

ken-a-vision[®]
KNOWLEDGE THROUGH VISION

FlexCam by Ken-A-Vision[®]

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.
- Industry environments.
- In inclement weather.
- Under severe vibration.

Camera Series

Installation & Operation Manual

910-171-120

910-171-125

910-171-150



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Camera Care

Handling the camera

- All FlexCam by Ken-A-Vision® cameras are for indoor use only.
- Use only a Ken-A-Vision power supply and a wall-mounted, electrical outlet.
- Do not use the 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 use cameras right next to working 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 avoid any unnecessary 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 has 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, connections to gooseneck and all cables. Do not turn camera head more than 30 degrees left or 30 degrees 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 deg. 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 Ken-A-Vision.

Warnings

- Internal thermal protection is built-in. Use only the provided power supply. Using a different power supply will void the warranty.
- Do not loosen or remove exterior assemblies (keypads, electrical connectors, audio units, or camera lens).
- Do not disassemble any exterior or interior components of any camera.
- Any camera lens will be permanently damaged if it is over-tightened.

Using the StudentCam® and IDCam™

The StudentCam and IDCam each have a three-button keypad for brightness and flicker control.

Button	Function
	Press and hold this button to increase image brightness.
	Press and hold this button to decrease image brightness.
	Press this button to eliminate image flickering and color hunting when camera is used with a fluorescent microscope. In flickerless mode, you may need to adjust the iris on the microscope to reduce the amount of light.

Introduction

Flexible cameras are compact, precision instruments designed by Ken-A-Vision®, formerly VideoLabs (ClearOne), for accuracy, ease of use, and maximum flexibility. The FlexCam by Ken-A-Vision® Camera Series meets the highly specialized needs of the educational and security industries.

This manual provides usage information for the following cameras: TeachCam®, StudentCam®, and IDCam™. Please read these instructions carefully and keep this manual for future reference.

Professional Services

If you need any 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.

Corporate Headquarters:

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Product registration

Please register your camera using the online registration form in the Product section at www.ken-a-vision.com/warranty.htm. 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 Ken-A-Vision 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 Cameras

Unpack camera, cables, and accessories. Carefully place camera unit on a level surface. Ensure you have received all parts by referencing the descriptions provided for your specific camera.

Ken-A-Vision 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.

Using the TeachCam®

About the IllumaSlides







Five IllumaSlides are included with the TeachCam. Remove the cover on the slide and add various specimens, such as drops of pond water, for viewing. To use the IllumaSlides, attach the camera bracket to the bottom of the gooseneck. Place the camera head into the camera bracket and turn on the IllumaBase. Place the IllumaSlide on the Top of the IllumaBase and adjust the focus as needed.

About the IllumaBoxes

Two IllumaBoxes are included with the TeachCam. The rectangular plastic box holds laboratory specimens for viewing. To use the IllumaSlides, attach the camera bracket to the bottom of the gooseneck. Place the camera head into the camera bracket and turn on all the IllumaBase lights. Place the specimen in the box and close the box lid tightly. Next, with cover side up, insert the plastic box lengthwise into the IllumaBase and adjust the focus as needed.

IllumaBase® keypads

There are six buttons on the two IllumaBase keypads on the TeachCam. Below is a list of their functions.

Button	Function
	This button controls base lighting. Press once for side lights, a second time for bottom lights, a third time for all lights, and a fourth time for lights off.
	Press and hold this button to decrease image brightness.
	Press and hold this button to increase image brightness.
	Press button once to color balance on a particular scene. Press the button again to return camera to automatic white balance.
	Press this button to eliminate image flickering and color hunting when camera is used with a fluorescent microscope. In flickerless mode, you may need to adjust the iris on the microscope to reduce the amount of light.
	Press this button to view a negative color image. Press the button again to switch to a normal color image. If you press and hold the button for two seconds, the image will switch from color to black and white. Press and hold the button again for two seconds to switch the image back to color.

Using the Camera

General Usage

Turning on the camera

Turn on your camera with the on/off switch located at the base of the gooseneck.

Positioning the camera

The camera head is swivel mounted. Do not turn it past the natural resistance. Adjust the flexible gooseneck (maximum 90 degrees) until the camera is aligned with the subject.

Using the microphones

A highly sensitive microphone is located under the lens on the camera head. Audio levels are optimal when the camera is pointed toward the person speaking, at an arm's distance away. If the speaker's image moves out of the picture, the sound level will begin to drop off.

Focusing the image

Check the contrast, brightness, and white balance of your monitor or screen before focusing your subject in the presentation room.

Turn the focus ring to the left for close-up, right for distance. The FlexCam camera includes a larger focus ring. Attach the focus ring by carefully pushing the smaller end of the ring onto the focus knob at the center of the camera head. (The focus ring will not be flush with the camera head.)

Displaying the image

On a TV

When the camera is properly connected to the TV, switch the TV to video mode. To change to video mode, use either the switch on the TV front panel or press the corresponding button on the remote control. Consult the owner's manual that came with your TV for information on changing to video mode.

Not all TVs have Video Inputs. If your TV only has an Antenna Input, you will need a Modulator or a VCR with Video Inputs.

With a VCR

Put the VCR in the video-in mode (consult your owner's manual for instructions). Turn the camera power on. Turn the VCR/TV switch to VCR and the TV to either channel 3 or 4 (whichever is not used as a broadcast station in your area).

Using the microscope adapter and couplers

The microscope adapter kit includes a custom metal eyepiece adapter and a set of 26mm, 28mm and 34mm plastic couplers. To use the customer eyepiece adapter, remove the microscope eyepiece and replace it with the custom eyepiece adapter by sliding the narrow end into place in the microscope. Gently push the 8mm C-mount lens into position. Plastic couplers (26mm, 28mm and 34mm) can be attached to a microscope by placing the coupler over the microscope's original eyepiece. Turn the C-mount lens to the right before placing in the coupler for viewing. Please note that the IDCam does not have a microscope adapter or couplers.

TeachCam®

This camera displays precise images, slides, and small scientific objects under any lighting. The TeachCam is a full-motion, color, S-Video/analog camera featuring an 8mm C-mount lens with 1:56 aperture. A self-contained light base enables viewing of 35mm slides and Microscope Slides.



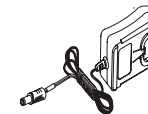
TeachCam



User Manual

6' Connector Cable
25' Connector Cable
BNC AdapterMicroscope Eyepiece
Adapter and CouplersS-Video to Composite
Adapter

Camera Bracket



12V Power Supply



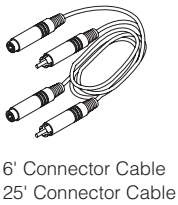
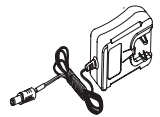
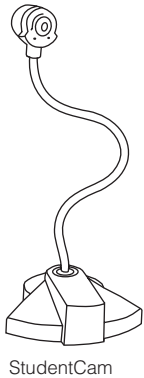
IllumaSlides



IllumaBoxes

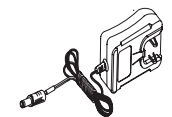
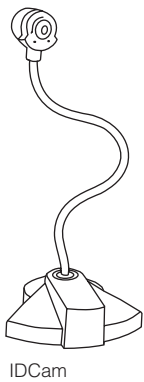
StudentCam®

This camera displays precise images, slides, and small scientific objects under any lighting. The StudentCam is a full-motion, color camera that is S-Video and composite compatible and features an 8mm lens with 1:1.6 aperture.



IDCam™

The IDCam is used for taking head and shoulders photos and is compatible with most ID badging systems. The IDCam is a full-motion, S-video, color analog camera and comes standard with a 16mm C-mount lens.



12V Power Supply

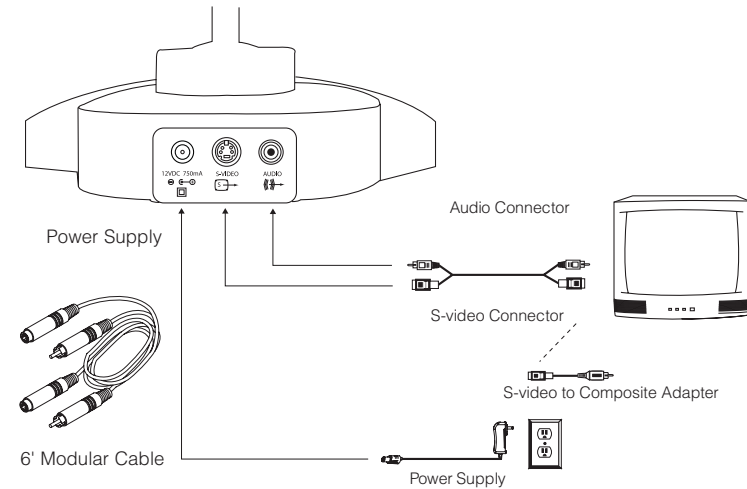


6' Connector Cable

Making Connections

The TeachCam, StudentCam, and IDCam connect to video display devices (TV, VCR, projector, computer, etc.) using the 6' cable (25' included with select models) with S-Video and audio connectors on both ends.

To connect camera to a TV, VCR, or projector



1. Connect the S-Video and Audio plugs to the S-Video and Audio out jacks on the camera base.
2. Connect the other end of the cable to the Audio and S-Video jacks on the video display device.
3. If the TV or VCR does not have S-Video capabilities and requires a composite signal, connect the S-Video to Composite Adapter to the S-Video cable and plug it into the RCA jack on the TV or VCR.
4. Plug the power supply into an electrical outlet or grounded power strip. Connect the power supply cable to the camera.

Use only the wall mount power supply provided. Using a different power supply may cause the camera to malfunction or may damage the camera.

To connect camera to a computer

When connecting to computers, ensure that the video capture card and all necessary software programs and drivers are installed correctly. Consult video capture card user manual for instructions on connecting the camera.