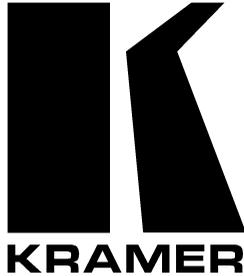


**Kramer Electronics, Ltd.**



# **USER MANUAL**

**Model:**

**903**

*Personal Stereo Amplifier*

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## 1 Introduction

Dedication by Kramer Electronics since 1981, to the development and manufacture of high quality video/audio equipment, makes the Kramer line an integral part of the finest production and presentation facilities in the world. In recent years, Kramer has redesigned and upgraded most of the line, making the best even better! The Kramer 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 our high quality accessories, like the Kramer **TOOLS 903 Personal Stereo Amplifier**, we also offer excellent switchers and matrices, distribution amplifiers, presentation processors, interfaces, remote controllers and computer-related products. Congratulations on purchasing your Kramer **903 Personal Stereo Amplifier**. This product is ideal for:

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

The package includes the following items:

- **903 Personal Stereo Amplifier**
- Power adapter (12V DC Input)
- This user manual<sup>1</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

## 3 Your Personal Stereo Amplifier

The high performance **903 Personal Stereo Amplifier** can output up to 20 Watts RMS<sup>2</sup>, as it uses the latest Class “D” technology for highly efficient conversion<sup>3</sup> to the pair of loudspeakers with the absolute minimum power loss.

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<sup>1</sup> Download up-to-date Kramer user manuals from the Internet at this URL: <http://www.kramerelectronics.com/manuals.html>

<sup>2</sup> More than is needed for personal and small presentation applications

<sup>3</sup> This prevents the 903 from over-heating. The 903 can generate its maximum power output from a 12V power supply

The **903** includes:

- Control knobs to adjust volume, bass, mid, treble and stereo balance
- 4 INPUT SELECTOR switches
- Outputs for a headphone set and for a pair of loudspeakers<sup>1</sup>
- 3 stereo inputs on standard RCA connectors
- An additional input on a mini 3.5 mm socket for easy interface with a sound card or any music player<sup>2</sup>
- A *LOUD* switch for automatic equalization in low volume listening<sup>3</sup>

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 and positioning your Kramer **903** away from moisture, excessive sunlight and dust

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1 Plugging in the headphone set automatically disconnects the loudspeakers

2 Portable CD player, minidisk player, Walkman®

3 Pressing the LOUD switch compensates for what the ear does not hear in noisy environments, or with a low volume. Pressing the LOUD switch with a high volume has little effect

## Your Personal Stereo Amplifier

Figure 1 and Table 1 define the **903 Personal Stereo Amplifier**:

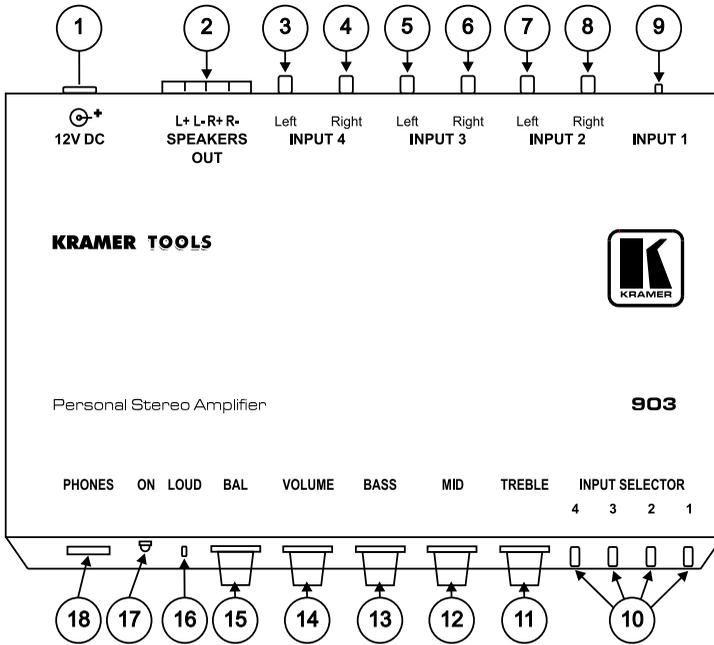


Figure 1: 903 Personal Stereo Amplifier

Table 1: Features and Functions of the 903 Personal Stereo Amplifier

#	Feature	Function
1	12V DC	+12V DC connector for powering the unit
2	SPEAKERS OUT (L+L- R+R-) Terminal Block Connectors	Connect to the pair of loudspeakers
3	INPUT 4 (Left) RCA Connector	Connects to the left stereo audio line level source 4
4	INPUT 4 (Right) RCA Connector	Connects to the right stereo audio line level source 4
5	INPUT 3 (Left) RCA Connector	Connects to the left stereo audio line level source 3
6	INPUT 3 (Right) RCA Connector	Connects to the right stereo audio line level source 3
7	INPUT 2 (Left) RCA Connector	Connects to the left stereo audio line level source 2
8	INPUT 2 (Right) RCA Connector	Connects to the right stereo audio line level source 2
9	INPUT 1 Mini 3.5 mm Socket	Connects to an interface with a sound card or other player
10	INPUT SELECTOR Switches	Pushing in selects the appropriate input (from 1 to 4)
11	Treble Control Knob	Controls the treble (high frequencies)
12	MID Control Knob	Controls the mid frequencies
13	Bass Control Knob	Controls the bass (low frequencies)
14	Volume Control Knob	Controls the signal output level
15	Balance Control Knob	Adjusts the balance between the right and left channels
16	LOUD Switch	Boosts equalization for low volume listening environments
17	ON LED	Illuminates when receiving power
18	PHONES connector	Connects to the headphone set

## 4 Using the Personal Stereo Amplifier

Sections 4.1 and 4.2 describe how to connect and how to operate your **903 Personal Stereo Amplifier**, respectively.

### 4.1 Connecting the Personal Stereo Amplifier

Connect your **903**, as the example in Figure 2 illustrates:

1. Connect a stereo audio source to the *Left* and *Right* RCA connectors for up to 3 inputs (that is, *INPUT 2*, *INPUT 3* and *INPUT 4*)<sup>1</sup>
  2. Connect a music player to the 3.5 mm socket (*INPUT 1*)<sup>1</sup>
  3. Connect one or both of the following outputs:
    - The *SPEAKERS OUT* connector to a pair of loudspeakers, by connecting the left loudspeaker to the “L+” and the “L-” terminal block connectors, and the right loudspeaker to the “R+” and the “R-” terminal block connectors
- Do not Ground the loudspeakers**
- The *PHONES* connector to a headphone set (plugging in a headphone set to the *PHONES* connector disconnects the loudspeakers)
4. Connect the 12V DC power adapter to the power socket and connect the adapter to the mains electricity.

### 4.2 Operating the Personal Stereo Amplifier

Operate your **903**, as Figure 2 illustrates:

1. Choose the active audio source via an *INPUT SELECTOR* switch.
2. Adjust the volume, bass, mid, treble and balance controls as required.
3. Select the LOUD switch setting as required.

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<sup>1</sup> Unused inputs may be left unconnected

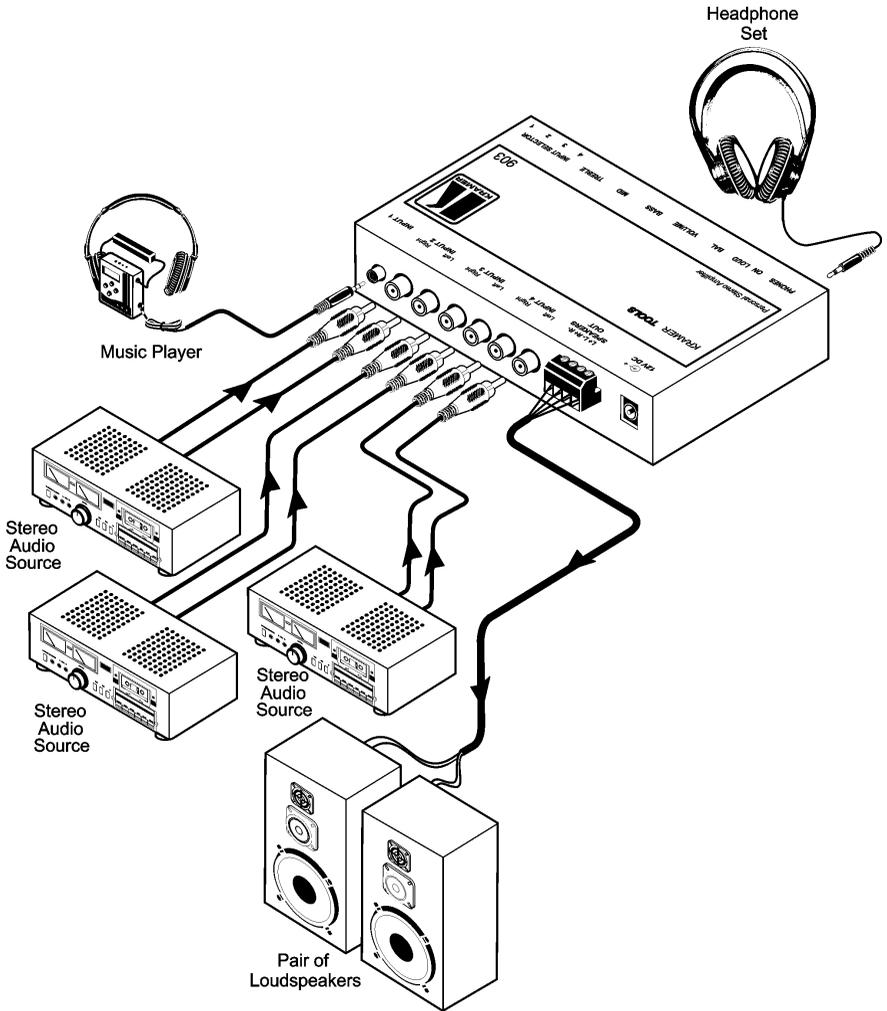


Figure 2: Connecting the 903 Personal Stereo Amplifier

## 5 Technical Specifications

*Table 2: Technical Specifications<sup>1</sup> of the 903 Personal Stereo Amplifier*

Inputs:	3 stereo inputs on RCA connectors 1 stereo input on mini 3.5 mm socket
Outputs:	Stereo loudspeakers (4Ω speakers or higher) on terminal block; Headphones
Bandwidth:	20 kHz -3dB
S/N Ratio:	77 dB unweighted
THD + Noise:	0.5% @ 1kHz, 60mV
Controls:	4 input selector switches, volume, bass, mid, treble and balance control knobs
Output Power:	Up to 20 Watts RMS
Dimensions:	12 cm x 7.5 cm x 2.5 cm (4.7" x 2.95" x 0.98", W, D, H)
Power Source:	12 VDC, 2.5A
Weight:	0.3 kg (0.66lbs.) 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 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](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 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](http://www.kramerelectronics.com).**

**Updates to this user manual may be found at  
<http://www.kramerelectronics.com/manuals.html>.**

**We welcome your questions, comments and feedback.**



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