

Kramer Electronics, Ltd.



USER MANUAL

Model:

VA-1VGA

EDID Capture

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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, 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 eight groups¹ that are clearly defined by function.

Thank you for purchasing the Kramer TOOLS **VA-1VGA EDID Capture**, which is ideal for:

- Distributing presentation graphics
- Using a display at a distance from the computer
- Using in graphics production studios

Each package includes the following items:

- The **VA-1VGA EDID Capture**
- 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. Be sure that the VGA cable passes the signals on PINs 12 and 15

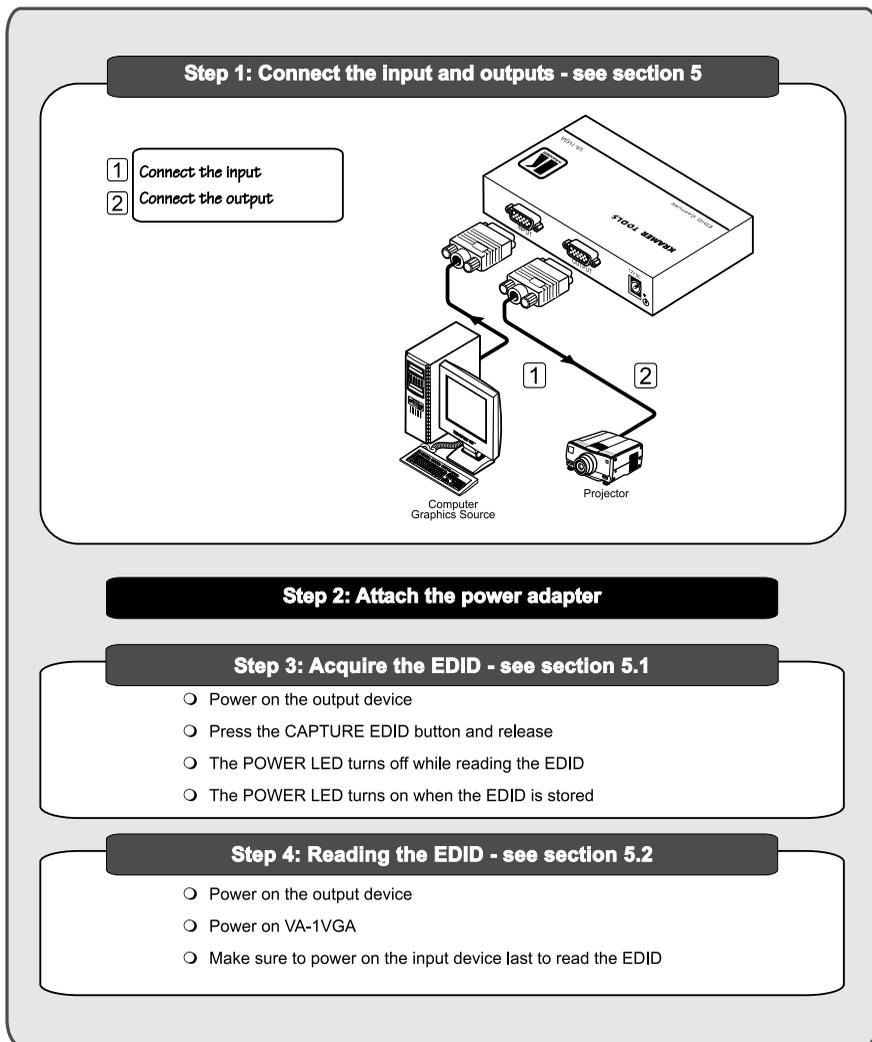
1 GROUP 1: Distribution Amplifiers; GROUP 2: Video and Audio Switchers, Matrix Switchers and Controllers; GROUP 3: Video, Audio, VGA/XGA Processors; GROUP 4: Interfaces and Sync Processors; GROUP 5: Twisted Pair Interfaces; GROUP 6: Accessories and Rack Adapters; GROUP 7: Scan Converters and Scalers; 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>

2.1 Quick Start

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



3 Overview

The Kramer **VA-1VGA** is a unique VGA EDID Capture, with VGA input and output on 15-pin HD computer graphics video connectors. When the **VA-1VGA** is connected to a display device and the CAPTURE EDID button is pressed, the **VA-1VGA** reads and stores the EDID (Extended Display Identification Data) from the display device¹. The display can be disconnected and later reconnected without rebooting the operating system.

In addition, the **VA-1VGA** is:

- Housed in a TOOLS enclosure
- Powered using a 12V DC adapter
- Compliant with the VESA DDC2 standard, allowing the unit to be operated without the power adapter², when the source complies with this standard

To achieve the best performance:

- Use only good quality connection cables³ 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
- Position your Kramer **VA-1VGA** away from moisture, excessive sunlight and dust

3.1 Defining EDID

EDID (Extended Display Identification Data⁴) is a data-structure that the display provides to describe its capabilities to a graphics card connected to the display's source. The EDID enables the source, such as a PC, to "know" what kind of monitor is connected to the output.

The EDID includes: the name of the manufacturer, product type, timing data supported by the display, display size, luminance data, and (for digital displays only) the pixel mapping data.

1 Some computers need to have the EDID information available when they boot up, otherwise the VGA output may be disabled

2 There is +5V on PIN 9

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

4 EDID is defined by a standard published by the Video Electronics Standards Association (VESA)

4 Your VA-1VGA EDID Capture

Figure 1 and Table 1 define the unit.

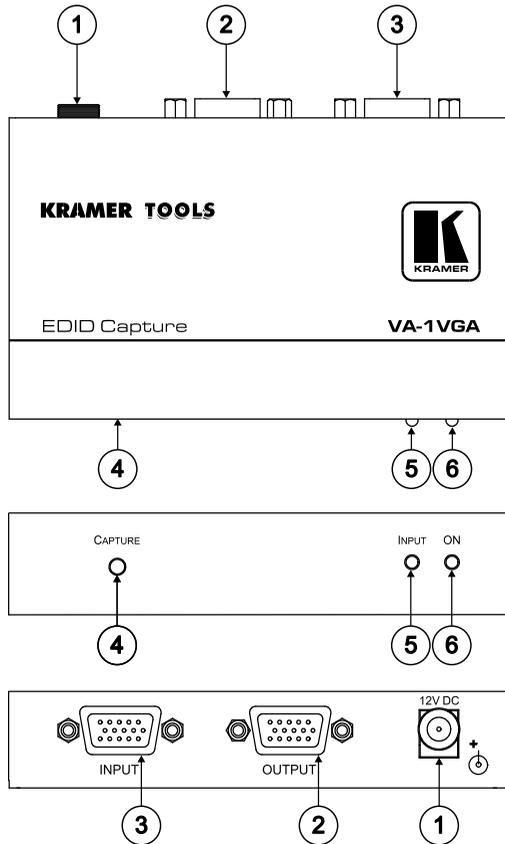


Figure 1: VA-1VGA EDID Capture

Table 1: VA-1VGA EDID Capture Functions

#	Feature	Function
1	12V DC	+12V DC connector for powering the unit
2	OUTPUT 15-pin HD computer graphics video connector	Connects to the VGA acceptor
3	INPUT 15-pin HD computer graphics video connector	Connects to the VGA source
4	CAPTURE Button	Press to acquire the EDID
5	INPUT LED	Illuminates when a source (computer) is connected
6	ON LED	Illuminates when the power is connected

5 Connecting the VA-1VGA EDID Capture

In the example illustrated in *Figure 3*, a projector is connected to a PC using a VGA cable and the **VA-1VGA**. The PC needs the EDID information from the display otherwise it will disable the output.

The configuration illustrated in *Figure 3* requires two separate stages:

- The **VA-1VGA** acquires (reads and stores) the EDID information from the projector (see section 5.1)
- The **VA-1VGA** is connected between the PC and the remote projector so the PC can read the acquired information (see section 5.2).

5.1 Acquiring the EDID

To acquire the EDID information, perform the following (see *Figure 2*):

1. Connect the input VGA connector of the display (for example, a projector) to the OUTPUT connector of the **VA-1VGA**.
2. Power the projector on.
3. Connect the 12V DC power connector to the power socket of the **VA-1VGA** and plug the adapter to the mains electricity (not shown in this illustration). Verify that the POWER LED lights.
4. Press the CAPTURE EDID button using a small screwdriver or similar instrument to access the recessed button. The POWER LED turns off while the EDID information is read and stored in the **VA-1VGA** non-volatile memory. When the POWER LED lights again, the EDID is stored.
5. Disconnect the VGA connector of the projector from the **VA-1VGA** OUTPUT connector.
6. Disconnect the 12V DC power source.

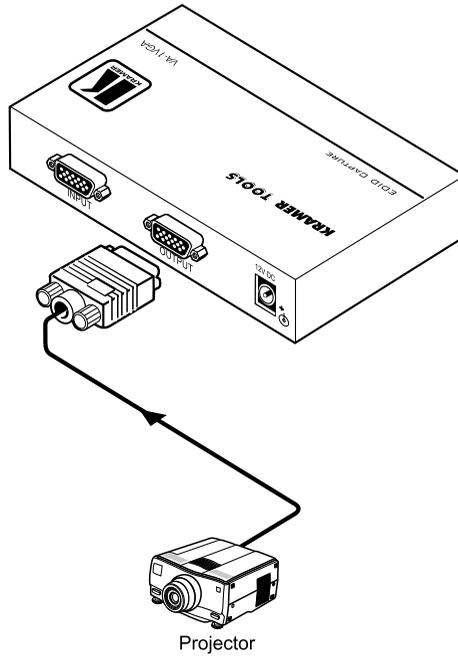


Figure 2: VA-1VGA – Acquiring the EDID from the Display Device

5.2 Reading the EDID

For the PC to read the EDID information, perform the following (see *Figure 3*):

1. Switch OFF the power on each device before connecting to the **VA-1VGA**.
2. Connect a VGA source (for example, a VGA computer graphics source) to the **INPUT** connector of the **VA-1VGA**.
3. Connect the projector to the **OUTPUT** connector of the **VA-1VGA**.
4. Connect the 12V DC power adapter to the **VA-1VGA** power socket and connect the adapter to the mains electricity.
5. Power ON the projector.
6. Power ON the VGA source last while it is connected to the **VA-1VGA**, so it can acquire the EDID properly.

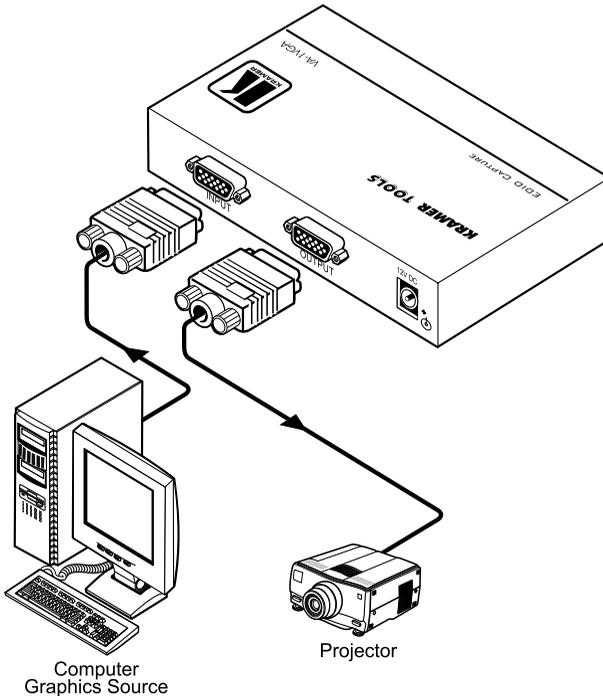


Figure 3: Connecting the VA-1VGA EDID Capture

6 Technical Specifications

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

Table 2: VA-1VGA EDID Capture Technical Specifications¹

INPUT:	1 XGA input on a 15-pin HD connector
OUTPUT:	1 XGA output on a 15-pin HD connector
MAX. OUTPUT LEVEL:	> 2Vpp
BANDWIDTH (-3dB):	1.8GHz
DIFF. GAIN:	0.02%
DIFF. PHASE:	0.02°
K-FACTOR:	< 0.05%
S/N RATIO:	74dB @ 5MHz (unweighted: 66dB)
CONTROLS:	Pushbutton for EDID monitor information storage
COUPLING:	DC – direct wiring between input and output
POWER SOURCE:	12V DC, 35mA
DIMENSIONS:	6cm x 6.5cm x 3cm (2.4" x 2.6" x 1.2") W, D, H
WEIGHT:	0.15kg (0.33lbs) approx.
ACCESSORIES:	12V DC power supply

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.





**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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