

### FCC NOTICE (Class A)



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.

NOTE- 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 instructions, 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 own expense.

### CAUTION ON MODIFICATIONS

To comply with the limits for the Class A digital device, pursuant to Part 15 of the FCC Rules, this device must be installed in computer equipment certified to comply with the Class A limits. All cables used to connect the computer and peripherals must be shielded and grounded. Operation with non-certified computers or non-shielded cables may result in interference to radio or television reception.

Changes and modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

### European Community Compliance Statement

Class A

This product is conformity with the protection requirements of EU Council Directives 89/336/EEC amended by 92/31/EEC on the laws of the Member States relating to electromagnetic compatibility.

Warning- This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures to correct this interference.

### DISCLAIMER

No warranty or representation, either expressed or implied, is made with respect to the contents of this documentation, its quality, performance, merchantability, or fitness for a particular purpose. Information presented in this documentation has been carefully checked for reliability; however, no responsibility is

AVerMedic

assumed for inaccuracies. The information contained in this documentation is subject to change without notice.

In no event will AVerMedia be liable for direct, indirect, special, incidental, or consequential damages arising out of the use or inability to use this product or documentation, even if advised of the possibility of such damages.

### TRADEMARKS

AVerMedia is registered trademarks of AVerMedia TECHNOLOGIES, Inc. IBM PC is a registered trademark of International Business Machines Corporation. Macintosh is a registered trademark of Apple Computer, Inc. Microsoft is a registered trademark and Windows is a trademark of Microsoft Corporation. All other products or corporate names mentioned in this documentation are for identification and explanation purposes only, and may be trademarks or registered trademarks of their respective owners.

### COPYRIGHT

© 2006 by AVerMedia TECHNOLOGIES, Inc. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form by any means without the written permission of AVerMedia TECHNOLOGIES, Inc.

THE MARK OF CROSSED-OUT WHEELED BIN INDICATES THAT THIS PRODUCT MUST NOT BE DISPOSED OF WITH YOUR OTHER HOUSEHOLD WASTE. INSTEAD, YOU NEED TO DISPOSE OF THE WASTE EQUIPMENT BY HANDING IT OVER TO A DESIGNATED COLLECTION POINT FOR THE RECYCLING OF WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT. FOR MORE INFORMATION ABOUT WHERE TO DROP OFF YOUR WASTE EQUIPMENT FOR RECYCLING, PLEASE CONTACT YOUR HOUSEHOLD WASTE DISPOSAL SERVICE OR THE SHOP WHERE YOU PURCHASED THE PRODUCT.

# **Table of Contents**

Introduction	1
Package Contents	1
Optional Accessories	2
AVerVision150 Parts	
Technical Specifications	4
Making the Connections	5
Connecting the Power Adapter	6
Connecting a TV	
Connecting a VGA, Mac Display Monitor or LCD/DI	
Projector	7
Connecting an IBM Compatible PC or Macintosh	
Computer	7
Connecting a Computer via USB Connection	8
Installing the Optional Light Box	8
Connecting to a Microscope	
Setting Up AVerVision150	9
Camera Head	
Flexible Gooseneck and Arm	
LED Light Module	
Anti-glare Sheet	
Touch Button Control Panel	. 11
LED Panel	
Using the AVerVision Application	
Installing the Software	
Application User Interface	.14
Transferring the captured image from	
AVerVision150 to PC	
OSD Navigation Tree	
Menu Functions	
Troubleshooting	
Limited Warranty	.19

### Introduction

### **Package Contents**

Thank you for purchasing the AVerMedia® AVerVision150. This document camera displays any documents, negatives, transparencies and 3D objects onto a TV, LCD or DLP projector making presentations a snap.

AVerVision150 is an ideal presentation tool for business, academic, medical and the scientific community.

*'erMe* 



AVerMedia® AVerVision150





User Manual

(1) Anti-glare Sheet

Driver CD



RCA Cable

S-Video Cable

USB Cable

Computer Extension cable (VGA Cable)



Power Cord \* The power cord will vary depending on the standard

power outlet of the country

where it is sold.



Power Adapter

### **Optional Accessories**





28mm Microscopic Adapter

34mm Microscopic Adapter





Microscopic Coupler





Computer Adapter (for MAC)

Monitor Adapter (for MAC)

# **AVerMedia**

### **AVerVision150 Parts**

The illustrations below identify the parts of AVerVision150.



### **Technical Specifications**

	1
Sensor	1/2" progress scan CMOS
Effective Pixels	3 Mega pixels
Frame Rate	24 fps (max.)
White Balance	Auto / Manual
Exposure	Auto / Manual / Flicker / Night View
Image mode	Text / Graphics / High Frame
Effect	Color / B/W / Negative;
Analog RGB output	XGA 75 Hz; SVGA 60 Hz; VGA 60 Hz
H Sync. Signal	60 K / 37.879 K / 31.469 KHz, TTL level
V Sync. Signal	75 Hz / 60Hz / 60 Hz, TTL level
Image Signal Level	0.7 Vpp
Image Capture	Up to 32 Frames
Optics	
Lens	F3.0; fl=9.6mm
Focusing	Manual
Shooting Area	360mm x 270mm (max.);
Zooming	AVERZOOM: 2x, Digital Zoom: 4x
Power Source	100-240V ~ 4.0-4.2A, 50-60Hz
Consumption	6 Watts (lamp off); 9 Watts (lamp on)
Lighting (Optional)	
Lamp Type	LED lamp without laser pointer
Input/Output	
VGA Input	15-Pins D-sub (VGA)
VGA Output	15-Pins D-sub (VGA)
S-Video	Mini-DIN Jack
Composite Video	RCA Jack
USB	USB1.1
DC 6V Output	Power Jack
Dimension	
Operating	220mm x 140mm x 570mm
	220mm x 140mm x 570mm 380mm x 170mm x 55mm

**AVerMedia** 

### Making the Connections

The ports on the back and side panel of the AVerVision150 enable you to connect the unit to a computer, graphics display monitor or LCD/DLP projector, TV or other device. Illustrated below are the ports that are located at the back and side panel of the AVerVision150 with their corresponding labels.



Port	Description
(1) Antitheft Slot	Attach a Kensington compatible security lock or antitheft device.
(2) DC 12V (input)	Connect the power adapter into this port.
(3) Light Box Port	Plug the optional light box into this port.
(4) USB1.1 Port	Use AVerVision150 as a PC Camera or Mass storage device allowing you to transfer the captured images to and from the AVerVision150 memory and PC.
(5) CVBS Port (RCA/Composite)	Output the signal from the camera or the captured images from the memory on TV or Video equipment.
(6) S-VIDEO Port	Output the signal from the camera or the captured images from the memory on TV or Video equipment.
(7) VGA OUT Port	Output RGB signal from the camera, VGA input port, or the captured images from the memory on a VGA/Mac monitor or LCD/DLP projector.
(8) VGA IN Port	Input RGB signal from a computer or other sources and pass it through to the VGA output port only. Connect this port to the VGA output port of the computer.

5

### **Connecting the Power Adapter**

Connect the power adapter to a standard 100V~240V AC power source.



### **Connecting a TV**

Locate the video, s-video or SCART RGB input port of the TV or Video equipment (i.e., VCR) to record your presentation on a videotape. If you are not sure, please refer to the user manual of the TV or Video equipment.

- For better video quality, we strongly suggest using s-video connection.
  - Press VGA/TV button on the control panel to switch output presentation to TV.



### Connecting a VGA, Mac Display Monitor or LCD/DLP Projector

Locate the RGB (VGA) input port of the display device. If you are not sure, please refer to the user manual of the device.



### Connecting an IBM Compatible PC or Macintosh Computer

Locate the RGB video output port of the computer or laptop to display your PC presentation on screen. AVerVision150 supports active pass-thru connectivity, wherein the video signal from the VGA input port is continuously streamed to VGA output port and displayed on screen even when the AVerVision150 is turned off.



# Connecting a Computer via USB Connection

Locate the USB port of the computer or laptop. This enables you to use AVerVision150 as a PC Camera and to transfer the captured images to and from the memory and computer. Also see "Using the AVerVision Application" and "Transfer Image from AVerVision150 to PC".



### Installing the Optional Light Box

Connecting an optional light box enables you to view x-rays, transparencies and negative slides.



**AVerMedia** 

### **Connecting to a Microscope**

Connecting the AVerVision150 to a microscope enables you to examine microscopic objects on a big screen without straining your eyes.



### Setting Up AVerVision150

This section provides useful tips on how to adjust the AVerVision150 to meet your needs.

### Camera Head

The camera head can be rotated 135 degrees from left to right. You can also manually adjust the focus from here to improve the quality of the pictures.



### Flexible Gooseneck and Arm

The flexible gooseneck and Mechanical arm design allows you to position the camera head from any angle.



### **LED Light Module**

The LED light module provides white light and it is best use when presenting in low lightning condition.



### **Anti-glare Sheet**

The anti-glare sheet is a special coated film that helps eliminate any glare you may encounter when you are displaying very shiny object or glossy surfaces such as magazines, pictures, etc. Simply place the anti-glare sheet on top of the shiny document to reduce reflected light.



### **Touch Button Control Panel**

The touch button control panel located on the top side of the AVerVision150 provides quick access to commonly used functions.



Function	Description
(3) PLAYBACK MODE	Switch to Playback mode and toggle to display 32-thumbnail images and project the image in full screen.
(4) VGA/TV	Switches between VGA (VGA Out) or TV (Composite Video/S-Video Out).
(5) EFFECT	Convert and display the video in BW, Negative or Color. (camera mode only)
(6) FREEZE	Toggle to pause or resume the camera.
(7) CAP/DEL	Photograph an image in Camera Mode. The captured image is automatically stored in the built-in memory at 1024 x 768 resolution and it can save up to 32 images.
	Permanently remove the selected image in Playback Mode.
(8) MENU	Call up and exit the OSD main and sub-menu.
(9) ZOOM +/ -	<ul> <li>Zoom in and zoom out the picture digitally in Playback mode.</li> <li>Zoom in and zoom out the image optically and digitally in Camera mode. When it reaches the maximum AVERZOOM level of about 2 times, you can still continue to digitally zoom in the image up to 800%.</li> </ul>
(10) ▲ ▼ ◀ ►	<ul> <li>Use ▲, ♥, ◄ and ► to make a selection and adjustment. And use ► to enter sub-menu. (See Menu Functions, for more details)</li> <li>Use ▲, ♥, ◄ and ► to make a selection in 32-thumbnail images and press to view the selected image.</li> </ul>

**AVerMedia** 

### **LED Panel**

The LED on the front panel of AVerVision150 indicates the status of the unit.

Color	Description
Green	The unit is operated with VGA output.
Orange	The unit is operated with TV output
Red	The unit is in standby mode.

### **Using the AVerVision Application**

Use the AVerVision PC Camera applications provided to control the AVerVision150 to save any captured images or video clips to your PC, or send them via emails.

Note: If AVerVision150 is used in PC Camera mode, the frame rate could drop to below 12 fps.

### Installing the Software

Minimum System Requirements

- Pentium<sup>®</sup>-class processor
- Windows2000 Professional with Service Pack 2, Windows XP Professional or Home, or Windows XP Tablet PC
- 32 MB of RAM (64 MB recommended)
- 60 MB of available hard-disk space

To install PC Camera Applications:

1. Insert your Software CD into your CD-ROM drive, and click on "PC Camera Applications" and follow the instructions.



2. Click "Finish" to complete installation.

erMe

 After the installation, connect the USB cable between the AVerVision150 and your PC. Open the applications by clicking "VisionAP" icon on your desktop.



AVerMedia

3	Convert the image to Negative
4	Convert the image to Black and White
5	Back to the original image
B. Advance	Setting
	5
Function	Description
	•

Function	Description		
8	Display the image from AVerVision's camera or from the PC IN port		
9	Freeze image		
10	Adjust White Balance		
11	Adjust Exposure		
C. SnapS	C. SnapShot/Video		
Function	Description		
12	Control the video display by controlling bar		
13	Play and control the video display		
14	Record the video and save it into PC		
15	Capture a single picture and save it into PC		
16	Retrieve saved picture or video clips		
17	Setup for the picture snapshot or video recording.		

### Transferring the captured image from AVerVision150 to PC

This enables you to transfer the captured image from the built-in memory to PC.



: The instruction below **MUST** be read and followed **BEFORE** connecting the USB cable.

1. **MUST** set the USB SELECT as Mass Storage before connecting the USB cable.

To set the USB SELECT as Mass Storage, press **MENU** > select **USB SELECT** and press ( $\blacktriangleright$ )> select **MASS STORAGE** and press ( $\triangleright$ ).

- 2. When "STORAGE" appears at the lower left corner of the presentation screen, you may now connect the USB cable.
- 3. Upon connecting the USB cable, the system automatically detects the new removable disk.
- 4. You may now transfer the captured image to and from AVerVision150 built-in memory and PC hard disk.



**AVerMedia** 

### **Menu Functions**

The MENU functions of AVerVision150 enhance fine-tuning your screen display, set the timer, select OSD language and more. Press the **MENU** button to call up and exit from the main menu or sub-menu display. Then use  $\triangle \text{ or } \nabla$  buttons to select the items in the menu list. Use  $\triangleright$  button to enter sub-menu. To adjust the setting, press  $\triangleleft \text{or} \triangleright$  buttons.

MENU
EXPOSURE
WHITE BALANCE
MODE
EFFECT
RESOLUTION
LANGUAGE
Format
USB SELECT
DEFAULT

	OSD Menu	Description
	EXPOSURE AUTO MANUAL FLICKER MANUAL MANUAL MANUAL 0 50 100 FLICKER 50 Hz 60 Hz	<ul> <li>EXPOSURE : Use ▲ or ▼ buttons to select between Auto and Manual.</li> <li>AVerVision150 enables you to automatically or manually adjust the camera to determine how much light is required.</li> <li>If you choose to manually adjust the exposure, press ► or ◄ buttons to adjust the exposure level.</li> <li>FLICKER : Use ▲ or ▼ buttons to select between 50Hz or 60Hz. Some display devices cannot handle high refresh rates. The image will flicker a couple of times as the output is switched to another refresh rate.</li> <li>NIGHT VIEW :</li> <li>If you are presenting in a low-light condition, Night View enables the image of the object to appear as though under normal lighting conditions. The AVerVision150 automatically adjusts the exposure to compensate for the adverse condition, but the</li> </ul>
	WHITE BALANCE	captured image will appear to be in slow motion. WHITE BALANCE : Use ▲ or ▼ buttons to select between Auto and Manual. AVerVision150 enables you to automatically or manually adjust the camera to suit the lighting condition or color temperature. If you select to manually adjust the white balance, you can adjust the Red, Blue or use the system to measure the color temperature.
AVerMedic	MANUAL RED BLUE MEASURE	To obtain a more accurate color balance, place a sheet of white paper under the camera. Select <b>MEASURE</b> then press ► button to calibrate the color temperature. Wait until a <b>"MEASURE OK"</b> appears at the lower right corner of the presentation screen.
	MODE TEXT GRAPHICS HIGH FRAME	<ul> <li>MODE :</li> <li>Use ▲or ▼ buttons to select between Text, Graphics and High Frame modes.</li> <li>In text mode, the AVerVision300p corrects the intensity of the adjacent pixel making it more uniform producing sharper and clearer images.</li> <li>While in graphics mode, the AVerVision300p adjusts the gradient of the adjacent pixel making it appears to have a smooth image.</li> <li>While in real-time requirement, we suggest to select High Frame mode, which can more visually track animated objects and react quickly. (This mode is better to be used in good light.)</li> </ul>

OSD Menu	Description
EFFECT COLOR B/W NEGATIVE	EFFECT : Use ▲ or ▼ buttons to display the image captured by the camera into negative, positive (true color), or monochrome (black and white) the image.
RESOLUTION           1024         x         768           800         x         600           640         x         480	RESOLUTION : Use ▲ or ▼ buttons to choose from 1024x768, 800x600 or 640x480 display resolution then press ▶ to make the selection. This selection will not be found in TV output (Composite/S-Video)
FORMAT NO YES	<ul> <li>FORMAT :</li> <li>Use ▲ or ▼ buttons to select No to exit or YES to format and delete all the images saved in the built-in memory then press ►.</li> <li>Please wait till the message "FORMAT" disappear to finish the process.</li> </ul>
USB SELECT PC CAM MASS STORAGE	USB SELECT : Use ▲or▼ buttons to select USB functions between PC Camera and Image Download. In PC Camera mode, you can connect a USB cable to your computer and access the software application from the Driver CD. In Mass Storage mode, you can transfer the saved images from AVerVision150's built-in memory to your computer.
LANGUAGE ENGLISH ESPAÑOL PORTUGUÊS 日本語 中文	LANGUAGE : Use ▲ or ▼ buttons to select from different languages then press ► to make the selection.
DEFAULT NO YES	<b>DEFAULT :</b> Use ▲ or ▼ buttons to select YES to restore to original factory default setting or NO to exit then press ► to make the selection.

**/er/Med** 

**Troubleshooting** This section provides many useful tips on how to solve common problems while using the AVerVision150.

### There is no picture on the presentation screen.

- 1. Check all the connectors again as shown in this manual.
- 2. Check the on/off switch of the display output device.
- 3. Verify the setting of the display output device.
- If you are presenting from a notebook or computer through the 4. display output device, please check and switch the document camera source to PC Mode.

# I have set up the AVerVision150 and checked all the connections as specified in the manual, but I cannot get a picture on the preferred presentation screen.

- Once the power cords are connected, the LED light turns RED as standby mode. Simply switch the AVerVision150 "ON" by pressing the on/off switch until the LED light is blanking and turns GREEN.
- The default camera display resolution setting is on 1024x768. If your output device does not support this resolution; no image can be projected. Simply press the MENU and RIGHT or LEFT button to the increase or decrease the resolution setting.
- 3. If your display output device is TV or any analog device, please click on the VGA/TV button to switch output mode.

# The picture on the presentation screen is distorted or the image is blurry.

- 1. Reset all changed settings, if any, to the original manufacturer default setting (Refer to the Menu Functions for more details and steps).
- 2. Use the Brightness and Contrast menu functions to reduce the distortion if applicable.
- 3. If you discover that the image is blurry or out of focus, adjust the focus ring on the camera head.

### There is no computer signal on presentation screen.

- 1. Check all the cable connections among the display device, AVerVision150 and your PC.
- 2. Connect your PC to the AVerVision150 first before you power on your computer.

# I plug in the power of AVerVision150, but still couldn't see anything.

It will take 20~30 seconds for warming up AVerVision150.

### **Limited Warranty**

For a period of time beginning on the date of purchase of the applicable product and extending as set forth in Section 6 of this Limited Warranty (the "Warranty Period"). AVerMedia Technologies. Inc. ("AVerMedia") warrants that the applicable product ("Product") substantially conforms to AVerMedia's documentation for the product and that its manufacture and components are free of defects in material and workmanship under normal use. "You" as used in this agreement means you individually or the business entity on whose behalf you use or install the product, as applicable. This limited warranty extends only to You as the original purchaser. Except for the foregoing, the Product is provided "AS IS." In no event does AVerMedia warrant that You will be able to operate the Product without problems or interruptions, or that the Product is suitable for your purposes. Your exclusive remedy and the entire liability of AVerMedia under this paragraph shall be, at AVerMedia's option, the repair or replacement of the Product with the same or a comparable product. This warranty does not apply to (a) any Product on which the serial number has been defaced, modified, or removed, or (b) cartons, cases, batteries, cabinets, tapes, or accessories used with this product. This warranty does not apply to any Product that has suffered damage, deterioration or malfunction due to (a)

accident, abuse, misuse, neglect, fire, water, lightning, or other acts of nature, commercial or industrial use, unauthorized product modification or failure to follow instructions included with the Product, (b) misapplication of service by someone other than the manufacturer's representative, (c) any shipment damages (such claims must be made with the carrier), or (d) any other causes that do not relate to a Product defect. The Warranty Period of any repaired or replaced Product shall be the longer of (a) the original Warranty Period or (b) thirty (30) days from the date of delivery of the repaired or replaced product.

### Limitations of Warranty

AVerMedia makes no warranties to any third party. You are responsible for all claims, damages, settlements, expenses, and attorneys' fees with respect to claims made against You as a result of Your use or misuse of the Product. This warranty applies only if the Product is installed, operated, maintained, and used in accordance with AVerMedia specifications. Specifically, the warranties do not extend to any failure caused by (i) accident, unusual physical, electrical, or electromagnetic stress, neglect or misuse, (ii) fluctuations in electrical power beyond AVerMedia specifications, (iii) use of the Product with any accessories or options not furnished by AVerMedia or its authorized agents, or (iv) installation, alteration, or repair of the Product by anyone other than AVerMedia or its authorized agents.

### **Disclaimer of Warranty**

EXCEPT AS EXPRESSLY PROVIDED OTHERWISE HEREIN AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, AVERMEDIA DISCLAIMS ALL OTHER WARRANTIES WITH RESPECT TO THE PRODUCT, WHETHER EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, INCLUDING WITHOUT LIMITATION, SATISFACTORY QUALITY, COURSE OF DEALING, TRADE USAGE OR PRACTICE OR THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NONINFRINGEMENT OF THIRD PARTY RIGHTS.

### Limitation of Liability



IN NO EVENT SHALL AVERMEDIA BE LIABLE FOR INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, PUNITIVE, OR CONSEQUENTIAL DAMAGES OF ANY NATURE INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS, DATA, REVENUE, PRODUCTION, OR USE, BUSINESS INTERRUPTION, OR PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES ARISING OUT OF OR IN CONNECTION WITH THIS LIMITED WARRANTY, OR THE USE OR PERFORMANCE OF ANY PRODUCT, WHETHER BASED ON CONTRACT OR TORT, INCLUDING NEGLIGENCE, OR ANY OTHER LEGAL THEORY, EVEN IF AVERMEDIA HAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. AVERMEDIA'S TOTAL, AGGREGATE LIABILITY FOR DAMAGES OF ANY NATURE, REGARDLESS OF FORM OF ACTION, SHALL IN NO EVENT EXCEED THE AMOUNT PAID BY YOU TO AVERMEDIA FOR THE SPECIFIC PRODUCT UPON WHICH LIABILITY IS BASED.

### **Governing Law and Your Rights**

This warranty gives You specific legal rights; You may also have other rights granted under state law. These rights vary from state to state.

For warranty period, please refer to the warranty card.





P/N 300AACBN Made in Taiwan