

AIPTEK

3F, No. 5-1 Innovation Rd., 1, Science-Based Industrial Park,
Hsin-Chu, Taiwan, R.O.C.

Tel: 886-3-567-8138

Fax: 886-3-567-8569

FCC ID.:NRQ99APC400

EXHIBIT 4

User's Manual

INSTRUCTIONS MANUAL
FEDERAL COMMUNICATIONS COMMISSION
INTERFERENCE STATEMENT

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 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.

CAUTION:

To assure continued FCC compliance:

- (1) Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

FCC Label Compliance Statement:

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



HyperVcam user's manual

AIPTek
www.aiptek.com

FCC ID: A12R 84 APC492

roduction to
HyperVcam System

Thank you for purchasing the HyperVcam System.

The Video Conferencing Kit should contain the following components:

USB Camera

User's Manual

Drivers/Video conferencing software (CD-ROM)

With the HyperVcam System, you will be able to capture still pictures, video or stop frame video into your computer. These can be incorporated into reports, presentations and web pages. With the HyperVcam System, Internet communication is simple and fun. This guide will provide you with step by step instructions on setup and installation of the HyperVcam System.

TABLE OF CONTENTS

INTRODUCTION TO THE HYPERVCAM SYSTEM.....0

TABLE OF CONTENTS.....1

WHAT DOES THIS PACKAGE CONTAIN.....2

WHAT YOU REQUIRE3

CONNECT UP THE CAMERA AND INSTALL THE DRIVERS4

CONNECT UP THE USB CAMERA.....4

INSTALL THE USB DRIVERS4

SOFTWARE APPLICATION INSTALLATION5

WHAT IS HYPERCAM STAR5

HOW TO LAUNCH THE HYPERCAM STAR.....5

SELECT CAMERA SOURCE.....6

SET VIDEO FORMAT.....6

SET VIDEO SOURCE.....8

SELECT SOURCE (CAMERA DEVICE)10

CAPTURE FRAME AND ALBUM.....10

CAPTURE STREAMING VIDEO.....11

OPEN IMAGE FRAME OR VIDEO CAPTURE.....12

APPENDIX.....13

SAFETY WARNING.....13

FREQUENTLY ASKED QUESTIONS.....13

TROUBLESHOOTING.....15

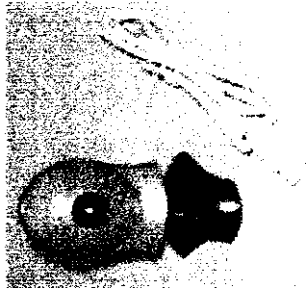
HYPERCAM VIDEO CAMERA SPECIFICATION19

WHAT DOES THIS PACKAGE CONTAIN

USB Camera

User's manual

Software Application CD ROM



Camera Lens

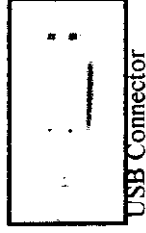
Focus Wheel

Power Active LED

Detachable BASE

USB interface connector

USB camera driver disk

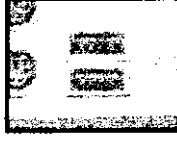


The CD contains the following software applications

- USB Camera Driver
- HyperVcam Star
- Acer EasyXpress
- Ulead PhotoExpress SE
- Microsoft Internet Explorer™
- Microsoft NetMeeting™

WHAT YOU REQUIRE

- Intel 100MHz Pentium™ processor or higher
- 16MB Main Memory or more
- High-color (16 bit color) display card
- CD-ROM Drive
- 100 MB or more free Hard Disk space
- We recommend that you have a multimedia sound card , microphone and speaker
- Microsoft Windows98
- A USB port



Recommended System Configuration

- 200 MHZ or higher
- 32MB RAM or more
- 16 bit Video Card or higher
- 100 meg of disk space
- Windows 98
- Multimedia ready computer

CONNECT UP THE CAMERA AND INSTALL THE DRIVERS

Connect up the USB Camera

All you have to do is plug the connector of the USB cable into the USB port on the PC. The power supply for the camera is provided through the USB bus. *When you plug in USB camera, Plug and Play will*



detect the camera and you can install the driver. Follow the descriptions below.

Install the USB drivers

(It may be necessary to click the browse button and then select the source files directory when you install the driver.)

Windows 98

1. Insert the USB driver disk into your PC.
2. Plug in USB camera, and it will be detected via Plug and Play.

The driver will then be loaded by the operating system from the inserted floppy.

3. Follow the instructions given by the installation program.

Windows NT version 5.0

Details of Windows NT 5.0 driver installation will be made available on release.

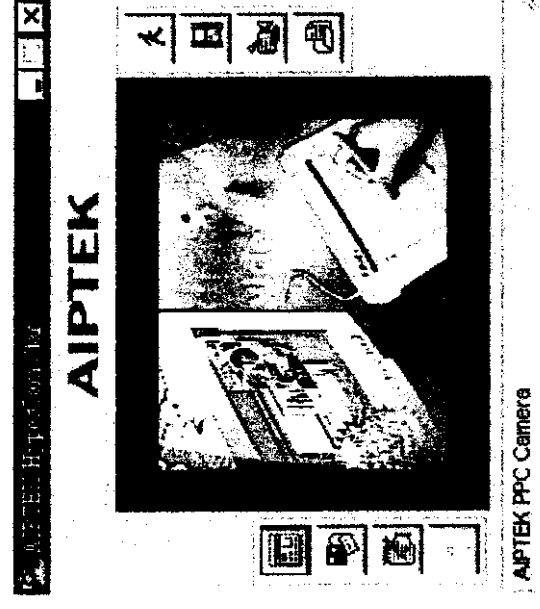
Software application installation

What is HyperCam Star

HyperCam Star is an application that connects video cameras via video for windows (VFW) interface. It can be used to preview the streaming video, to capture and save frames of image and to capture and save the streaming video and audio.

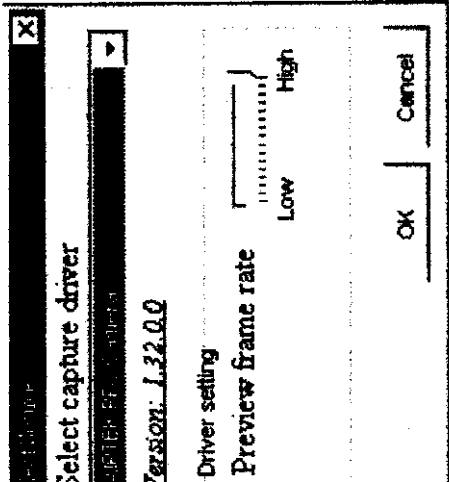
How to Launch the HyperCam Star

Launch the HyperCam Star by clicking the HyperCam Star icon, which is located in the Start | Programs | Aiptek menu. When you launch HyperCam Star, the GUI (graphic user interface) appears on screen with preview video image if any VFW camera driver is installed. It will connect AIPTTEK camera drivers in preference to other drivers.



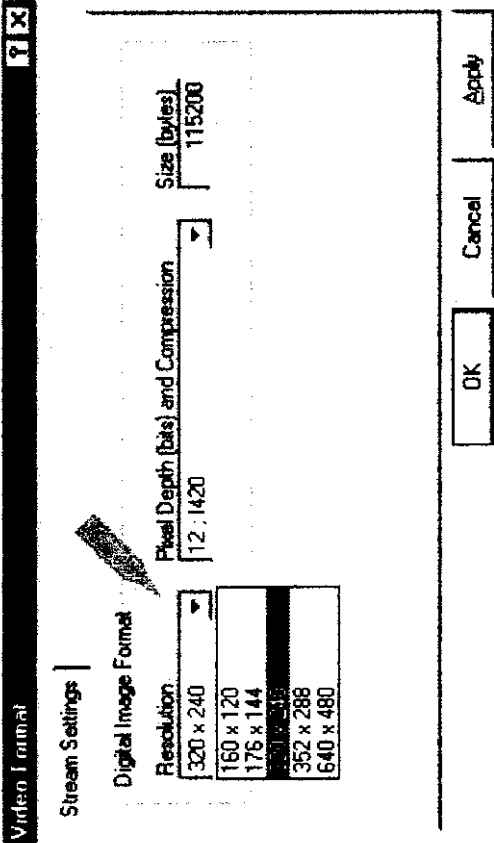
Select Camera Source

Click the select source button (the third one on the left) to open the select dialog. If you have installed multiple cameras, you can change the camera driver to connect from the combo box. Adjust the preview frame rate by dragging the track bar.

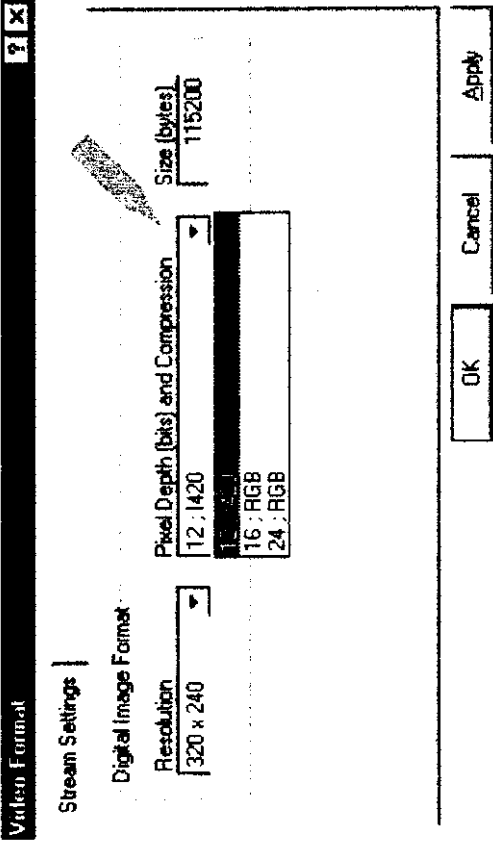


Select Video Format

Click the first button on the left to open the video format dialog box of the connected camera driver if it supports. Click the arrow of resolution to select different resolutions. HyperCam Star will adjust itself when the image size is changed.



Click the arrow of Pixel Depth (bits) and Compression to select different display formats.



Click Video Source

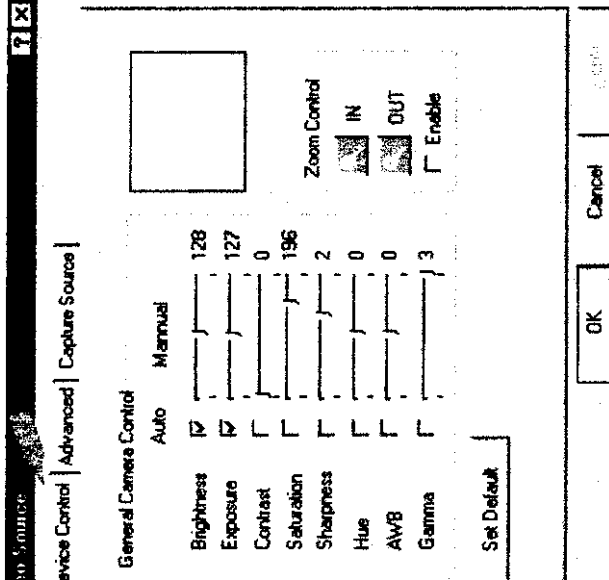
Click the second button on the left  to open the video source dialog.

Click the x of the connected driver if it supports. It can be used to set driver parameters to control the image quality.

Click Device Control for image control options, including

- Brightness
- Exposure
- Contrast
- Saturation
- Sharpness
- Hue
- AWB
- Gamma

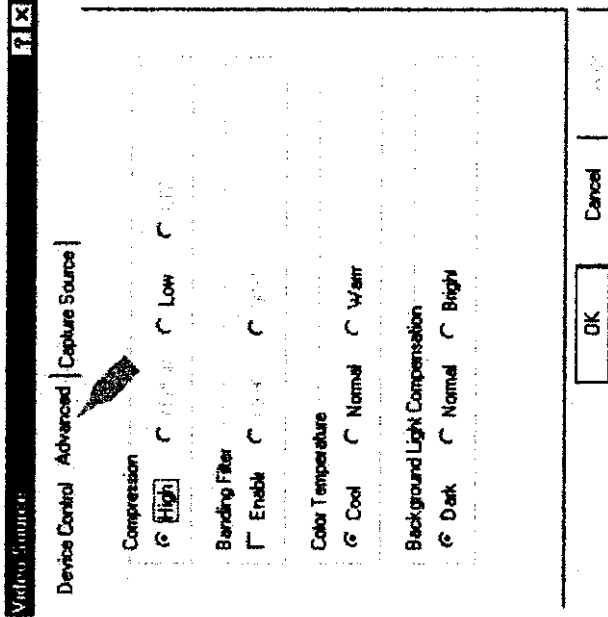
Click Set Default button to set all parameters to default values.



Click Advanced for more image control options, including

Compression

- Banding Filter
- Color Temperature
- Background Light Compensation



Select Source (Camera Device)

Click the select source button  (the third one on the left) to open the select source dialog box. If you have installed multiple cameras, you can change the camera driver to connect from the combo box. Adjust the preview frame rate by dragging the track bar.

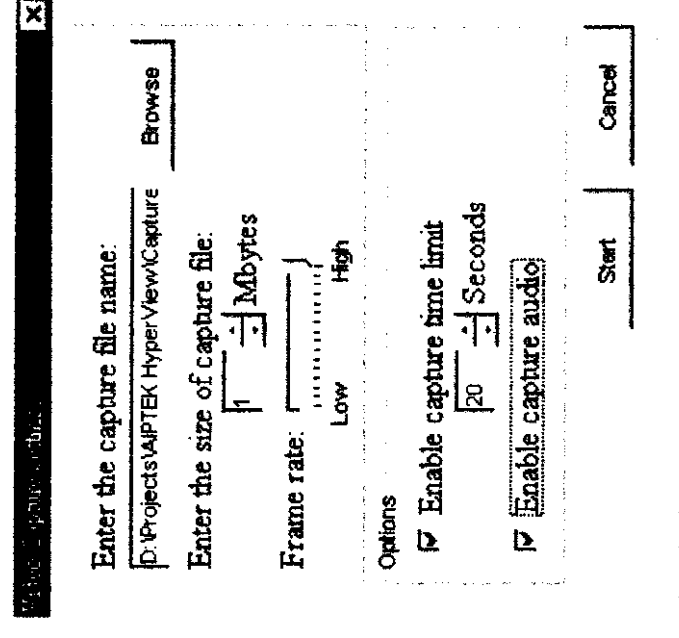
Capture Frame and Album

Click the second button on the right  to capture the current image to the album. The captured frame is pasted on an album window. If the frame count is larger than three, the scroll bar is enabled. You can browse frames by the scroll bar. Before you can operate any frame, you must make the frame active by clicking it. Then you can zoom the frame to its original size by clicking the **Zoom In** button.  Clicking the **Save Frame As** button  will save the active frame to the DIB (Device Independent Bitmap, BMP) file you specified.



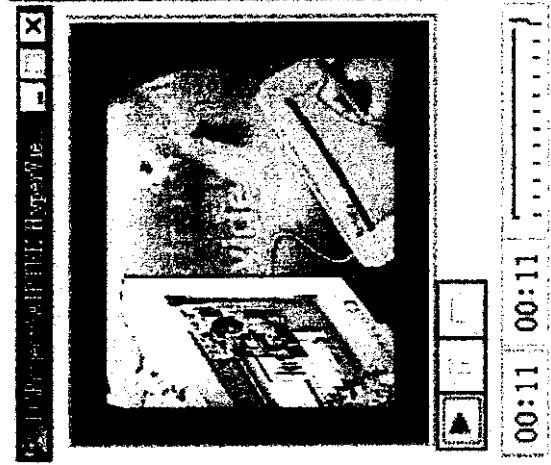
Capture Streaming Video

Click the third button on the right  to open the Video Capture Settings dialog box. In the dialog box, you can specify the file name to store the streaming video captured, the file size to preallocate, and the frame rate. Click **Start** button to initialize the capture. To quit the capture click the <Esc> key or mouse buttons. Check the **Enable capture time limit** check box to limit the time duration. Check **Enable capture audio** check box to capture video with audio.



Open Image Frame or Video Captured

Click the fourth button on the right  to open a video-for-window file (with avi extension) or a BMP file captured before. When you open a video-for-window file, an animation window is popped out and the streaming video is replayed.



APPENDIX

Safety Warning

- Please don't point the USB camera directly at the sun. It will cause damage to the image sensor in the camera.
- Keep the camera free from oil, vapor, steam, moisture and dust, and avoid direct contact of water.
- Do not use harsh cleaners or organic solvents to clean the camera or any of its components.
- Never disassemble or drop the Camera. Misuse or abuse could result in electrical shock and void manufacturers warranty.

Frequently asked questions

Q1: Using USB Camera with other applications

There is a Video for Windows Device Driver supplied with your camera to allow the camera to be used as a general video input device with other Windows applications.

Q2: Using USB Camera with other video capture devices

When using multiple video capture devices, applications will use the default device. There is no easy way of determining the default device, so the best method is to ensure that all other video capture devices are disabled. To disable a video capture driver, do the following:

1. Open the Control Panel and double click on the 'Multimedia' icon
2. When in Multimedia settings, select 'Advanced'
3. Open the list of video capture devices and double click on the name of USB Camera. This will open a dialog box showing the camera properties.
4. Enable or disable the driver as required.

Some applications allow you to select a device from the application, so disabling the other devices is not necessary.

Q3: Lens cleaning

The lens of the USB Camera should rarely need cleaning, but if required, then a dry lint-free cloth is recommended.

Q4: Lighting conditions

When setting up a camera and subject, try to place the camera between the light source and the subject. Where this is not convenient, try to keep the light source out of the view of the camera.

Like a camcorder or other video camera, your camera requires a certain light level to produce good images and images with good color.

A camera position lit with daylight is ideal for the camera, also bright fluorescent lighting should give good results. Subdued indoor lighting is sometimes too dark for the camera's built in auto-exposure controller. In this case, you can experiment with the lighting options in the Fine Tuning dialog to try and improve the

picture.

Q5: Mounting the camera

If desired, a standard camera tripod can be attached to the base of USB Camera.

Q6: Outdoor Use

USB Camera is not designed for outdoor use, and should not be exposed to outdoor conditions without suitable environmental protection. In general, USB Camera should not be exposed to extremes of temperature or humidity.

Q7: Driver Updates

These may become available during the life of this product -- check the USB Camera literature or Web sites for details.

Troubleshooting

Problem 1: I can't find the USB connector on my PC

- ✓ Make sure that your motherboard supports USB devices. Some AT size motherboards support USB devices, but they must add an extra connector on your motherboard.
- ✓ Connect your computer vendor for help.

Problem 2: My PC can't detect the USB camera

- ✓ If your operation system is Windows 95, you must upgrade to

Windows95 OSR2 with USB supplement or Windows98.

- ✓ If your operation system is Windows95 OSR2, you must install the USB supplement. You can run the regedit.exe under windows directory to see the actual version of Windows. The version record under HKEY_LOCAL_MACHINE->Software-> Microsoft->Windows->CurrentVersion and the value of Version Number field must be "4.03.1214".
- ✓ Check the system BIOS and enable the USB device.
- ✓ Try to connect the USB camera to another USB port.
- ✓ Because Windows95 can't detect Intel 430TX chip, you must run a program from the motherboard provider to fix this problem.
- ✓ You may have installed the wrong driver or select the wrong device. You can follow these procedures to check the system device and install the correct drivers again:

1. Double click the "System" icon in Control Panel.
2. Select the "Device Manager" tab from System Properties dialog window.
3. Double click "Other devices" to see the contents.
4. Select "Unknown device" and click "Remove" button.
5. Click the "Refresh" button and system will find a new device.
6. Follow the installation procedures to install the camera driver.

Problem 3: I can install the camera driver, but the icon on the system device has an exclamation point.

- ✓ USB supplement doesn't install completely. Please remove it and install it again.
- ✓ USB camera drivers not install completely. Please remove it and

try to install again.

- ✓ The Bus enumeration between PC and camera fail. Contact your computer vendor for help.

Problem 4: When I'm using the application, the video is frozen and the Power LED becomes off suddenly.

- ✓ The graphics card is running in full acceleration mode. You can adjust the graphics performance, via the Control Panel -> System -> performance -> Graphics button in Advanced Settings group and reduce the setting value to fix this problem.
- ✓ Close the application, unplug the USB camera and plug it in again to make sure the connection is good.
- ✓ Consult your computer user manual and disable sleep mode.

Problem 5: The video displays very slowly.

- ✓ You can select video source and set the camera parameter to default value and optimize the parameter again.

Problem 6: When I start the application, I got an error message "Capture device was not detected" and I couldn't see any video.

- ✓ If you have the other capture device, you must disable the other capture device from the Multimedia on the control panel. You can reference the description of Frequently Asked Question 2.
- ✓ If you still can't use the camera, you may need to clear some drivers of the other capture device that you will not use any more.

USB Camera Specification

Model	USB Camera
Sensor size	1/3"
Sensor type	Color CMOS image sensor
Video format	24-bits RGB, 16-bit RGB
Pixel number	640 x 480 Pixels (300K Pixels)
Frame rate	Up to 30 frames/second (CIF)
S/N Ratio	42dB
Focal Length	6.00 mm
Lens view angle	± 28°
Focus limit	3cm~Infinity
Interface type	USB Port
	Complying with USB Spec1.0

Problem 7: I want to start an video application, but the windows system shows me an error message "Device is already in use".

- ✓ You must close the other video applications that use the same video source.
- ✓ The error message may be caused by an unnatural close of the previous video application. You must close all the applications and restart the windows again.

Problem 8: The video preview image is blurred.

- ✓ Adjust the focus wheel until the image become clear.
- ✓ Select the video format and set the compression operation to Better Quality. It will improve the image quality but reduce the frame rate.

Problem 9: The video preview image is too light or too dark.

- ✓ Adjust the brightness and contrast setting in the software application.
- ✓ Remove the bright light source or increase the light on subject.

Problem 10: The color of video preview image is strange.

- ✓ Wait 20~30 seconds for the auto white to balance and correct itself.



検出:

Model : AIPC-400

FCC ID :

This Device complies with Part 15 of the FCC Rules,operation is subject to the following two conditions.

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received includin interference that may cause undesired operation.

S/N O :

AIPTEK

www.aiptek.com
0086-755-26666666