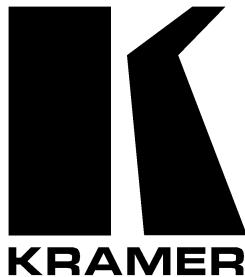


**Kramer Electronics, Ltd.**



# **USER MANUAL**

**Model:**

**VP-2XLK**

*1:2 UXGA / Audio Distributor*

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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 500-plus different models now appear in 8 Groups<sup>1</sup>, which are clearly defined by function.

Congratulations on purchasing your Kramer **VP-2XLK 1:2 UXGA / Audio Distributor**.

This **VP-2XLK** is ideal for:

- Presentation systems requiring a local monitor and projector operating simultaneously
- Schools, churches, rental/staging

The package includes the following items:

- **VP-2XLK 1:2 UXGA / Audio Distributor**<sup>2</sup>
- This user manual<sup>3</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>4</sup>

### 2.1 Quick Start

This quick start chart summarizes the basic setup and operation steps.

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<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

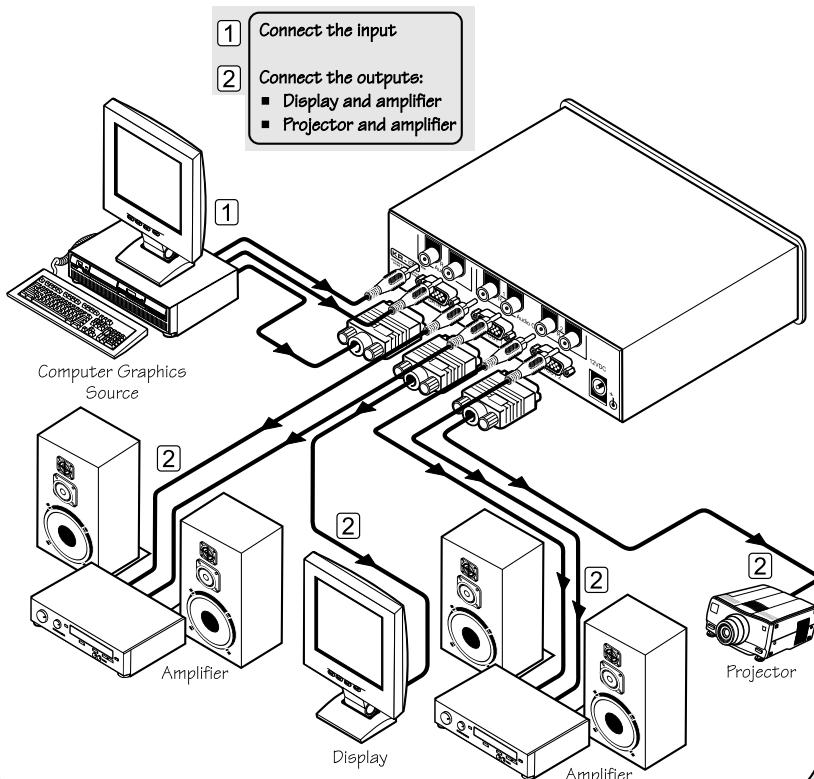
<sup>2</sup> With a power adapter

<sup>3</sup> Download up-to-date Kramer user manuals from the Internet at this URL: <http://www.kramerelectronics.com>

<sup>4</sup> The complete list of Kramer cables is on our Web site at <http://www.kramerelectronics.com>



**Step 1: Connect the Machine**

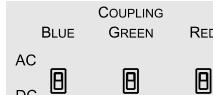


**Step 2: Connect the power**

**Step 3: Set / adjust the unit - see section 4**

Set the underside switches, as required:

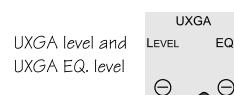
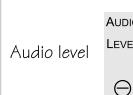
**Set the Coupling switches to AC**  
or DC:



Set the PIN 4 ID Bit  
ID Bit:  OFF  ON

Push in the SYNC  
PROC. button, to  
get a sharp and  
stable image:

If required, adjust the:



### 3 Overview

The **VP-2XLK** is a high performance, desktop size, distribution amplifier for computer graphics signals, with resolutions ranging up to at least UXGA, and unbalanced stereo audio signals.

The **VP-2XLK** accepts one computer graphics input, and an unbalanced stereo audio input, and outputs two computer graphics and two unbalanced stereo audio signals. It includes the innovative Kramer integrated sync processing; KR - ISP™ technology, which lets you achieve a sharp, stable image when the sync level is too low, by restoring the sync signal waveform.

In particular, the **VP-2XLK**:

- Has a high video bandwidth exceeding 400MHz, ensuring that it remains transparent even at high-resolution graphics modes such as UXGA (1600x1200)
- Includes an AUDIO LEVEL control knob to adjust the audio signal level, as well as UXGA LEVEL and UXGA EQ. control knobs to adjust signal level, compensating for cable loss over long distances
- Includes switches for ID Bit control and coupling
- Is HDTV compatible

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 and position your Kramer unit away from moisture, excessive sunlight and dust



**Caution** – No operator-serviceable parts inside unit.

**Warning** – Use only the Kramer Electronics input power wall adapter that is provided with this unit<sup>1</sup>.

**Warning** – Disconnect power and unplug unit from wall before installing or removing device or servicing unit.

<sup>1</sup> For example: model number AD2512C, part number 2535-000251

## 4 Your VP-2XLK 1:2 UXGA / Audio Distributor

Figure 1 and Table 1 define the **VP-2XLK 1:2 UXGA / Audio Distributor**:

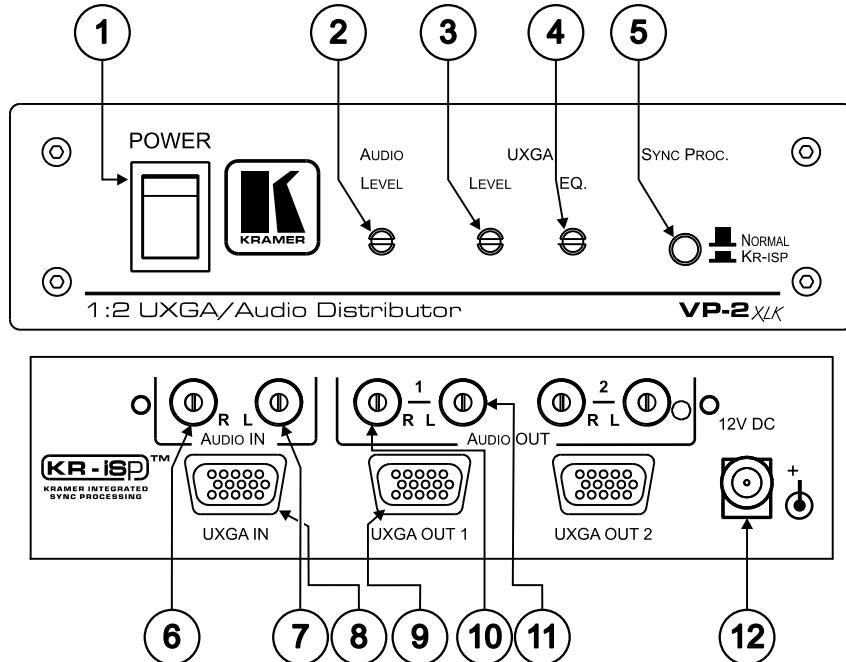


Figure 1: VP-2XLK 1:2 UXGA / Audio Distributor

Table 1: Features and Functions of the VP-2XLK 1:2 UXGA / Audio Distributor

#	Feature	Function
1	POWER Switch	Illuminated switch for turning the unit ON or OFF
2	AUDIO LEVEL Control	Adjust <sup>1</sup> the output audio level, if required
3	UXGA LEVEL Control	Adjust <sup>1</sup> the UXGA output level, if required
4	UXGA EQ. Control	Adjust <sup>1</sup> the EQ. (equalization) compensation level, if required
5	SYNC PROC. Button	Push in to KR-ISP <sup>2</sup> (to activate the sync processing); or release to NORMAL
6	AUDIO IN (R) RCA Connector	Connect to the right audio source
7	AUDIO IN (L) RCA Connector	Connect to the left audio source
8	UXGA IN HD15F Connector	Connect to the UXGA source
9	UXGA OUT HD15F Connectors	Connect to the UXGA acceptors (from 1 to 2)
10	AUDIO OUT (R) RCA Connectors	Connect to the right audio acceptors (from 1 to 2)
11	AUDIO OUT (L) RCA Connectors	Connect to the left audio acceptors (from 1 to 2)
12	12V DC	+12V DC connector for powering the unit

<sup>1</sup> By rotating the screw using a flat screw driver

<sup>2</sup> The default

Figure 2 and Table 2 define the underside panel switches of the **VP-2XLK**:

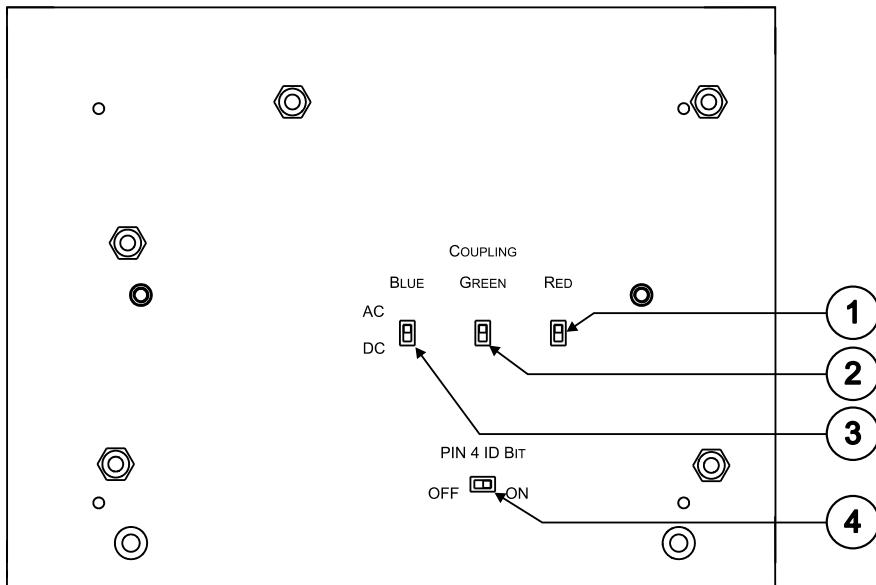


Figure 2: Underside of the VP-2XLK 1:2 UXGA / Audio Distributor

Table 2: Underside Features of the VP-2XLK 1:2 UXGA / Audio Distributor

#	Feature	Function
1	COUPLING	RED Switch
2		GREEN Switch
3		BLUE Switch
4	PIN 4 ID BIT Switch	Slide to the right to set to ON <sup>1</sup> ; to the left to set to OFF

<sup>1</sup> The default. Enabling the notebook or laptop to output a VGA signal to an external VGA monitor

## 5 Connecting the VP-2XLK 1:2 UXGA / Audio Distributor

To connect the **VP-2XLK**, as the example in Figure 3 illustrates:

1. Connect a computer graphics source to the UXGA IN HD15F connector and to the R and L AUDIO IN RCA connectors.
2. Connect the UXGA OUT HD15F connectors to up to<sup>1</sup> two acceptors (for example, a display and a projector) and connect the respective R and L AUDIO OUT RCA connectors to audio acceptors (for example, two amplifiers with speakers).
3. Connect the 12V DC power adapter to the power socket and connect the adapter to the mains electricity (not illustrated in Figure 3).
4. If required:
  - Check that the SYNC PROC. button is pushed in (the default), to activate the sync processing
  - Adjust the AUDIO LEVEL, the UXGA LEVEL, and/or the UXGA EQ. (equalization) compensation level
  - Set the coupling switches to AC or DC
  - Set the ID BIT to ON

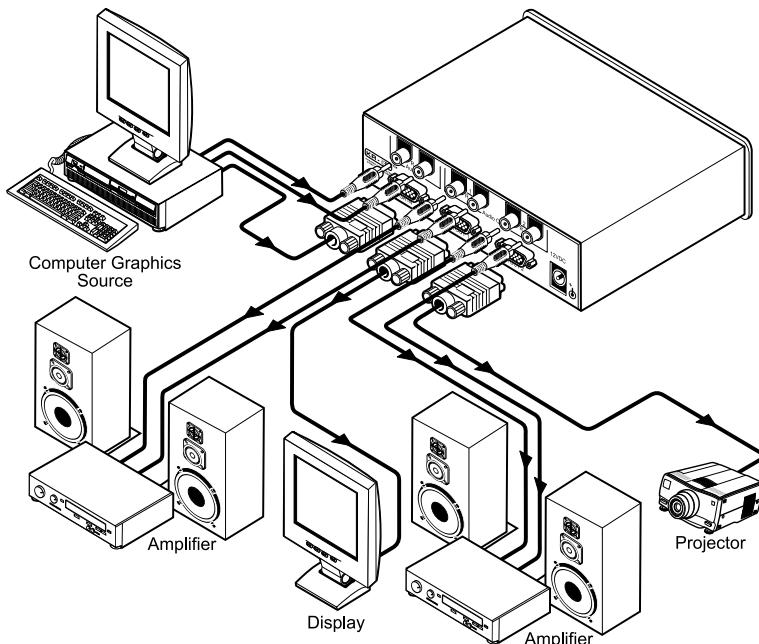


Figure 3: Connecting the VP-2XLK 1:2 UXGA / Audio Distributor

<sup>1</sup> When both outputs are not required, connect only the output that is required and leave the other output unconnected

## 6 Technical Specifications

Table 3: Technical Specifications<sup>1</sup> of the VP-2XLK 1:2 UXGA / Audio Distributor

INPUTS:	VIDEO: 1 UXGA on an HD15F connector	AUDIO: 1 audio stereo on RCA connectors
OUTPUTS:	VIDEO: 2 UXGA on HD15F connectors	AUDIO: 2 audio stereo on RCA connectors
MAX. OUTPUT LEVEL:	VIDEO: 2.5Vpp	AUDIO: 8.6Vpp
BANDWIDTH (-3dB):	VIDEO: 400MHz	AUDIO: >100kHz
DIFF. GAIN:	0.03%	
DIFF. PHASE:	0.04 Deg	
K-FACTOR:	<0.05%	
S/N RATIO:	VIDEO: 70dB	AUDIO: 91dB
CONTROLS:	UXGA: Level: -1.1dB to 6.3dB; EQ.: 0dB to 4.7dB@50MHz AUDIO Level: -84dB to 6.2dB ID BIT switch; Coupling switches; Sync Processing (Normal or KR-ISP)	
COUPLING:	VIDEO: DC/AC selectable	AUDIO: AC (input and output)
AUDIO THD + NOISE:	0.035%	
AUDIO 2nd HARMONIC:	0.007%	
POWER SOURCE:	12VDC, 160mA	
DIMENSIONS:	16.5cm x 12 cm x 4.5 cm (6.5" x 4.7" x 1.8", W, D, H.)	
WEIGHT:	0.7 kg. (1.5 lbs.) approx.	
ACCESSORIES:	Power supply	

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

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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 seven 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 your 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"

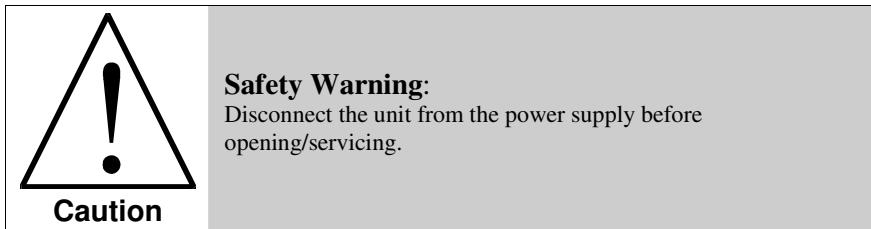
### **CAUTION!**

- ☒ 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.**



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**Kramer Electronics, Ltd.**  
Web site: [www.kramerelectronics.com](http://www.kramerelectronics.com)  
E-mail: [info@kramerel.com](mailto:info@kramerel.com)  
**P/N: 2900-000279 REV 1**