Kramer Electronics, Ltd.



# **USER MANUAL**

## Model:

**VP-41** 

4x1 VGA / XGA Switcher

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## 1 Introduction

Welcome to Kramer Electronics (since 1981): a world of unique, creative and affordable solutions to the infinite range of problems that confront the video, audio and presentation professional on a daily basis. In recent years, we have redesigned and upgraded most of our line, making the best even better! Our 350-plus different models now appear in 8 Groups<sup>1</sup>, which are clearly defined by function.

Congratulations on purchasing your **VP-41** 4x1 VGA / XGA Switcher, which is ideal for:

- Any professional display system requiring a simple four way input selector
- Multimedia and presentation source selection
- Remote monitoring of computer activity in schools and businesses

The package includes the following items:

- VP-41 4x1 VGA / XGA Switcher
- This user manual<sup>2</sup>

## 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
- Use Kramer high performance high resolution cables<sup>3</sup>

## 3 Overview

The Kramer **VP-41** 4x1 VGA / XGA Switcher is a high performance mechanical 4x1 switcher for VGA/XGA signals. It is designed to route one of up to four inputs to one output using 15-pin HD female connectors. Its unpowered passive design is an advantage in applications where various regulatory compliances would otherwise be required. The passive "hardwire" signal path offers very high bandwidth and can also switch other signal formats.

<sup>3</sup> The complete list of Kramer cables is on our Web site at http://www.kramerelectronics.com



<sup>1</sup> GROUP 1: Distribution Amplifiers; GROUP 2: Video and Audio Switchers, Matrix Switchers and Controllers; GROUP 3: Video, Audio, VGA/XGA Processors; GROUP 4: Interfaces and Sync Processors; GROUP 5: Twisted Pair Interfaces; GROUP 6: Accessories and Rack Adapters; GROUP 7: Scan Converters and Scalers; and GROUP 8: Cables and Connectors

<sup>2</sup> Download up-to-date Kramer user manuals from the Internet at this URL: http://www.kramerelectronics.com

### The **VP-41** 4x1 VGA / XGA Switcher:

- Has a bandwidth of 750MHz to ensure transparent performance even at the highest resolution UXGA modes (1600 x 1200)
- Includes high quality switching components that provide excellent isolation between inputs
- Is housed in a desktop enclosure
- Can be rack-mounted using the optional RK-81X 19" rack kit

To achieve the best performance:

- Connect 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)
- Avoid interference from neighboring electrical appliances that may adversely influence signal quality and position your Kramer **VP-41** away from moisture, excessive sunlight and dust

## 4 Your VP-41 4x1 VGA / XGA Switcher

Figure 1 and Table 1 define the VP-41 4x1 VGA / XGA Switcher:

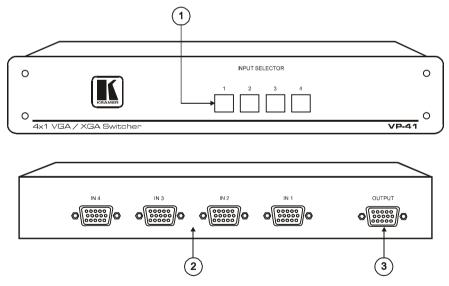


Figure 1: VP-41 4x1 VGA / XGA Switcher

Table 1: VP-41 4x1 VGA / XGA Switcher Features

#	Feature	Function
1	INPUT SELECTOR Buttons	Press (1 to 4) to switch an input to the output
2	HD15F IN Connectors	Connect to the input source (1 to 4)
3	HD15F OUTPUT Connector	Connects to the output acceptor

## 5 Connecting the VP-41 4x1 VGA / XGA Switcher

To connect the **VP-41** (as the example in Figure 2 illustrates), do the following:

- 1. Connect up to four computer graphics sources to the input connectors.
- 2. Connect the HD15F OUTPUT connector to the XGA acceptor (for example, a projector).
- 3. Press an INPUT SELECTOR button to select the input to switch to the output.

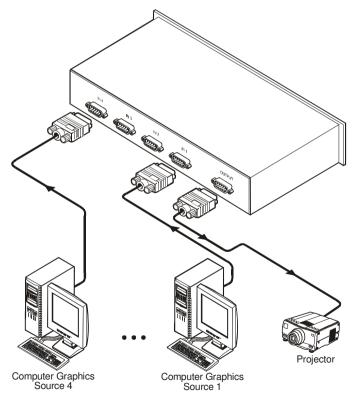


Figure 2: Connecting the VP-41 4x1 VGA / XGA Switcher

## 6 Technical Specifications

INPUTS:	4 VGA/XGA on HD15F connectors
OUTPUTS:	1 VGA/XGA on an HD15F connector
BANDWIDTH (-3dB):	750MHz
SWITCH CONTROL:	Four front panel switches
CROSSTALK:	-58dB at adjacent channels @ 10MHz
COUPLING:	Direct
DIMENSIONS:	25.5cm x 10.2cm x 4.5cm (10" x 4" x 1.8", W, D, H)
WEIGHT:	1.1 kg (2.4lbs.) approx.
OPTIONS:	RK-81X 19 inch rack adapter

<sup>1</sup> Specifications are subject to change without notice

#### 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:

- 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.
- 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.
- 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:

- 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:
- 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.
- Dease use recommended interconnection cables to connect the machine to other components.





For the latest information on our products and a list of Kramer distributors, visit our Web site: www.kramerelectronics.com, where updates to this user manual may be found. We welcome your questions, comments and feedback.







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