



KRAMER ELECTRONICS LTD.

USER MANUAL

MODEL:

VP-211K
Automatic UXGA / Audio
Switcher

P/N: 2900-000414 Rev 3

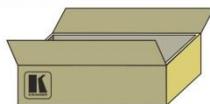


VP-211K Quick Start Guide

This guide helps you install and use your product for the first time. For more detailed information, go to http://www.kramerelectronics.com/support/product_downloads.asp to download the latest manual or scan the QR code on the left.

Step 1: Check what's in the box

- VP-211K** Automatic UXGA/Audio Switcher
- 4 Rubber feet
- 1 Power supply (5V DC)
- 1 Quick Start sheet



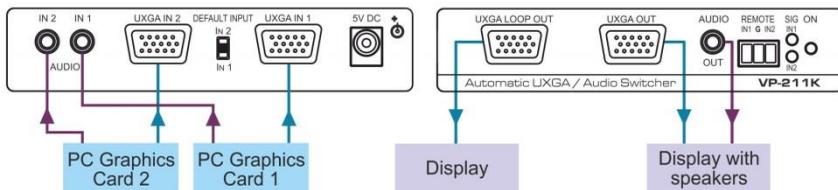
Save the original box and packaging materials in case you need to return your **VP-211K** for service.

Step 2: Install the VP-211K

Attach the rubber feet and place on a table or mount the **VP-211K** in a rack (using an optional **RK-3T** rack mount).

Step 3: Connect the inputs and outputs

Always switch off the power on each device before connecting it to your **VP-211K**.



Always use Kramer high-performance cables for connecting AV equipment to the **VP-211K**.

Step 4: Connect the power

Connect the 5V DC power adapter to the **VP-211K** and plug the adapter into the mains electricity.



Step 5: Operate the VP-211K

Set the default input.

DEFAULT INPUT

IN 2



IN 1

Control using the contact closure switches for forced operation.

REMOTE
IN 1 G IN 2



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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 11 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 Products.

Congratulations on purchasing your Kramer **VP-211K** *Automatic UXGA / Audio Switcher*, which is ideal for the following typical applications:

- Any system requiring automatic computer and presentation UXGA routing
- Presentation systems with wall plates

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 <http://www.kramerelectronics.com> 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-211K** 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 covers 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 <http://www.kramerelectronics.com/support/recycling/>.

3 Overview

Your Kramer **VP-211K** is a high performance 2x1 automatic switcher for computer graphics video (UXGA) and stereo audio signals. The **VP-211K** detects the presence of the active VGA-type input signal from either IN 1 (the default) or IN 2—depending on how the DEFAULT INPUT switch is set, as [Section 4.2](#) describes—and automatically routes it to the acceptor connected to the UXGA OUT and the AUDIO OUT connectors.

In addition, the **VP-211K**:

- With its video bandwidth of 300MHz, ensures transparent operation at the highest resolutions
- Automatically switches the stereo audio signal with the video signal (audio-follow-video) when switching the active input to the output
- Includes a DEFAULT INPUT switch for selecting the default UXGA master source signal
- Includes a loop UXGA output for connecting an additional display
- Comes with contact closure remote control for forced operation
- Uses active switching and has flexible sync detection and reconstruction circuitry
- Includes the Kramer innovative integrated sync processing; KRISP™ technology, which lets you achieve a sharp, stable image when the sync level is too low, by restoring the sync signal waveform
- Lets both PC inputs pass the EDID information from the acceptor (display) to the source (laptop/PC)

3.1 Defining the VP-211K Automatic UXGA / Audio Switcher

This section defines the **VP-211K**.

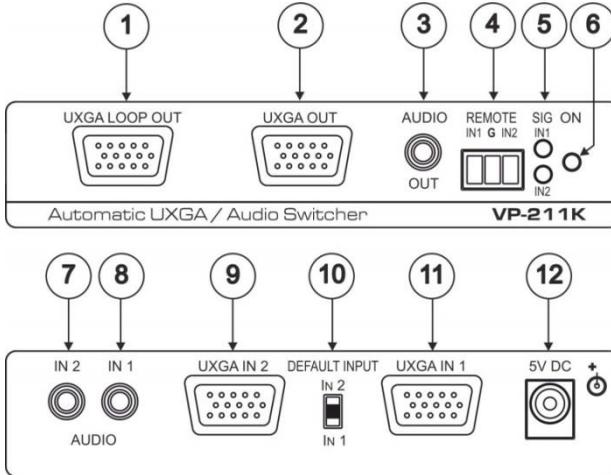


Figure 1: VP-211K Automatic UXGA / Audio Switcher

#	Feature	Function
1	UXGA LOOP OUT 15-pin HD Connector	Connect to an additional monitor
2	UXGA OUT 15-pin HD Connector	Connect to the computer graphics video acceptor
3	AUDIO OUT 3.5mm mini-jack Connector	Connect to an unbalanced stereo audio acceptor
4	REMOTE IN 1 and IN 2 Terminal Block Connectors	Connect to a contact closure switch, see Section 4.1
5	SIG LEDs	Illuminates when input is selected (IN1 or IN2)
6	ON LED	Illuminates when receiving power
7	AUDIO IN 2 3.5mm mini-jack Connector	Connect to unbalanced stereo audio source 2
8	AUDIO IN 1 3.5mm mini-jack Connector	Connect to unbalanced stereo audio source 1
9	UXGA IN 2 15-pin HD Connector	Connect to the computer graphics video source 2
10	DEFAULT INPUT Switch	Switch to set the default input (IN 1 or IN 2)
11	UXGA IN 1 15-pin HD Connector	Connect to the computer graphics video source 1
12	5V DC	+5V DC connector for powering the unit

4 Connecting the VP-211K



Always switch off the power to each device before connecting it to your **VP-211K**. After connecting your **VP-211K**, connect its power and then switch on the power to each device.

To connect the **VP-211K** as illustrated in the example in [Figure 2](#):

1. Connect a UXGA/audio source (for example, a PC graphics card) to the UXGA IN 1 15-pin HD connector and to the AUDIO IN 1 mini plug connector.
2. Set the DEFAULT INPUT switch to IN 1 (the factory preset default), as described in [Section 4.2](#)
3. Connect a UXGA/audio source (for example, a PC graphics card) to the UXGA IN 2 15-pin HD connector and to the AUDIO IN 2 mini plug connector.
4. Connect the UXGA OUT 15-pin HD connector and the AUDIO OUT mini plug connector to the acceptor (for example, a display with speakers).
5. If required, connect an additional display to the UXGA LOOP OUT 15-pin HD connector.
6. Connect the 5V DC power adapter to the power socket and connect the adapter to the mains electricity.

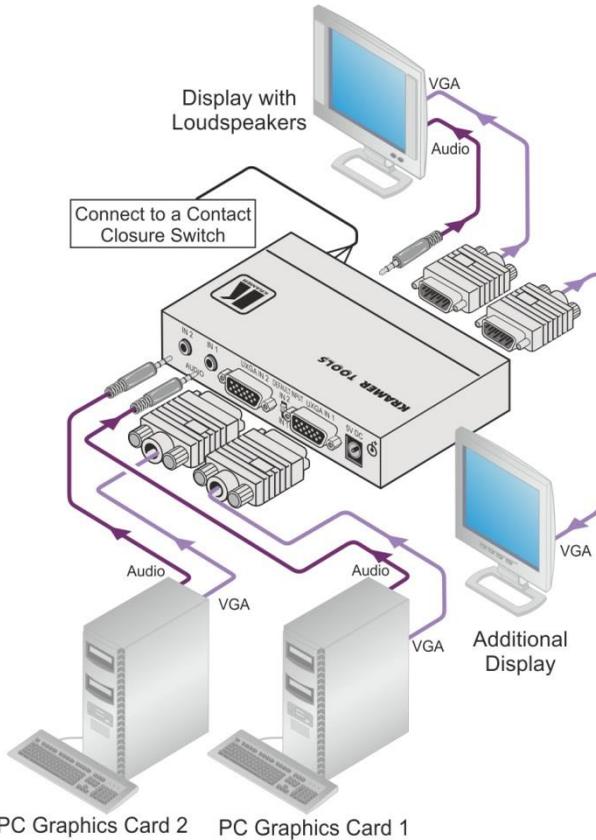


Figure 2: Connecting the VP-211K Automatic UXGA / Audio Switcher

4.1 Connecting the REMOTE Terminal Block Connector

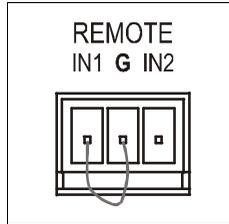
You can force the routing of one of the two inputs to the UXGA output by remote control. To do so, connect the appropriate REMOTE input terminal block connector pins to a contact closure switch. For example, as [Figure 3](#) illustrates, to route REMOTE IN1 to the UXGA output, connect PIN IN1 to PIN G (ground). To route REMOTE IN2 to the UXGA output, connect PIN IN2 to PIN G.

Note that the connection should be permanent, since the VP-211K reverts to an automatic switcher when the connection is removed.



Do not connect both the REMOTE IN 1 and the REMOTE IN 2 to PIN G simultaneously.

Route input 1 to the output, by attaching PIN IN 1 to PIN G:



Route input 2 to the output, by attaching PIN IN 2 to PIN G:

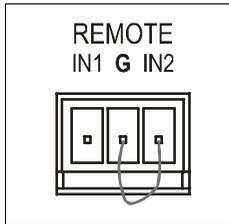


Figure 3: REMOTE Terminal Block Connector

4.2 Selecting the Default Master Source Signal

The DEFAULT INPUT switch is factory preset to IN 1 and the **VP-211K** detects the presence of the master source signal at the UXGA IN 1 connector. If you connect active sources to both the UXGA IN 1 and the UXGA IN 2 connectors, the source at the UXGA IN 1 connector takes priority over the source at the UXGA IN 2 connector and it is routed to the UXGA OUT and the AUDIO OUT connectors (audio-follows-video).

You can change the default so that the **VP-211K** automatically detects an active source signal from UXGA IN 2, by setting the DEFAULT INPUT switch to IN 2. When active, the source at the UXGA IN 2 connector takes priority over the source at the UXGA IN 1 connector and it is routed to the UXGA OUT and the AUDIO OUT connectors (audio follows video).

If the **VP-211K** detects:

- No signal (perhaps no connected source, or a source is connected and powered OFF) at the UXGA IN 1 input (when IN 1 is selected as the default), the **VP-211K** routes the signal from the source at UXGA IN 2 to the UXGA OUT and the AUDIO OUT connectors. Similarly, if the **VP-211K** detects no signal at the UXGA IN 2 input (when IN 2 is selected as the default), the **VP-211K** routes the signal from the source at UXGA IN 1 to the UXGA OUT and the AUDIO OUT connectors
- A signal from the UXGA source at UXGA IN 1 input (when IN 1 is selected as the default), while routing the signal from the UXGA source at UXGA IN 2, the **VP-211K** reroutes the signal from the UXGA source at UXGA IN 1 to the UXGA OUT and the AUDIO OUT connectors. Similarly, if the **VP-211K** detects a signal from the UXGA source at UXGA IN 2 input (when IN 2 is selected as the default), while routing the signal from the UXGA source at UXGA IN 1, the **VP-211K** reroutes the signal from the UXGA source at UXGA IN 2 to the UXGA OUT and the AUDIO OUT connectors
- No signal at all (that is, when there is no active input from a source at UXGA IN 1 or at UXGA IN 2), the **VP-211K** still routes UXGA IN 2 to the UXGA OUT, and continue to examine UXGA IN 1 input (when IN 1 is selected as the default), switching back to it when it detects a valid signal. Similarly, if the **VP-211K** detects no signal at all (when IN 2 is selected as the default), it still routes UXGA IN 1 to the UXGA OUT, and continue to examine the UXGA IN 2 input, switching back to it when it detects a valid signal

5 Technical Specifications

INPUTS:	2 computer graphics video on 15-pin HD connectors 2 unbalanced stereo audio on 3.5mm mini audio connectors
OUTPUTS:	1 computer graphics video on a 15-pin HD connector 1 computer graphics video on a 15-pin HD connector (input #1 active loop) 1 unbalanced stereo audio on a 3.5mm mini audio connector
MAX. OUTPUT LEVEL:	Video: 1.6Vpp; Audio: >10.5Vpp
BANDWIDTH (-3dB):	Video: 300MHz; Audio: >100kHz
DIFF. GAIN:	0.03%
DIFF. PHASE:	0.03Deg.
K-FACTOR:	<0.05%
S/N RATIO:	Video: 71dB; Audio: 71dB weighted
CROSSTALK:	Video: -59dB @5MHz; Audio: <-66dB @1kHz
CONTROLS:	Contact closure remote control, Input default selection switch
COUPLING:	DC
AUDIO THD + NOISE:	<0.032%
AUDIO 2nd HARMONIC:	<0.004%
POWER CONSUMPTION:	5V DC, 200mA
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:	12.1cm x 7.18cm x 2.42cm (4.76" x 2.83" x 0.95", W, D, H)
WEIGHT:	0.3kg (0.66lbs) approx.
ACCESSORIES:	Power supply (5V/2.6A), mounting bracket
OPTIONS:	RK-3T 19" rack adapter
Specifications are subject to change without notice at http://www.kramerelectronics.com	

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.

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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 APPLICABLE 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.



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.

Web site: www.kramerelectronics.com

E-mail: info@kramerel.com



SAFETY WARNING

Disconnect the unit from the power supply before opening and servicing

P/N: 2900-000414



Rev: 3

