

Kramer Electronics, Ltd.



USER MANUAL

Model:

VA-1H

UXGA Sync Shifter

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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 the video, audio, presentation, and broadcasting professional 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 groups¹ that are clearly defined by function.

Thank you for purchasing the Kramer TOOLS **VA-1H UXGA Sync Shifter**, which is ideal for home-entertainment, multimedia, and presentation applications.

Each package includes the following items:

- The **VA-1H UXGA Sync Shifter**
- Power adapter (5V DC input)
- This user manual²

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 cables³

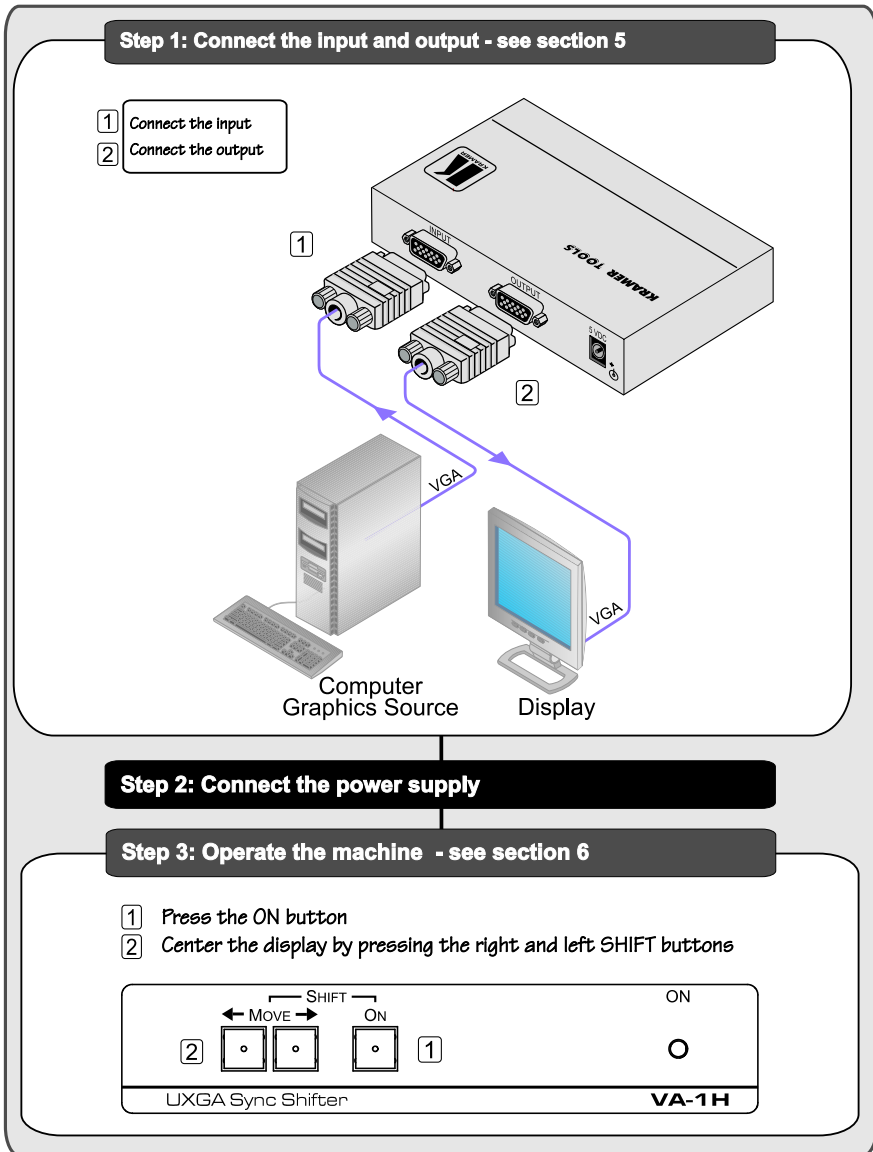
1 GROUP 1: Distribution Amplifiers; GROUP 2: Switchers and Matrix Switchers; GROUP 3: Control Systems; GROUP 4: Format/Standards Converters; GROUP 5: Range Extenders and Repeaters; GROUP 6: Specialty AV Products; GROUP 7: Scan Converters and Scalers; GROUP 8: Cables and Connectors; GROUP 9: Room Connectivity; GROUP 10: Accessories and Rack Adapters; GROUP 11: Sierra Products

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>

2.1 Quick Start

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



3 Overview

The Kramer **VA-1H UXGA Sync Shifter** is a high-performance sync delay corrector that can be used for any computer graphics video signal from VGA to UXGA.

When sending a computer graphics video signal from a PC to a monitor via a long-distance display cable, the delay between the picture information and the sync may cause a horizontal shift on the display. The **VA-1H** compensates by shifting the sync accordingly, so that the picture is properly displayed.

To achieve the best performance:

- Use only good quality connection cables¹ to avoid 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 that may adversely influence signal quality and position your Kramer **VA-1H** 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 unit².

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

¹ Available from Kramer Electronics on our Web site at <http://www.kramerelectronics.com>

² For example, part number 2535-052002

4 Your VA-1H UXGA Sync Shifter

Figure 1 and Table 1 define the VA-1H.

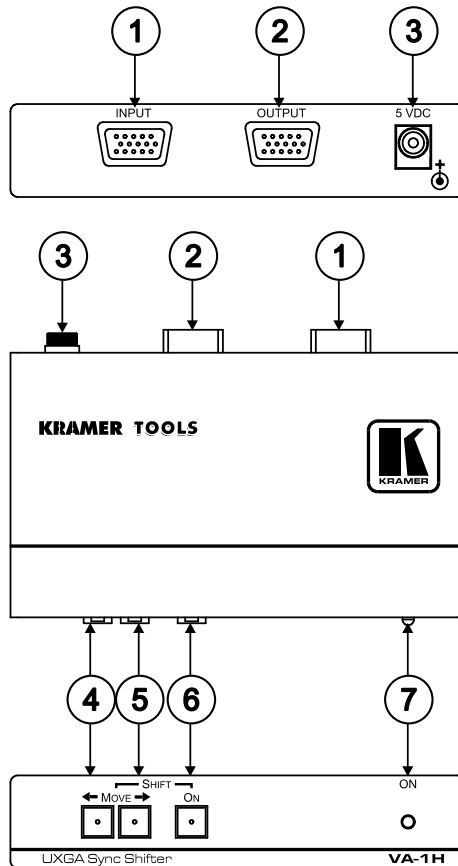


Figure 1: VA-1H UXGA Sync Shifter Functions

Table 1: VA-1H UXGA Sync Shifter Functions

#	Feature	Function
1	INPUT 15-pin HD (F) Connector	Connects to the computer graphics video signal source
2	OUTPUT 15-pin HD (F) Connector	Connects to the display acceptor
3	5V DC Connector	+5V DC for powering the unit
4	SHIFT ← MOVE Button	Push to move the image on the display to the left
5	SHIFT MOVE → Button	Push to move the image on the display to the right
6	ON Button	Push to enable image shifting
7	ON LED	Illuminates when the unit is powered ON

5 Connecting the VA-1H UXGA Sync Shifter

To connect the **VA-1H**, as the example in *Figure 2* illustrates, do the following:

1. Turn OFF the power on all devices.
2. Connect the computer graphics video signal cable to the INPUT connector on the **VA-1H**.
3. Connect the OUTPUT connector to the acceptor display.
4. Connect the 5V DC power adapter to the power socket and connect the adapter to the mains electricity (not shown in the illustration).
5. Turn ON the power on all devices.

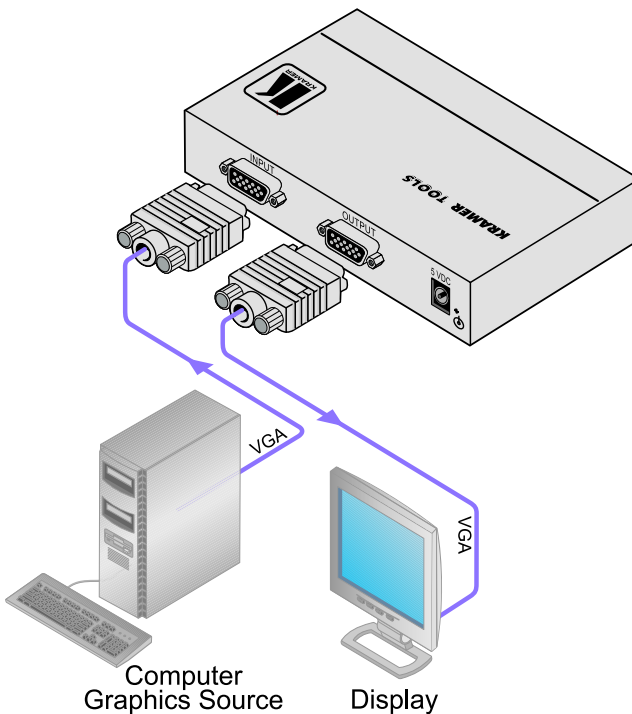


Figure 2: Connecting the VA-1H UXGA Sync Shifter

6 Operating the VA-1H

To operate your **VA-1H**:

1. Press the ON button.
2. While observing the display, press the right or left SHIFT buttons as needed to center the picture. Depending on the resolution, the image can be shifted up to about 1/3 of the screen in either direction.

Note: To increase the correction speed, press and hold the SHIFT button for more than 3 seconds.

3. The setting is saved in non-volatile memory 5 seconds after the last press/correction.
4. When the **VA-1H** is turned OFF and ON after a correction is made, the ON button lights weakly to indicate a stored value.

Note: If, when the **VA-1H** unit is turned ON, the ON button lights brightly and stays lit, there is a problem reading from non-volatile memory. Contact Customer Support.

6.1 Resetting the Memory

To erase the contents of the non-volatile memory, perform the following:

1. Unplug and replug the power supply to turn the unit OFF and ON.
2. Press the left and right SHIFT buttons simultaneously for a short time.
3. When the ON button lights brightly, the operation was successful.
4. Unplug and replug the unit again to resume normal operation.
The ON button does not illuminate since there is no stored value.

7 Technical Specifications

The **VA-1H** technical specifications are shown in *Table 2*:

Table 2: VA-1H Technical Specifications¹

INPUT:	1 computer graphics video on 15-pin HD (F) connector
OUTPUT:	1 computer graphics video on 15-pin HD (F) connector
BANDWIDTH (-3dB):	1GHz
DIFF. GAIN:	0.03%
DIFF. PHASE:	0.03Deg
K-FACTOR:	<0.05%
S/N RATIO:	73dB @5MHz
CONTROLS:	Front panel SHIFT MOVE and SHIFT ON
COUPLING:	DC
POWER SOURCE:	5V DC, 100mA
DIMENSIONS:	12cm x 7.2cm x 2.4cm (4.7" x 2.8" x 1.0") W, D, H
WEIGHT:	0.3kg (0.7lbs)
ACCESSORIES:	Power supply
OPTIONS:	19" rack adapter

¹ Specifications are subject to change without notice

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, or on which the WARRANTY VOID IF TAMPERED sticker has been torn, reattached, removed or otherwise interfered with.
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.
* FCC and CE approved using STP cable (for twisted pair products)



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.



Caution

Safety Warning:

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



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