FCC NOTICE

This device 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 commercial, industrial or business environment. This equipment can generate, use and radiate radio frequency energy and, if not installed and used in accordance with the instruction, 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.

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.

CAUTION ON MODIFICATIONS

To comply with the limits for the Class B digital device, pursuant to Part 15 of the FCC Rules, this device must be installed in computer equipment certified to comply with the Class B 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.

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

CE NOTICE

This is a Class B product.

DISCLAIMER

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Table of Contents

Chapter 1 Introduction

Thank you for purchasing the **AVerKey3 Plus**. We are certain you will find this product a useful video presentation tool that is highly suitable for your business and multimedia applications. To get you started, this chapter briefly describes what the **AVerKey3 Plus** has to offer and lists the system requirements needed in order to use this product.

Product Highlights

The **AVerKey3 Plus** is an external PC/MAC-to-TV scan converter. It can convert computer images into video format and display them on any TV monitor or large-screen LCD projector. True Plug & Play with no software drivers required, the **AVerKey3 Plus** is compatible with all computers, notebooks and operating systems.

AVerKey3 Plus offers many exciting features to enhance your presentations :

1. Remote Control and Touch Button Control Panel

The **AVerKey3 Plus** gives extra mobility to the presenter with its infrared remote control. You can move around the room and control your presentation with the remote.

Just in case you misplace the remote control, you can still give your presentation. With a control panel located on the **AVerKey3 Plus** unit, you can directly access major functions.

2. Area Zoom

This function divides your VGA screen into 9 separate sections and lets you easily zoom in or out on individual sections of interest.

3. Superior Image Quality

With resolutions up to 1024 x 768, wider horizontal and vertical frequencies (24KHz ~ 65KHz and 50Hz ~ 100Hz respectively) and over 16 million colors, you're guaranteed to receive clear and professional images.
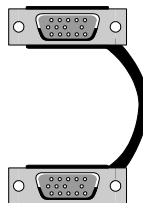
What's in the Package
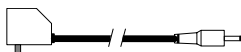
Your **AVerKey3 Plus** package includes the following :

AVerKey3 Plus Scan Converter & Remote Control (2 batteries included)
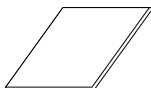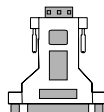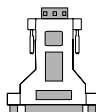
This User's Manual

AC Power Adapter Unit

VGA Cable

AV Cable

S-Video Cable

Mac Monitor Adapter

Mac VGA Adapter
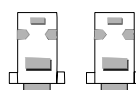
12" and 14" Dummy Terminators (for MAC)

Features and Specifications

Features

- Plug and Play, no software drivers required
- Compatible with all PCs, MACs and Laptops
- Wireless remote control access to all functions
- Touch-button control panel
- Supports resolutions up to 1024 x 768 (PC and MAC) with 16.7 million colors
- Up to 7 levels of flicker-filter selection for sharpness control
- Simultaneous display on computer and TV monitors (Supports all VGA monitors and MultiScan MAC monitors)
- Traditional Zoom (2x) and Pan
- Exclusive AVerMedia Area Zoom
- Zoom sharpness control

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- Screen freeze/unfreeze
- Full-screen underscan/overscan (underscan up to 1024 x 768)
- Wide-range picture width and height adjustment
- Horizontal/vertical picture positioning
- Horizontal/vertical screen panning
- TV brightness control
- Supports Composite/S/RGB video output
- Auto-Save

Specifications

Input Signal:	VGA, RGB or MAC
	Horizontal frequency : 24KHz - 65KHz
	Vertical frequency : 50Hz - 100Hz
Output Signal:	Composite video, S-video, Computer monitor (PC or MAC)
	pass-thru output, SCART RGB video output
Power Supply:	7.5VDC Power Adapter
Dimensions:	Base unit : 5.95" x 4.76" x 1.45"
	Remote control : 7.24" x 2.2" x 0.65"
Weight:	0.77 lb. (349 grams)
Compliance:	FCC Class B

System Requirements

To use the **AVerKey3 Plus**, you will need :

- IBM® PC or compatibles;
- Any Macintosh supporting standard display modes :
  512 x 384 at 24KHz ; 640 x 480 at 31KHz or 35KHz ;
  832 x 624 at 48KHz ; up to 1024 x 768 at 60KHz
  (MAC systems without the monitor output require a Power-R or Apple® adapter)

NOTE: AVerKey3 Plus should in theory support any computer and display systems with a vertical display frequency range of 50Hz to 100Hz and a horizontal display frequency of 24KHz to 65KHz. However, due to different custom hardware configurations and the wide variety of connectors used on various systems, we cannot guarantee that **AVerKey3 Plus** will function properly.

Chapter 2 Hardware Installation and Setup

The AVerKey3 Plus Back Panel

The ports on the back panel of the **AVerKey3 Plus** are for connecting the converter to the system unit and graphics display monitor. The figure and descriptions below specify what device should go into each port. (Text describing each port are printed at the bottom side of the converter.)

POWER (7.5V)   VGA IN   VGA OUT
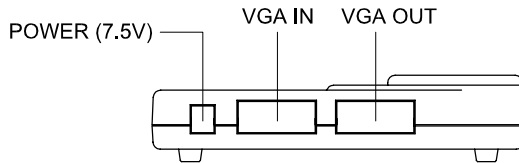
AVerMedia AVerKey3 Plus Back Panel

POWER (7.5V) : Plug the *AC Power Adapter* to this port.

VGA IN : *For IBM PC or compatible :*
This port connects the **AVerKey3 Plus** to the IBM compatible PC's VGA port via the supplied *VGA Cable*.

For Macintosh :
This port connects the **AVerKey3 Plus** to the Macintosh computer's monitor port. Use the supplied *VGA Cable and Mac VGA Adapter* to connect.

VGA OUT : The computer monitor should be connected to this port. You need to use the supplied *Mac Monitor Adapter* to connect the Macintosh monitor.
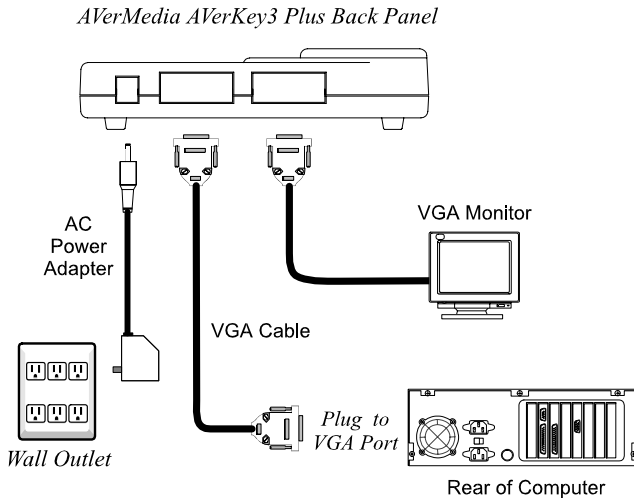
Connecting to an IBM PC and VGA Monitor

1. Connect the **AVerKey3 Plus** to the PC.

   Plug one end of the supplied *VGA Cable* to the **AVerKey3 Plus** "VGA IN" port and the other end to the PC's VGA port.

2. Connect the VGA monitor to **AVerKey3 Plus**.

   Plug the VGA monitor cable to the **AVerKey3 Plus** "VGA OUT" port.

3. Plug the supplied *AC Power Adapter* into the **AVerKey3 Plus** "POWER" port.

AVerMedia AVerKey3 Plus Back Panel

AC
Power
Adapter

VGA Monitor

VGA Cable

*Plug to
VGA Port*

Wall Outlet

Rear of Computer

Connecting to a Macintosh Computer and Display Monitor

1. Use the supplied *VGA Cable* and the *Mac VGA Adapter* to connect **AVerKey3 Plus** to the Macintosh computer.
   - Plug one end of the *VGA Cable* to the **AVerKey3 Plus** "VGA IN" port.
   - Attach the *Mac VGA Adapter* to the other end of the *VGA Cable*.

- Connect the *VGA Cable* with the attached *Mac VGA Adapter* to the monitor port on the back panel of your Macintosh computer.

2. Connect your Macintosh monitor to the **AVerKey3 Plus**.

   - Disconnect the monitor from the computer.
   - Then, attach the *Mac Monitor Adapter* to the monitor cable.
   - Connect the monitor cable with the attached *Mac Monitor Adapter* to the **AVerKey3 Plus** "VGA OUT" port.

3. If you do not intend to use a computer monitor with your Macintosh computer, you will need to connect a dummy terminator to the **AVerKey3 Plus** "VGA OUT" port. In general, a 14" terminator is used. A 12" terminator is only used with software that requires it.

   Terminators are used with Macintosh and laptops when no external monitor is used.

4. Plug the supplied *AC Power Adapter* into the **AVerKey3 Plus** "POWER" port.

AVerMedia AVerKey3 Plus Back Panel
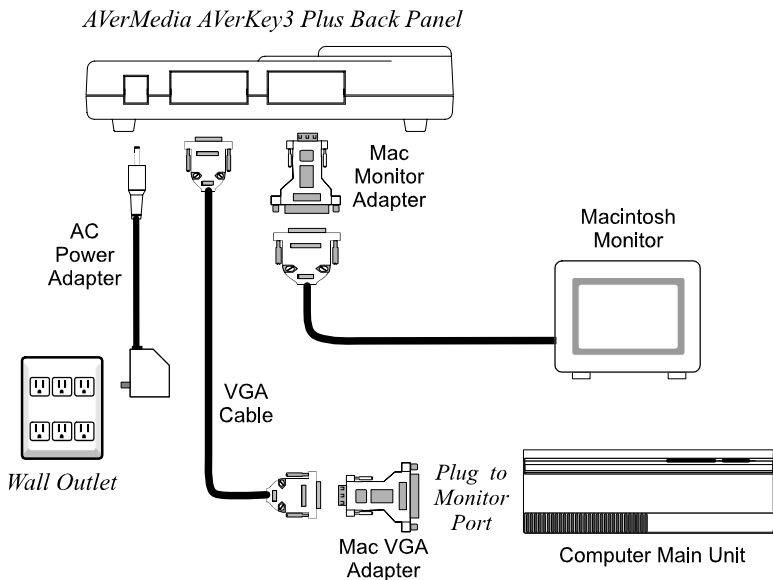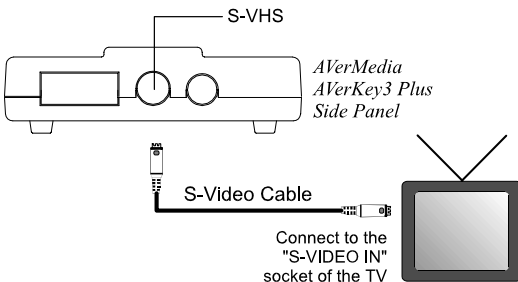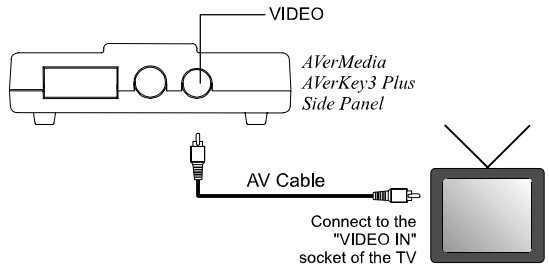
Connecting to a SCART RGB Monitor

If you are using a SCART RGB monitor, you can connect it to the **SCART RGB** port at the side panel of the **AVerKey3 Plus** using a *SCART RGB Cable*. (Refer to the setup diagram at the right.)

SCART RGB Monitor

Rear of SCART TV

SCART RGB Cable (not supplied)

SCART RGB

AVerMedia AVerKey3 Plus Side Panel
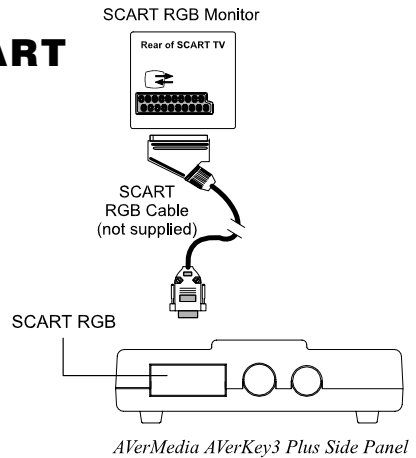
Connecting the TV

To display the computer screen on TV (or any video monitor), you will need to connect the TV to one of the ports at the **AVerKey3 Plus** side panel.

If the TV set uses the composite video standard, connect the TV to the **AVerKey3 Plus** "VIDEO" port using the supplied *AV Cable*.

VIDEO

AVerMedia AVerKey3 Plus Side Panel

AV Cable

Connect to the "VIDEO IN" socket of the TV

S-VHS

AVerMedia AVerKey3 Plus Side Panel

S-Video Cable

Connect to the "S-VIDEO IN" socket of the TV

If the TV set uses the S-video standard, connect the TV to the **AVerKey3 Plus** "S-VHS" port using the supplied *S-Video Cable*.

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Chapter 3   Using the AVerKey3 Plus

This chapter will show you how to use the *Remote Control Unit* and *Touch Button Control Panel* of the **AVerKey3 Plus**. At the end of this chapter, you will find details on using the zoom functions of the **AVerKey3 Plus**.

Using the Remote Control

To use the remote control, first insert the batteries (2 size "AA" batteries are provided) into the battery compartment at the back of the remote.

The *Infrared Sensor* is located at the front panel of the **AVerKey3 Plus** (see figure below). While using the remote, aim it at the infrared sensor.
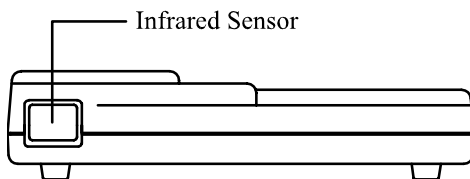
*AVerMedia AVerKey3 Plus Front Panel*

The figure and descriptions on the following pages show you how to use the remote control.
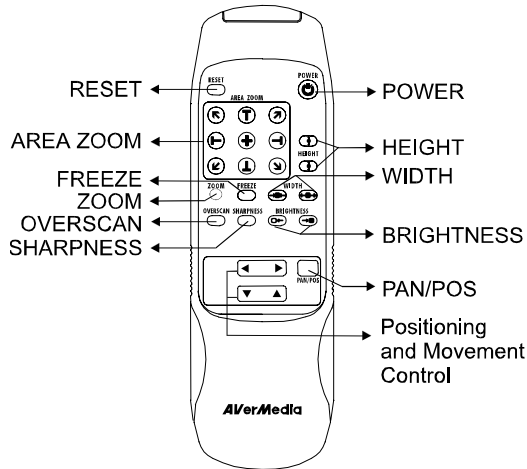
POWER : Switches the **AVerKey3 Plus** on/off.

RESET : Restores the **AVerKey3 Plus** to original factory settings.

AREA ZOOM : Provides quick selection of the screen area to magnify.

The *Area Zoom* function divides the computer image on the TV into 9 parts and allows you to select the desired part to zoom.

ZOOM : Press this button to zoom in or out of the computer image on TV.

FREEZE : Press this button to freeze or unfreeze the computer image on TV.

OVERSCAN : Toggles between *Underscan* and *Overscan*.

Overscan displays the computer image on TV to the fullest. The image will be chopped off at the borders when displayed this way.

When you switch to *Underscan*, the computer image will be completely displayed on TV.

Note: Images will not be chopped off for resolutions up to 1024 x 768 in underscan mode.

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SHARPNESS : This button alternates up to 7 levels of sharpness. Press this button repeatedly until you find the level of sharpness you want.

HEIGHT (⬍) : Press (⬍) to enlarge the height of the computer image on TV.

HEIGHT

(⬍) Press (⬍) to reduce the height of the computer image on TV.

WIDTH : Press (←■→) to enlarge the width of the computer image on TV.

(→■←) (←■→)

Press (→■←) to reduce the width of the computer image on TV.

BRIGHTNESS : Press (→■) to decrease the brightness level.

(□←) (→■)

Press (□←) to increase the brightness level.

There are 4 brightness levels to choose from.

PAN/POS : Toggles between **PAN** and **POS** modes.

When you switch to **PAN** mode, pressing the **Positioning & Movement Control** buttons will allow you to move around the computer image on TV.

When you switch to **POS** mode, pressing the **Positioning & Movement Control** buttons will allow you to change the position of the computer image on the TV. You can move the image left, right, up, or down.

Positioning : Use these buttons to **PAN** around the computer image on
and Movement TV or adjust the **POS**ition of the image.
Control (◄ ►)

(▼ ▲)

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Touch Button Panel

The figure and descriptions below show you how to use the *Touch Button Panel* on the hardware case.

Touch Button
Panel

OVERSCAN
POWER
Positioning &
Movement Control
ZOOM

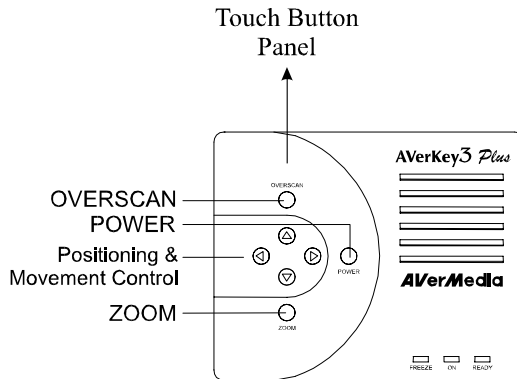|		
POWER	:	Switches the **AVerKey3 Plus** on/off.
OVERSCAN	:	Toggles between *Underscan* and *Overscan*. (Refer to the section, *Using the Remote Control*, for more details on this function.)
ZOOM	:	Press this button to zoom in or out of the computer image on TV.
Positioning & Movement Control	:	Use these buttons to **PAN** around the computer image on TV or adjust the **POS**ition of the image.

The LED Panel

Aside from the touch button panel, you will also find an *LED Panel* on the **AVerKey3 Plus** unit. The figure and descriptions below show what each LED indicator in this panel represents.

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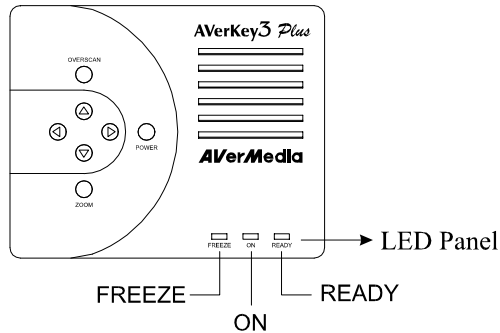
FREEZE : This LED shows whether FREEZE or UNFREEZE is in operation. (FREEZE is a red LED in the NTSC version and a green LED in the PAL version.)

If this LED is on, it means that the user has paused, that is, frozen the screen.

ON : This (green) LED is the power on/off indicator. If this LED is on, it indicates that the **AVerKey3 Plus** has been powered on.

READY : If this (red) LED is on, it indicates that the **AVerKey3 Plus** is ready for use.

Zoom Functions

The **AVerKey3 Plus** provides 2 types of zoom : *Normal Zoom* and *AVerMedia Area Zoom*.

Normal Zoom

Normal Zoom allows you to zoom in (200%) the computer screen on TV display. Simply press the **ZOOM** button on the remote control.

You can move (pan) around freely to any part of the screen. Press the **PAN/POS** button to change to PAN mode. Then, press the Up, Down,

Left, and Right Arrows, which are the **Positioning and Movement Control** buttons, to move around the zoomed image.

AVerMedia Area Zoom

This function divides your screen into 9 parts and allows you to select the desired part to zoom through the available buttons on the remote control.

The directional buttons on the remote corresponds to 9 parts of your screen :

Directional Buttons   *9 Parts of the Screen*
on the Remote Control
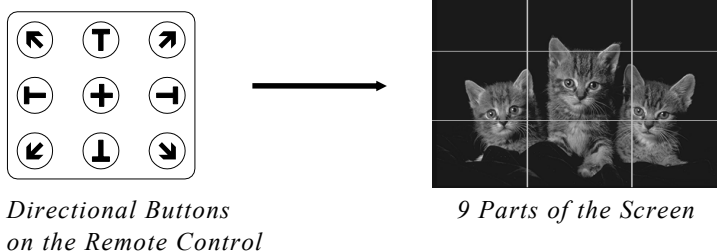
Choose which part you want to zoom, and then press one of the 9 directional buttons on the remote that corresponds to that area.

Example :

To pan around the zoomed area, press the **PAN/POS** button to change to PAN mode. Then, press the Up, Down, Left, and Right Arrows, which are the **Positioning and Movement Control** buttons, to move around the zoomed area.

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Chapter 4 Troubleshooting

This chapter provides many useful tips on how to solve common problems while using the **AVerKey3 Plus**.

There is no picture on my TV.

---

1. Check all the connectors again as shown in this manual.

2. Check your TV remote control on/off switch and channel setting.

3. Verify the setting of the Composite Input or S-VHS Input of your TV set.

4. If you are using a SCART connector, check the SCART input of your TV set.

5. If you are using a notebook, you may have to switch to external VGA mode. (Refer to your notebook's manual.)

6. As specified by IBM, some systems may require that the monitor is present and connected when the system is powered up.

7. If you are using the **AVerKey3 Plus** on the Macintosh, you must have a Macintosh monitor or *Dummy Terminators* connected.

When the signal runs through a VCR, there is no picture on the TV.

---

1. Check your TV/VCR input channel setting.

2. If your TV and VCR are connected to an AV Amplifier, please check the input/output selection.

I have set up the AVerKey3 Plus and checked all the connections as specified in the manual, but I can only get a picture on the VGA monitor, not on the TV screen.

AVerKey3 Plus is in the "Ready" mode once power is connected. You need to switch **AVerKey3 Plus** "ON", either from the remote control or from its touch button panel to display both VGA and VIDEO.

The picture on my TV is distorted.

1. Before doing any adjustments, reset all the picture attributes to the factory default setting using the "Reset" button on the remote control.

2. Each VIDEO display device is slightly different from another. Use the Panning Control of **AVerKey3 Plus** to adjust the picture.

3. Use the Brightness and Sharpness picture attributes controls on the remote control to reduce the distortion.

The picture on my TV is all messed up.

1. When using **AVerKey3 Plus** with the Macintosh, up to 1024 x 768 can be supported.

2. When using **AVerKey3 Plus** with IBM PC compatible computers, screen resolutions up to 1024 x 768 (horizontal frequency less than 65KHz) is supported.

There is no image on both my Macintosh monitor and TV.

When you turn on the Macintosh computer, it will first auto-detect the type of monitor you have. During auto-detection, there won't be any display on your Macintosh monitor. To avoid this problem, connect your Macintosh computer, monitor and all the necessary cables to the **AVerKey3 Plus** first before you power on your Macintosh computer.

Appendix   Supported Display Modes

The reference table below lists the various display resolutions which the **AVerKey3 Plus** can support.

Computer / Operating System	Display Resolution	Maximum Vertical Frequency	Maximum Horizontal Frequency
IBM PC	720 X 400	60 Hz	31.5 KHz
DOS/V	640 X 480	60 Hz	31.5 KHz
		72 Hz	37.9 KHz
		75 Hz	37.5 KHz
		85 Hz	43.3 KHz
		90 Hz	47.9 KHz
		100 Hz	52.2 KHz
	800 X 600	56 Hz	35.1 KHz
		60 Hz	37.9 KHz
		72 Hz	48.1 KHz
		75 Hz	46.9 KHz
		85 Hz	53.7 KHz
		90 Hz	57.0 KHz
		100Hz	62.5 KHz

Computer / Operating System	Display Resolution	Maximum Vertical Frequency	Maximum Horizontal Frequency
	1024 X 768	60 Hz	48.4 KHz
		70 Hz	56.5 KHz
		75 Hz	60 KHz
Macintosh	512 X 384	60 Hz	24.5 KHz
	640 X 480	67 Hz	35 KHz
	832 X 624	75 Hz	49.7 KHz
	1024 X 768	75 Hz	60 KHz

LIMITED WARRANTY

AVerMedia Technologies, Inc. warrants this product to be free of defects resulting from faulty manufacture or components under the following terms :

WARRANTY LENGTH

Labor is warranted for (1) one year from the date of purchase.

Parts are warranted for (1) one year from the date of purchase.

Replacement products will be warranted for the remainder of the one year warranty period or (30) thirty days, whichever is longer.

WHO IS PROTECTED

This warranty is enforceable only by the first consumer purchaser.

WHAT IS AND IS NOT COVERED

Except as specified below, this warranty covers all defects resulting from faulty manufacturing of this product. The following are not covered by the warranty.

1. Any product on which the serial number has been defaced, modified, or removed.
2. Damage, deterioration, or malfunction resulting from :
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. (Claims must be made with carrier.)
D. Any other cause which does not relate to a product defect.
3. Cartons, cases, batteries, cabinets, tapes, or accessories used with product.
4. AVerMedia does not warrant that this product will meet your requirements; it is your responsibility to determine the suitability of this product for your purpose.

WHAT WE WILL AND WILL NOT PAY FOR

We will pay labor and material expenses for covered items. However, we will not pay for the following :
1. Removal or installation charges.
2. Shipping charges.
3. Any incidental charges.

EXCLUSION OF DAMAGES

THE MANUFACTURER'S SOLE OBLIGATION AND LIABILITY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF A DEFECTIVE PRODUCT AT OUR OPTION. THE MANUFACTURER SHALL NOT, IN ANY EVENT, BE LIABLE TO THE PURCHASER OR ANY THIRD PARTY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGE (INCLUDING, BUT NOT LIMITED TO, DAMAGES RESULTING FROM INTERRUPTION OF SERVICE AND LOSS OF BUSINESS) OR LIABILITY IN TORT RELATING TO THIS PRODUCT OR RESULTING FROM ITS USE OR POSSESSION.

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There are no other oral or written warranties, expressed or implied, including but not limited to those of merchantability or fitness for a particualr purpose. Any implied warranties are limited in duration to one year from the date of purchase.

STATE LAW AND YOUR WARRANTY

This warranty gives you specific legal rights, and you may also have other rights granted under state law. These rights vary from state to state.

CONTACT INFORMATION

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