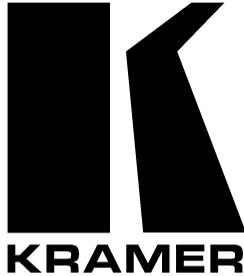


Kramer Electronics, Ltd.



USER MANUAL

Model:

VM-1120

1:10 Balanced Stereo Audio Distributor

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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 distribution amplifiers, we also offer excellent switchers and matrices, remote controllers, processors, interfaces and computer-related products. Congratulations on purchasing your Kramer **VM-1120 1:10 Balanced Stereo Audio Distributor**.

This product is ideal for the following typical applications:

- Audio duplication and production studios, delivering undiminished quality duplicates
- Recording studios
- Broadcast studios for on-line signal distribution

The package includes the following items:

- **VM-1120 1:10 Balanced Stereo Audio Distributor**
- Power cord
- This user manual
- Kramer concise product catalog/CD

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 Overview

The **VM-1120** is a high performance balanced stereo audio DA (distribution amplifier) using XLR connectors that includes:

- Front panel output level trimmer controls
- State-of-the-art Bi-Fet amplifying circuitry. All circuitry is active with no

transformers thus ensuring hum-free, full bandwidth operation

- A high power discrete buffering system providing excellent performance

You can configure your **VM-1120** as a mono DA (2x1:10 or 1:20) or as a stereo DA (2x1:5 or 1:10).

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
- Positioning your Kramer **VM-1120** in a location free from moisture and away from excessive sunlight and dust

4 Your Balanced Stereo Audio Distributor

Figure 1 illustrates the front and rear panels of the **VM-1120**. Tables 1 and 2 define the front and rear panels of the **VM-1120**, respectively.

Your Balanced Stereo Audio Distributor

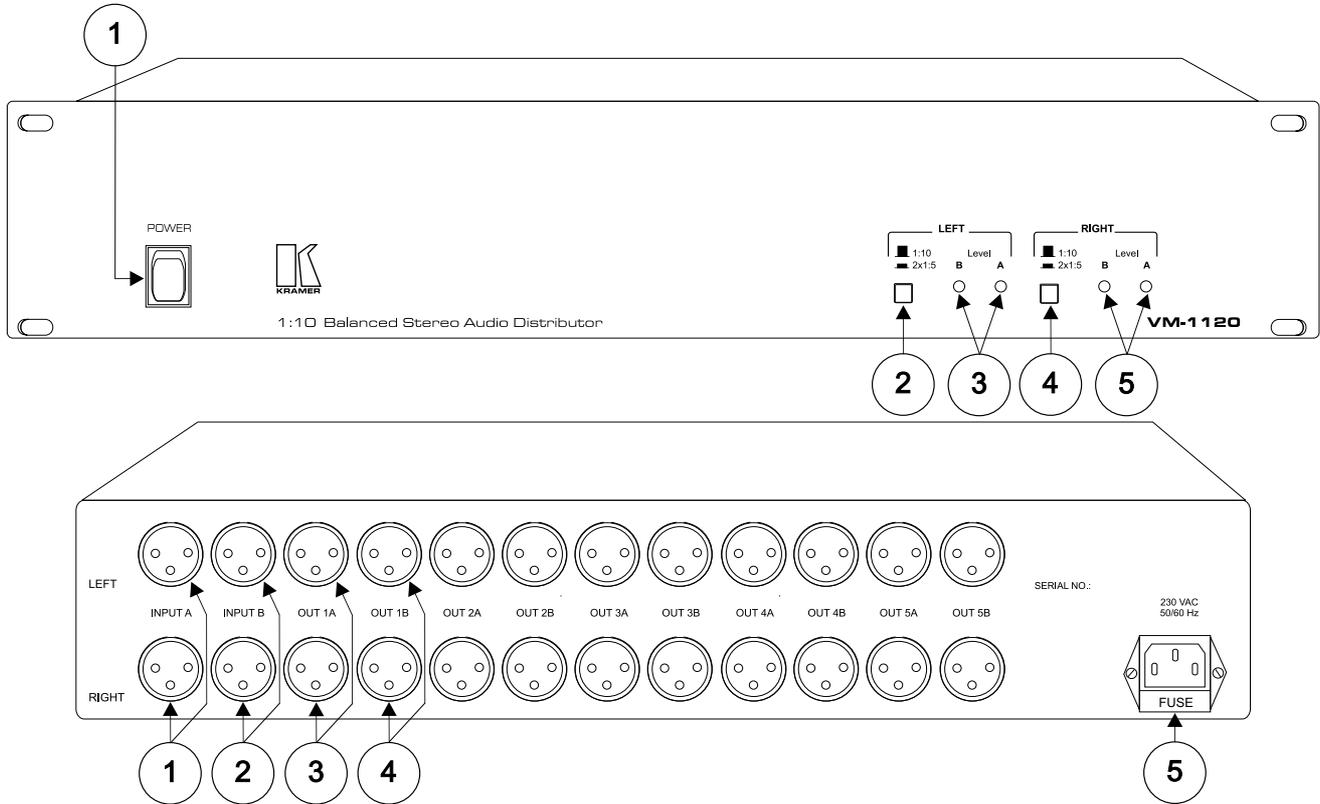


Figure 1: VM-1120 1:10 Balanced Stereo Audio Distributor

Table 1: Front Panel VM-1120 1:10 Balanced Stereo Audio Distributor Features

#	Feature	Function
1	Power Switch	Illuminated switch supplying power to the unit
2		Pushing in selects $2x1:5^1$, releasing selects $1:10^2$
3		Adjusts ³ the output signal level for OUTPUTS A and B
4		Pushing in selects $2x1:5^1$, releasing selects $1:10^2$
5		Adjusts ³ the output signal level for OUTPUTS A and B

Table 2: Rear Panel VM-1120 1:10 Balanced Stereo Audio Distributor Features

#	Feature	Function
1	INPUT A XLR Female Connector	Connects to the source A
2	INPUT B XLR Female Connector	Connects to the source B
3	OUT A XLR Male Connector	Connects to the acceptor A (from 1 to 5)
4	OUT B XLR Male Connector	Connects to the acceptor B (from 1 to 5)
5	Power Connector with Fuse	230 VAC, 50/60 Hz, (115V AC, U.S.A.) power inlet

5 Configuring Your Balanced Stereo Audio Distributor

You can configure your **VM-1120 Balanced Stereo Audio Distributor** in one of 4 ways:

- 2x1:10 mono DA
- 1:20 mono DA
- 2x1:5 stereo DA
- 1:10 stereo DA

To configure a mono or stereo **VM-1120 DA**:

1. Connect the audio source(s) and audio acceptors⁴ to the rear panel of the **VM-1120**.
2. Push in or release the *1:10 / 2x1:5* button, as appropriate (refer to the examples in sections 5.1 and 5.2).
3. Connect the power cord to the electricity supply.
4. Switch on the **VM-1120**.
The audio input(s) is/are buffered to the audio outputs.

1 Splits inputs A and B to outputs 1A-5A and 1B-5B, respectively

2 Splits input A to all 10 outputs

3 Insert a screwdriver into the small hole and carefully rotate it, trimming the OUTPUT level

4 Switch OFF the power on each device before connecting it to your VM-1120. After connecting your VM-1120, switch on its power and then switch on the power on each device

5.1 A Mono (1:20) DA Configuration Example

Figure 2 illustrates an example of a 1:20 mono DA configuration with both 1:10 / 2x1:5 buttons¹ released, which splits input A to all 20 outputs.

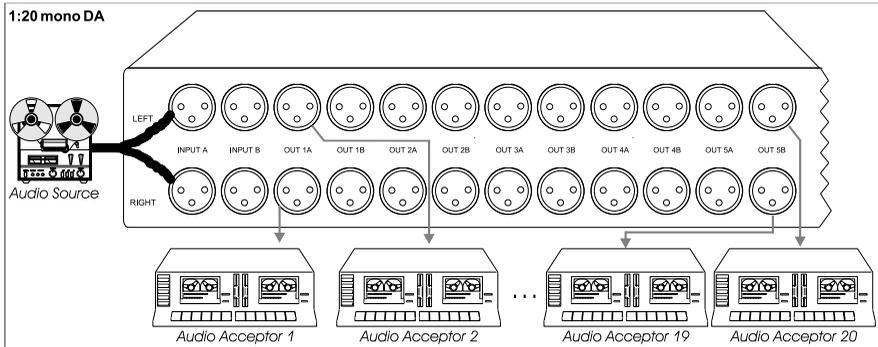


Figure 2: Mono (1:20) DA Configuration

5.2 Two Stereo DA Configuration Examples

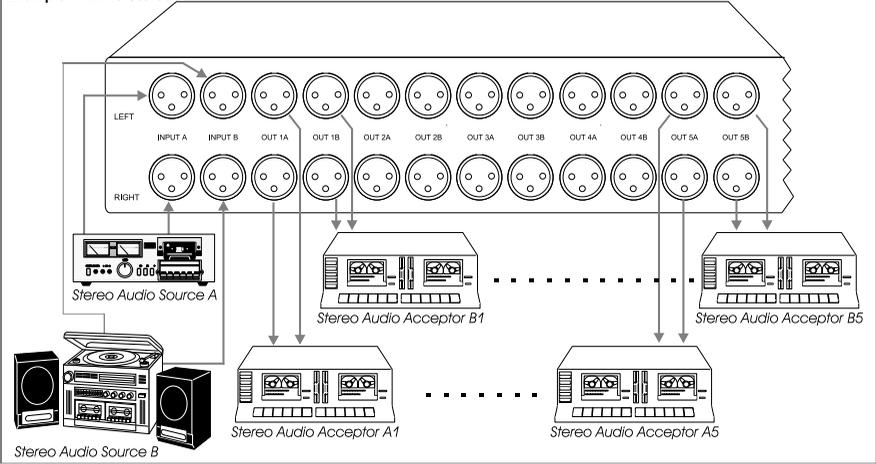
Figure 3 illustrates 2 separate stereo DA configuration examples:

- A 2x1:5 DA (example 1) - push in both 1:10 / 2x1:5 buttons¹
This splits inputs A and B to outputs 1A-5A and 1B-5B, respectively
- A 1:10 DA (example 2) - release both 1:10 / 2x1:5 buttons¹
This splits input A to all 10 outputs

¹ Items 2 and 4 in Figure 1 and in Table 1

Technical Specifications

Example 1: 2x1:5 Stereo DA



Example 2: 1:10 Stereo DA

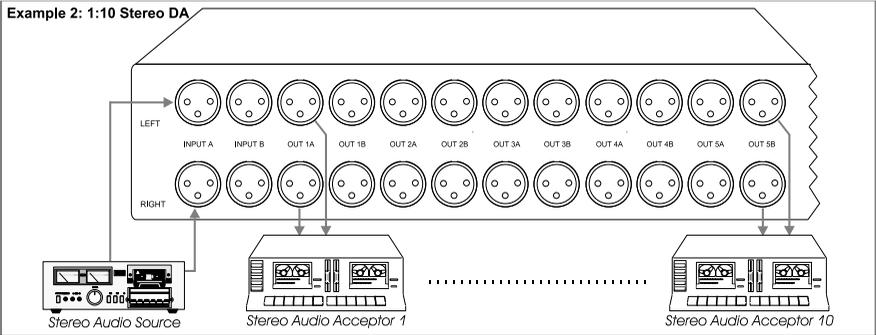


Figure 3: Stereo (2x1:5 and 1:10) DA Configurations

6 Technical Specifications

Table 3: VM-1120 1:10 Balanced Stereo Audio Distributor Technical Specifications

Inputs:	4 mono / 2 pairs of balanced stereo audio, +4dBm 50 kΩ on female XLR connectors
Outputs:	20 balanced audio (10 balanced stereo audio), +4dBm / 50Ω on male XLR connectors
Audio Bandwidth:	40kHz -3dB
THD:	Less than 0.1% at 1kHz
Coupling:	DC
Audio S/N Ratio:	90 dB
Max Signal Output:	> 22Vpp (>20dBm)
Dimensions:	19-inch (W), 7-inch (D) 2U (H) rack mountable
Power Source:	230 VAC, 50/60 Hz, (115VAC, U.S.A.) 18VA
Weight:	3.9kg (8.6lbs.) approx.
Accessories:	Power cord

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.
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.

**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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