

## USER MANUAL

**TOOLS™, PicoTOOLS™, MegaTOOLS™  
Rack Adapters**

### **MODELS:**

**RK-1T2PT, RK-2T1PT, RK-3T, RK-3T-B,  
RK-6T, RK-9T, RK-3TR, RK-4PT, RK-4PT-B,  
RK-T2B, RK-T2B-B, RK-T2SB, RK-T2SB-B**

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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 15 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 & Repeaters; GROUP 6: Specialty AV Products; GROUP 7: Scalers; GROUP 8: Cables and Connectors; GROUP 9: Room Connectivity; GROUP 10: Mounting and Rack Adapters; GROUP 11: Sierra Video; GROUP 12: Digital Signage; GROUP 13: Audio; GROUP 14: Collaboration; and GROUP 15: KM & KVM Switches.

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## 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/RK-3T-B](http://www.kramerav.com/downloads/RK-3T-B) 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 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 neighboring electrical appliances that may adversely influence signal quality.
- Position your Kramer devices away from moisture, excessive sunlight and dust.

## Safety Instructions

Observe the following safety instructions with regard to installing devices:



**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.

## 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](http://www.kramerav.com/support/recycling).

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## Overview

Congratulations on purchasing your TOOLS™/PicoTOOLS™/MegaTOOLS™ Rack Adapter. Your rack adapter is specifically designed for mounting Kramer devices.

The package includes the following items:

- 19" rack adapter: **RK-1T2PT, RK-2T1PT, RK-3T, RK-3T-B, RK-6T, RK-9T, RK-3TR, RK-4PT, RK-4PT-B, RK-T2-B, RK-T2B-B, RK-T2SB, RK-T2SB-B**
- Blank panels
- Connecting Brackets
- Screws



The number of included blank panels, connecting brackets and screws differs for each rack model.



You can order additional blank panels to cover unused openings on the rack adapter.

# Defining your Rack Adapter

The following rack adapters enable you to mount Kramer devices in a 19" rack:

- [RK-1T2PT](#) on page [3](#).
- [RK-2T1PT](#) on page [4](#).
- [RK-3T/RK-3T-B](#) on page [4](#).
- [RK-6T](#) on page [5](#).
- [RK-9T](#) on page [6](#).
- [RK-3TR](#) on page [6](#).
- [RK-4PT/RK-4PT-B](#) on page [7](#).
- [RK-T2B/RK-T2B-B](#) on page [7](#).
- [RK-T2SB/RK-T2SB-B](#) on page [8](#).

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## RK-1T2PT

The **RK-1T2PT** 19" rack adapter is suitable for mounting one Kramer TOOLS™ and two Kramer PicoTOOLS™ size devices in a 1U rack space.

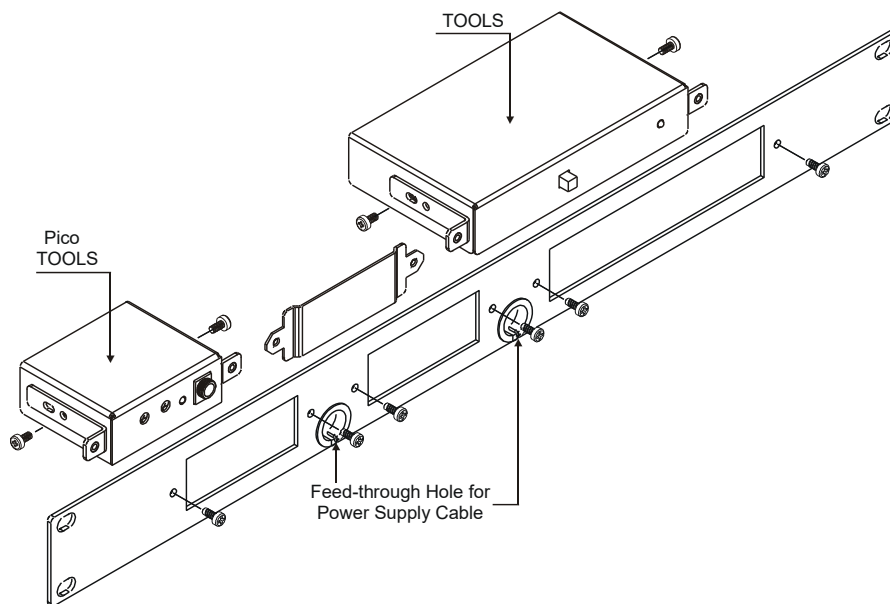


Figure 1: RK-1T2PT Rack Adapter

# RK-2T1PT

The **RK-2T1PT** 19" rack adapter is suitable for mounting one Kramer PicoTOOLS™ and two Kramer TOOLS™ size devices (extruded or regular) in a 1U rack space.

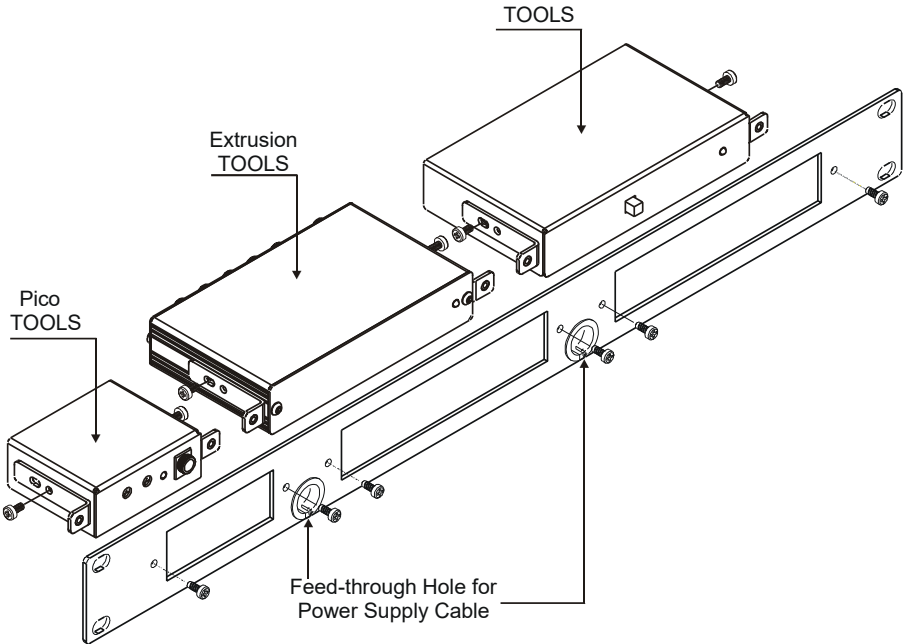


Figure 2: RK-2T1PT Rack Adapter

# RK-3T/RK-3T-B

The **RK-3T/RK-3T-B** 19" rack adapter is suitable for mounting three Kramer TOOLS™ size devices (extruded or regular) in a 1U rack space.

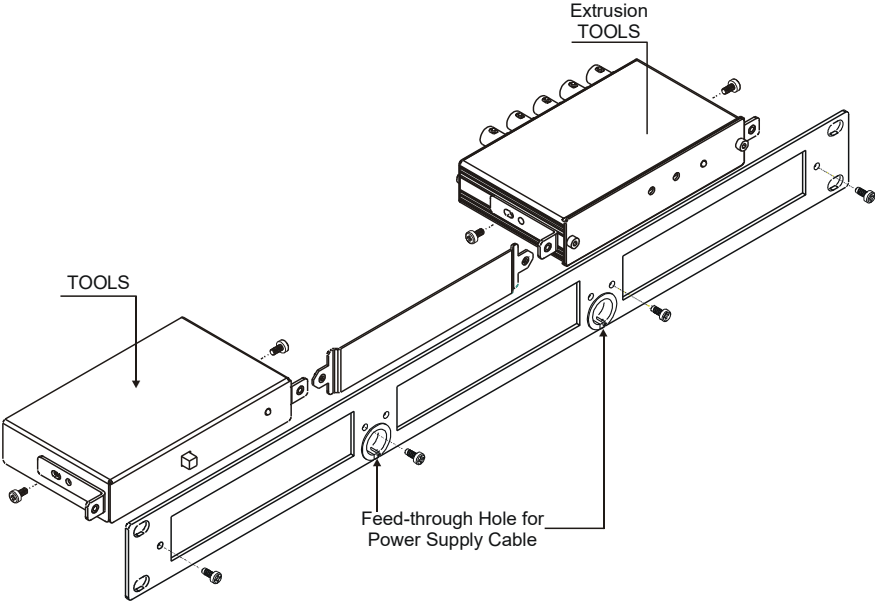


Figure 3: RK-3T/RK-3T-B Rack Adapter

# RK-6T

The **RK-6T** 19" rack adapter is suitable for mounting six Kramer TOOLS™ size devices (extruded or regular) in a 2U rack space.

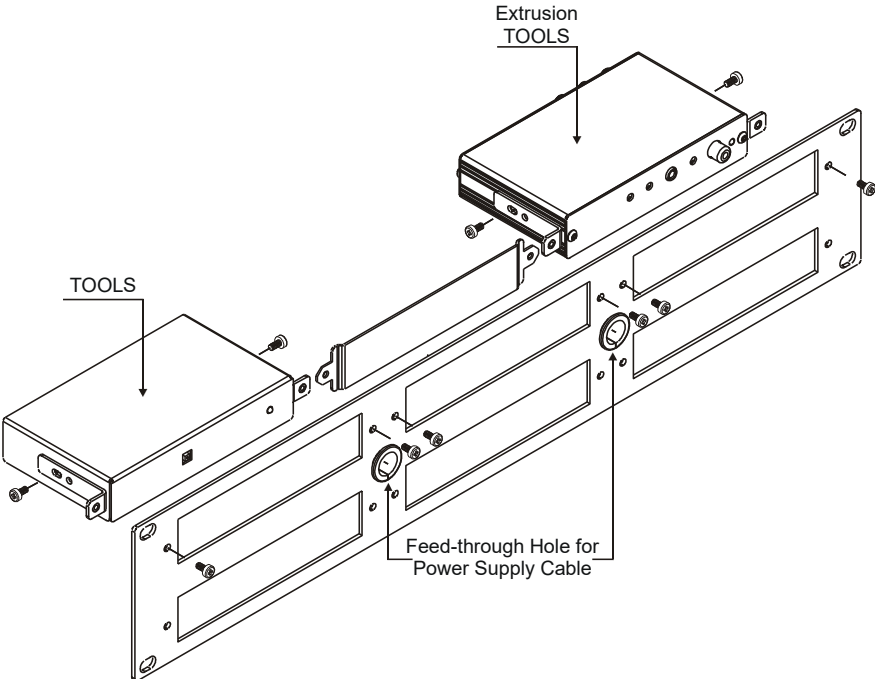


Figure 4: RK-6T Rack Adapter

# RK-9T

The **RK-9T** 19" rack adapter is suitable for mounting nine Kramer TOOLS™ size devices (extruded or regular) in a 3U rack space.

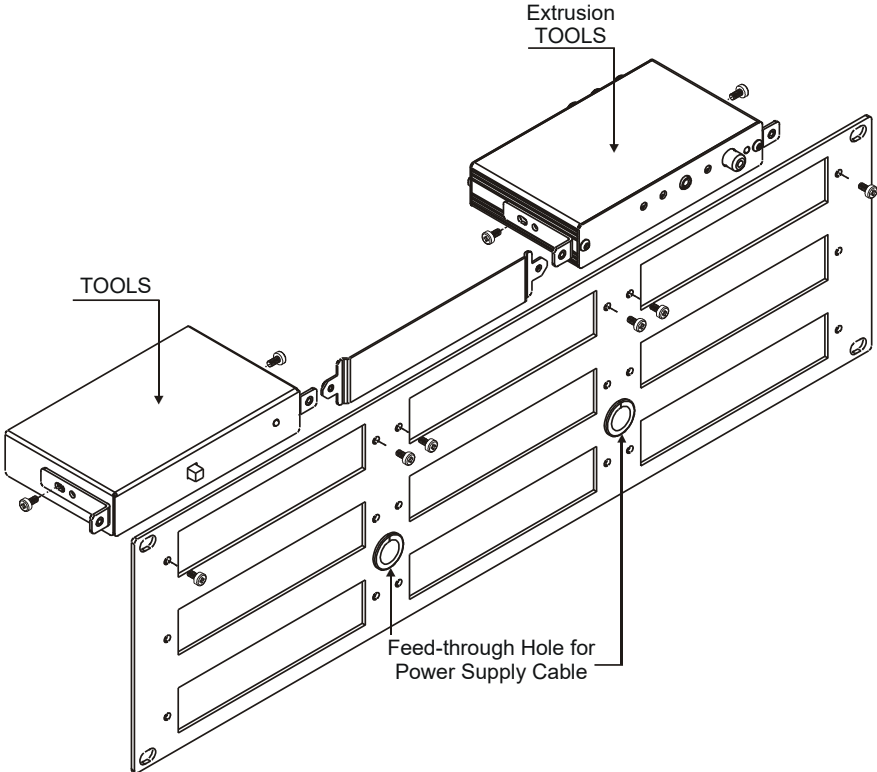


Figure 5: RK-9T Rack Adapter

# RK-3TR

The **RK-3TR** 19" rack adapter is suitable for mounting three Kramer TOOLS™ size devices – **TR-1, TR-1A, TR-2A, TR-3, TR-1YC, and/or TR-2YC** – in a 1U rack space.

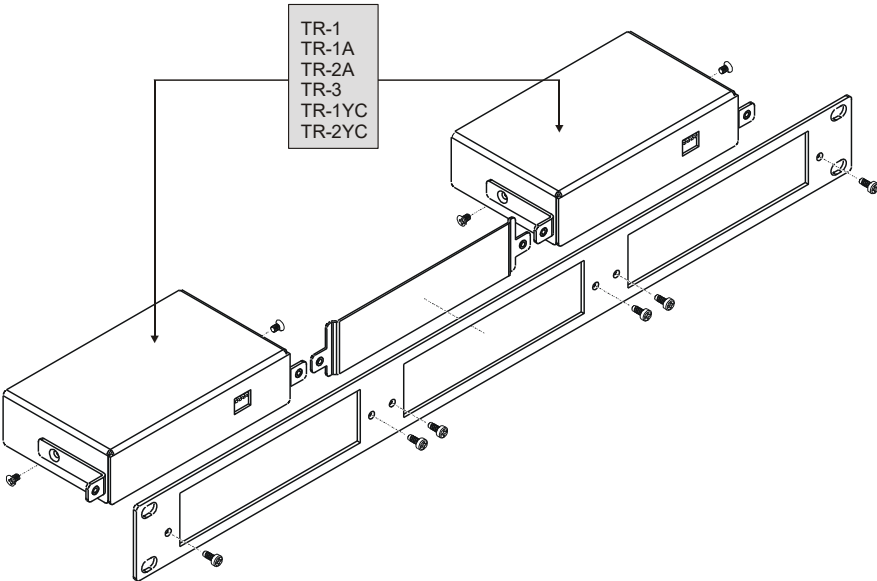


Figure 6: RK-3TR Rack Adapter



# RK-4PT/RK-4PT-B

The **RK-4PT/RK-4PT-B** 19" rack adapter is suitable for mounting four Kramer PicoTOOLS™ size device in a 1U rack space.

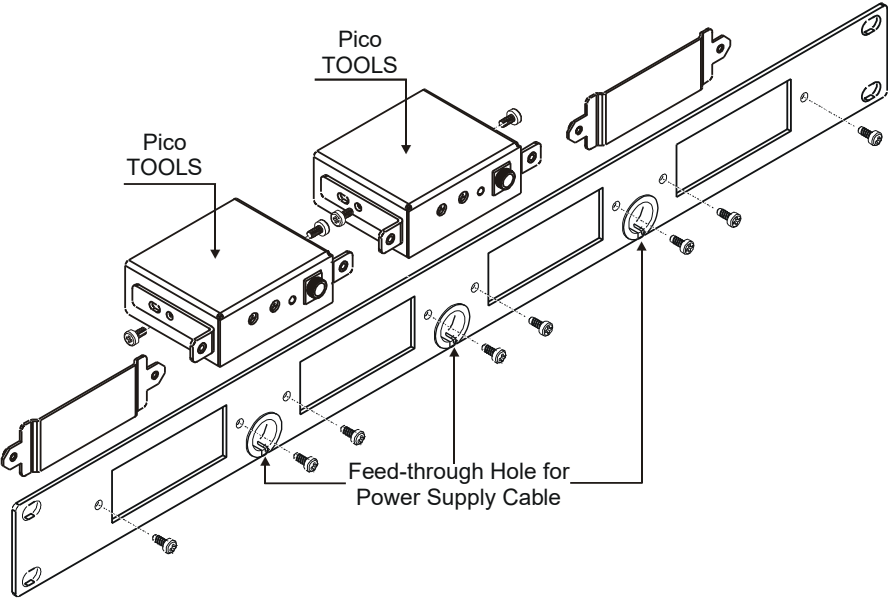


Figure 7: RK-4PT/RK-4PT-B Rack Adapter

# RK-T2B/RK-T2B-B

The **RK-T2B/RK-T2B-B** 19" rack adapter is suitable for mounting two Kramer MegaTOOLS™ size devices in a 1U rack space.

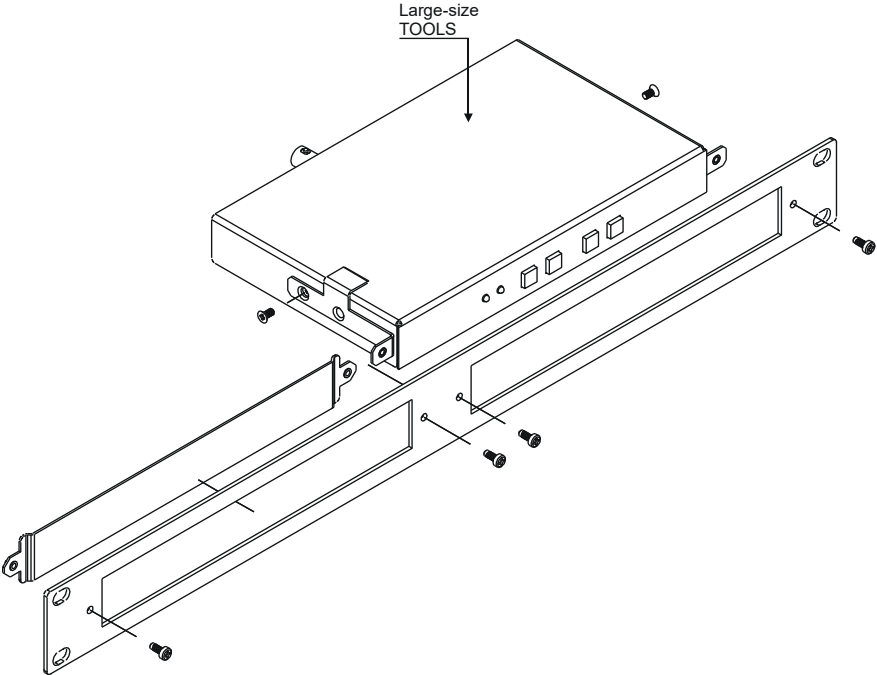


Figure 8: RK-T2B/RK-T2B-B Rack Adapter

# RK-T2SB/RK-T2SB-B

The **RK-T2SB** 19" rack adapter is suitable for mounting one Kramer TOOLS™ and one Kramer MegaTOOLS™ size device in a 1U rack space.

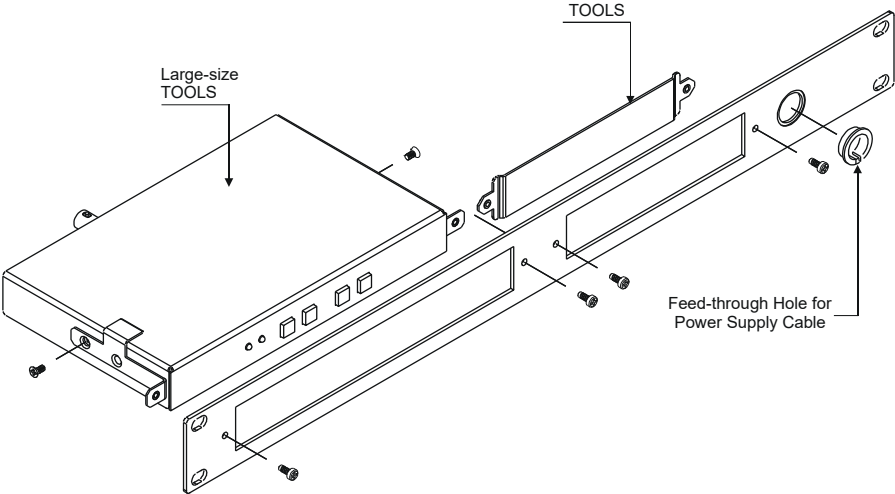


Figure 9: RK-T2SB Rack Adapter

# Connecting Brackets

The connecting brackets include holes for different types of devices.

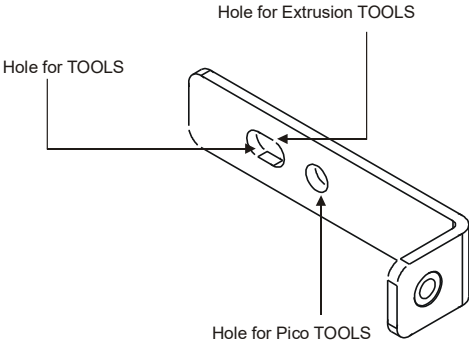


Figure 10: Connecting Bracket

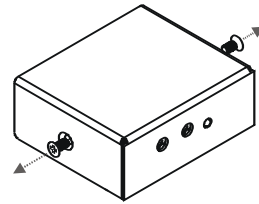
# Installing Devices on Your Rack Adapter

This section describes how to install Kramer devices on your rack adapter.

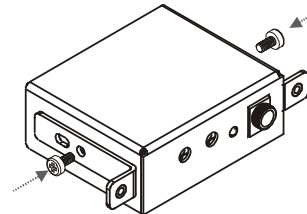
## Installing a Typical Device

To install a typical device on your rack adapter:

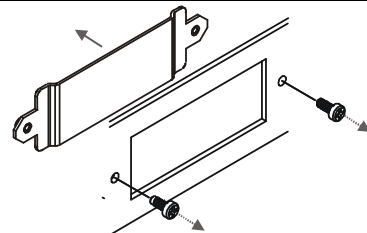
1. Remove the side panel screws (one on each side) from the device.



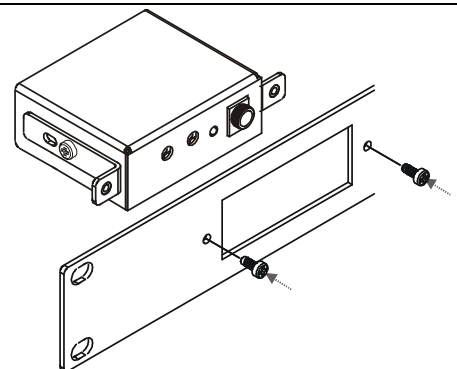
2. Insert the screws provided with the rack adapter (one on each side) through the correct holes on the brackets (see [Connecting Brackets](#) on page 8).



3. If required, remove the blank panel from the rack adapter opening.



4. Use the same included screws to attach the bracket ears onto the rack adapter panel from its rear side.  
If a blank panel is not attached to the rack adapter opening, use two M3x8 Philips screws (provided with the rack adapter) to connect the bracket ears to the rack adapter.



## Installing an Extrusion Type Device

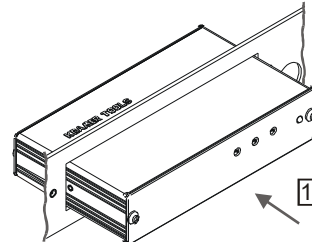
An extrusion type device is one that the front panel protrudes past the front face of the rack adapter.



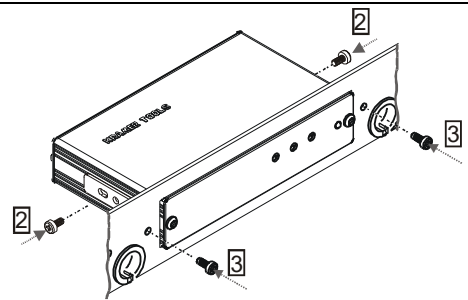
Extrusion type devices do not have screws attached to each side. Use the screws included with the rack adapter.

To install an extrusion type device on your rack adapter:

1. Insert the device through the appropriate front opening of the rack adapter.



2. Connect the brackets to the device using two of the screws provided with the rack adapter.
3. Connect the brackets to the rack adapter.



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 hardware products are covered by a standard three (3) year warranty for the VIA hardware and a standard three (3) year warranty for firmware and software updates.
2. All Kramer fiber optic cables and adapters, active cables, cable retractors, 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](http://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](http://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.



P/N  
:



2900-000243

Rev  
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## 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.