Contents

CONTENTS 1

INTRODUCTION 3

INSTALLATION 4

INSTALLING THE SOFTWARE 5
CONNECTING THE CAMERA 5

CAPTURING VIDEO CLIPS 8

HELPFUL HINTS FOR RECORDING VIDEO CLIPS OR CAPTURING STILL IMAGES 9
VIDEO FORMAT SETTINGS 10

ACQUIRING IMAGES THROUGH TWAIN 13

WHERE TO FIND THE CAMERA COMMANDS 13
IMAGE FORMAT SETTINGS 14
CAPTURING & TRANSFERRING IMAGES 14

APPENDICES 15

TROUBLESHOOTING 15

INDEX 17

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FCC STATEMENT

This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

Introduction

The desktop video camera is fast becoming a must-have communications tool. With your new camera and fun-to-use application software, you can now spice up your communication with live video, video clips and photos. This manual shows you how.

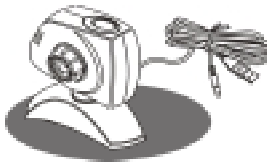
- *Installation* shows you how to connect the camera to your PC and install the software.
- The next two chapters, *Capturing Video Clips* and *Acquiring images through TWAIN*, provide step-by-step instructions on how to use your camera for recording video e-mail, video-conferencing, and still image capture for documents, presentations etc.
- The *Appendices* provide a Troubleshooting section. If you have a problem, we recommend you look at the section first before contacting technical support.

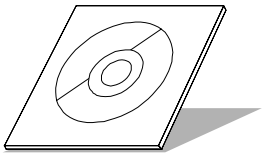
If you're looking for something in particular, try the *Index* at the end. We have included many of the words and terminology you may encounter while using this camera.

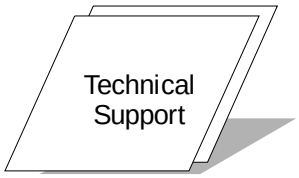
For instructions on how to use the bundled application software, please refer to the software manual on CD-ROM.

Installation

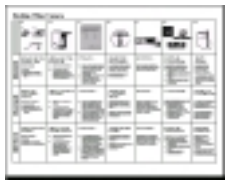
You have already unpacked the box to get to this manual, so we hope you can find the following to continue with the installation:


Camera


Software on CD-ROM



Technical Support card


Quick Installation Guide

We also assume that you have checked out the system requirements and that your PC is suitable for this camera. Just to make sure, please check that your computer:

- IBM-compatible PC; Pentium 233 or above processor
- Memory: at least 32MB RAM; 64MB RAM or more recommended
- 150MB hard disk space or larger
- 800x600 /24 bit display
- Universal Serial Bus (USB) port
- CD-ROM drive
- Microphone and speakers (optional)
- Windows 98

How check out your system - Windows 98

Go to the System option in the Control Panel.

IMPORTANT: *To avoid installation problems, please install the software before connecting the camera to your PC.*

Installing the software

The camera's software comes on CD-ROM and includes a setup wizard that makes installation a snap. Before starting, close any open applications and then:

Under Windows 98

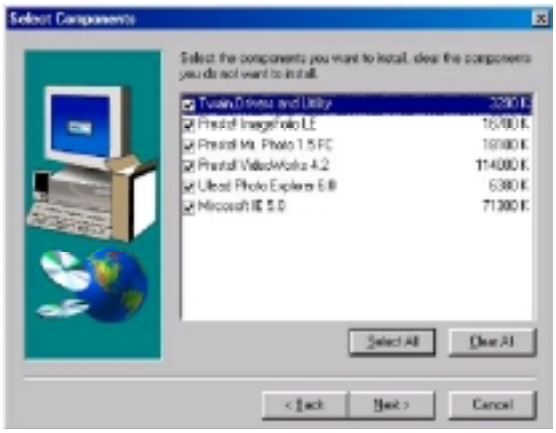
1. Insert the CD into your drive.
2. The Setup Wizard pops up automatically with a few choices for you to make. First, select the language of your choice and click Continue.
3. Select Typical or Custom installation and click Continue.
4. The last screen in the setup wizard asks you to restart Windows. After this, you're ready to have fun with your camera!

Note: If for any reason, the Setup doesn't run automatically, please use the **Start** menu **Run** command to launch the *Setup.exe* file on the CD-ROM (e.g. d:\setup.exe).

If you try the above and it doesn't seem to work, please check out the *Troubleshooting* section at the end of this manual.

Applications included

- There are several software applications accompanied within the CD. You can install any or all of them easily when launch the setup program.



With iCAM320 and bundled applications, you have not only more funs in your life, but also make your communications full of color and live.

Web Chatting: Keep in touch with your friends! Using Microsoft Netmeeting for on-line chatting over the INTERNET.

Web Sharing: Share your personal video clips and pictures with family and friends. Presto will help you in creating and managing your video and photo archives.

Multimedia Explorer: Quickly viewing any multimedia file (such as image, GIF animation, video or sound file) in your computer. Photo Explorer provides the advantage of finding images visually.

Adjusting monitor display properties

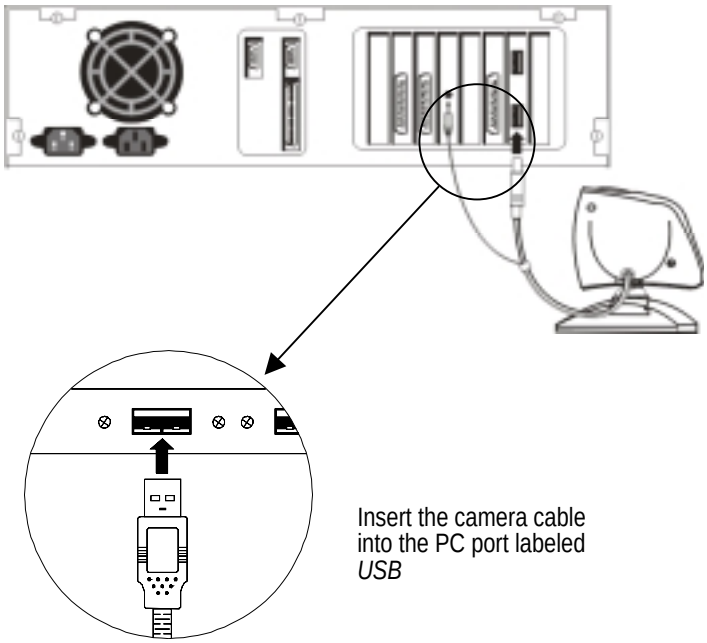
Your monitor settings may need to be adjusted for better quality displays. To check your monitor settings:

1. From the Windows Start menu (icon is on the Windows Taskbar), select Settings followed by **Control Panel**
2. On the Control Panel double-click **Display**
3. In the Display window, click on the **Settings** tab
4. From the color palette field, select the desired setting (High Color or True Color). For best display quality, we recommend you select True Color.

Adjust monitor setting under the Color

Connecting the camera

Your camera features intelligent USB interface technology that guarantees a simple installation process. The dynamic “Plug & Play” function (after setup, you can unplug and re-plug your camera any time, without having to reinstall the driver) provides automatic detection of your camera (Note: under Windows 98, your camera will be automatically configured upon connection to your PC). Simply follow the instructions below:



Insert the camera cable into the PC port labeled *USB*

Except from connecting the USB port, there also audio connectors should be plug into your sound card accordingly. Once your camera is connected, you are ready to have fun with video-conferencing, video and still image capturing!

Capturing Video Clips

Using iCAM320 video camera, you can record video and transfer them to your favorite image or video editing programs. With this standard link, you can also use your camera with your favorite videoconferencing program.

Helpful hints for recording video clips or capturing still images

The procedure you follow to record a video is simple and similar for most popular application software. *Please refer to the software manual or Help file for details.*

Once you have recorded your video clip, you can have fun with your clips in the application program that you are working with. In the video editing software, you can edit and enhance your video, send them out as video e-mail or save them to disk for later use.

The following hints will help you achieve the best results with your camera:

Camera placement

- Position the camera so that the subject is centered
- Place the camera on a steady surface

Lighting

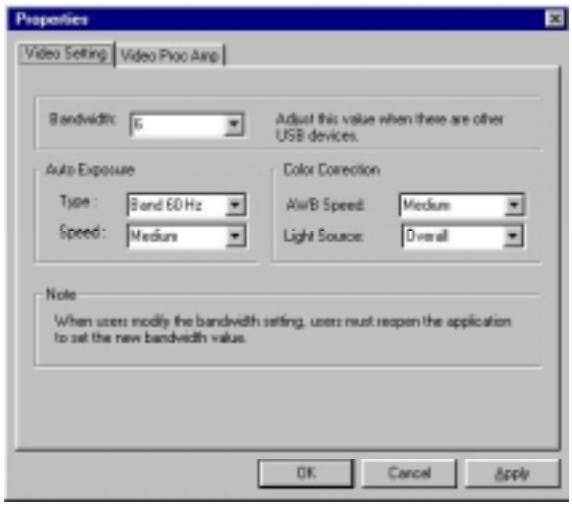
- Use sufficient lighting
- Place the light source behind the camera and facing the subject. If you cannot avoid backlight (i.e. light source pointing directly at the camera lens and behind the subject), you may enable backlight compensation with the camera software
- Maintain consistent a lighting environment, i.e. do not mix fluorescent and other light types
- Do not aim the camera directly at the light source

Video format settings

Before recording, you can adjust the relative formats as your requirements.

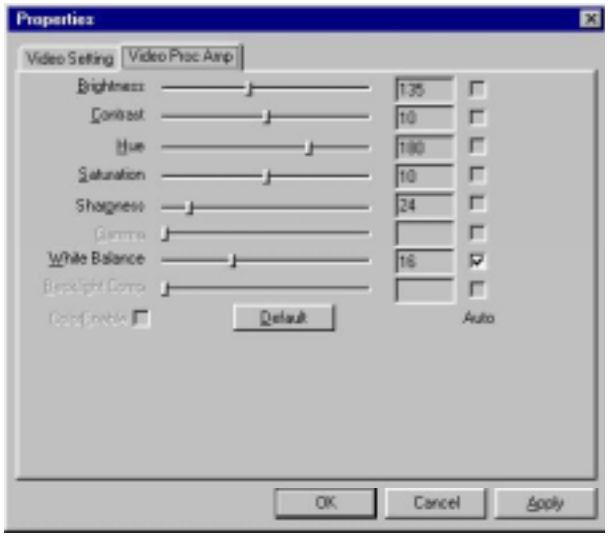
There are different ways to capture your video clips. You can capture a single frame as a still image. By setting the frame rate and capture time, multiple frame capture and sequential capture can easily create a video file too.

In the bundled video capture program, select video format under Capture menu. Please do refer the online help or read-me file of detail descriptions of each item.



You must select the Exposure Type as Band 60Hz or Band 50 Hz according to the power source of your PC. In different areas there will need different settings. The general setting for each area are as below:

- 50 Hz CHINA, HONG-KUNG, JAPAN, EUROPE.
- 60 Hz Taiwan, Korea, USA.



There are a number of items can be choose from depending on your particular need. For **Brightness & contrast**, also known as tone correction commands, these settings allow the image to be adjusted according to the lighting environment. The contrast makes the difference between dark and light areas more or less obvious.

In iCAM320, we had implemented an intelligent detector. After you complete the installation, it can then adjust the light source automatically according to the environment.

Hue

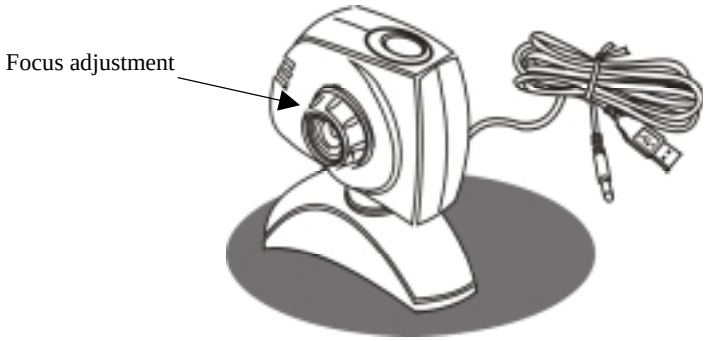
The degree value of Hue change the HLS color wheel. The color sequence on the HLS wheel is counter-clockwise from the red to the purple colors of the rainbow.

Saturation

The saturation control allows you to adjust the color content of your image. The higher the saturation level (up to 256), the greater the color intensity. If you adjust the saturation level to 0 (zero), the image will appear in grayscale mode.

Sharpen

Increasing the sharpness level will bring your image into sharper focus, lessening it will blur your image. You might adjust the focus from iCAM320 directly. Rotating the circle around the camera lens for the clearest possible pictures.



White Balance

To adjust color balance, you can do so either manually or select Auto White Balance and the software automatically corrects the color. To do adjust the settings manually according to one of the common light sources (incandescent, fluorescent or natural), adjust the sliders until the image appears to your preference.

Acquiring images through TWAIN

To acquire pictures from within the included image editing program, other image editing programs, or other programs that can accept images, you can do so via a standard link called TWAIN. Any program that supports TWAIN can access the camera and make full use of its functions. Such programs include MGI PhotoSuite, Adobe PhotoShop, CorelDraw, Ulead Photo Explorer, MetaCreation Painter, Adobe PhotoDeluxe, Ulead PhotoImpact, NewSoft Presto! PageManager, etc. This chapter describes the TWAIN interface in detail and explains all the camera settings.

Where to find the camera commands

After installing the camera and associated software, you should be able to find the camera commands, as follows:

1. From within the Twain-compliant application, choose **Select Source** in the **File** menu and the Select Source dialog appears. Select the name of the camera (and, if applicable, the correct model number). The dialog box closes.

2. Choose **Acquire** in the **File** menu, and the TWAIN window opens:

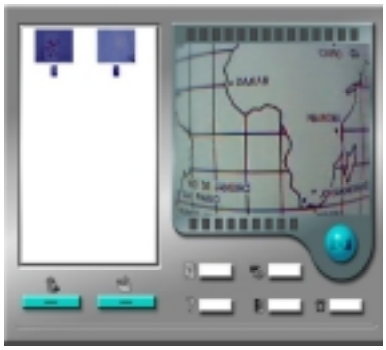
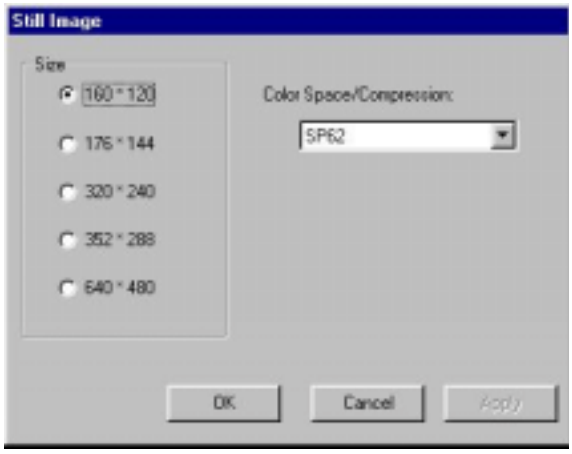


Image format settings

Before acquiring, there are a number of image size can be selected as your need. Each display size is represented in pixels:



Capturing & transferring images

Regardless of what you want to do with your camera, once the TWAIN window is open, the process is the same:

1. Place the camera on a steady surface and position the camera so that the subject is entered.
2. Adjust the focus for the clearest possible pictures.
3. Click the take picture button on the TWAIN window.
4. Select the desired pictures and click Transfer To Application button to transfer the pictures to your application for future editing or posting.

When you want to return to the TWAIN-compliant application, click the Exit button.

Appendices

Troubleshooting

This section provides information on maintaining the camera and helps you solve problems you might encounter when using the camera. If you continue to experience problems, or the problem you face is not covered in this guide, please contact your dealer.

The camera does not work

Check to make sure you have connected the camera correctly to you PC.

"No capture device found" message appears

A. Make sure the camera and PC are connected properly.
B. Locate the camera under the Windows Control Panel: double-click Multimedia, click the Devices tab, and select Video Capture Devices. If the camera is not listed, unplug the camera, re-plug it and reinstall driver (see *Installing the software* for instructions). If the camera is listed, but other cameras are also installed, disable all other cameras, make sure your camera is enabled and try again.
C. To remove the driver, go to Windows Control Panel, double-click System, click the Device Manager tab, and select Image Devices. Select the driver for your camera, click Remove, and then reinstall the driver (see *Installing the software* for instructions).

"Camera not connected" message appears

A. Unplug the camera and re-plug it. Restart your PC.
B. Reinstall the software.

Image display window appears black, blue, green or no image appears in the window

Make sure the camera cable is firmly connected and the lens is clean and not obstructed by other objects.

No camera image or no motion in video

Unplug the camera and re-plug it. Restart your PC.

After installing the camera software, the camera is not detected by the software

Some PC's have been shipped without the USB Port mode enabled. To enable the USB port, you must run the system CMOS setup program. This setup program is only available when you power up the computer. The procedure is different for each system so you will need to refer to your PC manual for more details.

Blurred video/still image

A. Adjust the manual focus on the camera hardware.
B. Adjust the sharpness settings with the software

Camera software stops working after installing other application programs

Installing other application will modify the system register so that the camera no longer works. If this occurs, please reinstall the camera software from the product CD-ROM.

If you have any questions regarding the bundled application software, you may contact the respective software companies directly (please refer to software manuals for contact information).

Camera maintenance

- Keep the camera away from moisture and extreme temperature
- Clean the outside of the camera with a clean, dry cloth
- Never use harsh or abrasive cleaners or organic solvents on the camera or on any of its parts.
- Never disassemble or touch the inside of the camera. This could result in electrical shock and void your warranty coverage.

To remove dust and dirt, blow gently on the lens. Moisten the lens by breathing lightly on it. Wipe the lens gently with a soft lint-free cloth or an untreated lens-cleaning tissue. Do not use a cleaning solution unless it is designed specifically for camera lenses. Do not wipe the camera lens with chemically treated eyeglass lens tissues as it may scratch the lens.

Index

A

Acquiring images through TWAIN, 13
After installing the camera software, the camera is not detected by the software, 16
Appendices, 15

B

Blurred video/still image, 16
Brightness, 11

C

The camera does not work, 15
Camera maintenance, 16
“Camera not connected” message appears, 15
Camera placement, 9
Camera software stops working after installing other application programs, 16
Capturing & transferring images, 14
Check out your system – Windows 95/98, 4
Connecting the camera, 8
Contrast, 11
Copyright Notice & FCC Statement, 2

H

Hue, 12
Helpful hints, 9

I

Image display window appears black, blue, green or no image appears in the window, 15
Image format settings, 14
Installing the software, 5
Introduction, 3

L

Lighting, 9

M

Monitor adjustment, 7

N

“No capture device found” message appears, 15
No camera image or no motion in video, 15

S

Saturation, 12
Sharpen, 12

T

TWAIN, 15
Troubleshooting, 15

W

Where to find the camera commands, 13
White balance, 12

V

Video format settings, 10