

USER MANUAL

MODELS:

Yarden VT-1 Vibrating Transducer Speaker

**Yarden VT-2 Vibrating Transducer
Speaker with Line Transformer**



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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 14 groups that are clearly defined by function: GROUP 1: Distribution Amplifiers; GROUP 2: Switchers and Routers; 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 Video Products; GROUP 12: Digital Signage; GROUP 13: Audio; and GROUP 14: Collaboration.

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.



Go to [www.kramerav.com/downloads/Yarden VT-1](http://www.kramerav.com/downloads/Yarden_VT-1) and /or [www.kramerav.com/downloads/Yarden VT-2](http://www.kramerav.com/downloads/Yarden_VT-2) to check for up-to-date user manuals.

Achieving the Best Performance

- Use only good quality connection cables (we recommend Kramer high-performance, high-resolution cables) to avoid interference, deterioration in signal quality due to poor matching, and elevated noise levels (often associated with low quality cables).
- Do not secure the cables in tight bundles or roll the slack into tight coils.
- Avoid interference from neighbouring electrical appliances that may adversely influence signal quality.
- Position your Kramer **Yarden VT-1/Yarden VT-2** away from moisture, excessive sunlight and dust.



This equipment is to be used only inside a building. It may only be connected to other equipment that is installed inside a building.

Recycling Kramer Products

The Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/EC aims to reduce the amount of WEEE sent for disposal to landfill or incineration by requiring it to be collected and recycled. To comply with the WEEE Directive, Kramer Electronics has made arrangements with the European Advanced Recycling Network (EARN) and will cover any costs of treatment, recycling and recovery of waste Kramer Electronics branded equipment on arrival at the EARN facility. For details of Kramer's recycling arrangements in your particular country go to our recycling pages at www.kramerav.com/support/recycling.

Overview

Congratulations on purchasing your patent pending Kramer **Yarden VT-1/Yarden VT-2** revolutionary vibrating transducer speaker. With a power rating of 10W @8Ω, **Yarden VT-1/Yarden VT-2** transforms any solid resonant surface into a powerful, high-quality speaker.

The compact **Yarden VT-1/Yarden VT-2** can be discreetly attached to the surface or underside of any table, wall or door and utilizes vibration to emit sound evenly from that surface. **Yarden VT-1/Yarden VT-2** is safe to use on nearly any surface (in-wall, on-wall, under the table and so on) and eliminates the hassle of positioning conventional speakers around a room.

Yarden VT-2 includes a selectable 70V/100V line transformer for Hi or Lo-Z applications.

Typical Applications

The **Yarden VT-1/Yarden VT-2** is ideal for the following applications:

- Restaurants and hotels
- Houses of worship
- Meeting rooms
- Boardrooms
- Education and training rooms

Defining the Yarden VT-1 and Yarden VT-2

This section defines the Yarden VT-1 and the Yarden VT-2 (with grille removed):

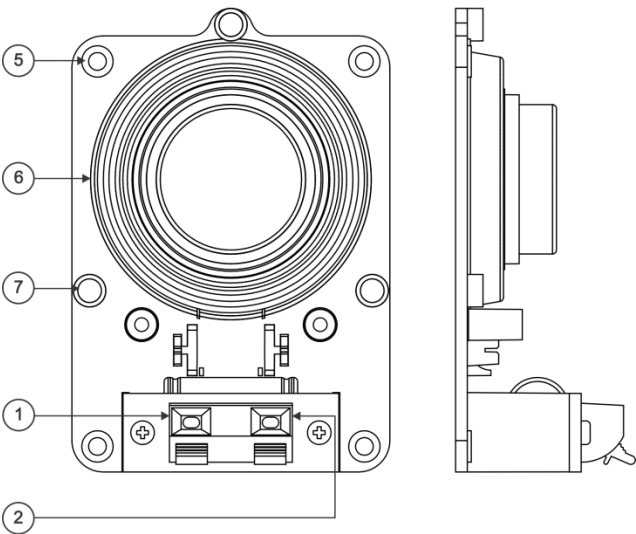
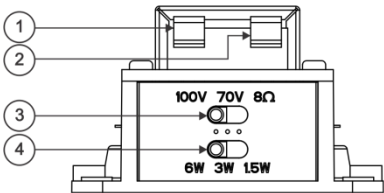
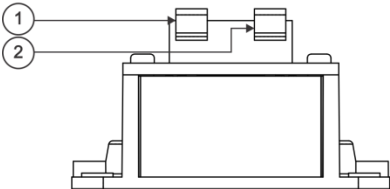


Figure 1: Yarden VT-1 Vibrating Transducer Speaker

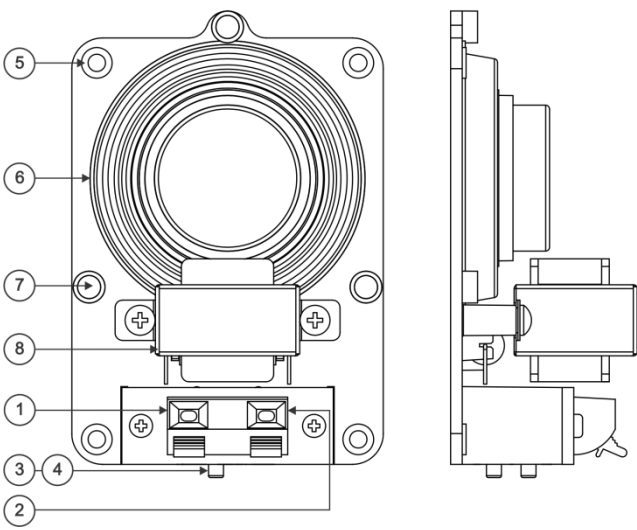



Figure 2: Yarden VT-2 Vibrating Transducer Speaker with Line Transformer

#	Feature	Function
①	Connection Terminal	Connect to the black (negative) wire from the receiver.
②	Connection Terminal	Connect the red (positive) wire from the receiver.
③	Lo-Z, Hi-Z Selector Switch	Set to 70V/100V when driven by a high-impedance 70V or 100V amplifier, or to 8Ω to bypass the transformer when connecting directly to an amplifier without the 70/100V option.
④	Hi-Z Wattage Selector Switch	Set to 1.5W, 3W or 6W.
⑤	Mounting Screw Holes (4)	Attach the speaker to the surface using the mounting screws.  Use a double-sided adhesive sticker (included) to hold the speaker in place before mounting.
⑥	Transducer	Vibrates the surface to produce sound.
⑦	Grille Magnets (3)	Attach the grille to the speaker.
⑧	Transformer	For impedance transformation when using Hi-Z settings.

Connecting the Vibrating Transducer Speaker



Always switch off the power to each device before connecting it to your Yarden VT-1/Yarden VT-2.

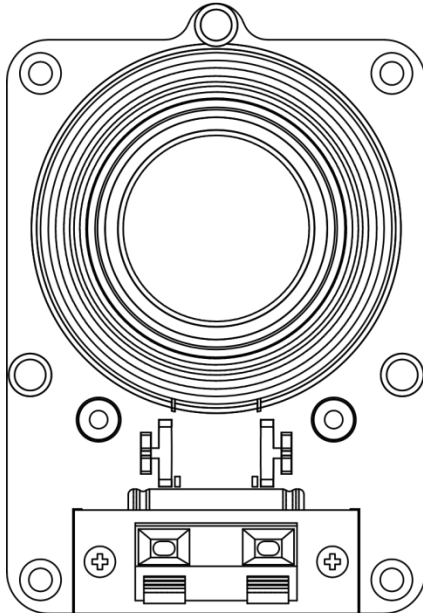
To connect the Yarden VT-1/Yarden VT-2 as illustrated in the example in [Figure 3](#):

1. Carefully remove the speaker grille.
The grille is magnetically attached to the speaker.
2. Prepare the wires:
 - Measure the length from the speaker to the receiver and cut the wires accordingly (to similar lengths).
 - Strip the ends of the wires to expose a length of approximately 1/4 inch.
3. For **Yarden VT-2** only:
 - Adjust the tap setting according to the power requirements of the amplifier.
4. Connect the wires:
 - Connect the positive terminal on the receiver to the positive (red) connector.
 - Connect the negative terminal on the receiver to the negative (black) connector.
5. Break the knock off hole on the grille and pass the wires through the hole.
6. Peel the blank side of the double-sided adhesive sticker (included) and carefully attach it to the rear side of the speaker.
7. Peel the printed side of the sticker and attach the speaker to a surface at the desired location.
8. Screw the four mounting screws in place until the speaker is firmly attached.
9. Reattach the grille.

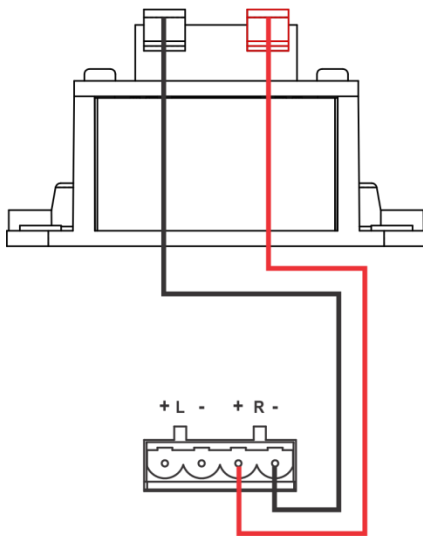
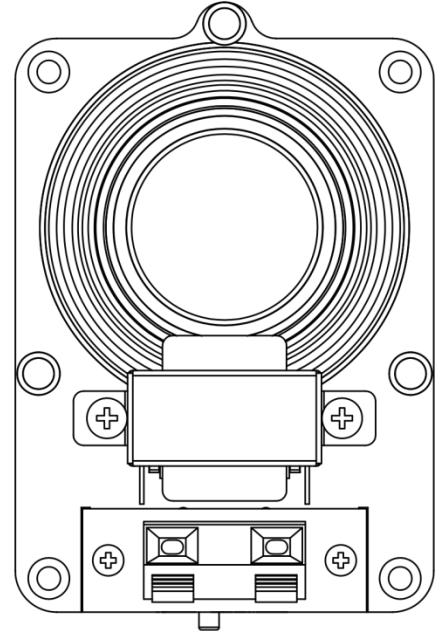
The following diagram displays the **Yarden VT-1/Yarden VT-2** speakers connected to a recommended Kramer power amplifier. For example:

- **Yarden VT-1** can be connected to the **907xl**, **900N** and so on.
- **Yarden VT-2** can be connected to the **PA-120Z**, **PA-240Z**, **920** and so on.

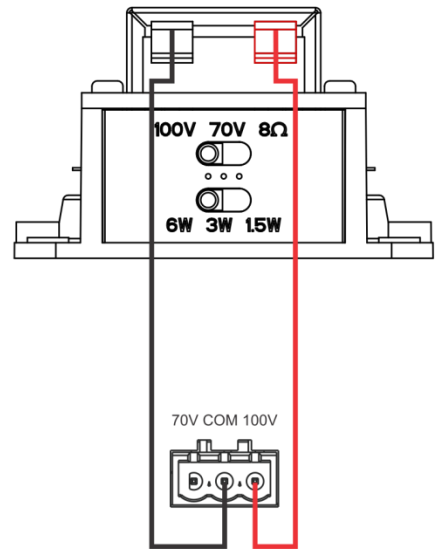
Yarden VT-1



Yarden VT-2



Kramer Power Amplifier



Kramer Power Amplifier

Figure 3: Connecting to the Yarden VT-1/Yarden VT-2

Setting up Yarden VT-2 in an Array Installation

When installing the Yarden VT-2 in an array layout, you need to define the distance between each of the speakers. The distance between the speakers is determined according to the uniformity of the desired coverage and budget. [Figure 4](#) shows an example of parallel wiring in a square array installation:

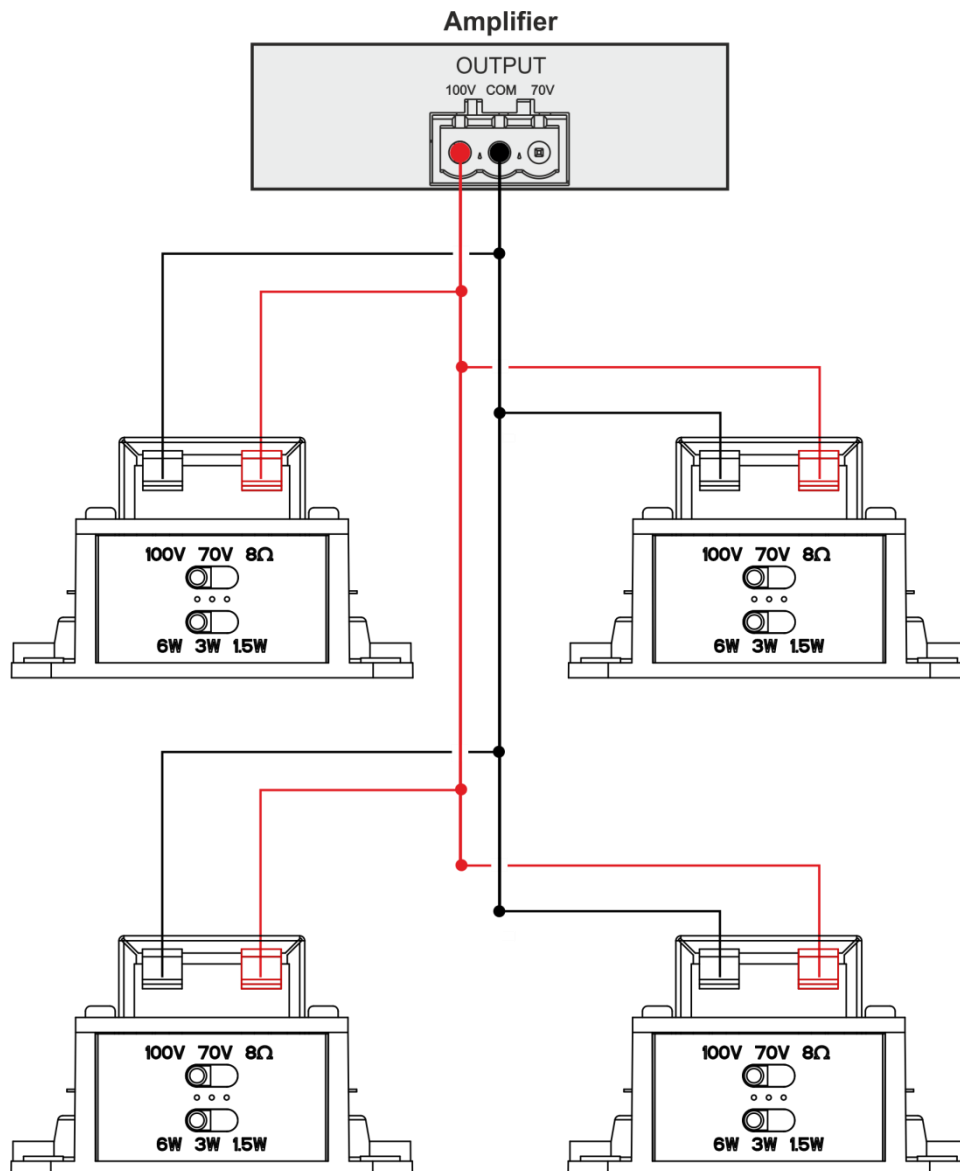


Figure 4: Square Layout Parallel Wiring



To prepare the parallel layout wiring, we recommend that you strip the wire ends, wind them together and connect to the next speaker (see [Figure 5](#)).

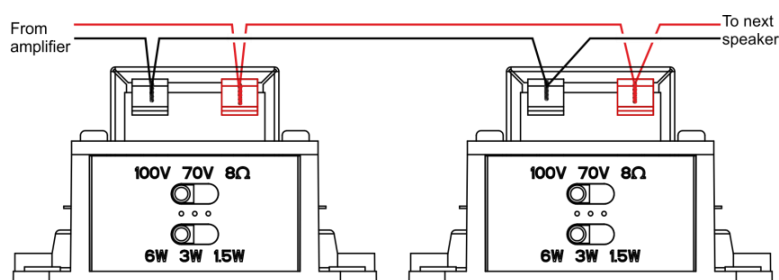


Figure 5: Wiring the Speakers

Technical Specifications

Yarden VT-1

Description:	Vibrating Transducer Speaker
Frequency Response:	20Hz to 3kHz@ -3 dB 20Hz to 20kHz@ -10 dB
Vibrating Transducer Diaphragm:	ABS757 118x81mm, 3mm thick
Impedance:	8Ω
Sensitivity:	77dB±3dB@10W-1m
Max SPL (7.5W):	Continuous: 87dB Peak: 90dB
Power Handling:	10W RMS 30W Continuous program
Crossover Frequency:	100Hz
Directivity Factor (Q):	6.9, averaged 1kHz to 10kHz
Directivity Index (DI):	8.4dB averaged 1kHz to 10kHz
Input Connectors:	Red/black push type terminal

Yarden VT-2

Description:	Vibrating Transducer Speaker with Line Transformer
Frequency Response:	20Hz to 3kHz@ -3 dB 20Hz to 20kHz@ -10 dB
Vibrating Transducer Diaphragm:	ABS757 118x81mm, 3mm thick
Impedance:	8Ω ±15%
Transformer Taps:	70V – 6W / 3W / 1.5W 100V – 6W / 3W / 1.5W
Sensitivity:	80dB±3dB@1W-1m
Max SPL (7.5W):	Continuous: 90dB Peak: 93dB
Power Handling:	10W RMS 30W Continuous program
Crossover Frequency:	100Hz
Directivity Factor (Q):	6.9, averaged 1kHz to 10kHz
Directivity Index (DI):	8.4dB averaged 1kHz to 10kHz
Input Connectors:	Red/black push type terminal

Shipping and Installation	Yarden VT-1	Yarden VT-2
Materials:	ABS757 plastic grille and ABS777B baseplate	
Operating Temperature:	-15° to +70°C (5° to 158°F)	
Storage Temperature:	-30° to +55°C (-22° to 131°F)	
Humidity:	1% to 95%, RHL non-condensing	
Weight per Single Speaker:	0.241kg (0.53lbs) approx.	0.385kg (0.85lbs) approx.
Shipping Weight:	0.33kg (0.73lbs) approx.	0.474kg (1.04lbs) approx.
Dimensions:	13.7cm x 10.2cm x 6cm (5.4" x 4.2" x 2.4"), W, D, H.	
Shipping Dimensions:	18cm x 14.5cm x 10.5cm (7.09" x 5.7" x 4.13"), W, D, H.	
Accessories:	3M double-sided adhesive sticker, screws	
Colors:	Available in white	
Specifications are subject to change without notice at www.kramerav.com		

The warranty obligations of Kramer Electronics Inc. ("Kramer Electronics") for this product are limited to the terms set forth below:

What is Covered

This limited warranty covers defects in materials and workmanship in this product.

What is Not Covered

This limited warranty does not cover any damage, deterioration or malfunction resulting from any alteration, modification, improper or unreasonable use or maintenance, misuse, abuse, accident, neglect, exposure to excess moisture, fire, improper packing and shipping (such claims must be presented to the carrier), lightning, power surges, or other acts of nature. This limited warranty does not cover any damage, deterioration or malfunction resulting from the installation or removal of this product from any installation, any unauthorized tampering with this product, any repairs attempted by anyone unauthorized by Kramer Electronics to make such repairs, or any other cause which does not relate directly to a defect in materials and/or workmanship of this product. This limited warranty does not cover cartons, equipment enclosures, cables or accessories used in conjunction with this product.

Without limiting any other exclusion herein, Kramer Electronics does not warrant that the product covered hereby, including, without limitation, the technology and/or integrated circuit(s) included in the product, will not become obsolete or that such items are or will remain compatible with any other product or technology with which the product may be used.

How Long this Coverage Lasts

The standard limited warranty for Kramer products is seven (7) years from the date of original purchase, with the following exceptions:

1. All Kramer VIA products are covered by a standard three (3) year warranty for VIA hardware and a standard one (1) year warranty for firmware and software updates. (An extended software warranty plan for an additional 2 years can be purchased separately).
2. All Kramer fiber optic cables and adapters, all Kramer speakers and Kramer touch panels are covered by a standard one (1) year warranty.
3. All Kramer Cobra products, all Kramer Calibre products, all Kramer Minicom digital signage products, all HighSecLabs products, all streaming, and all wireless products are covered by a standard three (3) year warranty.
4. All Sierra Video MultiViewers are covered by a standard five (5) year warranty.
5. Sierra switchers & control panels are covered by a standard seven (7) year warranty (excluding power supplies and fans that are covered for three (3) years).
6. K-Touch software is covered by a standard one (1) year warranty for software updates.
7. All Kramer passive cables are covered by a ten (10) year warranty.

Who is Covered

Only the original purchaser of this product is covered under this limited warranty. This limited warranty is not transferable to subsequent purchasers or owners of this product.

What Kramer Electronics Will Do

Kramer Electronics will, at its sole option, provide one of the following three remedies to whatever extent it shall deem necessary to satisfy a proper claim under this limited warranty:

1. Elect to repair or facilitate the repair of any defective parts within a reasonable period of time, free of any charge for the necessary parts and labor to complete the repair and restore this product to its proper operating condition. Kramer Electronics will also pay the shipping costs necessary to return this product once the repair is complete.
2. Replace this product with a direct replacement or with a similar product deemed by Kramer Electronics to perform substantially the same function as the original product.
3. Issue a refund of the original purchase price less depreciation to be determined based on the age of the product at the time remedy is sought under this limited warranty.

What Kramer Electronics Will Not Do Under This Limited Warranty

If this product is returned to Kramer Electronics or the authorized dealer from which it was purchased or any other party authorized to repair Kramer Electronics products, this product must be insured during shipment, with the insurance and shipping charges prepaid by you. If this product is returned uninsured, you assume all risks of loss or damage during shipment. Kramer Electronics will not be responsible for any costs related to the removal or re-installation of this product from or into any installation. Kramer Electronics will not be responsible for any costs related to any setting up this product, any adjustment of user controls or any programming required for a specific installation of this product.

How to Obtain a Remedy Under This Limited Warranty

To obtain a remedy under this limited warranty, you must contact either the authorized Kramer Electronics reseller from whom you purchased this product or the Kramer Electronics office nearest you. For a list of authorized Kramer Electronics resellers and/or Kramer Electronics authorized service providers, visit our web site at www.kramerav.com or contact the Kramer Electronics office nearest you.

In order to pursue any remedy under this limited warranty, you must possess an original, dated receipt as proof of purchase from an authorized Kramer Electronics reseller. If this product is returned under this limited warranty, a return authorization number, obtained from Kramer Electronics, will be required (RMA number). You may also be directed to an authorized reseller or a person authorized by Kramer Electronics to repair the product.

If it is decided that this product should be returned directly to Kramer Electronics, this product should be properly packed, preferably in the original carton, for shipping. Cartons not bearing a return authorization number will be refused.

Limitation of Liability

THE MAXIMUM LIABILITY OF KRAMER ELECTRONICS UNDER THIS LIMITED WARRANTY SHALL NOT EXCEED THE ACTUAL PURCHASE PRICE PAID FOR THE PRODUCT. TO THE MAXIMUM EXTENT PERMITTED BY LAW, KRAMER ELECTRONICS IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY. Some countries, districts or states do not allow the exclusion or limitation of relief, special, incidental, consequential or indirect damages, or the limitation of liability to specified amounts, so the above limitations or exclusions may not apply to you.

Exclusive Remedy

TO THE MAXIMUM EXTENT PERMITTED BY LAW, THIS LIMITED WARRANTY AND THE REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL OR WRITTEN, EXPRESS OR IMPLIED. TO THE MAXIMUM EXTENT PERMITTED BY LAW, KRAMER ELECTRONICS SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IF KRAMER ELECTRONICS CANNOT LAWFULLY DISCLAIM OR EXCLUDE IMPLIED WARRANTIES UNDER APPLICABLE LAW, THEN ALL IMPLIED WARRANTIES COVERING THIS PRODUCT, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL APPLY TO THIS PRODUCT AS PROVIDED UNDER APPLICABLE LAW.

IF ANY PRODUCT TO WHICH THIS LIMITED WARRANTY APPLIES IS A "CONSUMER PRODUCT" UNDER THE MAGNUSON-MOSS WARRANTY ACT (15 U.S.C.A. §2301, ET SEQ.) OR OTHER APPLICABLE LAW, THE FOREGOING DISCLAIMER OF IMPLIED WARRANTIES SHALL NOT APPLY TO YOU, AND ALL IMPLIED WARRANTIES ON THIS PRODUCT, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR THE PARTICULAR PURPOSE, SHALL APPLY AS PROVIDED UNDER APPLICABLE LAW.

Other Conditions

This limited warranty gives you specific legal rights, and you may have other rights which vary from country to country or state to state.

This limited warranty is void if (i) the label bearing the serial number of this product has been removed or defaced, (ii) the product is not distributed by Kramer Electronics or (iii) this product is not purchased from an authorized Kramer Electronics reseller. If you are unsure whether a reseller is an authorized Kramer Electronics reseller, visit our web site at www.kramerav.com or contact a Kramer Electronics office from the list at the end of this document.

Your rights under this limited warranty are not diminished if you do not complete and return the product registration form or complete and submit the online product registration form. Kramer Electronics thanks you for purchasing a Kramer Electronics product. We hope it will give you years of satisfaction.

KRAMER



P/N:



2900-300800

Rev:



1



SAFETY WARNING

Disconnect the unit from the power supply before opening and servicing

For the latest information on our products and a list of Kramer distributors, visit our Web site where updates to this user manual may be found.

We welcome your questions, comments, and feedback.