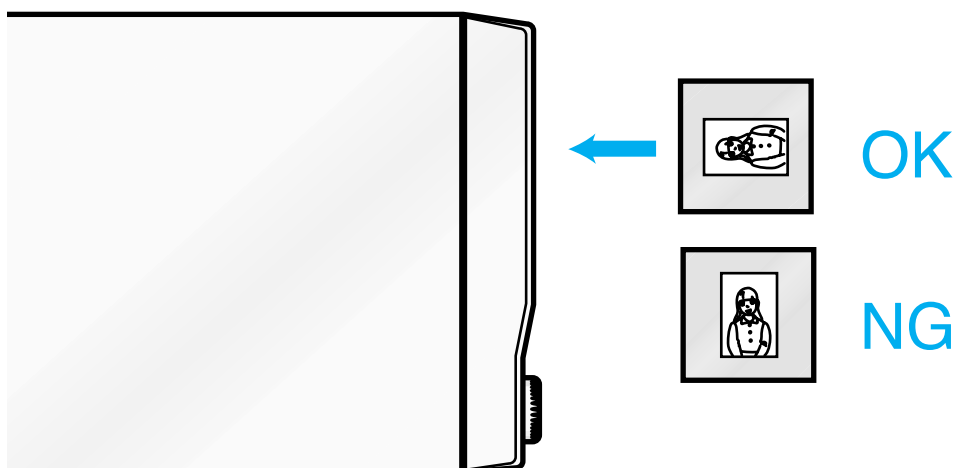
## Loading Mounted Slides

Mounted slides can be inserted as is.

The front and back surfaces of the slide are different. The front, or base, has a glossy surface and the back, or emulsion, has a matte surface. Load the slide into the scanner narrow end first with the emulsion side facing to the right.



Insert vertical images into the scanner horizontally. Click on the Rotate button to return the image to a vertical orientation after prescan.



Clean the slide before loading it into the scanner.

# SETTING THE PREFERENCES

In the preference dialog box, you can select the desired color correction mode and turn the auto brightness and auto eject functions on and off.

## Color Correction Modes

### Standard Mode

In standard mode, the color balance, black level, and brightness are adjusted with slider bars.

### Professional Mode

In professional mode, the curves dialogue box and histogram dialogue boxes give you precise image correction capability.

## Auto Brightness

Auto brightness compensates for the density range of positive film. When scanning underexposed color slides, select auto brightness to obtain image data with suitable brightness values.

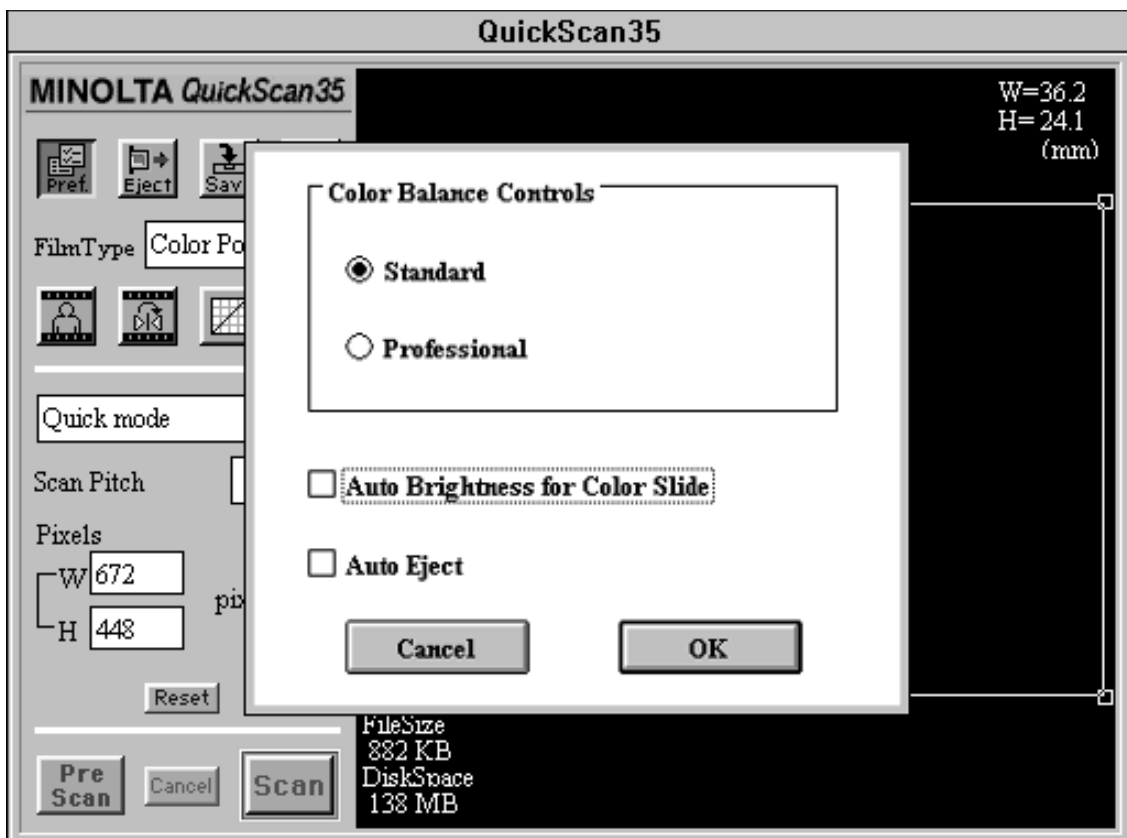
Auto brightness is only effective when Color Pos. has been selected in the Film Type pop-up window.

## Auto Eject

When selected, the film is automatically ejected after the scanning operation is finished.

## Setting

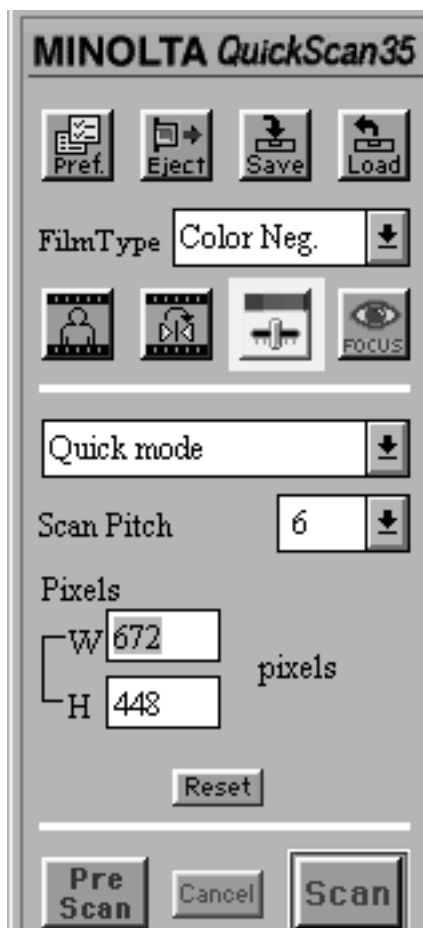
1. Click on the Preference button.
  - The preference dialog box will appear.
2. Click on the desired settings.



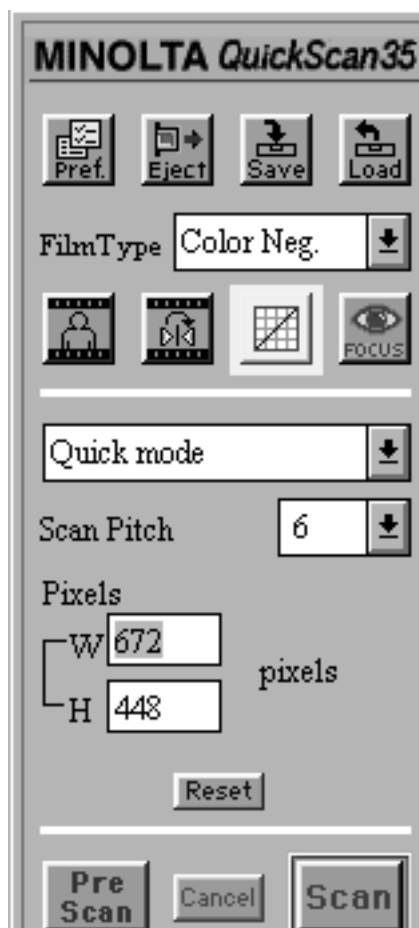
2. Click on OK to close the window.

- The selected functions will be set after you click on **OK**.
- The color correction button in the control panel window will change according to the color correction mode you have selected.

### Standard Mode



### Professional Mode



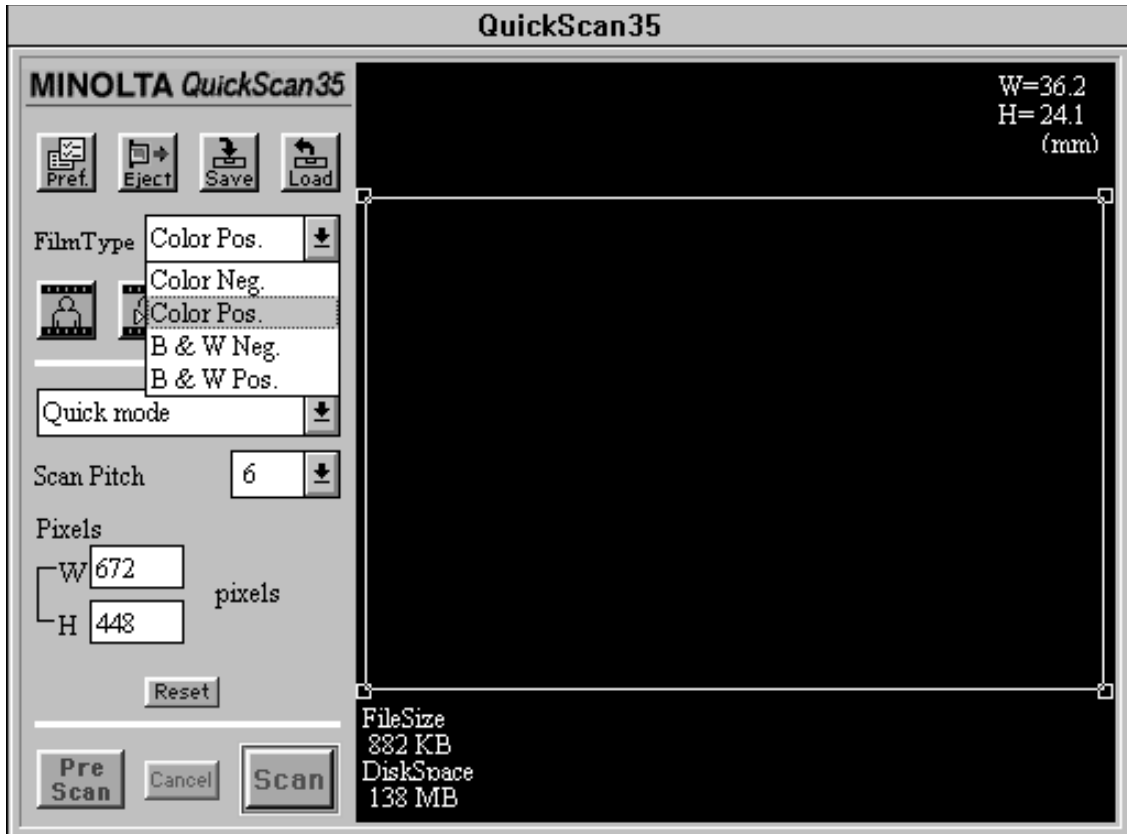
Select your preferences before scanning. If the color correction mode is changed or auto brightness is selected after the image is prescanned, the preview image will disappear and you will need to prescan again.

## SPECIFYING THE FILM TYPE

Specifying the type of film you are scanning is necessary to accurately reproduce the image. There are four types of film to choose from:

- Color Negative
- Color Positive
- Black & white negative
- Black & white positive

Select the type of film you are scanning in the Film Type pop-up menu.



# PRESCAN

Click on **PreScan** to preview the image. The preview image will appear in the preview window.



- Grab the title bar to move the QuickScan 35 Plus dialog box to any convenient location on the screen.



Do not insert another mount or anything metallic into the film slot while scanning or preview scanning film in slide mounts. A scanning error or breakdown may occur.



# FOCUS AND FRAMING

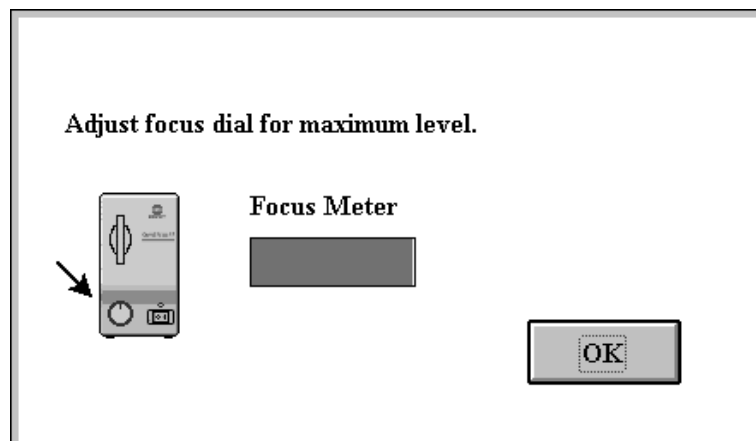
## Manual Focus

Focusing is not normally necessary with the QuickScan 35 Plus, however it is recommended when your final image will be large, the film strip is curled, or a paper slide mount is warped.

1. Click on the focus button. The cursor will change to the focus icon.



2. Position the focus icon over the area you want to focus and click the mouse button.
  - The focus indicator window will appear.
3. Turn the focus dial on the front of the QuickScan 35 Plus until the black box and the red bar are their longest.
4. Click on **OK** when you have finished focusing.



### SHORT CUT

Press option and click on the area you want to focus on. The focus dialog box will appear.

## Rotate

The image orientation button lets you specify the correct orientation of your image before scanning. Horizontal orientation is the default position. Click on the image orientation button to rotate the picture 90° clockwise. The preview image will reflect this change.

- To change the rotation to counter-clockwise, press and hold the option key while you click on the image orientation button.



## Cropping and Zoom Preview

The cropping frame surrounds the image area that will be scanned. Click on a corner of the cropping frame to enlarge or reduce the size frame proportionally. Click on the sides to expand or reduce the height or width of the cropping frame. To move the cropping frame to another position, click on the inside of the cropping frame (the cursor will change to a hand) and drag the cropping frame until it surrounds the area you want to scan.

To preview the scanning area, click on and hold the Zoom Preview button. The area in the cropping frame will be enlarged to the limits of the preview window. The enlarged view of the scanning area will remain until the mouse button is released.



## Flip

The flip button lets you reverse the image before scanning. The default position is the image viewed from the film base side. Click on the flip button to flip the image left-to-right horizontally. The preview image will reflect this change.



## SELECTING THE SCAN MODE

The QuickScan 35 Plus lets you select from three convenient scan modes:

### **Quick Mode**

Quick mode is the fast and easy way to make a scan. You select the scan pitch to determine output size (see Scan Pitch and Resolution on page 48).

### **Pixel Mode**

In this mode you select the number pixels in the image and the scanning area. Pixel mode is convenient when your final output device will be a monitor.

### **Print Mode**

Print mode lets you lock the image size and resolution to control the final image size and resolution to match that of your printer.

The scan speed will change according to the PC you are using and the amount of RAM installed. Generally, scanning will be slower in the Pixel and Print modes than in the Quick mode.

## Quick Mode

1. Select Quick Mode from the Scan Mode pop-up window.



2. Select a scan pitch from the Scan Pitch pop-up menu.

- The lower the scan pitch number the greater the resolution. See "Scan Pitch And Resolution" on page 48.
- The number of pixels (W x H) will change to compensate for the changes in scan pitch.



- Click on and drag the cropping handles until the cropping frame surrounds the image area you want to scan.
  - The number of pixels will change to compensate for the changes in scan pitch, but the final output size will not change.



- Click on **Reset** to return all settings to their default position.
- The pixel size of the image can also be entered directly. The cropping frame will change to reflect the dimensions entered.



## SCAN PITCH AND RESOLUTION

The scan pitch determines how data is acquired from the original image. For example, a scan pitch of 1 means one piece of data is 'picked up' by each element of the CCD.

When the scan pitch is small, the image quality will be better, but the file size will be larger. The relationship between number of pixels (at the maximum crop size) and the scan pitch is illustrated below.

- A scan pitch of 24 can not be selected in the Quick mode.
- The scan pitch setting used for the last image scanned will remain until the scan pitch is changed.

SCAN PITCH	X (PIXELS)	Y (PIXELS)	TOTAL # PIXELS	APPROX. FILE SIZE
1	4 0 3 2	2 6 8 8	1 0 8 3 8 0 1 6	3 2 M B
2	2 0 1 6	1 3 4 4	2 7 0 9 5 0 4	7 . 9 M B
3	1 3 4 4	8 9 6	1 2 0 4 2 2 4	3 . 5 M B
4	1 0 0 8	6 7 2	6 7 7 3 7 6	2 . 0 M B
6	6 7 2	4 4 8	3 0 1 0 5 6	8 8 2 K B
1 2	3 3 6	2 2 4	7 5 2 6 4	2 2 0 K B
2 4 *	1 6 8	1 1 2	1 8 8 1 6	5 5 K B

The resolution of your monitor and printer is determined by the hardware. The size of the image displayed on the screen, and your printed image is determined by the number of pixels in the image. For example, the maximum possible number of pixels (or dots) in an image scanned at a pitch of 1 is 4032 x 2688. If this image is output on a printer with 400 dpi resolution, the final image size will be:

x (width):  $4032 \text{ dots} / 400 \text{ dpi} = 10.08 \text{ in.}$

y (height):  $2688 \text{ dots} / 400 \text{ dpi} = 6.72 \text{ in.}$  Final Image Size = 10.08 x 67.72 in.

PRINTER RESOLUTION (dpi)	X (in.)	Y (in.)
2820	1.43	0.95
1200	3.36	5.44
600	6.72	4.48
400	10.08	6.72
300	13.44	8.96
150	26.88	17.92

The final print size for images scanned at maximum crop and resolution, for different printer resolutions is shown above. The resolution of most printers will vary from 140~ 360 dpi. The maximum scan resolution of the QuickScan 35 is 1200 dpi.

Most monitors have a screen resolution of 72 dpi (Flexscan monitors vary). Changing the scan pitch changes the size of the image displayed on the monitor. To fill a 13 inch monitor, set the scan pitch to 6 (set the scan pitch to 4 to fill a 17 inch screen).



## Pixel Mode

Pixel Mode lets you specify the final size of the image you are scanning. This is helpful when you want to make sure the image fills the display it will be viewed on. For example, to fill the screen on a VGA monitor, the image size would need to be 640 by 480 pixels.

1. Select Pixel Mode from the scan mode pop-up window.



2. Enter the width and height in the size box.
  - You will notice a change in the size of the cropping frame.
3. Click on **Lock** to lock the file size.



- Click on the inside of the cropping frame (the cursor will change to a hand) and drag it until the cropping frame surrounds the image area you want to scan.



- If you change the size of the cropping frame, the scan pitch will change to compensate for the changes in the scanning area. If the file size is not locked, the number of pixels will change to compensate for the changes in the scanning area.
- Click on Reset to return all settings to their default position.

## Print Mode

In Print Mode, you can specify the output dimensions and resolution of your final image.

- The output resolution set in Print Mode is also valid for Standard and Pixel modes.

1. Select Print Mode from the scan mode pop-up menu.



2. Enter the desired output resolution.

- The QuickScan 35 Plus is capable of scanning resolutions from 36 - 1200 dpi. If a resolution outside of this range is entered, a resolution of either 36 or 1200 will be set.
- The scan pitch selected in Quick mode will affect your resolution options. For maximum resolution options, select scan pitch 1 in Quick mode.



- Enter the final image size (Width and Height) in the Image Size Box or use the cropping frame.
  - Use the Units pop-up menu to change the units of measure. Size can be entered in inches, centimeters, points, or picas.



- Click on the Lock check box to lock your final image size.
  - Changing the scan pitch will not affect the standard mode settings unless the scanners limits have been breached. If breached, the image dimensions will change to compensate.



- Click on Reset to return all settings to default position.

## RESOLUTION, RESIZING, AND RESAMPLING

Image resolution is the number of pixels per inch (ppi or dpi) that represent your scanned image. Image size (width x height) and image resolution determine your file size. The greater the dpi, the larger your file size will be. Larger files sizes do take longer to print and scan than smaller file sizes. The general rule for image resolution when scanning for quality is "bigger is better". We recommend you scan your image using the highest resolution your output device is capable of handling. For example, if your printer's resolution limit for a 6 x 4 inch image is 600 dpi, scan using those settings.

As all the image adjustments are made before scanning, there is no need for QuickScan 35 Plus users to worry about pixel resampling or interpolation (two computer functions that can result in loss of image quality). Users of image editing software (such as Adobe Photoshop) however, can adjust image size and resolution in the application after scanning. If done incorrectly, resizing can result in interpolation. Please refer to your software user's guide for additional information regarding resolution, file size, resizing, as well as scanning.

# BRIGHTNESS, CONTRAST, & COLOR BALANCE

The Minolta QuickScan 35 Plus gives you both Standard and Professional options to adjust your image before scanning. The Standard mode is intuitive and ideal for hobbyists. The Professional mode gives you all the image information and tools necessary to control the output quality of your scan.

## STANDARD CORRECTION MODE

1. Before scanning, click on the Standard check box in the preference dialog box.
  2. Click on the Color Correction button in the control panel.
    - The control panel changes to the color correction control panel
- HINT: Correcting the brightness and contrast first may eliminate the need for color corrections.
3. Move the appropriate slider bars to correct imbalances.
    - Click and drag the slider bars to make large corrections. Click on the arrows to make smaller adjustments.
    - The values next to the controls show for the amount of change. The correction values range from -20 to +20.
    - The preview image will reflect the adjustments.



### Black Level

Black Level lets you control the brightness of the image shadow area. Moving the slider bar to the right makes the shadow areas darker. Moving it to the left makes the shadow areas lighter.

### Brightness

Moving the slider bar to the right increases overall brightness. Moving it to the left decreases overall brightness.

### RGB Color Correction Controls

The RGB color correction controls let you correct unwanted color casts.

R: Move to the right to make the image more red. Move to the left to make the image less red.

G: Move to the right to make the image more green. Move to the left to make the image less green.

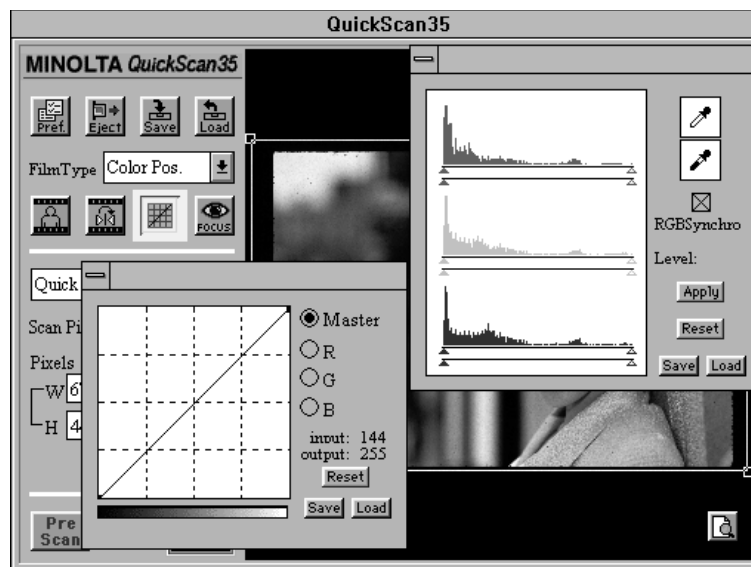
B: Move to the right to make the image more blue. Move to the left to make the image less blue.

- Click on Reset to return all settings to their default position.

## PROFESSIONAL CORRECTION MODE

1. Before scanning, click on the Professional check box in the preference dialog box.
2. Click on the Color Correction button in the data panel.
  - The Curves and Histogram dialog boxes will appear.

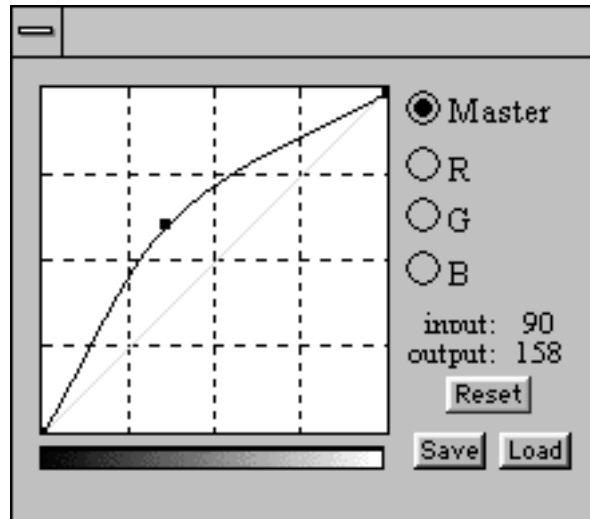
HINT: Correcting the brightness and contrast first may eliminate the need for color corrections.



- Click on the color correction button to close both the Curves and Histogram dialog boxes.
- If the image has been corrected, the diagonal line on the color correction button will change to a curved line.
- The Curves and Histogram dialog boxes can be moved to any position on the screen.
- Any button not hidden behind the Curves and Histogram dialog boxes can be selected.

## Curves Dialog Box

Using the curves dialog box, any point along the tone curve can be adjusted for all color tones (Master) or for the individual RGB channels. Changing the shape of the tone curve, changes the output level for each corresponding input level.



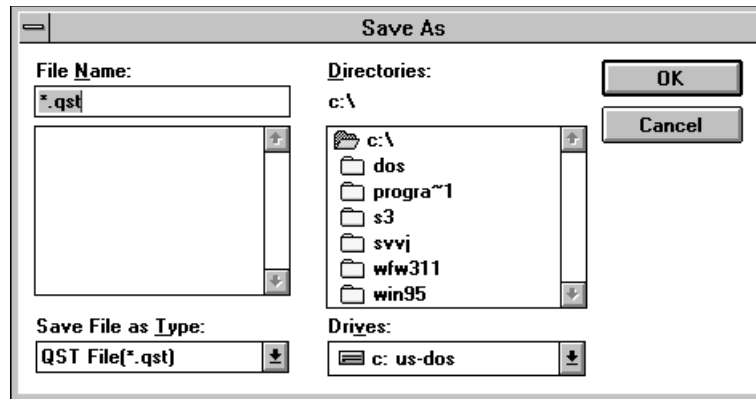
Pulling up on the tone curve increases the output level, making the image lighter and the color more red, green, or blue. Pulling down on the curves decreases the output level, making the image darker and the color less red, green, or blue.

1. Click on the check box of the curve you want to adjust.
  - The Master curve controls the output brightness of the scanned image.
  - The R, G, and B curves control the output color levels of the scanned image.
2. Click on and drag the portion of the curve you want to change. The change will be reflected in the preview image.
  - Pull the curve up to increase the output level.
  - Pull the curve down to decrease the output level.
3. Click on the Reset button to return the selected curve to its default setting.



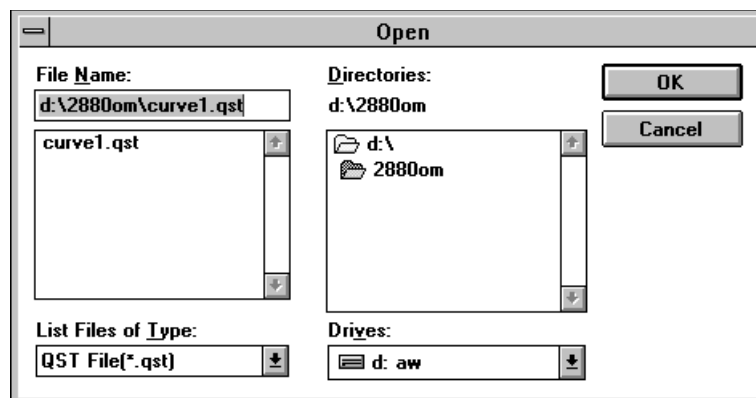
## Saving Tone Curve Settings

1. Click on **Save** in the curves dialog box.
  - The standard Windows Save dialog box will appear.



## Loading Tone Curve Settings

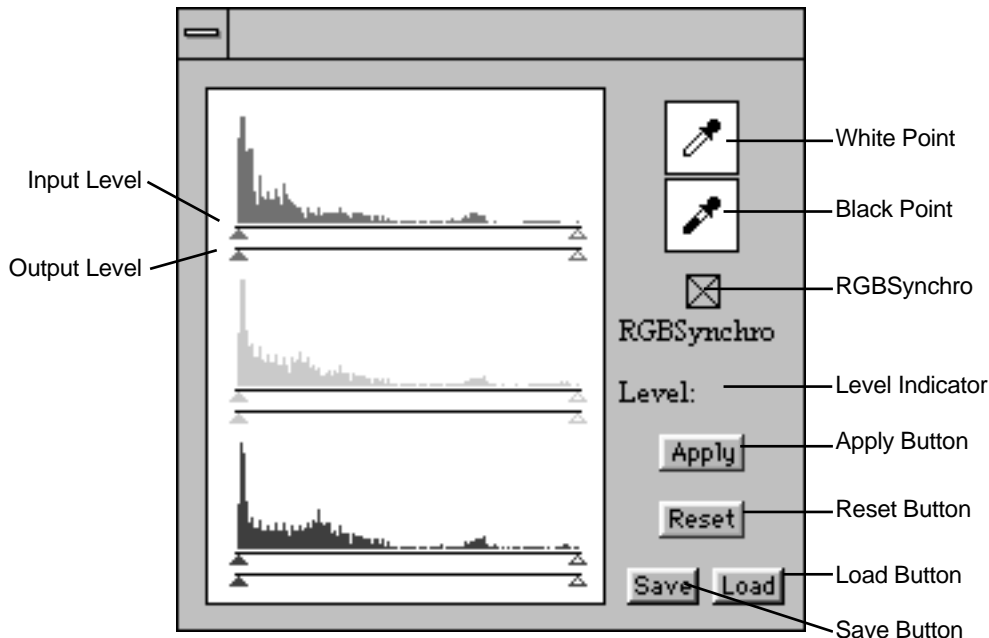
1. Click on **Load** in the curves dialog box.
  - The standard Windows Load dialog box will appear.



The Tone Curve files for black and white and color film are not interchangeable. Settings saved for color images can not be used for a black and white scan. Settings saved for black and white images can not be used for a color scan.

## Histogram Dialog Box

The histograms represent the frequency of occurrence of the 256 levels of brightness for each of the color channels that make up your scanned image. Level 0 is the minimum brightness. Level 255 is maximum brightness. The midtones fall in between. If the bar above a level is long, many pixels in the image have that brightness value. If the bar is short, few pixels in the image have that output brightness value.



### Setting White Point /Black Point:

1. Click on the white eyedropper then click on the area of the image you want to scan in as pure white (level 255).
  - The cursor will change to the eyedropper icon.
  - The input level white point triangle will move to its new position on the histogram.
2. Click on the black eyedropper then click on the area of the image you want to scan in as pure black (level 0).
  - The cursor will change to the eyedropper icon.
  - The input level black point triangle will move to its new position on the histogram.
3. Click on **Apply** to view the changes to the histogram.
  - The preview image will reflect the adjustments.

### If the histogram contains large flat-line areas and you are still not satisfied with the image:

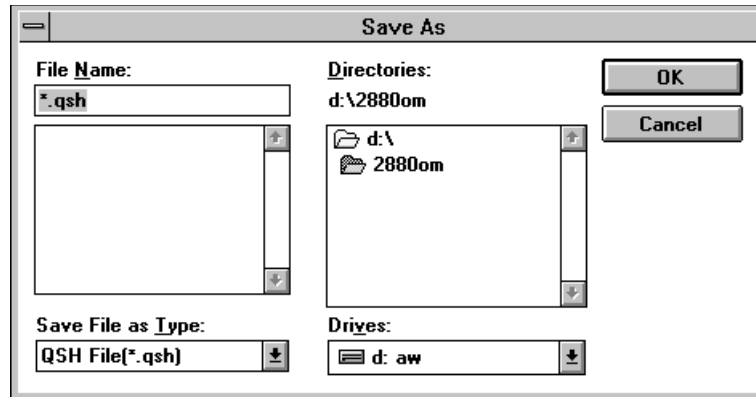
1. Click on the RGBSynchro check box.
  - When selected, changes in the settings of one histogram will be repeated in the other two.
2. Click on and move the upper or lower input limit triangles to the edge of the flat line.
3. Click on **Apply** to view the changes to the histogram.
  - The preview image will reflect the adjustments.

### To adjust the max and min input and output values of the red, green, or blue color channels individually:

1. Turn off the RGBSynchro function.
  - Changes in the settings of one histogram will not be repeated in the other two.
2. Click on and move the upper or lower input limit triangles to the desired locations.
3. Click to view the changes to the histogram.
  - The preview image will reflect the adjustments.

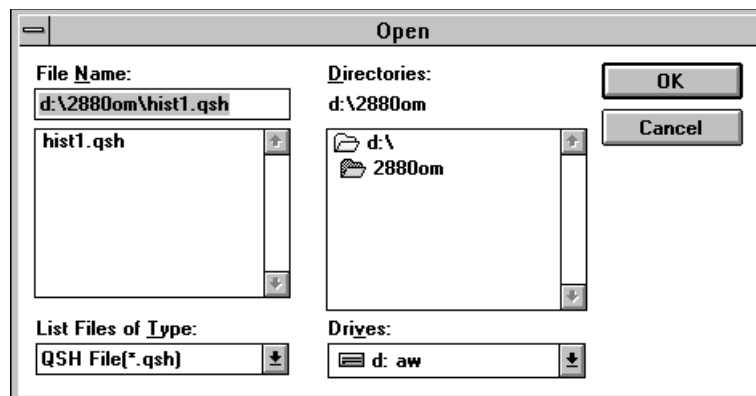
## Saving Histogram Settings

1. Click on **Save** in the Histogram dialog box.
  - The standard Windows Save dialog box will appear.



## Loading Histogram Settings

1. Click on **Load** in the Histogram dialog box.
  - The standard Windows Load dialog box will appear.



The Tone Curve files for black and white and color film are not interchangeable. Settings saved for color images can not be used for a black and white scan. Settings saved for black and white images can not be used for a color scan.

# SAVE AND LOAD

The Save and Load buttons let you save and load the current scanner settings. Saved settings are useful when scanning a series of images taken under similar photographic conditions.

## Saving

1. Click on **Save** in the QuickScan's control panel.
  - The standard Windows Save dialog box will appear.



## Loading

1. Click on **Load** in the QuickScan's control panel.
  - The standard Windows Load dialog box will appear.



# SCANNING & SAVING

## Scanning the Image

When you have finished making all the adjustments to the image, you are ready to scan the film.

**Click on Scan.**

The control panel disappears and scanning begins.



- If you are using the TWAIN driver software, the image will appear in your imaging application's main window when the scan is complete.
- If you are using the Utility software, the Windows Save dialog box will appear so you can save the image data.

## Saving the File

### If you are using the TWAIN driver software:

Select **Save As...** from the File menu.

- The Save As dialog box will appear.

Enter the file name and the location to save the file to, then click on **Save**.

### If you are using the Utility software:

The Windows Save dialog box will appear after the image is scanned. Enter the file name and choose the location to save the file, then click on **Save**.

- Images scanned and saved using the QS Utility are saved in a PICT2 format.

## Ejecting the Film

Eject the film after scanning and before turning the Quickscan off. Click on **Eject** to eject the film manually. If the Auto Eject check box in the preference dialog box was selected, the film will automatically eject when scanning is complete.



Do not remove the film holder from the scanner until it has been properly ejected.

Removing the film, changing the frame, and inserting the film again without ejecting the film properly will cause image distortions.

## Fluorescent Lamp Automatic Shut Off

The fluorescent light source automatically turns off if the PC has not been operated for two hours.

The lamp will come on again the next time you use the QuickScan.

Set-up will take about 30 to 60 seconds before the fluorescent lamp glows again.

# TROUBLE SHOOTING

Q After connecting the QuickScan 35, Windows does not operate correctly.

A Turn the power switch OFF, check the SCSI ID and connections.

A Disconnect only the QuickScan 35. Check the other SCSI devices with the Windows ASPI check command.

Q During Preview Scan or Scan, the QuickScan stops.

A Check the System Requirements on page 9.

A Turn the power switch OFF, check the SCSI ID and connections.

A Disconnect only the QuickScan 35. Check the other SCSI devices with the Windows ASPI check command.

Q Operation stops during plug-in setup, preview, or scan.

A Check System Requirements on page 9.

A Turn power off, then check SCSI cable, SCSI connection, and SCSI ID number.

Q Insufficient Memory message appears.

A Close other Windows applications.

A Change Windows control panel setting to the 386 enhanced mode and increase the size of the swap file.

A Repeat the scan. If the operation stops again, the photo application software's buffer is full. Restart the photo application software.

Q Grain is visible when scanning high-speed film.

A Slightly defocus the image using manual focus.

Q Color is unusual when scanning color negative film, especially images taken under fluorescent lighting.

A Scan again or correct the color using the color adjustment function.

Q "Change the fluorescent lamp" message appears.

A The fluorescent lamp needs to be changed. Contact a Minolta Service facility.

Q Film is not inserted, but "Film loaded or Scanner Error detected..." message appears.

A The fluorescent lamp needs to be changed. Contact a Minolta Service facility.

# USER TECHNICAL SUPPORT

For questions regarding installation, SCSI interface recommendations, and application compatibility, please contact your dealer or contact us toll free.

Technical Support  
1-800-808-4888  
Monday-Friday 8:30-5:00 (EST)  
Minolta Corporation  
101 Williams Dr.  
Ramsey, NJ 07446  
(201) 825-4000

## IMPORTANT

When calling Minolta Technical Support, please have the following information ready.

1. Computer information
  - The make and model of your computer
  - The available application RAM
  - System software version number
  - Information on any other connected SCSI devices
2. The version number of your QuickScan 35 driver software
3. The symptoms of the problem you are having.
  - The messages that appear on the screen when the problem occurs.
  - The frequency of occurrence of the problem.

### To Determine the Version Number of Your Driver Software

Click on the Minolta logo in the upper left hand corner of the control panel. The QuickScan 35 information window will appear.

