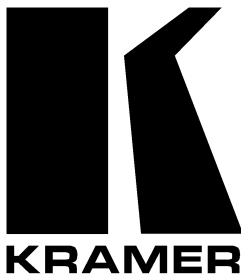


Kramer Electronics, Ltd.



USER MANUAL

Kramer TOOLS Model:

VP-1

XGA to RGBHV Converter

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1 Introduction

Dedication by Kramer Electronics since 1981, to the development and manufacture of high quality video/audio equipment, makes the Kramer line an integral part of the finest production and presentation facilities in the world. In recent years, Kramer has redesigned and upgraded most of the line, making the best even better! The Kramer line of professional video/audio electronics is one of the most versatile and complete available, and is a true leader in terms of quality, workmanship, price/performance ratio and innovation. In addition to our high quality Kramer TOOLS, such as the **VP-1 XGA to RGBHV Converter**, we also offer excellent switchers and matrices, distribution amplifiers, remote controllers, processors, interfaces and computer-related products. Congratulations on purchasing your Kramer **VP-1 XGA to RGBHV Converter** which is ideal for a display system that requires VGA up to UXGA signal conversion to RGBHV.

The package includes the following items:

- **VP-1 XGA to RGBHV Converter**
- This user manual
- Kramer concise product catalog/CD

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

3 Your XGA to RGBHV Converter

The flexible **VP-1 XGA to RGBHV Converter** is a passive converter/adaptor that distributes RGBHV signals originating from a graphics source (PC VGA, SVGA, XGA, SXGA and UXGA), using standard or high quality coax video cables. In addition, the **VP-1**:

- Includes an ID Bit switch¹ (that is unavailable on cable assemblies)
- Includes bi-directional transparent operation

¹ For forcing certain notebook computers to output to the external VGA monitor

- Lets the user choose the HD15 to HD15 cable length and quality, and at the same time use any quality and length of coax cable for the RGBHV signals¹
- Has exceptionally high resolution
- Is rugged, dependable and is housed in a miniature, smaller than Kramer Tools enclosure

Achieving the best performance means:

- Connecting only good quality connection cables, thus avoiding interference, deterioration in signal quality due to poor matching, and elevated noise levels (often associated with low quality cables)
- Avoiding interference from neighboring electrical appliances that may adversely influence signal quality and positioning your Kramer VP-1 in a location free from moisture and away from excessive sunlight and dust

Figure 1 and Table 1 define the VP-1:

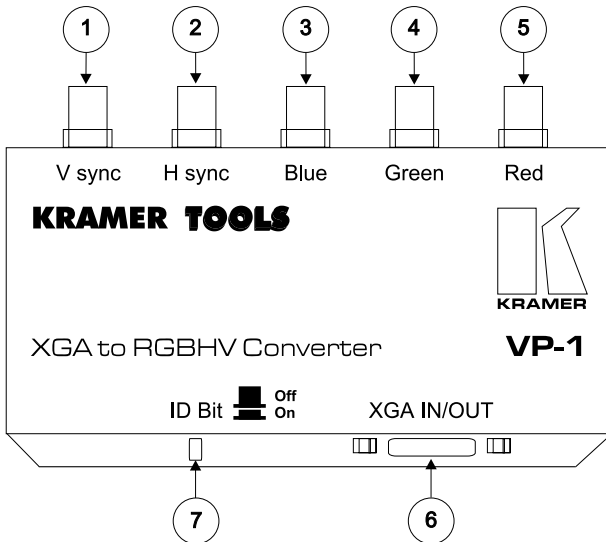


Figure 1: VP-1 XGA to RGBHV Converter

¹ Conversion from a computer's HD15 graphics connector to 5 coax cables is usually carried out using a special compound cable with an HD15 type connector at one end and 5 BNC connectors at the other end. This type of special compound cable uses thin coax cables, which attenuate signals over long distances

Table 1: Features and Functions of the VP-1 XGA to RGBHV Converter

#	Feature	Function
1	V sync BNC connector	Vertical sync output
2	H sync BNC connector	Horizontal sync output
3	BLUE BNC connector	BLUE signal output
4	GREEN BNC connector	GREEN signal output
5	RED BNC connector	RED signal output
6	XGA IN/OUT	VGA/XGA input
7	ID Bit Switch	Pushing in selects the ID BIT, releasing deactivates the ID BIT (when outputting a VGA signal from a notebook to an external VGA monitor ¹)

4 Connecting the XGA to RGBHV Converter

To connect the **VP-1**, as Figure 2 illustrates, do the following:

1. Connect the HD15M PC Graphic Source connector to the HD15F XGA IN/OUT port.
2. Connect the 5 BNC Output connectors (V sync, H sync, Blue, Green, and Red) to the data projector (or remote monitor).

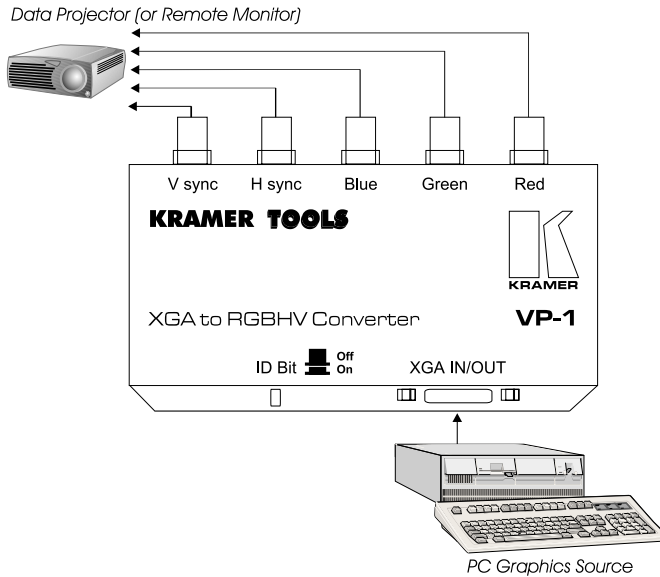


Figure 2: VP-1 XGA to RGBHV Converter Connections

¹ Sometimes notebook computers refuse to output a VGA signal to an external VGA monitor. By setting the ID Bit to ON, (and using pin # 4 on the VGA connector that is normally unused), the notebook will output to an external VGA monitor

Table 2: Technical Specifications of the VP-1 XGA to RGBHV Converter

XGA IN/OUT:	XGA via a HD15F connector
OUT/IN:	R, G, B, H, V, separated on 5 independent BNC connectors
Video Bandwidth:	Exceeds 1.5 GHz
Dimensions:	9.9 cm x 4.7 cm x 2.4 cm (3.9 inch x 1.9 inch x 0.9 inch, W, D, H)
Weight:	0.2 kg (0.44 lbs.) approx.

LIMITED WARRANTY

Kramer Electronics (hereafter *Kramer*) warrants this product free from defects in material and workmanship under the following terms.

HOW LONG IS THE WARRANTY

Labor and parts are warranted for three years from the date of the first customer purchase.

WHO IS PROTECTED?

Only the first purchase customer may enforce this warranty.

WHAT IS COVERED AND WHAT IS NOT COVERED

Except as below, this warranty covers all defects in material or workmanship in this product. The following are not covered by the warranty:

1. Any product which is not distributed by Kramer, or which is not purchased from an authorized Kramer dealer. If you are uncertain as to whether a dealer is authorized, please contact Kramer at one of the agents listed in the web site www.kramerelectronics.com.
2. Any product, on which the serial number has been defaced, modified or removed.
3. Damage, deterioration or malfunction resulting from:
 - i) Accident, misuse, abuse, neglect, fire, water, lightning or other acts of nature
 - ii) Product modification, or failure to follow instructions supplied with the product
 - iii) Repair or attempted repair by anyone not authorized by Kramer
 - iv) Any shipment of the product (claims must be presented to the carrier)
 - v) Removal or installation of the product
 - vi) Any other cause, which does not relate to a product defect
 - vii) Cartons, equipment enclosures, cables or accessories used in conjunction with the product

WHAT WE WILL PAY FOR AND WHAT WE WILL NOT PAY FOR

We will pay labor and material expenses for covered items. We will not pay for the following:

1. Removal or installations charges.
2. Costs of initial technical adjustments (set-up), including adjustment of user controls or programming. These costs are the responsibility of the Kramer dealer from whom the product was purchased.
3. Shipping charges.

HOW YOU CAN GET WARRANTY SERVICE

1. To obtain service on you product, you must take or ship it prepaid to any authorized Kramer service center.
2. Whenever warranty service is required, the original dated invoice (or a copy) must be presented as proof of warranty coverage, and should be included in any shipment of the product. Please also include in any mailing a contact name, company, address, and a description of the problem(s).
3. For the name of the nearest Kramer authorized service center, consult your authorized dealer.

LIMITATION OF IMPLIED WARRANTIES

All implied warranties, including warranties of merchantability and fitness for a particular purpose, are limited in duration to the length of this warranty.

EXCLUSION OF DAMAGES

The liability of Kramer for any effective products is limited to the repair or replacement of the product at our option. Kramer shall not be liable for:

1. Damage to other property caused by defects in this product, damages based upon inconvenience, loss of use of the product, loss of time, commercial loss; or:
2. Any other damages, whether incidental, consequential or otherwise. Some countries may not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights, which vary from place to place.

NOTE: All products returned to Kramer for service must have prior approval. This may be obtained from your dealer.

This equipment has been tested to determine compliance with the requirements of:

- EN-50081: "Electromagnetic compatibility (EMC);
generic emission standard.
Part 1: Residential, commercial and light industry"
- EN-50082: "Electromagnetic compatibility (EMC) generic immunity standard.
Part 1: Residential, commercial and light industry environment".
- CFR-47: FCC Rules and Regulations:
Part 15: "Radio frequency devices
Subpart B – Unintentional radiators"

CAUTION!

- Servicing the machines can only be done by an authorized Kramer technician. Any user who makes changes or modifications to the unit without the expressed approval of the manufacturer will void user authority to operate the equipment.
- Use the supplied DC power supply to feed power to the machine.
- Please use recommended interconnection cables to connect the machine to other components.



The list of Kramer distributors appears on our web site:
www.kramerelectronics.com

We welcome your questions, comments and feedback.

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