Kramer Electronics, Ltd.

USER MANUAL

Model:

VP-100A

XGA / Audio Interface

Contents

Figures

Tables

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[1], which are clearly defined by function.

Congratulations on purchasing your Kramer **VP-100A** *XGA / Audio Interface*. This product is ideal for graphics and audio installations in conference rooms and training rooms, as well as for long distance graphics signal distribution.

The package includes the following items:

- **VP-100A** *XGA / Audio Interface*
- Power cord
- This user manual[2]

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[3]

---

1 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

2 Download up-to-date Kramer user manuals from our Web site at http://www.kramerelectronics.com

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

3   Overview

The **VP-100A** is a high performance XGA and audio interface that accepts a computer graphics (XGA) signal on an HD15 connector and outputs it to RGBHV[1] on BNC connectors, and also converts an unbalanced stereo audio signal to balanced stereo audio.

In addition, the **VP-100A** includes:

- A video bandwidth of 430MHz, to ensure transparent operation at multiple resolutions including UXGA
- A local monitor loop-through on an active HD15F connector
- An unbalanced stereo audio input on a 3.5mm mini jack
- A balanced stereo audio output on a terminal block connector
- Hs and Vs shift control
- Cable equalization control
- Left and right audio level controls
- ID Bit control switches

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 **VP-100A** away from moisture, excessive sunlight and dust

4   Your VP-100A XGA / Audio Interface

Figure 1, Table 1 and Table 2 define the **VP-100A** front and rear panels:

---

1 Separate H and V (RGBHsVs) or RGBCs (separate composite sync)

KRAMER: SIMPLE CREATIVE TECHNOLOGY
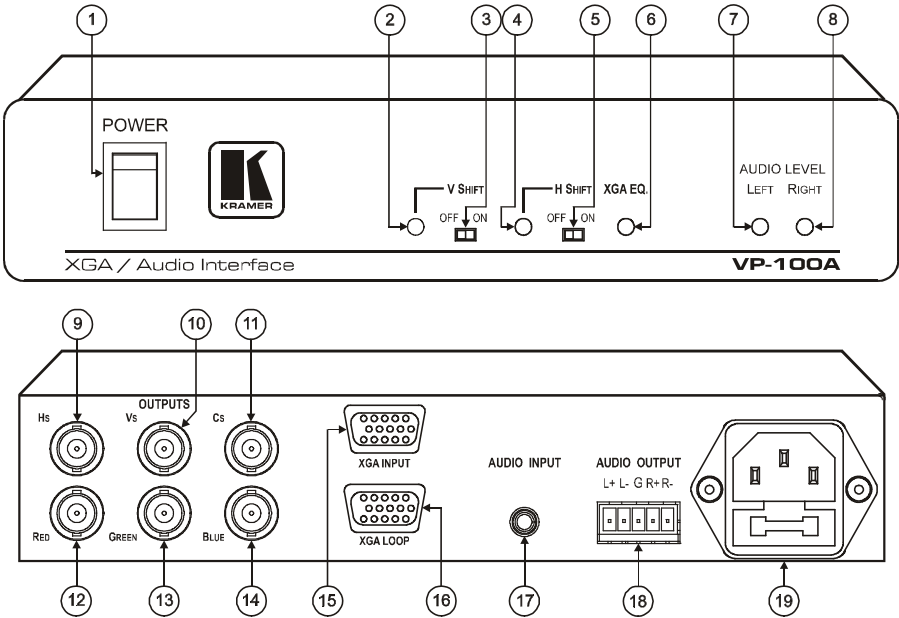
Figure 1: VP-100A XGA / Audio Interface

Table 1: Front Panel VP-100A XGA / Audio Interface Features

#	Feature		Function
1	POWER Switch		Illuminated switch for turning the unit ON or OFF
2	V SHIFT	Trimmer	Adjust[1] the vertical display to compensate for delay problems due to long and/or unequal cables (when the V SHIFT switch is set to ON)
3		ON/OFF Switch	Set to ON to enable the vertical shift trimmer
4	H SHIFT	Trimmer	Adjust[1] the horizontal display to compensate for delay problems due to long and/or unequal cables (when the H SHIFT switch is set to ON)
5		ON/OFF Switch	Set to ON to enable the horizontal shift trimmer
6	XGA EQ. Trimmer		Adjust[1] cable equalization of the BNC output
7	AUDIO LEVEL	LEFT Trimmer	Adjust[1] the left audio output signal level
8		RIGHT Trimmer	Adjust[1] the right audio output signal level

---

1 Insert a screwdriver into the small hole and carefully rotate it, trimming the appropriate level

Table 2: Rear Panel VP-100A XGA / Audio Interface Features

#		Feature	Function
9		*Hs* BNC Connector	Horizontal sync for amplified and buffered horizontal sync output
10		*Vs* BNC Connector	Vertical sync for amplified and buffered vertical sync output
11	*OUTPUTS*	*Cs* BNC Connector	Composite sync for amplified and buffered composite sync output
12		*RED* BNC Connector	Amplified and buffered red signal output
13		*GREEN* BNC Connector	Amplified and buffered green signal output
14		*BLUE* BNC Connector	Amplified and buffered blue signal output
15	*XGA INPUT* HD15 Connector		Connect to the XGA source
16	*XGA LOOP* HD15 Connector		Active loop for connecting to an additional acceptor
17	*AUDIO INPUT* 3.5mm mini Connector		Connect to an unbalanced stereo audio source
18	*AUDIO OUTPUT* Terminal Block Connector		Connect to a balanced stereo audio acceptor
19	Power Connector Fuse		AC connector, enabling power to the unit

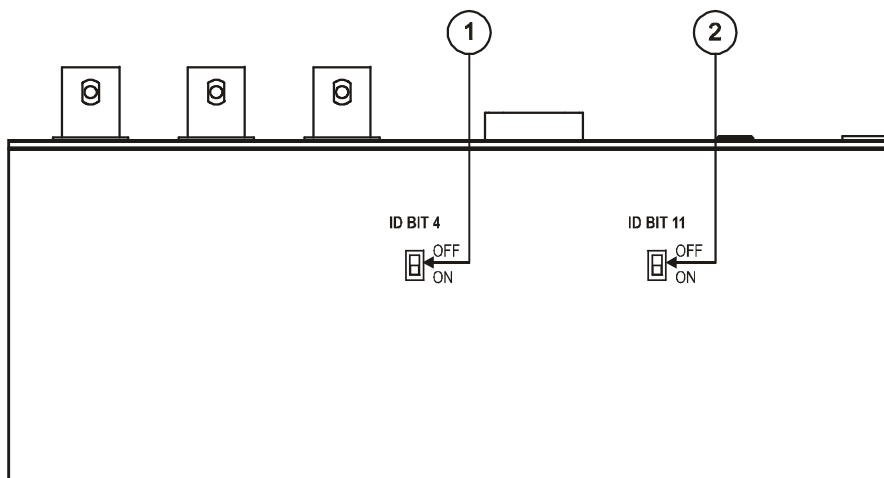Figure 2 and Table 3 define the **VP-100A** underside ID BIT Control switches (top left side):

Figure 2: VP-100A Underside

Table 3: VP-100A XGA / Audio Interface Underside Features

#	Feature	Function
1	*ID BIT 4* Switch	Slide down to set to ON[1]; up to set to OFF
2	*ID BIT 11* Switch	Slide down to set to ON[1]; up to set to OFF

---

1 The default. Enabling the notebook or laptop to output an XGA signal to an external VGA monitor

5 Connecting the VP-100A

To connect your **VP-100A** *XGA / Audio Interface*, as the example in Figure 5 illustrates, do the following:

1. Connect your XGA source (for example, a laptop's digital graphics card) to the XGA INPUT HD15F connector and to the AUDIO INPUT 3.5mm mini jack, for example, using a Kramer C-GMA/GMA cable (VGA HD15M +Audio jack to VGA HD15M +Audio jack)[1].

2. Connect the BNC OUTPUT connectors (Cs, RED, GREEN and BLUE[2]) to the XGA acceptor (for example, a projector).

3. If required, connect a local display to the HD15F XGA LOOP port.

4. Connect the balanced stereo AUDIO OUTPUT terminal block to an acceptor (for example, speakers), as one of the following:
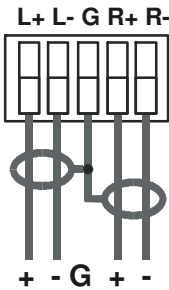
L+ L- G R+ R-	L+ L- G R+ R-

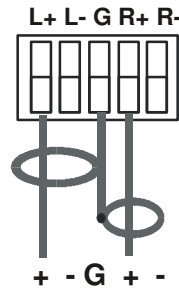*Figure 3: Connecting the Balanced Stereo Audio Output to a Balanced Acceptor*   *Figure 4: Connecting the Balanced Stereo Audio Output to an Unbalanced Acceptor*

5. On the underside of the **VP-100A**:
   - Slide the ID BIT 4 switch downwards to set to ON
   - Slide the ID BIT 11 switch downwards to set to ON

6. If required, adjust the:
   - Vertical and/or horizontal shift levels[3]
   - XGA EQ. level[3]
   - Left and right audio levels[3]

---

1 Not supplied. The complete list of Kramer cables is on our Web site at http://www.kramerelectronics.com

2 Connect the BNC output connectors according to the acceptor capabilities: you may use RGBHV or RGBCs
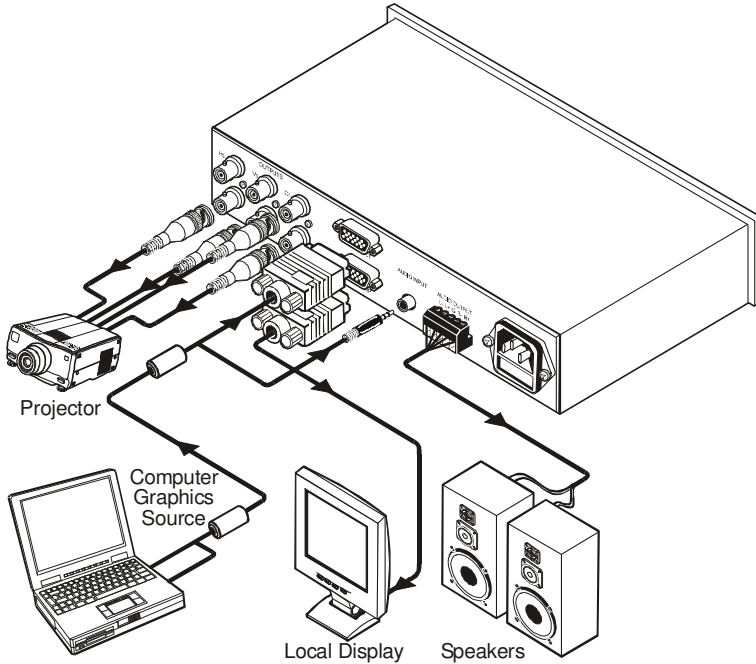
3 See Table 1

Figure 5: VP-100A XGA / Audio Interface

6   Technical Specifications

Table 4: Technical Specifications of the VP-100A XGA / Audio Interface

INPUTS:	VIDEO: 1 XGA on HD15F connector; 1 XGA on HD15F loop	AUDIO: 1 Unbalanced stereo 3.5mm mini jack
OUTPUTS:	VIDEO: R, G, B, Hs, Vs, Cs on BNC double connectors	AUDIO: 1 balanced stereo audio on a 5-pin terminal block connector
MAX. OUTPUT LEVEL:	VIDEO: 2Vpp	AUDIO: 27Vpp
BANDWIDTH (-3dB):	VIDEO: 430MHz	AUDIO: >100kHz
DIFF. GAIN:	1.3%	
DIFF. PHASE:	0.35 Deg.	
K-FACTOR:	<0.05%	
S/N RATIO:	VIDEO: 79dB	AUDIO: 70dB
CONTROLS:	0 to +5.3dB EQ. @ 50MHz	
COUPLING:	VIDEO: DC	AUDIO: Input: AC, Output: DC
AUDIO THD + NOISE:	0.052%	
AUDIO 2nd HARMONIC:	0.004%	
POWER SOURCE:	230VAC 50/60Hz (115V, USA) 6VA	
DIMENSIONS:	22cm x 18cm x 4.5cm (8.7" x 7" x 1.7") W, D, H	
WEIGHT:	1.3kg (2.9lbs.) approx.	
ACCESSORIES:	Power cord	
OPTIONS:	19" rack adapter RK-80	

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.
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.

**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.**

Safety Warning:
Disconnect the unit from the power supply before
opening/servicing.

Caution