Kramer Electronics, Ltd.

USER MANUAL

Model:

907

Power Amplifier
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 groups\(^1\) that are clearly defined by function.

Thank you for purchasing the Kramer MultiTOOLS\(^{\circledR}\) 907 Power Amplifier, which is ideal for:

- Presentation rooms and multimedia applications for quick, local audio amplification
- Personal audio listening (for example, a PC and portable CD player)

Each package includes the following items:

- The 907 Power Amplifier
- Power adapter (24V DC input)
- 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\(^3\)

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\(^1\) 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](http://www.kramerelectronics.com)

\(^3\) The complete list of Kramer cables is on our Web site at [http://www.kramerelectronics.com](http://www.kramerelectronics.com)
2.1 Quick Start

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

The Kramer MultiTOOLS™ 907 is a high-performance Class D power amplifier for line-level stereo audio signals. It accepts a balanced stereo audio signal on a terminal block connector. It delivers 150 watts per channel of music output to the speakers.

The 907 features:

- Input and output on terminal block connections
- A volume control knob
- Gain control DIP-switches
- A mute button
- 24V DC power

To achieve the best performance:

- Use only good quality connection cables\(^1\) 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 907 away from moisture, excessive sunlight and dust

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1 Available from Kramer Electronics on our Web site at http://www.kramerelectronics.com
2 For example, part number 2535-000245
4 Your 907 Power Amplifier

Figure 1 and Table 1 define the unit.

**Figure 1: 907 Power Amplifier Functions**

**Table 1: 907 Power Amplifier Functions**

<table>
<thead>
<tr>
<th>#</th>
<th>Feature</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>INPUT Terminal Block Connector</td>
<td>Connect to a balanced stereo audio source</td>
</tr>
<tr>
<td>2</td>
<td>OUTPUT Terminal Block Connector</td>
<td>Connect to a balanced stereo acceptor (speakers)</td>
</tr>
<tr>
<td>3</td>
<td>GAIN DIP-switches</td>
<td>4-position switch for setting the basic gain level</td>
</tr>
<tr>
<td>4</td>
<td>24V DC Connector</td>
<td>+24V DC for powering the unit</td>
</tr>
<tr>
<td>5</td>
<td>MUTE Pushbutton</td>
<td>Press to disable/enable the audio output</td>
</tr>
<tr>
<td>6</td>
<td>VOLUME Potentiometer Knob</td>
<td>Turn to raise or lower the output volume</td>
</tr>
<tr>
<td>7</td>
<td>MUTE LED</td>
<td>Illuminates yellow when the volume is disabled</td>
</tr>
<tr>
<td>8</td>
<td>ON LED</td>
<td>Illuminates green when receiving power</td>
</tr>
</tbody>
</table>
5 Connecting the 907 Power Amplifier

To connect the 907, as the example in Figure 4 illustrates, do the following:\(^1\):

1. Connect the balanced stereo audio source (for example, a stereo audio player) to the INPUT terminal block connector.

2. Connect the OUTPUT terminal block connectors to the acceptors (a pair of speakers). Do not ground the loudspeakers.

3. Connect the 24V DC power adapter to the power socket and connect the adapter to the mains electricity.

4. If necessary adjust the basic volume level by setting the GAIN DIP-switches (see Table 2).

5. Adjust the output volume by turning the VOLUME potentiometer.

<table>
<thead>
<tr>
<th>Switch</th>
<th>Setting</th>
<th>Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>00</td>
<td>20dB</td>
</tr>
<tr>
<td></td>
<td>01</td>
<td>26dB</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>32dB</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>36dB</td>
</tr>
</tbody>
</table>

5.1 Connecting the Stereo Audio Input

Figure 2 and Figure 3 illustrate how to wire a balanced/unbalanced input connection:

Figure 2: Connecting the Balanced Stereo Audio Input/Output

Figure 3: Connecting the Unbalanced Stereo Audio Input

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1 Switch OFF the power on each device before connecting it to your 907. After connecting your 907, switch on its power and then switch on the power on each device.
6 Technical Specifications

The 907 technical specifications are shown in Table 3:

Table 3: 907 Technical Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>INPUT:</td>
<td>Balanced stereo audio on a terminal block connector</td>
</tr>
<tr>
<td>OUTPUT:</td>
<td>Balanced stereo audio (speakers) on a terminal block connector</td>
</tr>
<tr>
<td>OUTPUT POWER:</td>
<td>40W per channel into 8Ω</td>
</tr>
<tr>
<td>OUTPUT MUSIC POWER:</td>
<td>150W per channel into 8Ω</td>
</tr>
<tr>
<td>INPUT SENSITIVITY:</td>
<td>1.2Vrms</td>
</tr>
<tr>
<td>AMPLIFIER TYPE:</td>
<td>Class D</td>
</tr>
<tr>
<td>VOLTAGE GAIN:</td>
<td>20dB (x10)</td>
</tr>
<tr>
<td>BANDWIDTH (-3dB):</td>
<td>20kHz</td>
</tr>
<tr>
<td>S/N RATIO:</td>
<td>60.2dB</td>
</tr>
<tr>
<td>COUPLING:</td>
<td>DC</td>
</tr>
<tr>
<td>AUDIO THD + NOISE:</td>
<td>1.9%</td>
</tr>
<tr>
<td>AUDIO 2nd HARMONIC:</td>
<td>0.3%</td>
</tr>
<tr>
<td>POWER SOURCE:</td>
<td>24V DC, 5A</td>
</tr>
<tr>
<td>DIMENSIONS:</td>
<td>10.7cm x 10.4cm x 4.0cm (4.2&quot; x 4.1&quot; x 1.6&quot;)</td>
</tr>
<tr>
<td>WEIGHT:</td>
<td>0.32kg (0.7lbs)</td>
</tr>
<tr>
<td>ACCESSORIES:</td>
<td>Power supply</td>
</tr>
<tr>
<td>OPTIONS:</td>
<td>RK-1 19” rack mount adapter</td>
</tr>
</tbody>
</table>

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:
   a) Accident, misuse, abuse, neglect, fire, water, lightning or other acts of nature
   b) 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
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 1.5: “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.

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