KRAMER

USER MANUAL
MODEL:

Galil 6-AW All Weather Speakers

Contents

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/Galil 6-AW to check for up-to-date user manuals, application programs, and to check if firmware upgrades are available (where appropriate).

Achieving the Best Performance

- Use only good quality Kramer connection cables to avoid interference, deterioration in signal quality due to poor matching, and elevated noise levels (often associated with low quality cables).

For outdoor installations use all-weather 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.

Do not open the housing of the speaker; doing so may reduce the quality of the sound.

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 Kramer **Galil 6-AW** All Weather Speakers.
The **Galil 6-AW** includes a pair of high performance 2-way on-wall IP 66 speakers that can be mounted on a wall either vertically or horizontally and are suitable for indoor and outdoor installations.

The **Galil 6-AW** features a multi−tap power transformer for selecting 70V/100V power settings which are suitable for an array installation, or 8Ω (bypassing the transformer).

The mounting U-brackets, made of painted steel, can be attached to each speaker, letting you rotate each speaker to the left or right.

The **Galil 6-AW** includes the following features:

- Woofer – 6.5" polypropylene cone.
- Tweeter – 1" silk dome.
- Impedance – 8Ω.
- Power Handling – 30W RMS, 80W continuous program.
- Transformer Taps – 70V: 30W/15W/7.5W/3.7W/Off (Lo-Z);
  100V: 30W/15W/7.5W/Off (Lo-Z).

Typical Applications

The **Galil 6-AW** is ideal for the following typical applications:

- Indoor/outdoor environments
- Restaurants
- Hotels
- Patios and gardens

Defining the Galil 6-AW
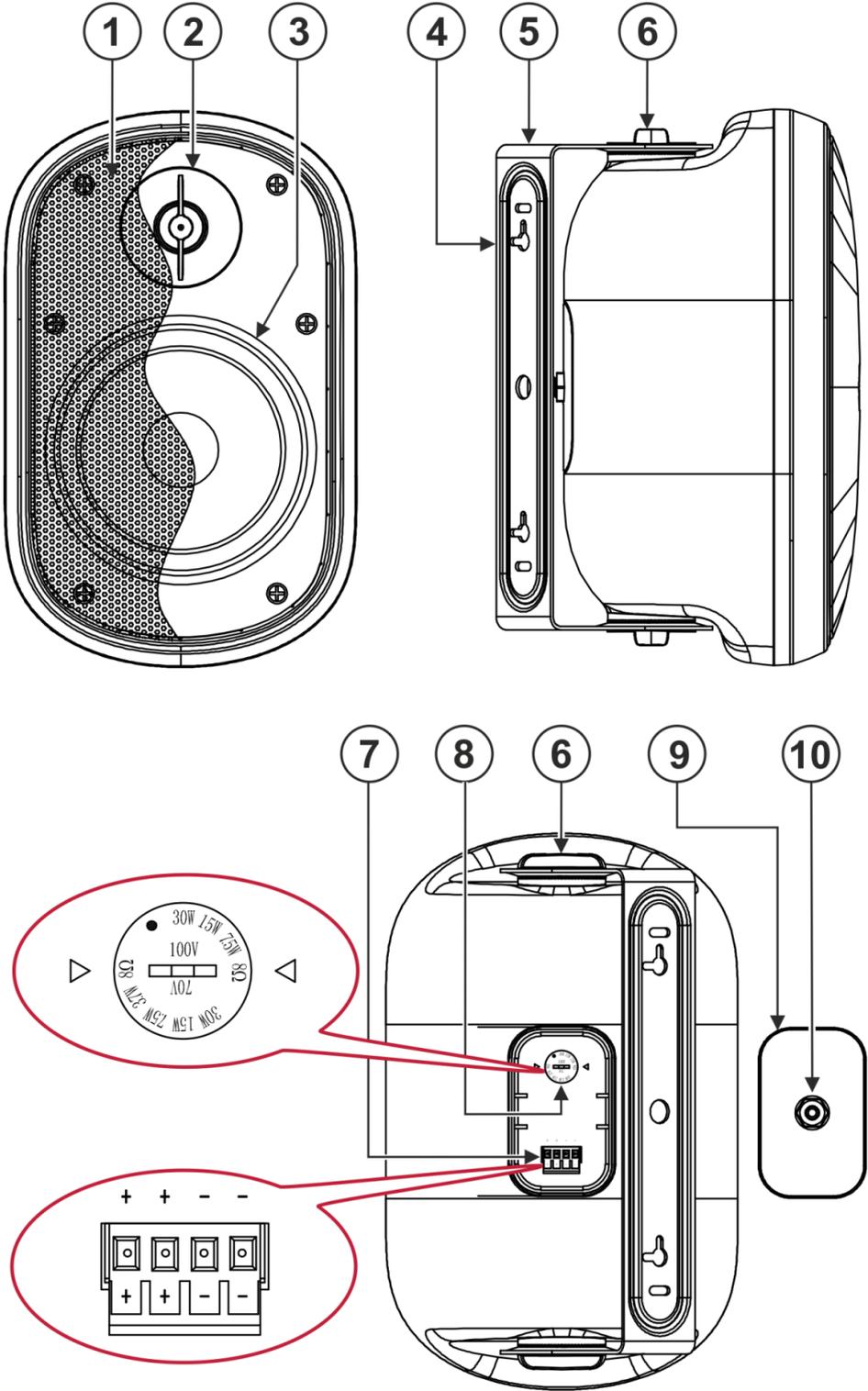
This section defines the **Galil 6-AW**.

Figure 1: Galil 6-AW All Weather Speakers

#	Feature	Function
1	Speaker Grille	Protects the internal components of the speaker from foreign objects. Do not remove the grille from the speakers.
2	Tweeter	Emits high frequency sounds.
3	Woofer Driver	Emits low frequency sounds.
4	Keyhole Mounting Point	Use to attach the U-bracket to a wall.
5	U-Bracket	Use to mount the speaker onto a wall (allowing left/right rotation).
6	U-Bracket knobs (2x2)	Use to fasten the U-bracket to the speaker (two knobs per bracket).
7	Input and Output Terminal Block Connectors	One +, - pair for the input and one +, - pair to output to the next speaker in an array configuration.
8	Tap Selector	Adjust each speaker to the appropriate tap setting: For 70V: select 3.7W, 7.5W, 15W, or 30W; For 100V: select 7.5W, 15W, or 30W. Alternatively, select 8Ω to bypass the transformer when connecting directly to an amplifier without using the 70/100V array option.
9	Protective Cover	Protects speaker cables and tap selector.
10	Cable Gland/Grommet	Pass the speaker cable through the cable gland/grommet to protect the connectors from outdoor weather conditions.

Installing the Galil 6-AW

The **Galil 6-AW** installation steps include the following:

Choosing the Best Location

Before installing the speakers:

- Experiment by placing the speakers in different locations before finally deciding on the most suitable location.

- Be sure that the wall type is appropriate for the mounting U-brackets, that is, either solid wood, bricks, concrete, hollow building blocks, or wood studs.

- Check that the mounting location is free of obstructions, such as electrical piping, AC ducts or water lines, and so on.

Installing the Speaker Wires

To install the speakers:

1. Prepare the wires for the speakers:

   - Cut the wires to similar lengths for achieving high quality sound.

   - Measure the length from each speaker to the amplifier and cut the wires accordingly, adding some excess wire length to let you easily remove the speakers from the U-bracket without having to disconnect the input wires.

(i) Make sure that you use weatherproof cables.

2. Strip the ends of the wires to expose a length of approximately 3/8 inch.

3. Adjust each speaker to the appropriate tap setting:

   - Set the tap ⑧ according to the power requirements of the speaker based on its location in the room (for example, a speaker located in a remote corner may require additional power).

Figure 2: Adjust Tap Selector

4. Connect the wires to the appropriate terminal block connectors ⑦ on the speaker (see Figure 3).

5. Mount the grommet/cable gland on the protective cover ⑩ and pass the cables through the grommet/cable gland and the protective cover ⑨.

6. Close the tap selector and connector opening with the protective cover ⑨.

7. Mount the U-brackets ⑤, see Installing the Mounting U-Brackets, on page 7.

8. Pass the speaker wires through the round hole in the mounting U-bracket.

9. Connect one of the + and – terminal block pairs on the rear panel by connecting the wire from the:

   - Left speaker wires to amplifier "L" terminal blocks.

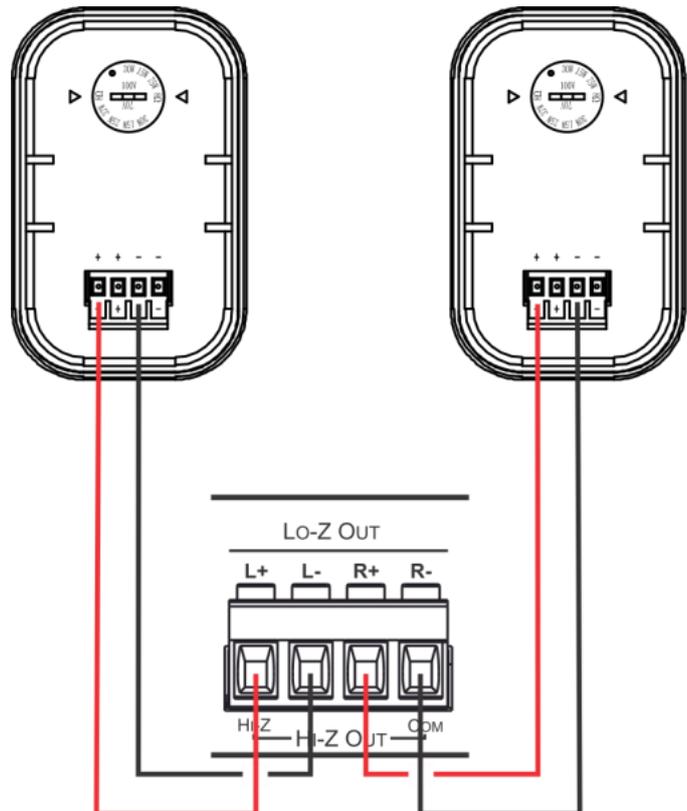   - Right speaker wires to amplifier "R" terminal blocks.

Figure 3: Adjust Tap Selector

10. If required, connect the + and - terminal blocks to the + and - terminal blocks of an adjacent speaker (as illustrated in the example in Figure 5).

Installing the Mounting U-Brackets

To install the mounting U-brackets:

1. Mark the location of the mounting holes on a wall at the location that you want to mount the speakers.

2. Screw the mounting screws into the wall.
   If the location is backed by wall studs, you can use the wood screws (not included). If the location is backed by a gypsum board, use wall anchors (not included).

3. Slide a speaker into each mounting U-bracket ⑤.

4. Align the U-bracket screw holes (upper and lower) to those on the speaker and screw a knob ⑥ to each of the holes to secure the speaker to the U-bracket (see Figure 4).
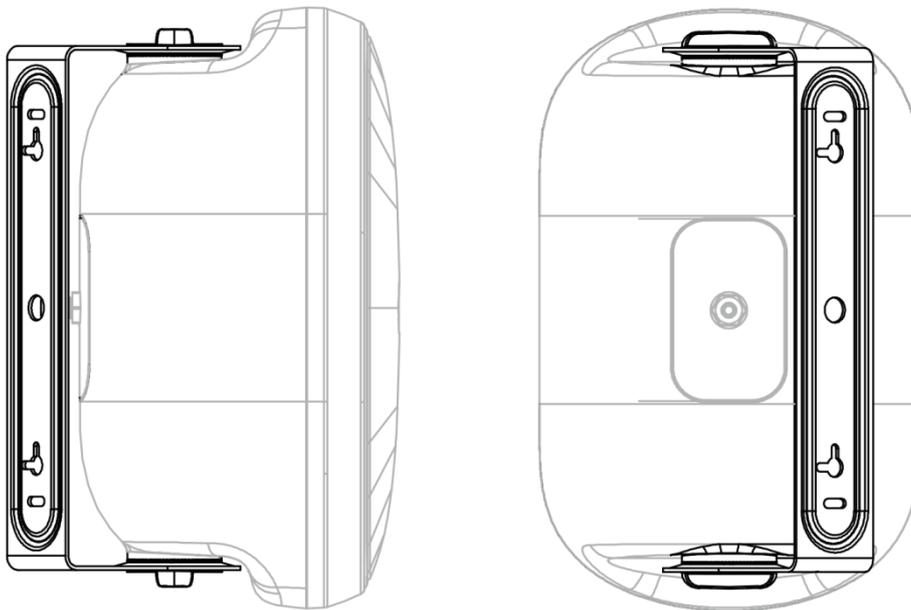

Figure 4: Galil 6-AW with U-Brackets Connected

5. Slide the mounting U-bracket over the mounting screws to secure it in place.

6. You can slightly loosen the knobs on a speaker to adjust its direction.

Setting up an Array Installation

When installing the **Galil 6-AW** 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 5 shows an example of parallel wiring in a square array installation:
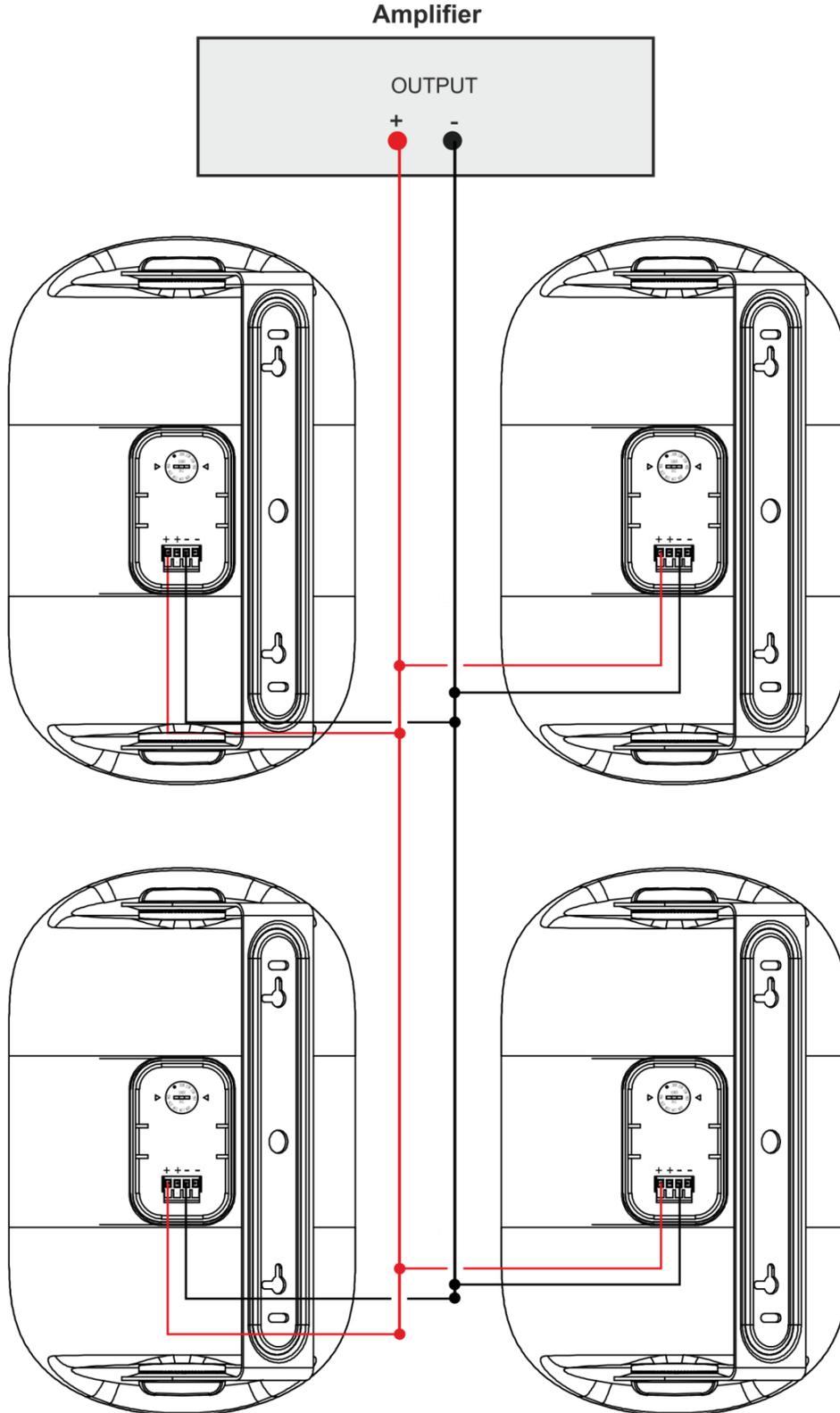

Figure 5: Square Layout Parallel Wiring

Connecting the Galil 6-AW

You can connect the **Galil 6-AW** speakers to a recommended Kramer power amplifier (for example, **PA-120Z**), as illustrated in Figure 6:
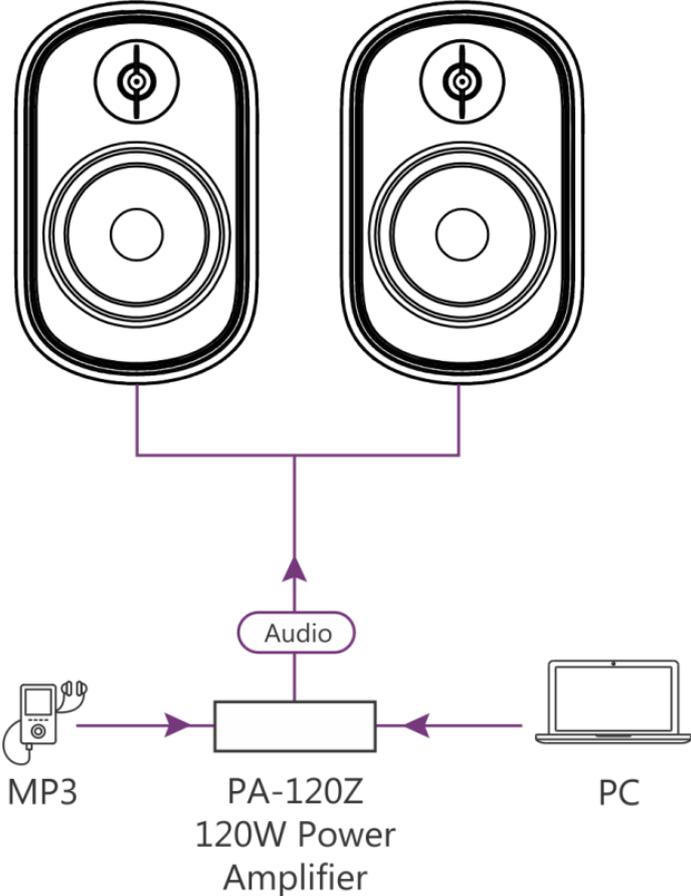

Figure 6: Connecting the Galil 6-AW

Technical Specifications

Description:	IP66 Weatherproof 2-way outdoor on-wall speakers
Frequency Response:	85Hz to 20kHz@ +/-3dB 80Hz to >20kHz@ -10dB
Woofer:	6.5" (166mm) PP cone with rubber surround
Tweeter:	1" (25.4mm) silk dome
Impedance:	8Ω
Transformer taps:	70V/8Ω – 30W / 15W / 7.5W / 3.7W 100V/8Ω – 30W / 15W / 7.5W
Sensitivity:	85dB+/-3dB@15W-1m
Max SPL (30W):	Continuous: 85dB Peak: 99dB
Power Handling:	30W RMS 80W continuous program
Crossover Frequency:	3.4kHz
Directivity Factor (Q):	3.58, averaged 1kHz to 10kHz
Directivity Index (DI):	5.4dB averaged 1kHz to 10kHz
Input Connectors:	4-pin Terminal block connector
Materials:	Aluminum grille and aluminum bracket; ABS cabinet
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:	3.05kg (6.72lbs) approx.
Weight with Mounting Kit:	3.15kg (6.94lbs) approx.
Shipping Weight (for pair):	7.9kg (17.42lbs) approx.
Dimensions:	20.1cm x 16.85cm x 32cm (7.9" x 6.6" x 12.6"), W, D, H.
Dimensions with Mounting U-Brackets:	20.1cm x 21cm x 32cm (7.9" x 8.3" x 12.6"), W, D, H.
Installation Clearance:	Front panel to wall (with mounting U-bracket):18.6cm (7.3") Back enclosure to wall (with mounting U-bracket): 3.3cm (1.3")
Accessories:	Grommet, cable gland
Colors:	Available in white and black
Specifications are subject to change 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

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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 APPICABLE 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.

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ISO 9001:2008 — IQC Institute of Quality & Control — Certified Quality Management System

ISO 14001:2004 — IQC Institute of Quality & Control — Certified Enviromental Management System

OHSAS 18001:2007 — IQC Institute of Quality & Control — Certified O.H.S Management System

P/N: 2900- 300794   Rev: 1

SAFETY WARNING

Disconnect the unit from the power supply before opening and servicing

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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.

www.KramerAV.com
info@kramerel.com