



# DocCam Pro™ AV

Integrated Document Camera

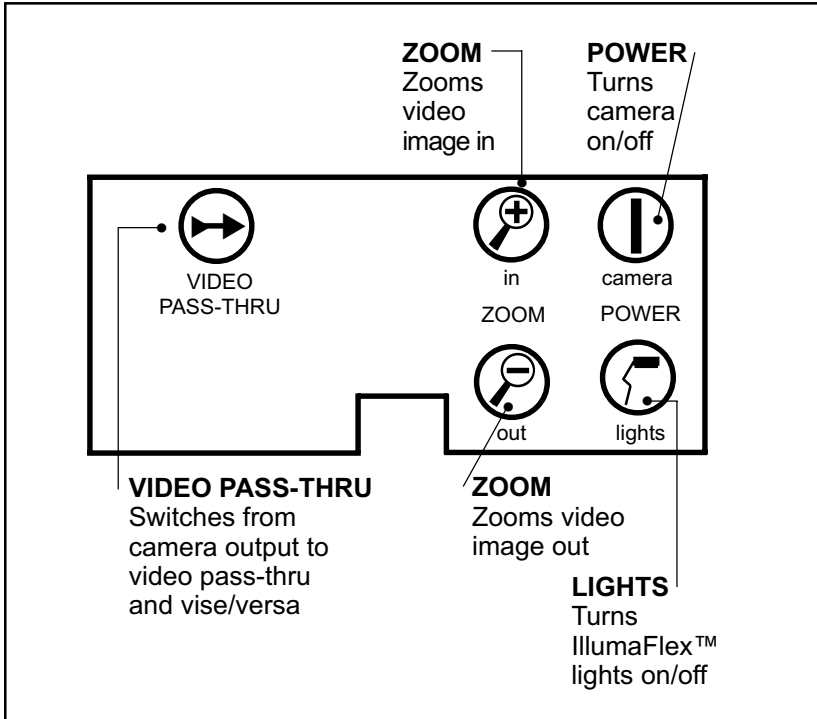
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Installation & User Guide

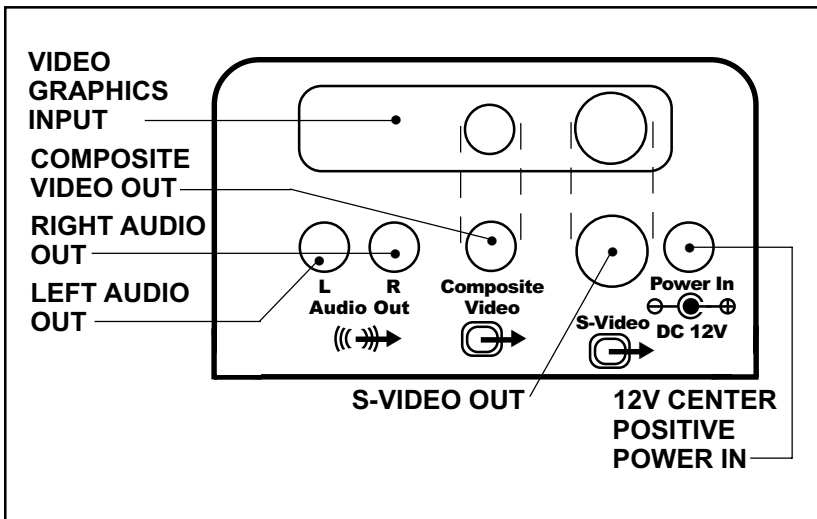


**READ AND RETAIN  
THIS MANUAL FOR  
FUTURE REFERENCE**

## DocCam Pro AV Keypad Controls



## DocCam Pro AV Backplate



## Setting Up Your DocCam Pro AV Integrated Document Camera

- 1.) Carefully remove camera and parts from foam packing material. For ease of shipping the camera is packed with its telescoping arm flat.
- 2.) Set the unit on a flat, solid surface. Unpack and identify the other parts:
  - Power supply
  - Connecting cables for the DocCam Pro AV
    - S-Video cable
    - Video and stereo audio cable (3-plug to 3-plug; yellow is video, red and white are audio cables)
  - Two (2) flexible gooseneck IllumaFlex™ lights
- 3.) To move the telescoping arm to its normal upright position (see cover photo), pull the spring pin at the base and raise it. The pin will click into three (3) different positions: flat, 45 degrees and straight up. Then loosen the knurled compression ring on the arm's midpoint and extend the arm until it stops. Tighten the compression ring.



Figure 1 – Loosening and tightening the compression ring.

- 4.) Unwrap the two IllumaFlex™ light units and insert in the connectors on each side of the camera's base.

### NOTE:

Be sure that you pull out the arm to its maximum extension. The camera is calibrated to accurately focus only when the telescoping arm is completely extended.



**Do not move the telescoping arm in or out when it is in the horizontal (flat) position.**

5.) Position camera head. The head rotates forward and back and spins in its bracket to allow use as a document camera or as an auxiliary camera for presentation viewing.

**NOTE:**

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.

- For document viewing, spin the camera head so the arrow is pointing down and pivot the camera head down to face the document. The lens will focus automatically.

- For use as an auxiliary camera, spin the camera head so the arrow is pointing up. Then pivot the head to face the subject.



Figure 2 – Unscrewing the camera's lens.

### Connect the Cables and Power Supply

**NOTE:**

Your DocCam Pro AV is shipped with the correct power supply for the unit. Using a different power supply will void any and all warranties.

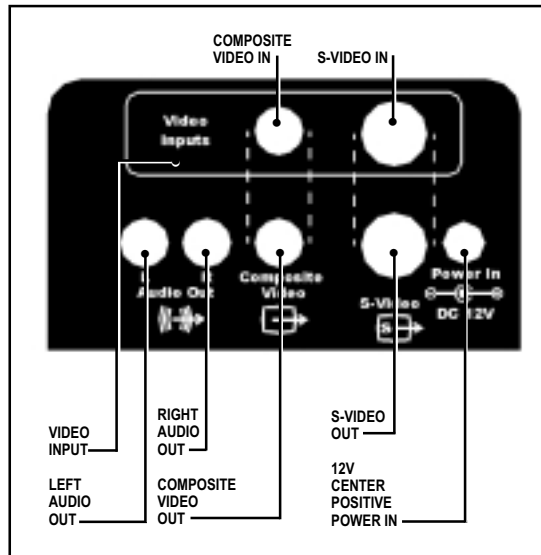


Figure 3 – The DocCam Pro AV's backplate.

1.) First connect the power supply to the jack on the base of the camera. Then connect the wall plug cable to the power supply brick. Plug into a wall outlet. The camera should power up immediately.

2.) Connect the S-Video cable to the “S-Video” jack. The other end of this cable will connect to the “S-Video In” jack on any S-Video-capable VCR or TV.

- If the TV or VCR is **not** S-Video capable, connect the composite video (yellow) cable instead, using the “Composite Video” jack.

3.) If you will be using audio: Connect the red and white audio cable to the (R) and (L) “Audio Out” jacks.

## **NOTE:**

The audio connection is optional and not required for video use.

### **Turning the Camera On**

1.) After you’ve made all the proper connections, press the “Power” button on the camera keypad. (If the camera has not powered up on its own.)

2.) Allow a few seconds after you’ve pressed the button for the camera to warm up and reset itself. If you can’t see an image, or the image is not in focus, refer to the **Troubleshooting** section of this manual.

## **Operating Your DocCam Pro AV**

### **Setting Up For Operation**

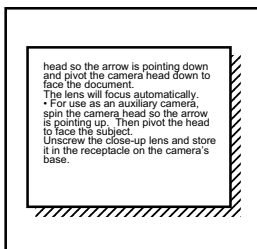
The DocCam Pro AV is designed with an S-Video and composite video pass-through feature to allow you to integrate other video devices, such as camera, scan converters and VCRs.

You can use the DocCam Pro AV as a document camera or as an auxiliary camera. Set up your camera according to your particular application.

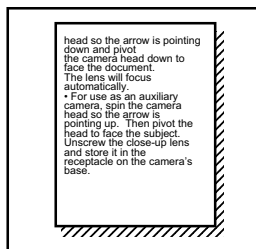
**Document Camera** – Spin the camera head so the arrow is pointing down and pivot the camera head down to face the document. (Be sure telescoping neck is extended to its farthest point to ensure accurate focus.)

**NOTE:**

The camera video aperture ratio is set up for normal presentation viewing, which is “landscape mode” – or horizontal orientation. When viewing a document in “portrait” mode, which is vertical, you may cut out the extreme top or bottom of the image. To get an extra 1-1/2 inch of the document on-screen, remove the close-up lens. (However, this makes it impossible to focus correctly during some “Zoom” functions.)



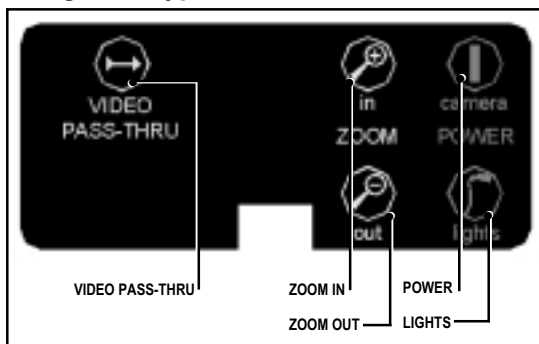
**Figure 4 – Horizontal, landscape mode.**



**Figure 5 – Vertical, portrait mode.**

**Auxiliary Camera** – Spin the camera head so the arrow is pointing up. Then pivot the head to face the subject. Unscrew the close-up lens and store it in the receptacle on the camera’s base.

**Using the Keypad Controls**



**Figure 6 – DocCam Pro AV’s keypad.**

**Zoom**

The DocCam Pro AV is capable of zooming to a 16X magnification factor – allowing you to quickly and easily focus in on an object or document with the document close-up lens provided.

Press and hold the corresponding “Zoom” button on the keypad or remote control to zoom in or out. Release the button when the zoom is at the desired level. The camera will focus automatically when the zoom motion stops.

## Lights

To turn the lights on, press the “Lights” button on the keypad.

## Video Pass-Thru

The “Video Pass-Thru” button allows you to integrate other video devices, such as cameras, scan converters and VCRs. Press the “Video Pass-Thru” button to integrate these video devices into your presentation.

## Care and Cleaning of Your DocCam Pro AV Camera

- Do not attempt to take the camera apart. There are no user-serviceable components inside.
- Keep the camera away from food and liquid.
- Avoid touching the lens. Clear any dust with a blower. 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.

## Operating and Storage Conditions

Do not store or operate the DocCam Pro AV under the following conditions:

- A temperature above 104°F (40°C) or below 32°F (0°C)
- Environments with high humidity
- Dusty environments
- In inclement weather
- Under severe vibration

## NOTE:

It is not necessary to use the IllumaFlex lights if the room is normally lit. The lights are needed only when the room is very dim – when using an LCD projector, for instance.

# Troubleshooting

<b>Problem</b>	<b>Suggestion</b>
<p>Green LED does not indicate camera power is turned on.</p>	<p>Make sure the power adapter is plugged into a wall outlet and the “power” jack on the camera.</p>
<p>Green LED is on, but no picture appears on the screen.</p>	<p>Check screen operation.</p> <p>Check monitor, LCD projector or other video device to ensure it is operating correctly.</p>
<p>Audio is weak and/or excessive feedback noise is heard.</p>	<p>Is the TV/VCR set to the correct channel for live input? Refer to your TV/VCR owner’s manual.</p> <p>Is the person speaking too far from the base of the camera, or in back of the camera?</p> <p>The camera microphones should be positioned behind the speaker units. This helps eliminate feedback.</p> <p>Verify the “audio-out” cable from the camera is plugged into a line-in jack. If a mic-in jack is used, you will experience more feedback and other noise.</p>



## DocCam Pro AV Specifications

Image Pick-up Device	1/4" CCD
Total Pixels	410,000
Number of Effective Pixels	768H x 494V
Horizontal Resolution	450 TV lines
Sensitivity	3 lux
Lens: (Horizontal angle)	F1.4(w)-F2.8(t) [47°(w)-3°(t)]
Mechanical Zoom	F-4 64mm; 16X
Video Output	S-Video/Composite/L&R Audio
Video Inputs	S-Video/Composite
Illumination S/N (min)	46dB
White Balance	Auto
Backlight Compensation	Auto
Iris	Auto
Shutter	Auto Exposure
Focus	Auto
Focal Range	Infinity-1m(t)-0.01m(w)
Power	12 VDC
Current Consumption	865mA
Microphone	Line Level Stereo; 1 V @ 600ohms
Control	Keypad
Operating Temperature	0°C to 40°C
Weight	11lbs/5kg
Footprint (in use)	8in. x 11in. (20.3cm x 27.9cm)
Footprint (collapsed)	18in. x 11in. (40.6cm x 27.9cm)
Neck	18in. (46cm) -2 Section Telescoping
Head	6 Degrees of Freedom (mechanical)
Cable Set	12'–Stereo Audio/Video Cable; 25' S-Video Cable; USB Cable

## Warranty Information

**Warranty Information on Hardware\*** – One (1) year limited warranty on all parts. VideoLabs warrants this product against defects in materials and workmanship for a period of one (1) year from the date of purchase. If VideoLabs receives notice of such defects during the warranty period, VideoLabs will either, at its option, repair or replace products which prove to be defective.

**Exclusions** – The above warranty shall not apply to defects resulting from: improper or inadequate maintenance by customer, customer-supplied software or interfacing; unauthorized modifications or misuse; operation outside of the environmental specifications for the product; use of incorrect power supply; or improper site operation and maintenance.

**Obtaining Warranty Service** – To obtain warranty service, products must be returned to a service facility designated by VideoLabs. Customer shall prepay shipping charges for product(s) returned to VideoLabs for warranty service and VideoLabs shall pay for return of the product(s) to customer. However, customer shall pay all shipping charges, duties and taxes for product(s) returned to VideoLabs from another country.

**VideoLabs Customer Service** – If the camera is still under warranty, VideoLabs will test, repair or replace the product(s) without charge. If the camera is out of warranty, VideoLabs will test, then repair the product(s) for the cost of parts and labor. Charges will be estimated by a technician and confirmed by the customer prior to repair. All camera components must be returned to be tested as a complete unit.

Repair time for all cameras is a maximum of two (2) business days from receiving to outbound shipping. VideoLabs will not accept responsibility for shipment after the camera has left the premises.

**VideoLabs Technical Support** – VideoLabs' technicians will determine and discuss with the customer the criteria for repair costs and/or replacement. Contact VideoLabs' Technical Support through one of these sources: Phone: 866-384-3245 (U.S. only) or 763-542-0061; E-mail: [support@videolabs.com](mailto:support@videolabs.com) or Web Site: [www.videolabs.com](http://www.videolabs.com).

**RMA Number (Return Merchandise Authorization Number)** – Before returning a camera for repair or replacement, request an RMA number from VideoLabs Technical Support.

Provide the technician with a return phone number or E-mail and a shipping address. Describe the product(s), provide serial number(s), the reason for repair or return, and the date of purchase.

Include your assigned RMA number on all correspondence with VideoLabs. Write your assigned RMA number on the outside of the box when you return the camera.

**Voided Warranty** – This warranty does not apply if the VideoLabs serial number has been removed or if the product(s) has been disassembled or damaged through misuse, accident, modifications or unauthorized repair.

**Shipping and Handling** – VideoLabs will not pay for inbound shipping, transportation or insurance charges, or accept any responsibility for loss and/or damage from inbound transit. VideoLabs requires that all overseas returns are shipped via UPS.

VideoLabs will pay for outbound shipping, transportation and insurance charges but will not assume responsibility for loss and/or damage by the outbound freight carrier.

**Products Not Under Warranty** – Payment arrangements are required before outbound shipping for all products that are out of warranty.

\*VideoLabs manufactures its hardware products from parts and components that are new or equivalent to new in accordance with industry-standard practices.

# Declaration of Conformity

**In accordance with ISO/IEC Guide and EN 45014:**

**Manufacturer's Name** VideoLabs  
**Manufacturer's Address** 5960 Golden Hills Drive  
Minneapolis, MN 55416-1040  
763-542-0061  
**Declares that Product** – Product Name: Image Capture Devices  
– Model Number: DocCam Pro AV

**Conform to the following product specifications**  
– Safety International: IEC 950:1991  
– Europe: EN 60950: 1992  
– Australian/New Zealand Standard:  
AS/NZS 3260: 1993

**This product complies with the requirements of the Low Voltage Directive 72/23/EEC.**

## **EMC CISPR22: 1985/EN55022: 1995 Class B**

**EN 50082-1** 1992  
**IEC 801-2** 1992/pr EN55024-2: 1992 - 3 KV CD, 8KV AD\*  
**IEC 801-3** 1994/pr EN55024-3: 1991 - 3 V/m  
**IEC 801-4** 1988/pr EN55024-4: 1992 - .5KV Signal Lines,  
1 KV Power Lines

**This product complies with the requirements of the EMC Directive 89/336/EEC.  
Minneapolis, MN – September, 1999**

**According to CFR 47:1999, Sections 15.107 and 15.109 Class B**

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 under sired operation.  
October 21, 1999

**Warning:** Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**NOTE:** 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.

Supplied cables must be used with this unit to ensure compliance with the Class B FCC Limits.

Also a Class B digital device meets all requirements of the Canadian Interference-Causing Equipment Regulations.

\*Electrostatic discharge to camera head may result in temporary loss of control functions.



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