

# KRAMER ELECTRONICS KR-4X1VB Video Switchers User Manual

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# KRAMER ELECTRONICS KR-4X1VB Video Switchers





## **Product Information**

The Kramer 4x1V and 4x1VB 4:1 Video Switchers are high-quality mechanical switchers designed for composite video signals. They have the following features:

- · Accepts up to four inputs
- Allows selection of any input to be routed to one output
- Supports RCA connectors (4x1V) or BNC connectors (4x1VB)
- High bandwidth of 400MHz (-3dB)
- · Passive design, no need for a power supply
- · Automatically terminates unselected inputs into a 75-resistor

# **Product Usage Instructions**

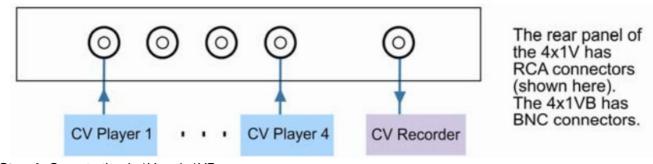
To connect and operate the 4x1V and 4x1VB, follow these steps:

- 1. Connect up to four composite video sources to the IN 1 to IN 4 connectors using RCA connectors for 4x1V or BNC connectors for 4x1VB. You do not have to connect all inputs.
- 2. Connect the OUTPUT connector to a composite video acceptor, such as a composite video recorder.
- 3. To switch the desired source to the output, press the corresponding INPUT SELECTOR button

# 4x1V or q4x1VB Quick Start Guide

For more details in thraign, see sic a 1 ser Mana of your 4x1V or 4x1VB. You can download the latest manual at <a href="http://www.kramerelectronics.com">http://www.kramerelectronics.com</a>.

- Step 1: Check what's in the box
  - 4x1V or 4x1VB
  - 4:1Video Switcher
  - 4 Rubber feet
  - 1 Quick Start sheet
  - 1 User Manual
    - Save the original box and packaging in case your device needs to be returned to the factory for service.
- Step 2: Install the 4x1V or 4x1VB
  - Attach the rubber feet and place them on a table or mount the machine in a rack (using an optional RK-3T rack mount)
- Step 3: Connect the inputs and outputs



• Step 4: Operate the 4×1V or 4x1VB

Press one of the switcher input selector buttons to select the input that switches to the output.

#### 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 daily. 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 11 groups that are clearly defined by function:

- GROUP 1: Distribution Amplifiers;
- GROUP 2: Switchers and Matrix Switchers;
- 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 Products.

Congratulations on purchasing your Kramer 4x1V or 4x1VB 4:1 Video Switchers, which are ideal for the following typical applications:

- Presentation and display systems
- CCTV and home theater applications
- · Rental and staging applications
- Also compatible with any other high-frequency signal

## **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

# **Achieving the Best Performance**

To achieve the best performance:

- Use only good-quality connection cables to avoid interference, deterioration in signal quality due to poor matching, and elevated noise levels (often associated with low-quality cables)
- Position your Kramer 4x1V and 4x1VB away from moisture, excessive sunlight, and dust

## Overview

The KramerTOOLS 4x1V and 4x1VB are high-quality 4x1 mechanical switchers designed for composite video signals using RCA or BNC connectors. They accept up to four inputs and let you select any input to be routed to one output using buttons located on the front panel. High-quality switching components ensure minimal crosstalk and a high bandwidth of 400MHz (-3dB).

The entirely passive design of the 4x1V and 4x1VB eliminates the need for a power supply. Unselected inputs are automatically terminated into a  $75\Omega$  resistor.

# Defining the 4x1V and 4x1VB 4:1 Video Switchers

This section defines the 4x1V and 4x1VB.

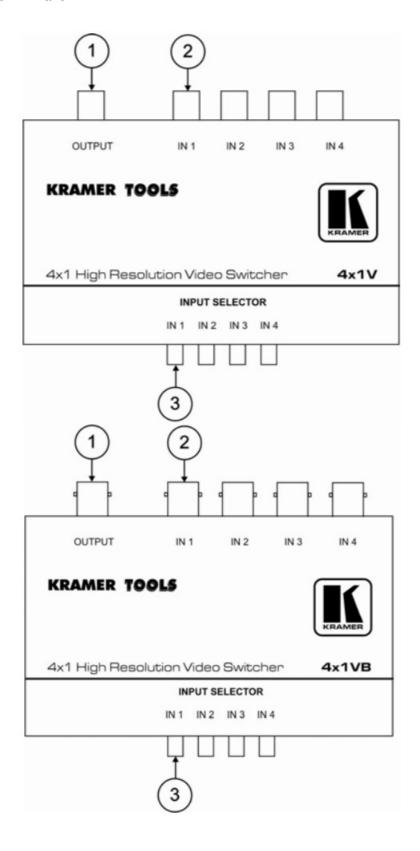


Figure 1: 4x1V and 4x1VB 4:1 Video Switchers

#	Feature	Function
1	OUTPUT Connector	Connect to the composite video acceptor  RCA connector (4x1V), BNC connector (4x1VB)
2	IN 1 to IN 4 Connectors	Connect to the composite video sources (1 to 4) RCA connectors (4 x1V), BNC connectors (4x1VB)
3	INPUT SELECTOR Buttons	Buttons for choosing the input CV source

# Connecting and Operating the 4x1V and 4x1VB

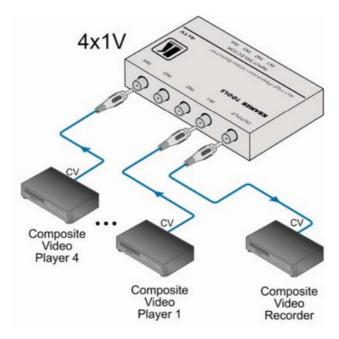
To connect the 4x1V and 4x1VB as illustrated in the example in Figure 2:

- 1. Connect up to four composite video sources to the IN 1 to IN 4 connectors (for example, composite video players). You do not have to connect all inputs.
- 2. Connect the OUTPUT connector to a composite video acceptor (for example, a composite video recorder).

**Note**: The 4x1V uses RCA connectors. The 4x1VB uses BNC connectors.

# To operate the 4x1V and 4x1VB:

• Press an INPUT SELECTOR button to switch the desired source to the output.



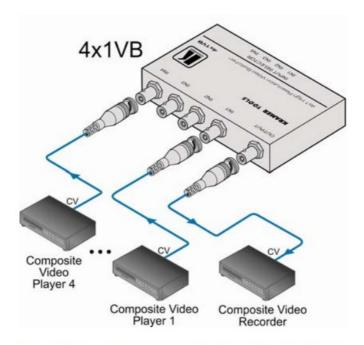


Figure 2: Connecting the 4x1V and 4x1VB 4:1 Video Switchers

# **Technical Specifications**

INPUTS:	4 video, 1Vpp/75 $\Omega$ on RCA connectors (4x1V) or BNC connectors (4x1VB)	
OUTPUT:	1 composite or single component video, $1Vpp/75\Omega$ on an RCA connector $(4x1V)$ or BNC connector $(4x1VB)$	
BANDWIDTH (-3dB):	400MHz	
SWITCHING SYSTEM:	Mechanical, break-before-make	
OPERATING TEMPERATURE:	0° to +55°C (32° to 131°F)	
STORAGE TEMPERATURE:	-45° to +72°C (-49° to 162°F)	
HUMIDITY:	10% to 90%, RHL non-condensing	
DIMENSIONS:	12cm x 7.5cm x 2.5cm (4.7" x 2.9" x 1")	
WEIGHT:	0.28kg (0.62lbs) approx. (4x1V) 0.30kg (0.67lbs) approx. (4x1VB)	
OPTIONS:	RK-3T 19" rack adapter	
Specifications are subject to change without notice at <a href="http://www.kramerelectronics.com">http://www.kramerelectronics.com</a>		

# 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 circuits) 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**

Three 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:

- Elect to repair or facilitate the repair of any defective parts within a reasonable period, 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.
- 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. 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 reinstallation of this product from or into any installation. Kramer Electronics will not be responsible for any costs related to any setting up of 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 website at <a href="https://www.kramerelectronics.com">www.kramerelectronics.com</a> or contact the Kramer\ Electronics office nearest you. 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.

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.

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#### **Other Conditions**

This limited warranty gives you specific legal rights, and you may have other rights that 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, (il) 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 ourWebsitee at <a href="https://www.kramerelectronics.com">www.kramerelectronics.com</a> 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 Electronicsproductt. We hope it will give you years of satisfaction.

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.

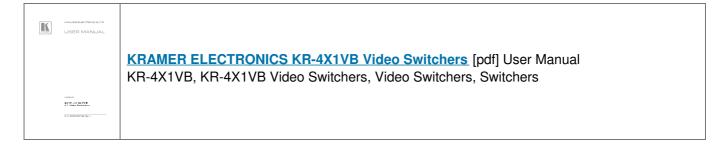
• Website: www.kramerelectronics.com

• E-mail: info@kramerel.com

## **SAFETY WARNING**

Disconnect the unit from the poor supply before opening and service

P/N 2900- 300162 Rev 1



# References

• User Manual

Manuals+,