KRAMER

USER MANUAL

MODEL:

VP-426H2
4K HDMI-PC Scaler

VP-426H2 Quick Start Guide

This guide helps you install and use your product for the first time. For more detailed information, go to **www.kramerav.com/downloads/VP-426H2** to download the latest manual (or scan the QR code) and check if firmware upgrades are available.

Step 1: Check what's in the box

☑ The **VP-426H2** 4K HDMI-PC Scaler   ☑ 4 Rubber feet   ☑ Mounting brackets

☑ 1 Power supply (5V DC)   ☑ 1 Quick start guide

Step 2: Install the VP-426H2

To mount the device in a rack, use an **RK-T2B** rack adapter. Alternatively, attach the rubber feet to the underside of the device and place it on a table. A Kramer MegaTOOLS™ can also be mounted on a desk top, wall or similar area. Fasten a bracket on each side of the MegaTOOLS™ using the two M3x8 screws (supplied). Use the flat-head screws (supplied) to fix the MegaTOOLS™ to the mounting surface or enable it to slide in place.

Step 3: Connect inputs and outputs

Always switch OFF the power on each device before connecting it to your **VP-426H2**.
For best results, we recommend that you always use Kramer high-performance cables to connect AV equipment to the **VP-426H2**.
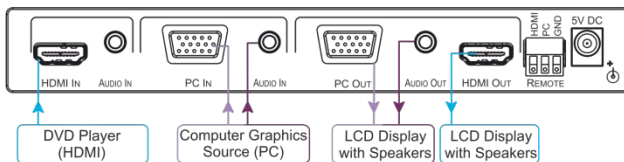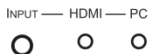

Step 4: Connect the power

Connect the 5V DC power adapter to the **VP-426H2** and plug the adapter into the mains.

Step 5: Operate the VP-426H2

Choose an input:

Use the menu, reset the resolution or freeze the frame:

Choose parameters from the OSD:

Contents

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1   Introduction

Welcome to Kramer Electronics! Since 1981, Kramer Electronics has been providing a world of unique, creative, and affordable solutions to the vast range of problems that confront video, audio, presentation, and broadcasting professionals on a daily basis. In recent years, we have redesigned and upgraded most of our line, making the best even better!

Our 1,000-plus different models now appear in 14 groups that are clearly defined by function: GROUP 1: Distribution Amplifiers; GROUP 2: Switchers and Routers; GROUP 3: Control Systems; GROUP 4: Format/Standards Converters; GROUP 5: Range Extenders and Repeaters; GROUP 6: Specialty AV Products; GROUP 7: Scan Converters and Scalers; GROUP 8: Cables and Connectors; GROUP 9: Room Connectivity; GROUP 10: Accessories and Rack Adapters and GROUP 11: Sierra Video Products; GROUP 12: Digital Signage; and GROUP 13: Audio, and GROUP 14: Collaboration.

Congratulations on purchasing your Kramer **VP-426H2** *4K HDMI-PC* Scaler, which is ideal for the following typical applications:

- Projection systems in conference rooms, boardrooms, auditoriums, hotels and churches, production studios, rental and staging
- Home theater up-scaling

2 Getting Started

We recommend that you:

- Unpack the equipment carefully and save the original box and packaging materials for possible future shipment

- Review the contents of this user manual

Go to www.kramerav.com/downloads/VP-426H2 to check for up-to-date user manuals, application programs, and to check if firmware upgrades are available (where appropriate).

2.1 Achieving the Best Performance

To achieve the best performance:

- Use only good quality connection cables (we recommend Kramer high-performance, high-resolution cables) to avoid interference, deterioration in signal quality due to poor matching, and elevated noise levels (often associated with low quality cables)

- Do not secure the cables in tight bundles or roll the slack into tight coils

- Avoid interference from neighboring electrical appliances that may adversely influence signal quality

- Position your Kramer **VP-426H2** away from moisture, excessive sunlight and dust

This equipment is to be used only inside a building. It may only be connected to other equipment that is installed inside a building.

2.2 Safety Instructions

Caution: There are no operator serviceable parts inside the unit

Warning: Use only the Kramer Electronics input power wall adapter that is provided with the unit

Warning: Disconnect the power and unplug the unit from the wall before installing

2.3   Recycling Kramer Products

The Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/EC aims to reduce the amount of WEEE sent for disposal to landfill or incineration by requiring it to be collected and recycled. To comply with the WEEE Directive, Kramer Electronics has made arrangements with the European Advanced Recycling Network (EARN) and will cover any costs of treatment, recycling and recovery of waste Kramer Electronics branded equipment on arrival at the EARN facility. For details of Kramer's recycling arrangements in your particular country go to our recycling pages at *www.kramerav.com/support/recycling/*.

3   Overview

The Kramer **VP-426H2** is a high-performance digital scaler for computer graphics/HDTV and HDMI signals. The unit up- or down-scales computer graphics and HDTV signals to resolutions up to 4K2K. 28 output resolutions and Native are supported. The user can choose the input – computer graphics/HDTV or HDMI – and the scaled output is sent to both the computer graphics and HDMI outputs.

The **VP-426H2** also features:

- Support of input and output resolutions up to 4K60 4:4:4
- HDCP 2.2, HDMI 2.0/1.4 compliance
- An option to bypass or scale 4K inputs
- Reading and storage of acceptor's EDID
- VGA (RGBHV), Component (YPrPr) or HDMI inputs
- RGBHV and HDMI simultaneous outputs
- Input auto-scanning
- Constant Sync - maintains sync on the output, even if input video signal is lost or interrupted
- Analog/embedded audio support for inputs and outputs
- Support of multi-channel embedded audio bypassing
- A built-in ProcAmp for convenient signal adjustment
- An On-Screen Display (OSD) for easy setup and adjustment, accessible via the front-panel buttons
- A non-volatile memory that retains the last settings used
- A freeze button
- Contact closure inputs for remote switching of sources
- A USB port for upgrading firmware

The machine is fed from an external 5V DC source, making it suitable for field operation.

3.1 Defining the VP-426H2 4K HDMI-PC Scaler
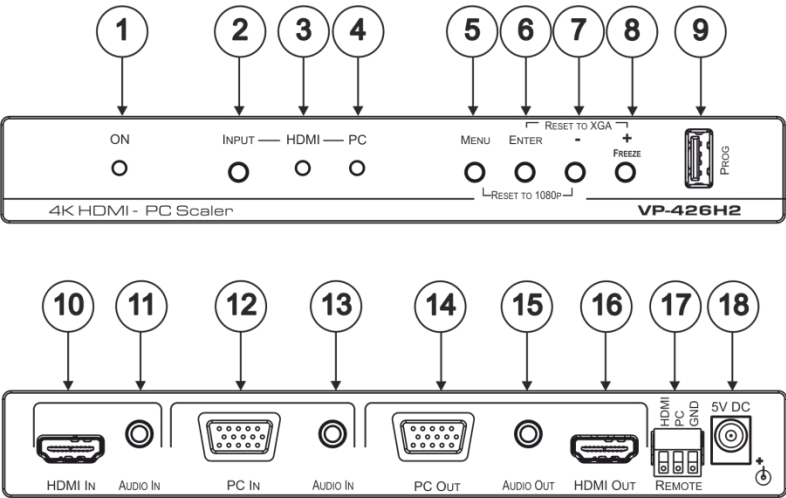
This section defines the **VP-426H2**.

Figure 1: VP-426H2 4K HDMI-PC Scaler

#	Feature	Function
1	ON LED	Lights green when the unit is powered on
2	INPUT Button	Press to toggle the input between HDMI and PC
3	HDMI LED	Lights when the HDMI input is selected
4	PC LED	Lights when the PC input is selected
5	MENU Button	Press to enter/escape the on-screen display (OSD) menu. When not in OSD, press together with the – button to reset to 1080p
6	ENTER Button	In OSD, press to choose the highlighted menu item. When not in OSD, press together with the + button to reset to XGA resolution (1924x768)
7	– Button	In OSD, press to move backward through the list or to decrement the parameter value
8	+/FREEZE Button	In OSD, press to move forward through the list or to increment the parameter value. When not in OSD, press to freeze the display
9	PROG USB Connector	Connects to a PC for programming upgrade
10	PC IN 15-pin HD Connector	Connects to a PC computer graphics source
11	AUDIO IN PC 3.5mm Mini Jack	Connects to an unbalanced stereo PC source
12	AUDIO IN HDMI 3.5mm Mini Jack	Connects to an unbalanced stereo HDMI source
13	HDMI IN Connector	Connects to an HDMI source (if there is no video input, audio is disabled)
14	PC OUT 15-pin HD Connector	Connects to a PC computer graphics acceptor
15	AUDIO OUT 3.5mm Mini Jack	Connects to an unbalanced stereo audio acceptor

#	Feature	Function
16	HDMI OUT Connector	Connects to an HDMI acceptor
17	REMOTE Terminal Block	Connects to remote contact closure switches
18	5V DC	+5V DC connector for powering the unit

4 Connecting the VP-426H2

Always switch off the power to each device before connecting it to your **VP-426H2**. After connecting your **VP-426H2**, connect its power and then switch on the power to each device.

To connect the **VP-426H2** as illustrated in the example in Figure 2:

1. Connect a computer graphics video source to the PC IN 15-pin HD connector and a PC audio source to the PC AUDIO IN 3.5mm mini jack (both for example, from a PC).

    ▪ When connecting to a component source (YPbPr), connect as shown here:

PIN #	Signal
1	P_R
2	Y
3	P_B
6, 7, 8	Ground

2. Connect an HDMI video source (for example, PS4) to the HDMI IN connector.

3. Connect the PC OUT 15-pin HD connector and the AUDIO OUT 3.5mm mini jack to a computer graphics with audio acceptor (for example, an analog display and an unbalanced amplifier).

4. Connect the HDMI OUT connector to an HDMI acceptor (for example, an LCD display with speakers).

5. If desired, connect the REMOTE terminal block connector to contact closure switches (see Section 4.1).

6. Connect the 5V DC power adapter to the power socket and connect the adapter to the mains electricity (not shown in Figure 2).
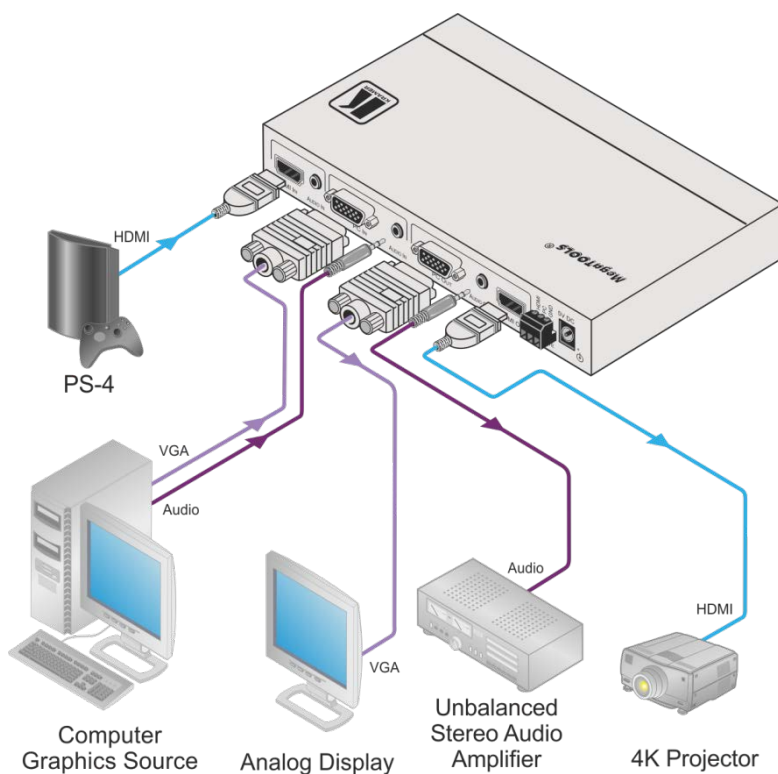
Figure 2: Connecting the VP-426H2 4K HDMI-PC Scaler

4.1 Connecting the Remote Terminal Block

The contact closure remote control pins operate in a similar way to the INPUT
SELECT button. Using the contact closure remote control (also known as push-to-
make momentary contact) you can select the PC or the HDMI input. To do so,
momentarily connect the required input pin (HDMI or PC) on the REMOTE
terminal block connector to the G (ground) pin, as shown in Figure 3.

Do not connect more than one PIN to the GND PIN at the same time.

To select HDMI, momentarily connect the HDMI pin to the GND pin

To select PC, momentarily connect the PC pin to the GND pin

Figure 3: Connecting the Remote Contact Closure Switches

5 Operating the VP-426H2

The **VP-426H2** is operated directly using the front panel buttons and the OSD menu (see Section 5.2).

5.1 Operating the VP-426H2 Using the Front Panel Buttons

During normal operation (without the OSD), the front panel buttons perform the following functions:

- Pressing MENU opens the on-screen display (OSD) main menu (see Section 5.2), the next press closes the OSD
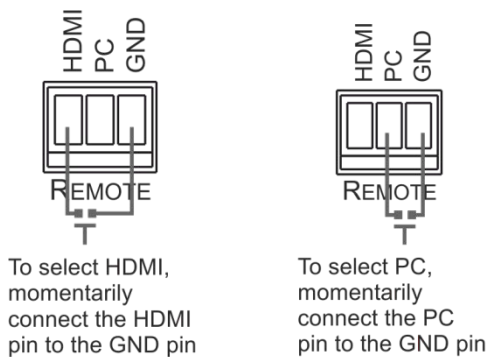
- Pressing +/FREEZE freezes the display, the next press unfreezes the display

- Pressing MENU and – together resets the output resolution to 1080p

- Pressing ENTER and +/FREEZE together resets the output to XGA resolution (1024x768)

5.2 Using the OSD

You can use the OSD to set a wide variety of parameters. When the MENU button is pressed, the main menu opens (see Section 5.2.2), thus allowing access to all the device settings.

5.2.1 Operating the OSD Using the Front Panel Buttons

While the OSD is open, the front panel buttons perform the following functions:

- Pressing - and + move forward and backward through the menu items and decrement or increment the parameter values

- Pressing ENTER selects and activates a menu item or accepts the parameter value set

- Pressing MENU closes the OSD menu
  The menu times out by default after 10 seconds. To change the OSD display time, adjust the OSD/TIMER parameter.

As an example of setting parameters, to increase the contrast on the display:

1. From normal operation, press MENU.

    The OSD main menu appears on the screen.

2. Press the + or – button to highlight CONTRAST.

    CONTRAST changes to green when highlighted.

3. Press ENTER.

    The contrast value parameter changes to red.

4. Press the + button to increase the value (increase the contrast) or

    the – button to decrease the value (decrease the contrast).

    The value ranges from 0 to 100.

5. Press ENTER to set the value.

    The contrast value parameter changes back to white.

6. To return to normal operation, highlight EXIT and press ENTER, press

    MENU, or wait until the menu times out.

5.2.2   OSD Menu Structure

Main Menu	Submenu	Values	Notes
Picture	Contrast	0-100	Adjusts the contrast
	Brightness	0-100	Adjusts the brightness
	Finetune	COMPONENT	
		Hue (0-100)	Sets the color hue
		Saturation (0-200)	Sets the color saturation
		Sharpness (0-200)	Sets the sharpness of the picture
		NR (Noise Reduction) Off-Low-Middle-High-Auto	Selects the noise reduction level: Off, High, Low and Middle or Auto
		VGA	
		Phase	Sets the clock phase
		Clock	Sets the clock frequency
		H-Position	Sets the horizontal position of the picture
		V-Position	Sets the vertical position of the picture
		Exit	Select to exit to the Main Menu
	Color	Red 0-100	Adjusts the individual color components of the display
		Green 0-100	
		Blue 0-100	
		Exit	Select to exit to the Main Menu

Main Menu	Submenu	Values		Notes	
Input	Source	PC/YPbPr		Select for PC source	
		HDMI		Select for HDMI source	
	Exit			Select to exit to the Main Menu	
Output	Size	Full		Select the size of the display	
		Over Scan			
		Follow In			
		Under Scan			
		Letter Box			
		Pan Scan			
		Best Fit			
	4K in->4K out	Select method for 4K input to 4K output handling: ByPass: keep the original 4K input resolution on the output (i.e., bypass the input without scaling). Scaler: allow scaling from 4K to 4K.			
	Resolution	Select the output resolution from the menu:			

Resolution:	Appears as:	Resolution:	Appears as:
Native		4k2k@50Hz(4:2:0)	4K2K(420) 50
480p	720X480P60	4k2k@60Hz(4:2:0)	4K2K(420) 60
576p	720X576P60	640x480@60Hz	640x480 60
720p@50Hz	1280X720P50	800x600@60Hz	800x600 60
720p@60Hz	1280X720P60	1024x768@60Hz	1024x768 60
1080p@24Hz	1920X1080P24	1280x768@60Hz	1280x768 60
1080p@25Hz	1920X1080P25	1360x768@60Hz	1360x768 60
1080p@30Hz	1920X1080P30	1280x800@60Hz	1280x800 60
1080p@50Hz	1920X1080P50	1280x1024@60Hz	1280x1024 60
1080p@60Hz	1920X1080P60	1440x900@60Hz	1440x900 60
4k2k@24Hz	4K2K 24	1400x1050@60Hz	1400x1050 60
4k2k@25Hz	4K2K 25	1680x1050@60Hz	1680x1050 60
4k2k@30Hz	4K2K 30	1600x1200@60Hz	1600x1200 60
4k2k@50Hz	4K2K 50	1920x1200@60Hz	1920x1200 60
4k2k@60Hz	4K2K 60		

Main Menu	Submenu	Values	Notes
	Exit		Select to exit to the Main Menu
Audio	Output Volume	0-100	Sets output volume
	Source	Automatic	Auto-select: DVI input on the HDMI connector uses analog audio, HDMI input uses embedded audio
		Embedded	Select to use the embedded audio when the HDMI input is selected
		Analog	Select to use the analog audio input when the HDMI input is selected
	Delay	Off, 40ms to 200ms in 10ms steps	Sets delay
	Exit		Select to exit to the Main Menu

VP-426H2 - Operating the VP-426H2

Main Menu	Submenu	Values	Notes
OSD	H-Position	0-100	Adjusts the horizontal position of the OSD on the screen
	V-Position	0-100	Adjusts the vertical position of the OSD on the screen
	Timer	Off or 5-60 (5 second steps)	Adjusts the length of time the OSD appears on the screen before timing out
	Background	0-100	Adjusts the shade of the OSD background from black to transparent
	Display	Info/On/Off	Select the information shown on the screen during operation: ON - the information is shown permanently OFF - the information is not shown INFO - the information is shown for the time period set in INFO
	Exit		Select to exit to the Main Menu
Advanced	HDCP on Input	On/Off	Selects the HDCP option for the HDMI input: either ON (the default) or OFF. Setting HDCP support to disabled (OFF) on the HDMI input allows the source to transmit a non-HDCP signal if required (for example, when working with a Mac computer)
	HDCP On Output	FOLLOW INPUT/FOLLOW OUTPUT (Default OUTPUT)	
	Auto SYNC Off	Off/Slow/Fast	Turns the auto sync OFF/SLOW/FAST. When ON, a short period after not detecting a valid video signal on the selected input, the unit will disable the H and V syncs on the analog outputs until a valid input is again detected or any keypad is pressed. When set to 'Fast' state - sync is off after 17 seconds

Main Menu	Submenu	Values	Notes
	Auto input scan	On/Off	When set to on, automatically scans the inputs and selects the first live one found (default is OFF) This feature is not active when the OSD menu is open
	Auto image	On/Off	When on, auto image is implemented every time the input is switched to VGA or when the input resolution changes. The auto-image feature calculates the positioning based on the picture connected to the VGA input. Only a "full screen" picture can be used for this auto-positioning – a test pattern (or some other picture) which has black along the entire top, bottom or one of the sides would not be suitable)
	Freeze	Freeze Only / Freeze+Mute / Mute Only	Select to freeze and/or mute the display
	EDID Manage	HDMI EDID: set to OUTPUT, Def 4K2K(6G), Def.4K2K(4:2:0), Def. 4K2K(3G) or Def. 1080P VGA EDID: set to Def. 1080P or OUTPUT	For each input (VGA and HDMI), select the default EDID. If OUTPUT is selected, each time you connect a different type of output, you need to read the EDID from that output once again.
	Exit		Select to exit to the Main Menu
Info	Source		Displays the source, input and output resolutions and the software version
	Input		
	Output HDMI		
	Output PC		
	Version		
	Exit		Select to exit to the Main Menu
Factory Reset	Reset		Resets the device to its factory default parameters and automatically senses the input and output devices
	Exit		Select to exit to the Main Menu
Exit			Select to exit the OSD

5.3   Upgrading the Firmware

1. Save the new firmware file to a memory stick.

2. Disconnect power from the **VP-426H2**.

3. Plug the memory stick into the USB connector on the **VP-426H2**.

4. Press and hold the Menu button while reconnecting power to the **VP-426H2**.

5. When three LEDs light at the same time, release the MENU button (meaning the device is in the FW upgrading mode).

6. When the upgrade is complete, the LED goes from solid on to flashing.

7. Disconnect and reconnect the power cable.

8. Check that the Info screen shows the latest FW version.

6   Technical Specifications

Inputs:	1 PC/HD (RGBHV/YPbPr) on a 15-pin HD connector, 1 HDMI connector, 2 unbalanced stereo audio connectors on 3.5mm mini jacks
Outputs:	1 PC (RGBHV) on a 15-pin HD connector, 1 HDMI connector, 1 unbalanced stereo audio connector on a 3.5mm mini jack
Output Resolutions:	For the HDMI and VGA outputs: 640x480@60Hz, 800x600@60Hz 1024x768@60Hz, 1280x768@60Hz, 1360x768@60Hz, 1280x800@60Hz, 1280x1024@60Hz, 1440x900@60Hz, 1400x1050@60Hz, 1680x1050@60Hz, 1600x1200@60Hz, 1920x1200 RB@60Hz For the HDMI output only: 480P@60Hz, 576P@50Hz, 720P@50/60Hz, 1080P@24/25/30/50/60Hz, 4k2k@24/25/30/50/60Hz, 4k2k (4:2:0)@50/60Hz
Output Refresh Rate:	60Hz for computer graphics resolutions, 50/60Hz for HDTV resolutions
Audio Sampling Rate:	44.1kHz, 48kHz for analog audio output
Video Latency:	Progressive input: 30ms (approx.); interlaced input: 50ms (approx.)
Controls:	Front panel buttons,1 remote contact closure on a 3-pin terminal block connector, 1 USB for programming
Indicators:	ON, HDMI and PC LEDs
Power Consumption:	5V DC, 1.2A
Operating Temperature:	0° to +40°C (32° to 104°F)
Storage Temperature:	-40° to +70°C (-40° to 158°F)
Humidity:	10% to 90%, RHL non-condensing
Dimensions:	18.8cm x 11.4cm x 2.5cm (7.4" x 4.5" x 1.0") W, D, H
Shipping Dimensions	34.5cm x 16.5cm x 5.2cm (13.6" x 6.5" x 2.0") W. D. H
Weight:	0.48kg (1.06lb) approx.
Shipping Weight:	0.98kg (2.16lb) approx.
Included Accessories:	Power supply (5.2V/4A), bracket set
Options:	RK-T2B 19" rack adapter
Specifications are subject to change without notice at www.kramerav.com	

6.1 Input Resolutions and Refresh Rate

Resolution/Refresh Rate	Component	PC	HDMI
480I/576I	V		V
480P/576P	V		V
720P@(60/50)	V		V
1080I@(60/50)	V		V
1080P@(60/50)	V		V
1080P@(24/25/30)	V		V
640x480@(60/67/72/75/85)		V	V
800x600@(56/60/72/75)		V	V
1024x768@(60/70/75)		V	V
1280x1024@(60/75)		V	V
1280X960@60		V	V
1280X720@60		V	V
1920X1080@60		V	V
1600X1200@60		V	V
1280x768@60		V	
1280x800@60		V	V
1360x768@60		V	V
1366x768@60		V	V
1400x1050@60		V	V
1600X900@60		V	V
1680x1050@60		V	V
1920x1200@60 RB		V	V
4K2K@(24/25/30/50/60)			V
4K2K(4:2:0)@(50/60)			V

LIMITED WARRANTY

The warranty obligations of Kramer Electronics for this product are limited to the terms set forth below:

What is Covered

This limited warranty covers defects in materials and workmanship in this product.

What is Not Covered

This limited warranty does not cover any damage, deterioration or malfunction resulting from any alteration, modification, improper or unreasonable use or maintenance, misuse, abuse, accident, neglect, exposure to excess moisture, fire, improper packing and shipping (such claims must be presented to the carrier), lightning, power surges, or other acts of nature. This limited warranty does not cover any damage, deterioration or malfunction resulting from the installation or removal of this product from any installation, any unauthorized tampering with this product, any repairs attempted by anyone unauthorized by Kramer Electronics to make such repairs, or any other cause which does not relate directly to a defect in materials and/or workmanship of this product. This limited warranty does not cover cartons, equipment enclosures, cables or accessories used in conjunction with this product.

Without limiting any other exclusion herein, Kramer Electronics does not warrant that the product covered hereby, including, without limitation, the technology and/or integrated circuit(s) included in the product, will not become obsolete or that such items are or will remain compatible with any other product or technology with which the product may be used.

How Long Does this Coverage Last

Seven years as of this printing; please check our Web site for the most current and accurate warranty information.

Who is Covered

Only the original purchaser of this product is covered under this limited warranty. This limited warranty is not transferable to subsequent purchasers or owners of this product.

What Kramer Electronics will do

Kramer Electronics will, at its sole option, provide one of the following three remedies to whatever extent it shall deem necessary to satisfy a proper claim under this limited warranty:

1. Elect to repair or facilitate the repair of any defective parts within a reasonable period of time, free of any charge for the necessary parts and labor to complete the repair and restore this product to its proper operating condition. Kramer Electronics will also pay the shipping costs necessary to return this product once the repair is complete.

2. Replace this product with a direct replacement or with a similar product deemed by Kramer Electronics to perform substantially the same function as the original product.

3. Issue a refund of the original purchase price less depreciation to be determined based on the age of the product at the time remedy is sought under this limited warranty.

What Kramer Electronics will not do Under This Limited Warranty

If this product is returned to Kramer Electronics or the authorized dealer from which it was purchased or any other party authorized to repair Kramer Electronics products, this product must be insured during shipment, with the insurance and shipping charges prepaid by you. If this product is returned uninsured, you assume all risks of loss or damage during shipment. Kramer Electronics will not be responsible for any costs related to the removal or re-installation of this product from or into any installation. Kramer Electronics will not be responsible for any costs related to any setting up this product, any adjustment of user controls or any programming required for a specific installation of this product.

How to Obtain a Remedy under this Limited Warranty

To obtain a remedy under this limited warranty, you must contact either the authorized Kramer Electronics reseller from whom you purchased this product or the Kramer Electronics office nearest you. For a list of authorized Kramer Electronics resellers and/or Kramer Electronics authorized service providers, please visit our web site at www.kramerelectronics.com or contact the Kramer Electronics office nearest you.

In order to pursue any remedy under this limited warranty, you must possess an original, dated receipt as proof of purchase from an authorized Kramer Electronics reseller. If this product is returned under this limited warranty, a return authorization number, obtained from Kramer Electronics, will be required. You may also be directed to an authorized reseller or a person authorized by Kramer Electronics to repair the product.

If it is decided that this product should be returned directly to Kramer Electronics, this product should be properly packed, preferably in the original carton, for shipping. Cartons not bearing a return authorization number will be refused.

Limitation on Liability

THE MAXIMUM LIABILITY OF KRAMER ELECTRONICS UNDER THIS LIMITED WARRANTY SHALL NOT EXCEED THE ACTUAL PURCHASE PRICE PAID FOR THE PRODUCT. TO THE MAXIMUM EXTENT PERMITTED BY LAW, KRAMER ELECTRONICS IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY. Some countries, districts or states do not allow the exclusion or limitation of relief, special, incidental, consequential or indirect damages, or the limitation of liability to specified amounts, so the above limitations or exclusions may not apply to you.

Exclusive Remedy

TO THE MAXIMUM EXTENT PERMITTED BY LAW, THIS LIMITED WARRANTY AND THE REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL OR WRITTEN, EXPRESS OR IMPLIED. TO THE MAXIMUM EXTENT PERMITTED BY LAW, KRAMER ELECTRONICS SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IF KRAMER ELECTRONICS CANNOT LAWFULLY DISCLAIM OR EXCLUDE IMPLIED WARRANTIES UNDER APPLICABLE LAW, THEN ALL IMPLIED WARRANTIES COVERING THIS PRODUCT, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL APPLY TO THIS PRODUCT AS PROVIDED UNDER APPICABLE LAW.

IF ANY PRODUCT TO WHICH THIS LIMITED WARRANTY APPLIES IS A "CONSUMER PRODUCT" UNDER THE MAGNUSON-MOSS WARRANTY ACT (15 U.S.C.A. §2301, ET SEQ.) OR OTHER APPICABLE LAW, THE FOREGOING DISCLAIMER OF IMPLIED WARRANTIES SHALL NOT APPLY TO YOU, AND ALL IMPLIED WARRANTIES ON THIS PRODUCT, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR THE PARTICULAR PURPOSE, SHALL APPLY AS PROVIDED UNDER APPLICABLE LAW.

Other Conditions

This limited warranty gives you specific legal rights, and you may have other rights which vary from country to country or state to state.

This limited warranty is void if (i) the label bearing the serial number of this product has been removed or defaced, (ii) the product is not distributed by Kramer Electronics or (iii) this product is not purchased from an authorized Kramer Electronics reseller. If you are unsure whether a reseller is an authorized Kramer Electronics reseller, please visit our Web site at www.kramerelectronics.com or contact a Kramer Electronics office from the list at the end of this document.

Your rights under this limited warranty are not diminished if you do not complete and return the product registration form or complete and submit the online product registration form. Kramer Electronics thanks you for purchasing a Kramer Electronics product. We hope it will give you years of satisfaction.

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⚠ **SAFETY WARNING**
Disconnect the unit from the power supply before opening and servicing

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For the latest information on our products and a list of Kramer distributors, visit our Web site where updates to this user manual may be found.

We welcome your questions, comments, and feedback.

www.kramerAV.com
info@kramerel.com