



KRAMER ELECTRONICS LTD.

# USER MANUAL

MODEL:

**RC-43T**  
Remote Controller

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P/N: 2900-300301 Rev 3

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## RC-43T Remote Controller



This guide helps you install and use your product for the first time. For more detailed information, go to [http://www.kramerelectronics.com/support/product\\_downloads.asp](http://www.kramerelectronics.com/support/product_downloads.asp) to download the latest manual or scan the QR code on the left.

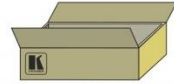
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### Step 1: Check what's in the box

RC-43T Remote Controller

Screwdriver

Quick Start Guide

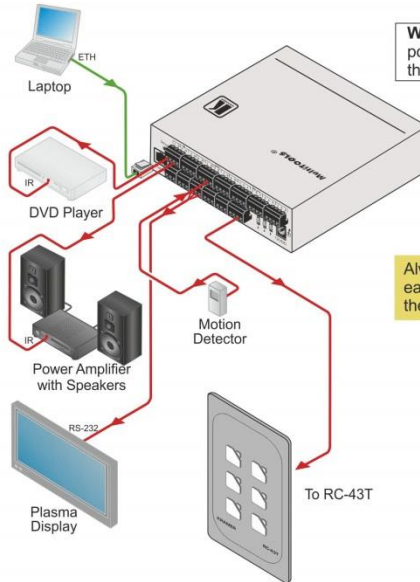


Save the original box and packaging materials in case you need to return your product for service.

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### Step 2: Connect the RC-43T

Connect the RC-43T to the room controller via the K-NET connector.



**Warning:** Do not connect the power to the wall plate until after the front panel is mounted.

Always switch off the power to each device before connecting it to the RC-43T

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### Step 3: Program the Room Controller

Connect the Room Controller to a PC and use the Kramer **K-Config** software to configure the six buttons of the RC-43T.

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### Step 4: Install the RC-43T

Install the RC-43T in a suitable wall mounting box.

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# Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
<b>2</b>	<b>Getting Started</b>	<b>2</b>
2.1	Achieving the Best Performance	2
2.2	Safety Instructions	3
2.3	Recycling Kramer Products	3
<b>3</b>	<b>Overview</b>	<b>4</b>
<b>4</b>	<b>Defining the RC-43T Remote Controller</b>	<b>5</b>
<b>5</b>	<b>Connecting the RC-43T</b>	<b>8</b>
5.1	K-NET Wiring	9
5.2	Terminating the K-NET Bus	10
5.3	Installing the Configuration Software	10
<b>6</b>	<b>Installing the RC-43T</b>	<b>11</b>
6.1	Installing the Front Panel Buttons	11
6.2	Installing the RC-43T in the Wall Mounting Box	12
<b>7</b>	<b>Technical Specifications</b>	<b>13</b>

## Figures

Figure 1:	RC-43T Remote Controller Front Panel	5
Figure 2:	RC-43T Remote Controller Rear View	6
Figure 3:	RC-43T Remote Controller Exploded Rear View	7
Figure 4:	Connecting the RC-43T Remote Controller	8
Figure 5:	RC-43T K-Net Wiring	9
Figure 6:	RC-43T K-Net Bus Termination Switch	10
Figure 7:	Mounting the RC-43T in a Wall Box	12

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# 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 13 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; and GROUP 13: Audio.

Congratulations on purchasing your Kramer **RC-43T** which lets you control an A/V system with ease in applications such as, multimedia classrooms or conference rooms.

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## 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



Go to [http://www.kramerelectronics.com/support/product\\_downloads.asp](http://www.kramerelectronics.com/support/product_downloads.asp) to check for up-to-date user manuals, application programs, and to check if firmware upgrades are available (where appropriate).

This user manual is written for the end user and does not contain details regarding installation and configuration. This information can be found in the *K-Config Configuration Guide*, available from <http://www.kramerelectronics.com>.

### 2.1 Achieving the Best Performance

To achieve the best performance:

- Use only good quality connection cables (we recommend Kramer high-resolution, high performance 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 neighboring electrical appliances that may adversely influence signal quality
- Position your Kramer **RC-43T** 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

## 2.2 Safety Instructions



**Caution:** There are no operator serviceable parts inside the unit

**Warning:** Use only the power cord that is supplied with the unit

**Warning:** Do not open the unit. High voltages can cause electrical shock! Servicing by qualified personnel only

**Warning:** Disconnect the power and unplug the unit from the wall before installing

## 2.3 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 <http://www.kramerelectronics.com/support/recycling/>.

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## 3 Overview

The **RC-43T** is a remote control keypad with six touch-sensitive, backlit buttons. It is designed to be used in conjunction with room controllers, such as the **SL-1**.

Using the Kramer **K-Config** software, each button on the **RC-43T** can be programmed on the room controller with a function, where each function can comprise multiple individual actions.

## 4 Defining the RC-43T Remote Controller

[Figure 1](#) shows the six, touch-sensitive, backlit buttons on the front panel of the RC-43T.

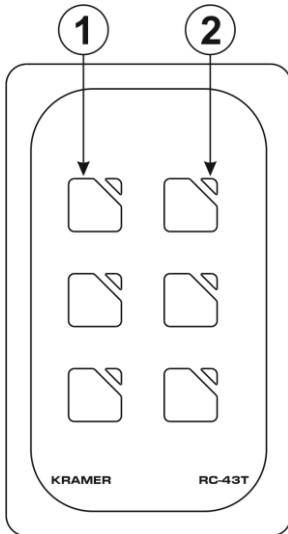


Figure 1: RC-43T Remote Controller Front Panel

#	Feature	Description
1	Six Touch-sensitive Buttons	Program the button functions on the connected room controller
2	Six LEDs	Flashes yellow when the button is touched. The LED can also be custom programmed to light on specific actions



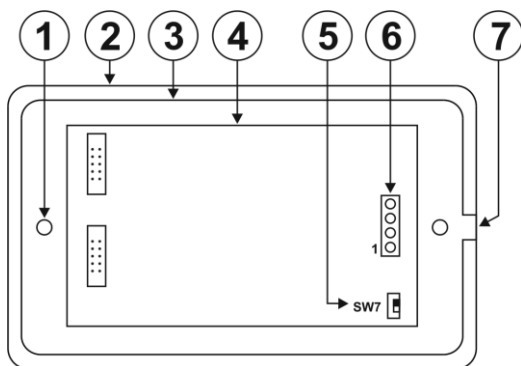


Figure 2: RC-43T Remote Controller Rear View

#	Feature	Description
1	Mounting Holes	Attach the RC-43T to the wall mounting box with the screws provided (see <a href="#">Section 6.2</a> )
2	Front Panel	Cosmetic panel that covers the PC Board and houses the removable buttons
3	PC Board Frame	Mounting panel that houses the PC Board
4	PC Board	
5	SW7 K-NET Termination Switch	Use to set the K-NET bus termination (see <a href="#">Section 5.2</a> )
6	KNET 4-pin Captive-screw Terminal Block	Connect to a master room controller or to another auxiliary device (see <a href="#">Section 5.1</a> ). <b>Note:</b> The RC-43T is always device ID 2 on the K-NET bus. This cannot be changed
7	PC Board Frame Alignment Tongue	Align this tongue with the cutout in the front panel when mounting the PC Board frame to the front panel

[Figure 3](#) shows an exploded rear view using the same identification table as [Figure 2](#).

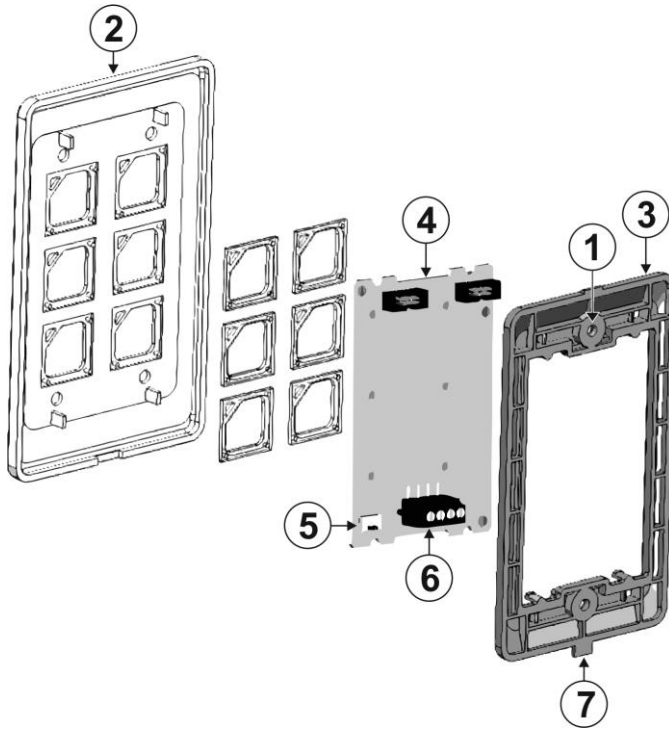


Figure 3: RC-43T Remote Controller Exploded Rear View

## 5 Connecting the RC-43T



Always switch off the power to each device before connecting it to your **RC-43SL**. After connecting your **RC-43SL**, connect its power and then switch on the power to each device.



You do not have to connect all the inputs and outputs, connect only those that are required.



Do not connect the power to the unit until after the front plate is mounted.

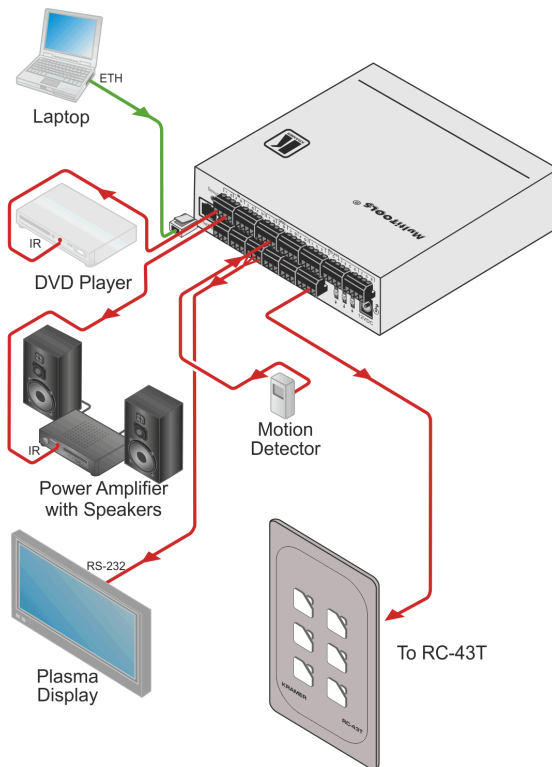


Figure 4: Connecting the RC-43T Remote Controller

To connect the RC-43T as illustrated in the example in [Figure 4](#):

- Connect the **RC-43T** to a room controller, (for example, the **SL-1**) via the K-NET 4-pin, (see [Section 5.1](#)) terminal block on the rear panel of the **RC-43T**



Each time the front panel is removed and remounted you must recalibrate it by powering off and powering on the unit.

## 5.1 K-NET Wiring



Do not connect the power to the unit until after the front plate is mounted.

The K-NET connector on the **RC-43T** must be connected to a room controller via a four wire cable as shown in [Figure 5](#).

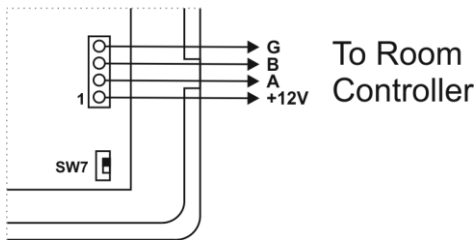


Figure 5: RC-43T K-Net Wiring

**Note:** The **RC-43T** is always device ID 2 on the K-NET bus and cannot be changed.

**To connect the RC-43T to a room controller:**

- Connect pin 1 on the K-NET connector to pin 1 on the room controller K-NET connector (+12V to +12V)
- Connect pin 2 on the K-NET connector to pin 2 on the room controller K-NET connector (A to A)
- Connect pin 3 on the K-NET connector to pin 3 on the room controller K-NET connector (B to B)
- Connect pin 4 on the K-NET connector to pin 4 on the room controller K-NET

connector (G to G)

## 5.2 Terminating the K-NET Bus

The devices at both ends of the K-NET bus must be terminated.

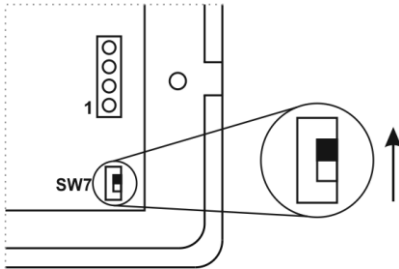


Figure 6: RC-43T K-Net Bus Termination Switch

**To terminate the K-NET bus on the RC-43T:**

- Slide SW7 (see [SW7](#)) into the position shown in [Figure 6](#)

## 5.3 Installing the Configuration Software

Download the **K-Config** configuration software from our Web site and install it (refer to the *K-Config User Manual*).

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## 6 Installing the RC-43T

Installing the **RC-43T** consists of the following steps:

- Installing the required buttons (see [Section 6.1](#))
- Connecting the **RC-43T** to the room controller or other auxiliary devices (see [Section 5.1](#))
- Programming the room controller for the **RC-43T**  
**Note:** Programming is covered by the **K-Config User Manual** and therefore not described here.
- Installing the **RC-43T** in the wall mounting box (see [Section 6.2](#))

### 6.1 Installing the Front Panel Buttons

The **RC-43T** is supplied with preprinted buttons from which you can choose the six that best represent the functions you wish to assign the buttons.

**To install the front panel buttons:**

1. Remove the front panel (see [Figure 2](#) and [Figure 3](#)) by carefully prying it away from the PC Board frame using a small screwdriver being careful not to damage it.
2. Remove the stock buttons from the front panel.
3. Remove the six required buttons from the plastic tree.
4. Insert the buttons into the front panel taking care to insure that they are oriented correctly.
5. Place the PC Board and frame onto the front panel insuring that the mounting orientation tongue is in line with the cutout on the front panel.
6. Press the front panel and PC Board frame together securely.

## 6.2 Installing the RC-43T in the Wall Mounting Box

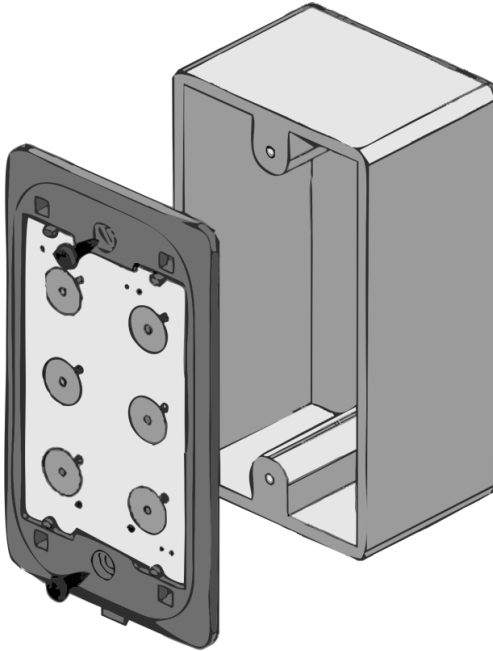


Figure 7: Mounting the RC-43T in a Wall Box

### To install the RC-43T in the wall mounting box:

1. Remove the front panel of the **RC-43T**.
2. Insert the **RC-43T** into the wall mounting box and secure it using the two M3 x 10mm screws supplied.
3. Replace the front panel of the **RC-43T**.

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## 7 Technical Specifications

PORT:	1 K-NET on a 4-pin removable terminal block
POWER CONSUMPTION:	12V DC, 100mA
OPERATING TEMPERATURE:	0° to +40°C (32° to 104°F)
STORAGE TEMPERATURE:	-40° to +70°C (-40° to 158°F)
HUMIDITY:	10% to 90%, RHL non-condensing
DIMENSIONS:	6.9cm x 1.6cm x 11.4cm (2.72" x 0.63" x 4.5") W, D, H
WEIGHT:	0.3kg (0.66lbs) approx.
INCLUDED ACCESSORIES:	Four 6/32x1/2" screws One white faceplate One black faceplate
OPTIONS:	K-NET cable
Specifications are subject to change without notice at <a href="http://www.kramerelectronics.com">http://www.kramerelectronics.com</a>	



## LIMITED WARRANTY

The warranty obligations of 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 Does this Coverage Last

Seven years as of this printing; please check our Web site for the most current and accurate warranty information.

### 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, please visit our web site at [www.kramerelectronics.com](http://www.kramerelectronics.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. 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 on 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 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, please visit our Web site at [www.kramerelectronics.com](http://www.kramerelectronics.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.



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.**

Web site: [www.kramerelectronics.com](http://www.kramerelectronics.com)

E-mail: [info@kramerel.com](mailto:info@kramerel.com)

CE



**SAFETY WARNING**

Disconnect the unit from the power supply before opening and servicing



P/N: 2900-300301



Rev: 3