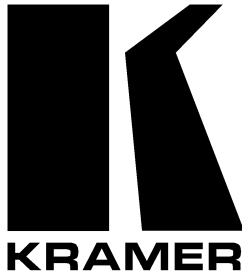


**Kramer Electronics, Ltd.**



# **USER MANUAL**

**Model:**

***VP-14, RS-232 Port Extender***

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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 accessories, like the **VP-14 RS-232 Port Extender**, we also offer excellent switchers and matrices, distribution amplifiers, presentation processors, interfaces, remote controllers and computer-related products.

Congratulations on purchasing your Kramer Tools **VP-14 RS-232 Port Extender**.

This product is ideal for:

- Controlling a single matrix switcher or other product via several computers and/or controllers
- Monitoring several RS-232 controlled machines via one PC port
- Inter-communication between several serially controlled machines

The package includes the following items:

- **VP-14** RS-232 Port Extender
- Mounting bracket
- Power adapter (12V DC Input)<sup>1</sup>
- 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 Overview

The unique **VP-14 RS-232 Port Extender** distributes an incoming RS-232 command as transmitted by a touch screen control system, personal computer, or other type of control system, to 3 other RS-232 ports. This lets you control up to 3 compatible devices when only one serial port or RS-232 card is available.

The **VP-14** is specifically designed for use with Kramer switchers and routers, but can be easily adapted for use with any other equipment, which uses RS-232 in null-modem configuration.

In particular, the **VP-14** includes:

- Four DB 9M ports, any of which can receive incoming RS-232
- Dipswitches to configure each port for use with straight/flat or crossed wires

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 **VP-14** in a location free from moisture and away from excessive sunlight and dust

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<sup>1</sup> As an option, you can purchase the Kramer VA-50P 6 Port Universal 12-Volt Power Supply, enabling you to supply power to up to 6 Kramer devices that require 12VDC

## 4 Your Port Extender

Figure 1 and Tables 1 and 2 define the **VP-14 RS-232 Port Extender**:

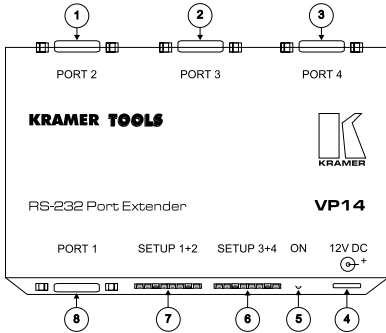


Figure 1: VP-14 RS-232 Port Extender

Table 1: VP-14 Technical Specifications

RS-232 Ports:	Null-modem RS-232-C compatible TX / RX signals
Power Source:	12 VDC 30mA
Dimensions:	12 cm x 7.5 cm x 2.5 cm (4.7" x 2.95" x 0.98"), W, D, H
Weight:	0.28 kg. (0.62 lbs.) approx.

Table 2: Features and Functions of the VP-14 RS-232 Port Extender

#	Feature	Function
1	PORT 2 DB 9F	Connect to the RS-232 DB 9M port on the PC or the switcher
2	PORT 3 DB 9F	Connect to the RS-232 DB 9M port on the PC or the switcher
3	PORT 4 DB 9F	Connect to the RS-232 DB 9M port on the PC or the switcher
4	12V DC	+12V DC connector for powering the unit
5	ON LED	Illuminates when receiving power
6	SETUP 3 + 4	Set the dipswitches for straight or crossed wires for ports 3 and 4
7	SETUP 1 + 2	Set the dipswitches for straight or crossed wires for ports 1 and 2
8	PORT 1 DB 9F	Connect to the RS-232 DB 9M port on the PC or the switcher

### 4.1 Setting the SETUP Dipswitches

The SETUP dipswitches define how the wires connect (straight/flat or crossed) between each port and the PC or switcher, as follows:

Table 3: PORT 1 SETUP 1 + 2 and PORT 3 SETUP 3 + 4 Dipswitch Settings

Wires	DIP 1	DIP 2	DIP 3	DIP 4
Straight/Flat <sup>1</sup>	OFF	ON	OFF	ON
Crossed <sup>2</sup>	ON	OFF	ON	OFF

Table 4: PORT 2 SETUP 1 + 2 and PORT 4 SETUP 3 + 4 Dipswitch Settings

Wires	DIP 5	DIP 6	DIP 7	DIP 8
Straight/Flat <sup>1</sup>	OFF	ON	OFF	ON
Crossed <sup>2</sup>	ON	OFF	ON	OFF

1 Connect PINS 2 to 2; 3 to 3; and 5 to 5 (a one-to-one connection from the PC's DB-9 port to the DB-9 port on the VP-14)

2 Cross PINS 2 and 3; 3 and 2; and connect PINS 5 to 5

## 4.2 Connecting the RS-232 Port Extender Unit

To connect the **VP-14 RS-232 Port Extender**, do the following:

1. Connect PORT 1; and/or PORT 2; and/or PORT 3; and/or PORT 4 to the RS-232 DB 9M port on a PC, controller and/or switcher(s).
2. Set the dipswitches, SETUP 1 + 2; SETUP 3 + 4, as section 4.1 describes.
3. Connect the 12V DC power adapter to the power socket and connect the adapter to the mains electricity.

Figure 2 illustrates 2 different examples of how to set the dipswitches:

1. In the first example:
  - A PC connects to PORT 2 (via flat cable)
  - PORT 4 connects to a switcher (via flat cable)
2. In the second example:
  - A PC connects to PORT 1 (via crossed wires)
  - PORT 2 connects to a switcher (via crossed wires)
  - PORT 3 connects to a switcher (via flat cable)
  - PORT 4 connects to a switcher (via flat cable)

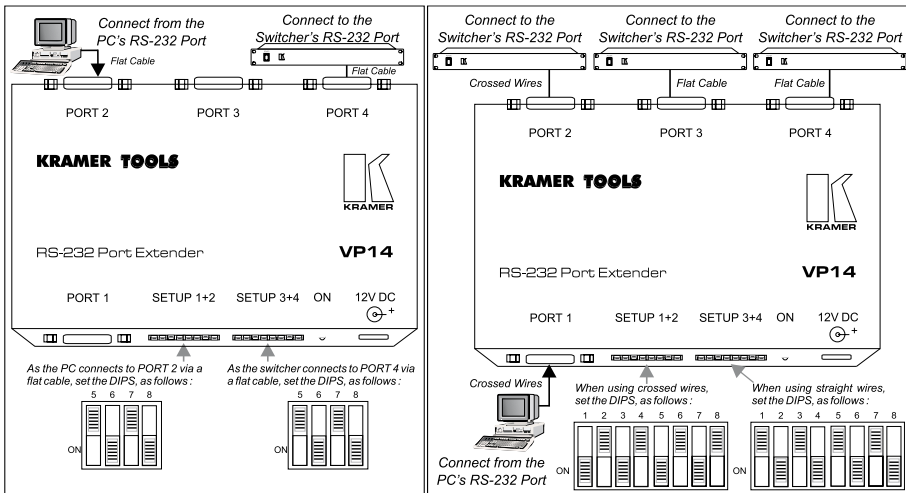


Figure 2: VP-14 RS-232 Port Extender Connection

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## 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](http://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.



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



**Caution**

**Safety Warning:**

Disconnect the unit from the power supply before opening/servicing.



P/N: 2900-006011



Rev: 2

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**Kramer Electronics, Ltd.**

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