



Kramer Electronics Ltd.

USER MANUAL

ACCESSORIES

Models:

VP-800, VIDEO TESTER

**IMPORTANT: Before proceeding, please read paragraph entitled
"Unpacking and Contents"**

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1 INTRODUCTION

Congratulations on your purchase of this Kramer accessory.

Since 1981 Kramer has been dedicated to the development and manufacture of high quality video/audio equipment. The Kramer line has become an integral part of many of the best production and presentation facilities around the world. In recent years, Kramer has redesigned and upgraded most of the line, making the best even better. Kramer's line of professional video/audio electronics is one of the most versatile and complete available, and is a true leader in terms of quality, workmanship, price/performance ratio and innovation. In addition to testing accessories, such as the one you have just purchased, Kramer also offers a full line of high quality distribution amplifiers, switchers, processors, interfaces, controllers and computer-related products. This manual includes configuration, operation and option information for the following Kramer accessories:

VP-800 - VGA/XGA Bar Generator

TESTER - Video Tester

1.1 Factors Affecting Quality of Results

There are many factors affecting the quality of results when signals are transmitted from a source to an acceptor, as described in Table 1:

Table 1: Factors Affecting Quality of Results

FACTOR	EFFECT
Connection cables	Low quality cables are susceptible to interference; they degrade signal quality due to poor matching and cause elevated noise levels. They should therefore be of the best quality.
Sockets and connectors of the sources and acceptors	So often ignored, they should be of highest quality, since "Zero Ohm" connection resistance is the objective. Sockets and connectors also must match the required impedance (75ohm in video). Cheap, low quality connectors tend to rust, thus causing breaks in the signal path
Amplifying circuitry	Must have quality performance when the desired end result is high linearity, low distortion and low noise operation
Distance between sources and acceptors	Plays a major role in the final result. For long distances between sources and acceptors, special measures should be taken in order to avoid cable losses. These include using higher quality cables or adding line amplifiers.
Interference from neighboring electrical appliances	These can have an adverse effect on signal quality. Balanced audio lines are less prone to interference, but unbalanced audio should be installed far from any mains power cables, electric motors, transmitters, etc. even when the cables are shielded

2 SPECIFICATIONS

	VP-800	TESTER
Function	VGA/XGA Bar Generator	Video Tester
Input Type	NA	One composite video, PAL, SECAM or NTSC
Input Connections	NA	BNC connector
Input Level	NA	1Vpp/75ohm
Output Type	Standard VGA/XGA RGBHV signal	NA
Output Connector	HD15F connector	NA
Output Level/Indicator	0.7Vpp/75ohm H & V syncs-TTL level	Two LEDs: Power indicator (Red), Signal indicator (Green).
Output Coupling	RGB: AC H & V: DC	NA
Resolutions	640x480, 60Hz 800x600, 75Hz 1024x768, 75Hz 1280x1024, 74Hz.	NA
Detection Modes	NA	Green LED off = missing signal. Irregularly flashing = jittery signal. Continuously lit or flashing regularly = standard video signal.
Dimensions (W, D, H)	12 x 7.5 x 2.5 (cm) 4.7" x 2.9" x 1"	6.5 x 10 x 3 (cm) 2.6" x 3.9" x 1.2"
Weight	0.3kg. (0.7lbs) approx.	120gr. (0.26lbs) approx.
Power Consumption	1.8VA	0.27VA
Power Source	9VDC, 200mA	9 Volt battery, 30mA when testing, 0mA when off.

3 HOW DO I GET STARTED?

The fastest way to get started is to take your time and do everything right the first time. Taking 15 minutes to read the manual may save you a few hours later. You don't even have to read the whole manual. If a certain section doesn't apply to you, you don't have to spend your time reading it.

4 UNPACKING AND CONTENTS

The items contained in your Kramer accessory package are listed below. Please save the original box and packaging materials for possible future transportation and shipment.

Video Tester/VP-800 Bar Generator

12 Volts DC Power Supply or 9V battery (Video Tester)

User Manual

4 rubber feet

Kramer concise product catalog

4.1 Optional Accessories

The following accessories, which are available from Kramer, can enhance implementation of your machine. For information regarding cables and additional accessories, contact your Kramer dealer.

- **Rack Adapter** - Used to install smaller machines in a standard 1U rack. One or more machines may be installed on each adapter.
- **A Video Switcher or Matrix** – for selecting an input signal to the Tester, allowing it to test a large configuration in a studio. Some Kramer machines that can do the job are: **4x1VB** (4x1 passive video switcher), **VS-55V** (a 5x1 extendable electronic video switcher), **VS-5x4** (a 5x4 video/audio matrix) and many more.
- **A VGA/XGA Distribution Amplifier or Line Amplifier** – for driving several acceptors for testing from the VP-800. Some Kramer machines that can be used: **VP-300** (a high resolution 1:3 VGA/XGA distribution amplifier of the Kramer Tools family), **VP-2x1** (a Line Amplifier, 1:2 VGA/XGA distributor), **VP-22** (A VGA/XGA Line Amplifier) and more.

5 ACCESSORIES

5.1 Getting To Know Your VP-800 VGA/XGA Bar Generator

The KRAMER **VP-800** VGA/XGA Bar Generator, one of the KRAMER TOOLS, is a unique, high quality color bar generator for testing and alignment of VGA/XGA equipment, such as monitors, projectors, etc. The **VP-800** generates a color bar, similar to a TV test pattern, in the four most common resolution modes: 640x480, 800x600, 1024x768 and 1280x1024. Operation of the machine is simple: just plug an appropriate power source into the DC socket, plug a VGA/XGA cable into the "monitor OUT" socket leading to the acceptor (monitor, projector, etc.) and select the desired resolution with one of the push switches. The **VP-800** eliminates the need for a full computer wherever a VGA/XGA signal has to be tested. The **VP-800** is housed in the tiny KRAMER TOOLS enclosure and is DC fed, making it suitable for field operation as well. Panel features of the **VP-800** are described in Figure 1 and Table 2.

NOTE

For operation instructions refer to section 8.

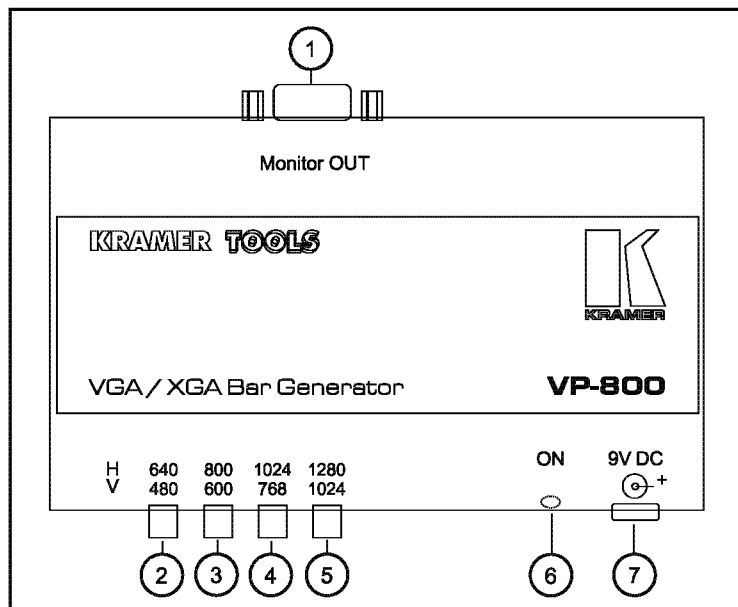


Figure 1: VP-800 Panel Features

Table 2: VP-800 Panel Features

	Feature	Function
1.	Monitor OUT HD 15F connector	VGA/XGA test pattern output.
2.	640x480 switch	Select 640x480 resolution at the Monitor OUT connector mode when pressed.
3.	800x600 switch	Select 800x600 resolution at the Monitor OUT connector mode when pressed.
4.	1024x768 switch	Select 1024x768 resolution at the Monitor OUT connector mode when pressed.
5.	1280x1024 switch	Select 1280x1024 resolution at the Monitor OUT connector mode when pressed.
6.	ON Led	Illuminates when the machine is powered.
7.	9VDC feed connector	A DC connector that allows power to be supplied to the unit. The machine may also be fed from a 12VDC supply.

5.2 Getting to Know Your Video Tester

A new, unique, patented, indispensable tool for the video professional. By pressing only one touch switch it will trace missing signals, distinguish between good and jittery (VCR sourced) signals, and identify the presence of good signals. Whenever a video signal is missing, because of bad connections, cable breaks or faulty sources, the **Video Tester** is all you need. No need for oscilloscopes, waveform monitors or vectorscopes to trace and rectify such common problems. Indispensable for field work. The **Video Tester** checks for sync and Odd/Even data in the signal and will not be triggered by noise, hum or even by a 15kHz non-video source. Features of the **Video Tester** are described in Figure 2 and Table 3.

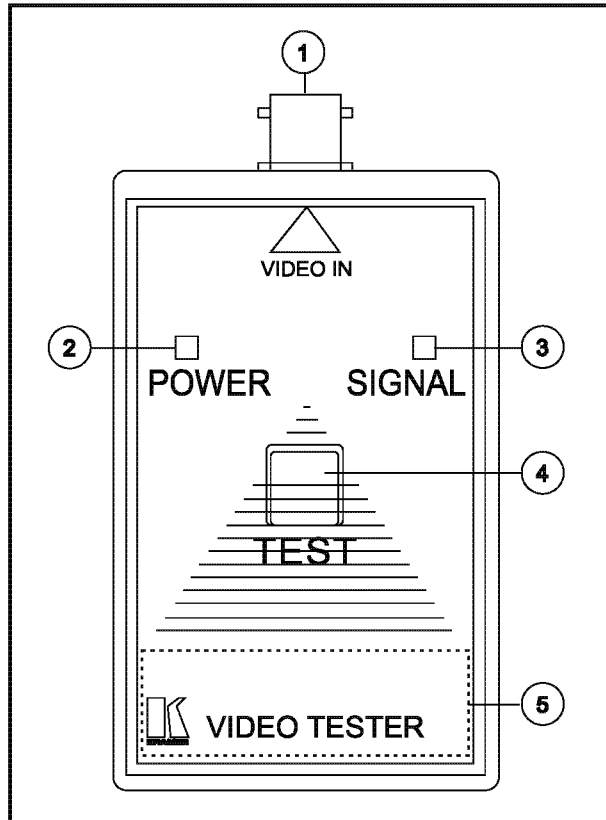


Figure 2: Video Tester Panel Features

Table 3: Video Tester Front Panel Features

	Feature	Function
1.	Video IN BNC connector	Video input.
2.	POWER Led	Illuminates when pressed to indicate that the battery is good.
3.	SIGNAL Led	Blinks when the video signal is valid.
4.	TEST Switch	Supplies power to the TESTER (POWER Led illuminates) and activate the signal test when pressed.
5.	Internal battery	Supplies power to the TESTER.

6 TYPICAL APPLICATIONS

6.1 Checking the Video Signal Path

Figure 3 illustrates a typical use of the Video Tester described in this manual. The Tester can be connected to any of the A-D test points, by coaxial BNC cables. If the tested signal is valid, the **SIGNAL** LED Blinks.

Perform the following steps (as necessary):

1. Set up your video configuration using composite or component video distributors/switchers (VM-20ARII in this case).
2. Connect the **VIDEO IN** connector of the Video Tester to any of the A-D test points, using coaxial cables.
3. Operate the source, acceptors.
4. Press the **TEST** pushbutton to test the validity of the connected signal.

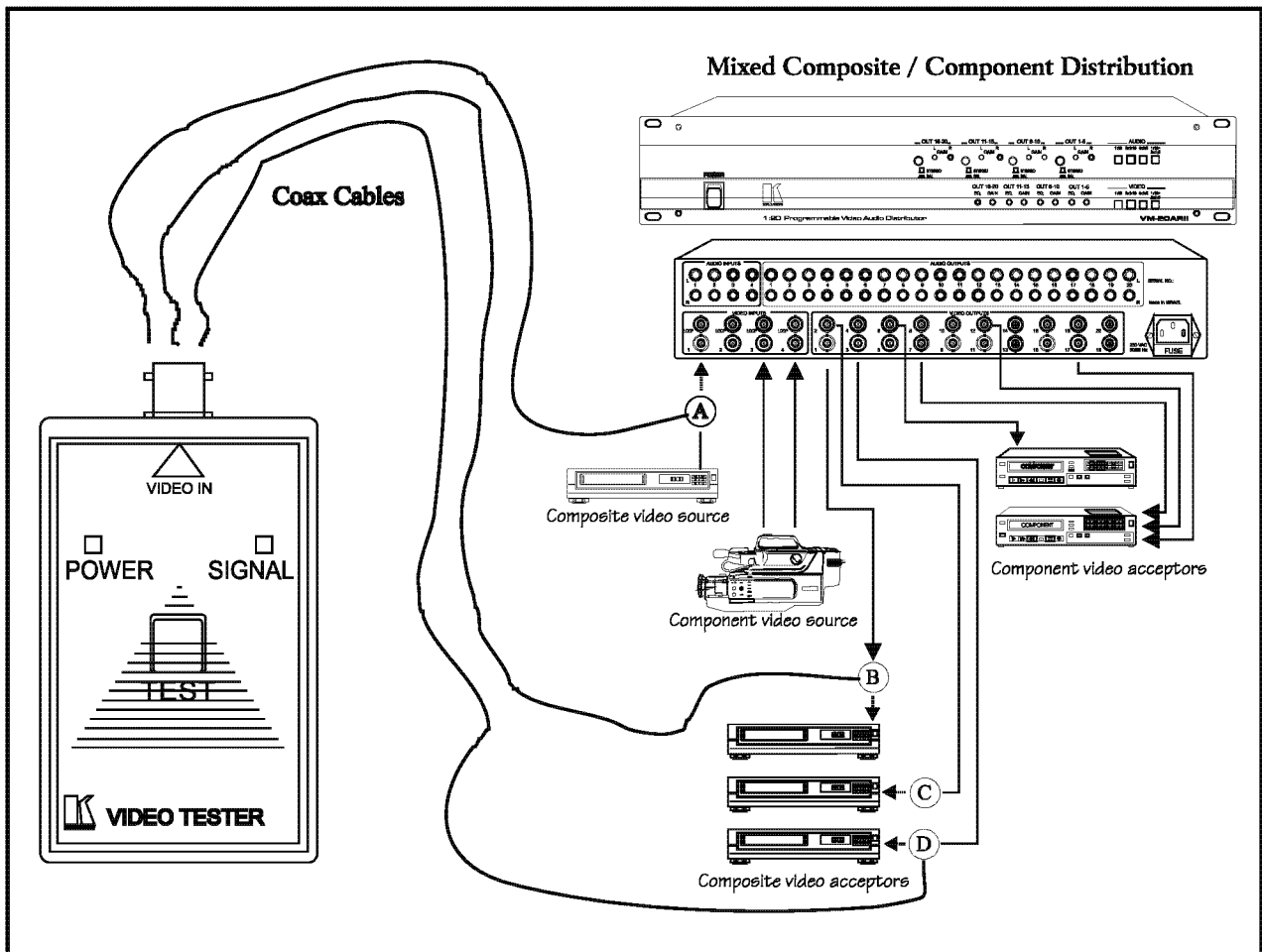


Figure 3: Checking the Video Signal Path

7 INSTALLATION

7.1 Rack Mounting

The VP-800 can be rackmounted in a standard 19" rack using a special Tools adapter (see section 4.10). It can also be table mounted using the mounting brackets provided. The device does not require any specific spacing for ventilation above or below the unit. To rack mount the machine, follow the installation instructions enclosed with the adaptor.

8 CONNECTING TO VIDEO DEVICES

Video sources may be connected to the Video Tester through its single BNC type connector. The VP-800 can be connected to VGA/XGA acceptors via the HD-15 connector located on the back of the unit.

9 USING THE MACHINES

9.1 Powering on the VP-800

NOTES

1. The machine should only be powered on after all connections are completed.
2. To fully disconnect equipment remove power cord from socket.

1. Plug in your DC source to the 9V DC socket. The toggle switch glows red.
2. Operate the acceptors.

9.2 Powering on the Tester

1. Insert a 9V battery into the battery case.
2. Press the **TEST** pushbutton. The **POWER** LED should illuminate, indicating that the battery is good.

10 TAKING CARE OF YOUR MACHINE

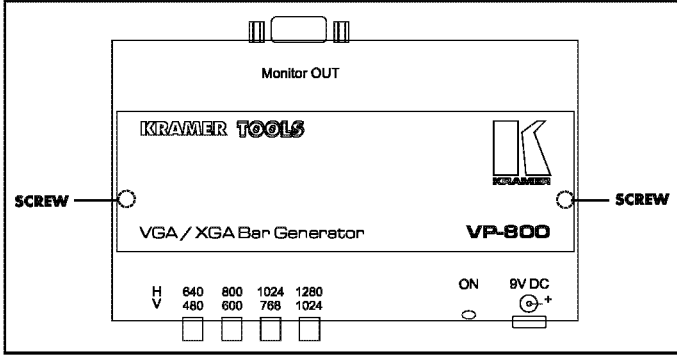
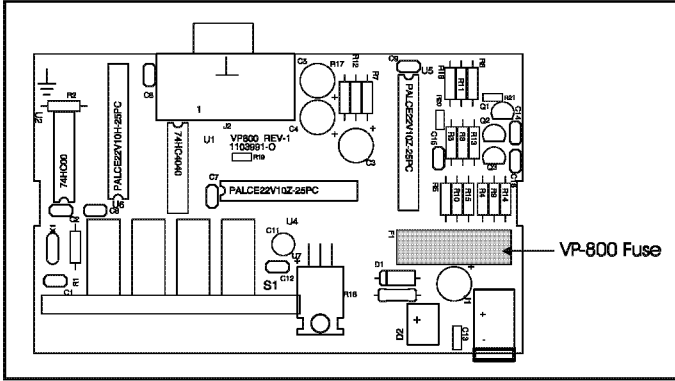
Do not locate your machine in an environment where it is susceptible to dust or moisture. Both of these may damage the electronics, and cause erratic operation or failure. Do not locate your machine where temperature and humidity may be excessive. Doing so may also damage the electronics, and cause erratic operation or failure of your machine. Do not clean your machine with abrasives or strong cleaners. Doing so may remove or damage the finish, or may allow moisture to build up. Take care not to allow dust or particles to build up inside unused or open connectors.

11 TROUBLESHOOTING

NOTES

1. Please note that if the output signal is disturbed or interrupted by very strong external electromagnetic interference, it should return and stabilize when such interference ends. If not, disconnect power from the machine and reconnect again to reset the machine.
2. If the following recommended actions still do not result in satisfactory operation, please consult your KRAMER Dealer.

11.1 Power and Indicators

Problem	Remedy
<p>No Power</p>	<p>For the VP-800:</p> <ol style="list-style-type: none"> 1. Confirm that power connections are secured at the machine and at the receptacle. Make sure the mains receptacle is active. 2. If still there is no power, remove the two Philips screws on the sides of the machine and remove the panel.  <ol style="list-style-type: none"> 3. Locate fuse inside your machine. Confirm that the fuse is good by looking for the wire connected between the ends of the fuse. If this wire is broken, replace fuse with another, with the same rating.  <ol style="list-style-type: none"> 4. Install cover by replacing the Philips screws. <p>For the Video Tester:</p> <p>Confirm that the DC battery is operational. If the battery is bad, open battery case and replace battery.</p>

11.2 Video Signal

Problem	Remedy
No video at the output device	<ol style="list-style-type: none"> 1. Confirm that your VP-800 and output devices are powered on and connected properly. Signals at the output of your VP-800 should be of an identical signal format as at the input of your display. 2. Confirm that any other device in the signal path have the proper input and/or output selected. 3. Use the Video Tester to test the video path leading to/from your machine (see section 4.1 " Video Tester").
Video level is too high or too dim.	<ol style="list-style-type: none"> 1. Verify that the lines are well matched through 75ohm impedance; otherwise it results in a video level that is too high or too dim. 2. Confirm that the connecting cables are of high quality and properly inserted.
Noise bars are "rolling" up or down in the output image or: Low Frequency Hum in the output signal	<p>Hum bars (ground loop) are caused by a difference in the ground potential of any two or more devices connected to your signal path.</p> <p>WARNING:</p> <p style="text-align: center;"><i>Do not disconnect the ground from any piece of video equipment in your signal path!</i></p> <p>Check the following to remove hum bars:</p> <ol style="list-style-type: none"> 1. Confirm that all interconnected equipment is connected to the same phase of power, if possible. 2. Remove equipment connected to that phase that may introduce noise, such as motors, generators, etc. 3. Disconnect all interconnect cables and reconnect them one at a time until ground loop reappears. Disconnect the affected cable and replace, or insert an isolation transformer in the signal path.



LIMITED WARRANTY

Kramer Electronics (hereafter Kramer) warrants this product to be free from defects in material and workmanship under the following terms.

HOW LONG IS THE WARRANTY

Labor and parts are warranted for three 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:
 - a) Accident, misuse, abuse, neglect, fire, water, lightning or other acts of nature.
 - b) Unauthorized product modification, or failure to follow instructions supplied with the product.
 - c) Repair or attempted repair by anyone not authorized by Kramer.
 - d) Any shipment of the product (claims must be presented to the carrier).
 - e) Removal or installation of the product.
 - f) Any other cause, which does not relate to a product defect.
 - g) 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

Kramer's liability for any defective 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.

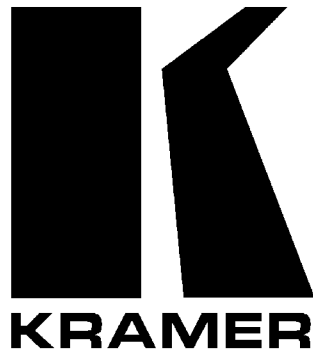
NOTICE

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

- Only Kramer authorized personnel should do servicing of the machines. Any user who makes changes or modifications to the unit without the express approval of the manufacturer will void user authority to operate the equipment.
- Use the supplied 12 VDC power supply to supply power to the machine.
- Please use recommended interconnect cables to connect the machine to controllers and other components.



**The list of Kramer distributors appears on our web site:
www.kramerelectronics.com
From the web site it is also possible to e-mail factory headquarters.
We welcome your questions, comments and feedback.**