

**Kramer Electronics, Ltd.**



# **USER MANUAL**

**Model:**

**PT103V**

*1:3 Video DA*

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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 Pico TOOLS: **PT103V 1:3 Video DA** (distribution amplifier), which is ideal for:

- Video duplication studios
- Rental/staging and home theater use

Each package includes the following items:

- **PT103V 1:3 Video DA**
- Power adapter (12V DC Input)
- This user manual<sup>2</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>3</sup>

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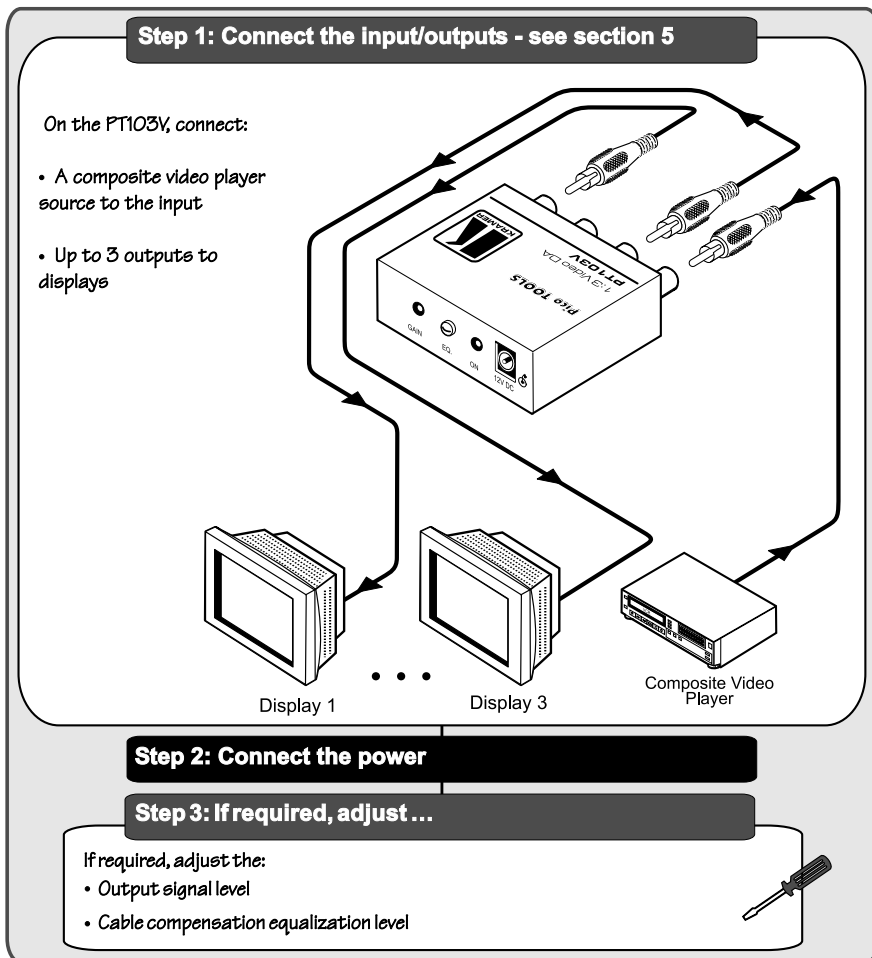
1 GROUP 1: Distribution Amplifiers; GROUP 2: Video and Audio Switchers, Matrix Switchers and Controllers; GROUP 3: Video, Audio, VGA/XGA Processors; GROUP 4: Interfaces and Sync Processors; GROUP 5: Twisted Pair Interfaces; GROUP 6: Accessories and Rack Adapters; GROUP 7: Scan Converters and Scalers; and GROUP 8: Cables and Connectors

2 Download up-to-date Kramer user manuals from the Internet at this URL: <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 steps when connecting a **PT103V**:



### 3 Overview

Your Kramer Pico TOOLS **PT103V** *1:3 Video DA* is a micro-sized high performance 1:3 distribution amplifier for composite video signals. The **PT103V**:

- Accepts a single input and distributes it to three identical outputs using RCA connectors
- Has a bandwidth of more than 400MHz, ensuring that it remains transparent even in the most critical applications
- Has gain and equalization (EQ.) controls to compensate for cable losses
- Is 12VDC fed

Achieving the best performance means:

- Connecting 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)
- Avoiding interference from neighboring electrical appliances that may adversely influence signal quality and positioning your **PT103V** in a location free from moisture and away from 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 PT103V 1:3 Video DA

Figure 1, Figure 2, Figure 3 and Table 1 define the **PT103V**:



Figure 1: PT103V 1:3 Video DA

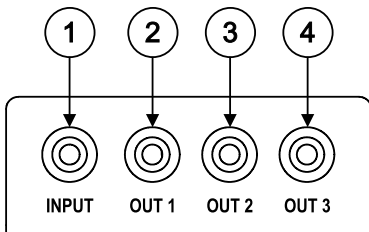


Figure 2: PT103V (Lower Side Panel)

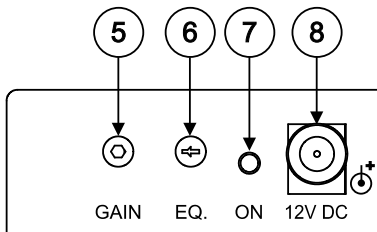


Figure 3: PT103V (Top Side Panel)

Table 1: PT103V 1:3 Video DA Features

#	Feature	Function
1	INPUT RCA Connector	Connects to the composite video source
2	OUT 1 RCA Connector	Connects to composite video acceptor 1
3	OUT 2 RCA Connector	Connects to composite video acceptor 2
4	OUT 3 RCA Connector	Connects to composite video acceptor 3
5	GAIN Trimmer	Adjusts <sup>1</sup> the video signal level for outputs 1 and 2
6	EQ. Trimmer	Adjusts <sup>1</sup> the cable compensation equalization level
7	ON LED	Illuminates when receiving power
8	12V DC	+12V DC connector for powering the unit

<sup>1</sup> Insert a screwdriver into the hole and carefully rotate it, to trim the level

## 5 Connecting the PT103V 1:3 Video DA

To connect the **PT103V 1:3 Video DA**, as the example in Figure 4 illustrates, connect the following<sup>1</sup>:

1. Connect a composite video source (for example, a composite video player) to the INPUT RCA connector.
2. Connect the 3 OUT RCA connectors to up to 3 composite video acceptors, as follows:
  - Connect the OUT 1 connector to video acceptor 1 (for example, Display 1)
  - Connect the OUT 2 connector to video acceptor 2 (for example, Display 2)
  - Connect the OUT 3 connector to video acceptor 3 (for example, Display 3)
3. Connect the 12V DC power adapter to the power socket and connect the adapter to the mains electricity.
4. Adjust the output signal level and/or cable compensation equalization level, if required.

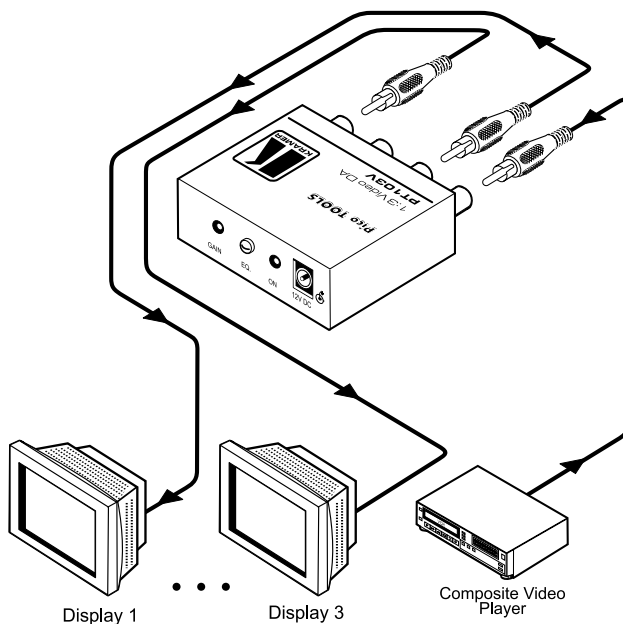


Figure 4: Connecting the PT103V 1:3 Video DA

<sup>1</sup> Switch OFF the power on each device before connecting it to your PT103V. After connecting your PT103V, switch on its power and then switch on the power on each device.

## 6 Technical Specifications

Table 2 includes the technical specifications<sup>1</sup> of the **PT103V**.

*Table 2: Technical Specifications of the PT103V*

INPUT:	1 Video, 1Vpp /75Ω on an RCA connector
OUTPUTS:	3 Video, 1Vpp /75Ω on RCA connectors
MAX. OUTPUT LEVEL:	1.9Vpp
BANDWIDTH (-3dB):	407MHz
DIFF. GAIN:	0.04%
DIFF. PHASE:	0.03°
K-FACTOR:	<0.05%
S/N RATIO:	78dB
CONTROLS:	Gain: -1.2dB to +6.2dB, EQ.: 0 to + 6.1dB, 50MHz
COUPLING:	AC
POWER SOURCE:	12VDC, 28mA
DIMENSIONS:	6.2cm x 5.2cm x 2.4cm (2.44" x 2.05" x 0.94") W, D, H
WEIGHT:	0.14 kg (0.31 lbs.) approx.
ACCESSORIES:	Power supply, mounting bracket

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<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.**



**Caution**

**Safety Warning:**

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



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