FlexCam™ USB

Installation & Operation Manual

ClearOne®

You're Virtually There℠

ClearOne, formerly VideoLabs

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Introduction

ClearOne cameras are compact, precision instruments designed for accuracy, ease of use, and maximum flexibility. The FlexCam™ USB camera features a built-in microphone and is ideal for Windows- or Mac-based video applications such as video-conferencing, web design, image capture, video streaming, and multimedia projects.

Professional services

If you need additional information on how to install, set up, or operate your camera, please contact us. We welcome and encourage your comments so we can continue to improve our products and serve your needs.

ClearOne Communications ~ 1825 Research Way ~ Salt Lake City, UT 84119

Technical Support

Tel: 1-800-283-5936(USA) or 1-801-974-3760

Fax: 1-801-977-0087

E-mail: tech.support@clearone.com

Web: www.clearone.com

Sales and Customer Service

Tel: 1-800-945-7730 (USA) or 1-801-975-7200

Fax: 1-800-933-5107 (USA) or 1-801-977-0087

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Sales and Customer Service (International)

Unit 4 Hernes Estate

Greys Road

Henley on Thames

Oxfordshire

United Kingdom

RG9 4NT

Tel: 44 (0) 1491 414430

Fax: 44 (0) 1491 579137

E-mail: global@clearone.com

Product registration

Please register your camera using the online registration form in the Product section at www.clearone.com. We are better able to provide technical assistance when your product is properly registered. Registration information is also used to notify you of upgrades and new product information.

Product returns

All product returns require a return authorization (RA) number. Please contact ClearOne Technical Support before attempting to return your product. Make sure you return all the items that shipped with your product and include a brief description of how the product was being used when the problem occurred.

Unpacking

Unpack camera, manual, and USB Software and Driver Disk. Carefully place camera unit on a level surface. Ensure you have received all items shown below.

ClearOne is not responsible for product damage incurred during shipment. You must make claims directly with the carrier. Inspect your shipment carefully for obvious signs of damage. If the shipment appears damaged, retain the original boxes and packing material for inspection by the carrier. Contact your carrier immediately.
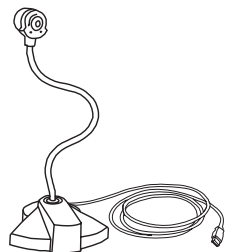
User Manual   USB Software and Driver Disk

FlexCam USB

Figure 1. FlexCam USB and accessories

System requirements

FlexCam USB
- Pentium II 350 MHz or higher, PowerPC Mac or higher
- Windows 98, 98 SE, 2000, ME, XP or Mac OS 8.6, 9.x, OS X
- 64MB RAM
- 1 free USB port

PhotoStudio® 5 (PhotoStudio 4 on Mac)
- Pentium II PC or higher, PowerPC Mac or higher
- 64MB RAM
- 50MB hard drive space
- 16-bit (or higher) color display
- CD-ROM drive

VideoImpression™ 1.6
- Pentium II PC or higher, PowerPC Mac or higher
- 64MB RAM
- 200MB hard disk space
- 16-bit (or higher) color display
- Apple Quick Time recommended
- CD-ROM drive

Getting Started

Installing USB drivers

Before you can use your FlexCam USB, you must install the proper USB drivers on your PC or Mac. The drivers are found on the USB Software and Driver Disk that came with your FlexCam USB.

To install USB drivers on a PC

1. Insert the USB Software and Driver Disk into the CD-ROM drive.

2. Plug in the FlexCam USB. The Found New Hardware Wizard will open.

Figure 2. Found New Hardware Wizard

3. Select **Search for a suitable driver for my device (recommended)**.
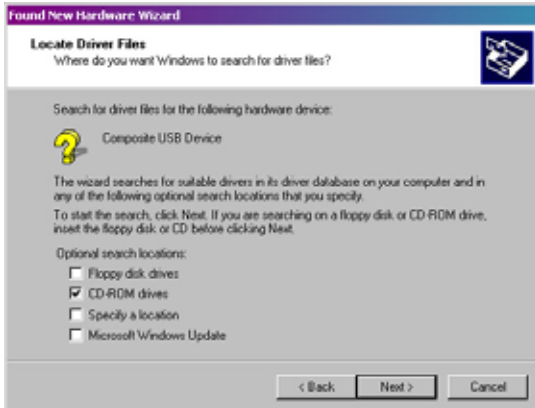
Figure 3. Locate Driver Files

4. Select **CD-ROM drives**.

Figure 4. Driver Files Search Results

4. Once the Wizard has found the drivers, click **Next** to start the installation.

5. During the installation, a Digital Signature Not Found window might open. Click **Yes** to continue.

Figure 5. Completed driver installation

6. When installation is complete, click **Finish** to close the Found New Hardware Wizard.

✎   There are three separate components that will be installed through the Found New Hardware Wizard. Do not restart your computer until all three have been installed.

To install USB drivers on a Mac

✎ The FlexCam USB is compatible with Mac OS 8.6 through OS X.

1. Insert the USB Software and Driver Disk into the CD-ROM drive.

2. Double-click the **ArcSoft** icon to open the CD content window.

Figure 6. Contents of USB Software and Driver CD

3. Double-click the USB Camera folder to open it. Then, double-click on the folder that corresponds with your operating system.
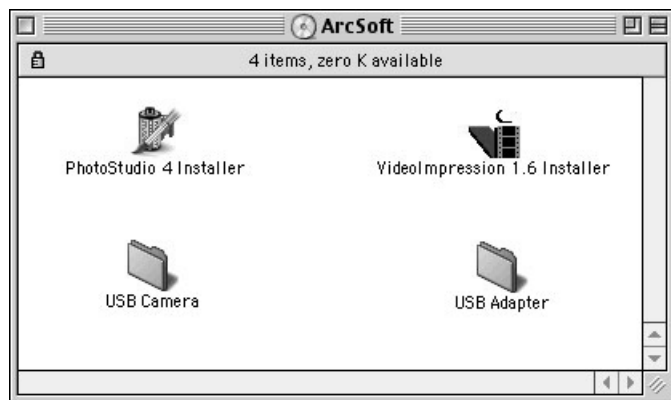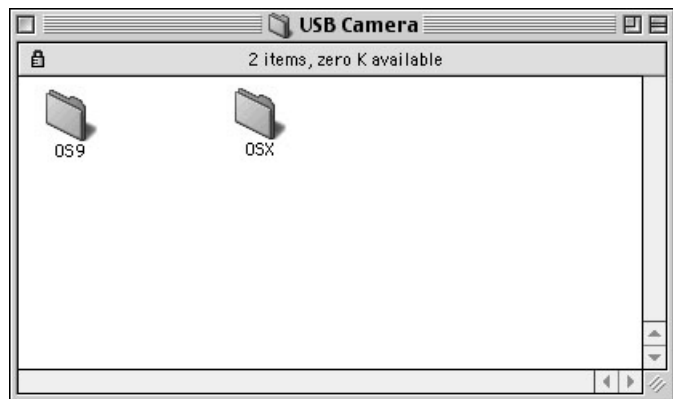

Figure 7. Contents of USB Camera Folder

4. Double-click the **FlexCam USB 2.0 Installer**. When the drivers are installed, restart the computer.

5. Plug the USB cable into a USB port on the Mac.

Figure 8. Installer icon

ArcSoft Software

The USB Software and Driver Disk includes two programs for video capture and editing: VideoImpression 1.6 and PhotoStudio 5 (PhotoStudio 4 on the Mac). Please note that the VideoImpression 1.6 version on this CD is manufactured specifically for ClearOne products and may therefore differ from the standard version of Video Impression 1.6. Both products have built-in help systems to help you make the most of your video and still captures.

Installation

To install on a Windows OS

1. Right-click the ArcSoft CD icon and select **Explore**.

2. Double-click **Setup.exe**.

Figure 9. Installing the ArcSoft programs

3. Follow the onscreen prompts. Both programs are installed through the same installation wizard.

4. Restart your computer.

To install on a Mac OS

1. Double-click the VideoImpression 1.6 Installer (see Figure 6) and follow the onscreen prompts.

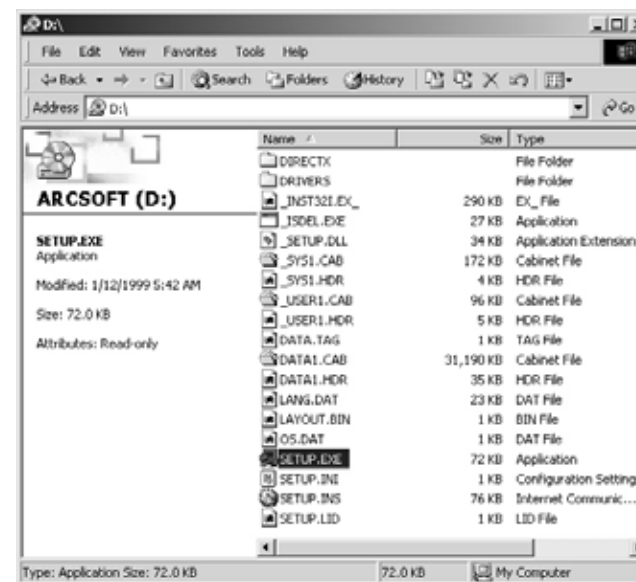2. When VideoImpression has finished installing, double-click the PhotoStudio installer and follow the onscreen prompts.

3. Restart your computer.

To capture video in VideoImpression

1. Open VideoImpression by clicking the desktop icon or by selecting VideoImpression from the Start menu.

Figure 10. VideoImpression start-up screen

2. Click **new** to access the video album screen (see Figure 11).

3. Set the album source to Video Templates.

4. If you are using multiple cameras, click **acquire** to open the Select Source window. Choose the driver for the camera you are using and click **Select.** This will open a View Finder window that you can use to capture still images. Close the View Finder to return to the main VideoImpression window.

5. Click **capture** to display the video capture screen. From this screen you can record, play, or pause video and make adjustments to the video settings.

Figure 11. Selecting the camera

Figure 12. Video capture controls

6. Click **Record** to record the video. Click **Pause** or press the **Esc** key to stop.

7. Click **save** to choose the file format and save the file. After you save the file, you will be prompted to add the file to the album. Click **Yes** to add the file.

For more information on using VideoImpression, click the question mark in the upper right corner of the screen or visit www.arcsoft.com.

Video capture on Mac OS

The video capture window in the Mac version of VideoImpression is different from the one found in the Windows version. Instead of being embedded in the VideoImpression screen, it is a separate window.

To access the video capture window

1. Click the **capture** icon (see Figure 11).

2. Use the buttons at the bottom of the window to change settings and capture video or still images.

Figure 13.Video capture window

To capture an image in PhotoStudio

✍ Mac operating systems do not support the image capture feature in PhotoStudio. Capture images using VideoImpression and then open them in PhotoStudio for editing.

1. Open PhotoStudio by clicking the desktop icon or selecting PhotoStudio from the Start menu.

2. If you are using multiple cameras, choose **Select Source** from the File menu and select the driver for the camera you are using.
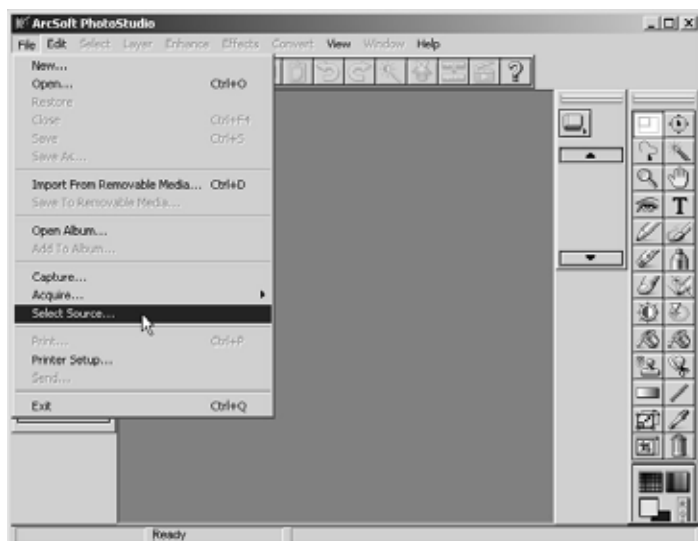
Figure 14. Selecting the camera source in PhotoStudio

3. Select **Acquire** from the File menu to open the View Finder window. In this window you can make adjustments and capture the image.

Figure 15. Image preview and capture screen

4. Click **Capture** to capture the image.

5. The captured image is now displayed in the PhotoStudio window. To save the image, select **Save As** from the File menu.

Figure 16. Saving the image

For more information on using PhotoStudio, click the question mark on the toolbar to access the help file or visit www.arcsoft.com.

Camera Care

Handling the camera

- Read and understand all instructions before using.

- Do not operate the camera if the USB cable is damaged or if the camera has been dropped or damaged. A qualified service technician must examine the camera before it can be used again.

- Position the cord so that it will not be tripped over, pulled, or come in contact with hot surfaces.

- Always unplug the camera from the computer before cleaning or servicing.

- To reduce the risk of electric shock, do not immerse in water or other liquids.

- All ClearOne cameras are for indoor use only.

- Do not use cameras next to food or beverages. Cameras have been tested and approved for use in chemistry labs. However, be very careful not to spill liquid or dry chemicals, or solvents on the camera.

- Do not place cameras closer than 6' to TVs, radios, motors, transformers, or magnetic fields.

- Avoid touching the lens. To clear any dust, blow pressurized air onto the lens. For accidental smears or smudges, wipe carefully with a lens cleaning cloth.

- Clean exterior of camera by wiping with a clean, damp cloth; do not use any abrasive chemicals.

- Use both hands whenever adjusting the neck of the camera; this will prevent any unnessary strain on the camera's base and will keep the camera from tipping over unexpectedly.

- Do not attempt to take the camera apart. There are no user-serviceable components inside.

Camera base

The camera base contains five rubber feet for non-slip support of the camera.

Camera head

This pre-assembled unit contains the camera lens, lens holder, focus ring attachments and is connected to the gooseneck. Do not turn camera head more than 30° left or 30° right.

Camera lens and lens holder

The camera lens is held in place by the lens holder. Both are permanently attached to the camera head. Do not try to rethread or unscrew the lens holder.

Gooseneck

Use the gooseneck to adjust the camera head/camera lens over the projected image. Do not bend the gooseneck more than 90° in any direction or attempt to tie it in a knot. Do not attempt to repair any cracks in the vinyl coating. The gooseneck is non-detachable and should be replaced only by ClearOne.

Warnings

- Do not disassemble or loosen any exterior or interior components of the camera.

- Any camera lens will be permanently damaged if it is over-tightened.

Operating and storage conditions

Do not store or operate the camera under the following conditions:

- Outdoors or connected to outdoor or auxiliary power sources
- At temperatures above 104°F(40°C) or below 32°F(0°C)
- In environments with high humidity
- In dusty environments
- In inclement weather
- Under severe vibration

Appendix

Troubleshooting

I've installed the FlexCam USB. Why doesn't the picture appear?
Connect the FlexCam USB to the computer using the supplied USB cable. Ensure that the USB port is enabled in your computer's BIOS and in the Windows Control Panel/System Device Manager.

How do I know the driver for the FlexCam USB has been properly installed?
Right-click the My Computer icon on the desktop. Choose Properties. Click the Hardware tab, then Device Manager. Click the plus sign next to the icon labeled Imaging. You should see VGA CCD Camera with USB Interface. If the Imaging folder is missing, you need to reinstall the drivers.

How do I capture audio?
Audio can be captured through the microphones on the FlexCam USB and passed to the computer through the USB cable. Audio can be captured using VideoImpression.

What do I need for videoconferencing and video mail?
The FlexCam USB camera provides the audio and video. You'll also need headphones or speakers and videoconferencing software (e.g., Microsoft NetMeeting®).

Why can't I install the FlexCam USB with Windows 95?
Windows 95 does not support the FlexCam USB. You will need to upgrade to Windows 98 release II (or a later version) to use the FlexCam USB.

Can I easily switch between multiple USB video capture devices on Mac OS?
No. To switch between devices, you must uninstall the driver(s) for one device and install the driver(s) for the other.

Why doesn't the FlexCam USB work after installing the drivers on Mac OS?
Connect the FlexCam USB to the computer using the supplied USB cable. Ensure that there are no other USB video capture devices connected.

Why do I get a TWAIN error when I click Acquire in PhotoStudio 4.0 for Mac?
The PhotoStudio image capture feature is not supported by Mac operating systems. Capture the image using VideoImpression instead and then use PhotoStudio to open and edit the image.

Specifications

Image Sensor
¼" Progressive Color CCD

Total Pixels
692 (H) x 504 (V) = 350K total

Maximum Resolution
VGA (640x480)

Frame Rate
30fps
25fps at 320x240 is the recommended setting for optimal image quality

Lens
8 mm, D-mount

Color
Up to 16.8 million true color (24-bit)

Software Interface
WDM driver and Twain interface

Image Control (Using ArcSoft Software) Color (RGB) and Brightness Adjustment, Gamma Correction, Shutter Speed (Exposure), Hue and Gain Control

Audio
Built-in microphone

PC/Mac Interface
USB (cable attached)

USB Cable Length
4.33'/1.32m

Operating Temperature
0–40°C/32–104°F

Weight
4 lb/8.8 kg

Gooseneck
18"/45 cm flexible gooseneck

Power
Provided by USB port

Operating Systems
Microsoft Windows: 98, 98SE, 2000, ME, XP
Mac: OS 8.6, 9.0, X

Included Software
ArcSoft's VideoImpression™ and PhotoStudio® software

Specifications are subject to change without notice.

Warranty

ClearOne Communications, Inc. (Manufacturer) warrants that this product is free of defects in both materials and workmanship. Should any part of this product be defective, the Manufacturer agrees, at its option, to:

A. Repair or replace any defective part free of charge (except transportation charges) for a period of two years from the date the end user is invoiced for the product, provided the end user returns the product to ClearOne Communications or an authorized ClearOne dealer according to the Product Return and Repair Policy set forth below;

B. Furnish replacement for the flexible neck assembly for a period of five years from the date the end user is invoiced for the product, provided the end user provides proof of purchase that demonstrates that the product is still within the warranty period. Replacement parts shall be furnished without charge, except labor and transportation.

This warranty excludes assembled products not manufactured by the Manufacturer whether or not they are incorporated in a Manufacturer product or sold under a Manufacturer part or model number.

Product Return and Repair Policy

Return to Manufacturer

a. An RA (return authorization) number must be issued to the end user from ClearOne Technical Support.

b. The end user must return the product to ClearOne with proof of purchase (showing purchase date) for a warranty claim, and display the RA number on the outside of the shipping package.

THIS WARRANTY IS VOID IF:

A. The product has been damaged by negligence, accident, act of God, or mishandling, or has not been operated in accordance with the procedures described in the operating and technical instructions; or,

B. The product has been altered or repaired by other than the Manufacturer or an authorized service representative of the Manufacturer; or,

C. Adaptations or accessories other than those manufactured or provided by the Manufacturer have been made or attached to the product which, in the determination of the Manufacturer, shall have affected the performance, safety or reliability of the product; or,

D. The product's original serial number has been modified or removed.

NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MER-CHANTABILITY OR FITNESS FOR ANY PARTICULAR USE, APPLIES TO THE PROD-UCT. MANUFACTURER'S MAXIMUM LIABILITY HEREUNDER SHALL BE THE AMOUNT PAID BY THE END USER FOR THE PRODUCT. No person or entity authorized to

assume any obligation or other liability in connection with the products. No action, regardless of form, arising out of or relating to the product or this warranty, may be brought by end user more than one (1) year after the cause of action has accrued.

Manufacturer shall not be liable for punitive, consequential, or incidental damages, expenses, or loss of revenue or property, inconvenience, or interruption in operation experienced by the end user due to a malfunction in the purchased product. No warranty service performed on any product shall extend the applicable warranty period.

In case of unsatisfactory operation, the end user shall promptly notify the Manufacturer at the address set forth below in writing, giving full particulars as to the defects or unsatisfactory operation. Upon receipt of such notice, the Manufacturer will give instructions respecting the shipment of the product, or such other matters as it elects to honor this warranty as above provided. This warranty does not cover damage to the product during shipping and the Manufacturer assumes no responsibility for such damage. All shipping costs shall be paid by the customer.

This warranty extends only to the original end user and is not assignable or transferable. This warranty is governed by the laws of the State of Utah, without regard to the conflicts of interests provisions thereof.

ClearOne Communications, Inc.
1825 Research Way
Salt Lake City, Utah 84119

Compliance

FCC Part 15 Compliance

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his/her own expense.

Changes or modifications not expressly approved by ClearOne Communications Inc. could void the user's authority to operate the equipment.

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.

Safety Information

! CAUTION: Users should not attempt to make such connections themselves, but should contact the appropriate electrical inspection authority, or electrician, as appropriate.

European Compliance

This equipment has been approved in accordance with Council Directive 1999/5/EC "Radio Equipment and Telecommunications Equipment".

CE Conformity of the equipment with the guidelines below is attested by the CE mark.

EC Declaration of Conformity

Application of Council Directive(s):	1999/5/EC Radio equipment and Telecommunications Terminal Equipment (R&TTE) Directive
Manufacturer's Name:	ClearOne Communications
Manufacturer's Address:	1825 West Research Way
	Salt Lake City, Utah 84119 U.S.A.
Model No.:	FlexCam USB

Standard(s) to which Conformity is declared:

89/336/EEC "Electromagnetic Compatibility (EMC) Directive":

EN 55022: 1998 (Emissions)	Specification for limits and methods of measurement of radio interference characteristics of information technology equipment.
EN 61000-3-2:1995/A1/A2:1998	Part 3: Limits - Section 2: Limits for harmonic current emissions.
EN 61000-3-3:1995	Section 3: Limitation of voltage fluctuations and flicker in low voltage supply systems for equipment with rated current up to and including 16 A.
EN 55024: 1998 (Immunity)	Information technology equipment - Immunity characteristics - Limits and methods of measurement.
EN 61000-4-2: 1995/A1:1998	Electrostatic Discharge
EN 61000-4-3: 1996/A1:1998	Radiated RF Immunity
EN 61000-4-4: 1995	Electrical Fast Transients
EN 61000-4-5: 1995	Lightning Surge
EN 61000-4-6: 1996	Conducted RF Immunity
EN 61000-4-8: 1993	Radiated Magnetic Field Immunity
EN 61000-4-11: 1994	Voltage Dips and Voltage Interruptions

73/23/EEC "Low Voltage Directive (LVD)":

EN 60950: 1992	Safety of Information Technology Equipment, Including A1, A2, A3, A4 and A11 Electrical Business Equipment.

FlexCam USB application examples

USB

FlexCam USB
Camera

PC or Mac

USB XGA

FlexCam USB
Camera

Laptop

LCD Projector

USB XGA

Microscope

FlexCam USB
Camera

Laptop

LCD Projector