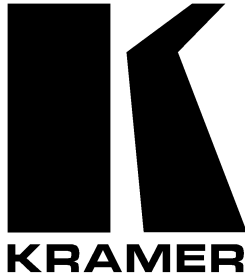


Kramer Electronics, Ltd.



USER MANUAL

Models:

Cobra RWM

Cobra TWM

Cobra TM-4

Cobra TMB

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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 500-plus different models now appear in eight groups¹ that are clearly defined by function. Congratulations on purchasing your Kramer rack mount solutions: **Cobra RWM** and/or **Cobra TWM** and/or **Cobra TM-4**, and/or **Cobra TMB**. The package includes the rack mount with the required screws and this user manual².

The Kramer **Cobra** series products are not compatible with Kramer non-**Cobra** series products.

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

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 and positioning your product in a location free from moisture and away from excessive sunlight and dust

¹ GROUP 1: Distribution Amplifiers; GROUP 2: Video and Audio Switchers, Matrix Switchers and Controllers; GROUP 3: Video, Audio, VGA/XGA Processors; GROUP 4: Interfaces and Sync Processors; GROUP 5: Twisted Pair Interfaces; GROUP 6: Accessories and Rack Adapters; GROUP 7: Scan Converters and Scalers; and GROUP 8: Cables and Connectors

² Download up-to-date Kramer user manuals from the Internet at this URL: <http://www.kramerelectronics.com>

4 Rack Mounting Solutions

This section describes the following rack mount solutions:

- **Cobra RWM**, for the **Cobra R1300A/Cobra R1300S2** (see section 4.1)
- **Cobra TWM**, for the **Cobra R500A/R500-2** (see section 4.2)
- **Cobra TM-4**, for the **Cobra R500A/R500-2** (see section 4.3)
- **Cobra TMB**, for use with the **Cobra TM-4** (see section 4.3)

4.1 Cobra RWM (for the Cobra R1300A, Cobra R1300S2)

The Kramer **Cobra RWM** Rackmount Kit is a rigid mount 1 receiver for the **Cobra R1300A** and **Cobra R1300S2**. The **Cobra RWM** Rackmount Kit includes brackets for mounting a single transmitter, single receiver, or a single dual daisy-chainable receiver. Figure 1 shows the 1-Unit Rackmount Bracket, which can be used to mount a single unit on a wall.

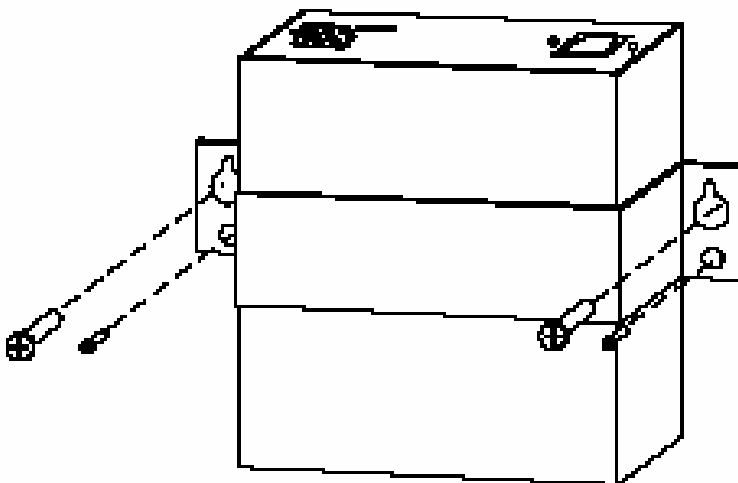


Figure 1: Cobra RWM Receiver Mounting Bracket

4.2 Cobra TWM (for the Cobra R500A, R500-2 Series)

The Rackmount Kits include brackets (built-in mounting tabs) for mounting a single transmitter, single receiver, or a single dual daisy-chainable receiver. Figure 2 shows the 1-Unit Rackmount Bracket, which can be used to mount a single unit on a wall or in a 19" rackmount bracket.

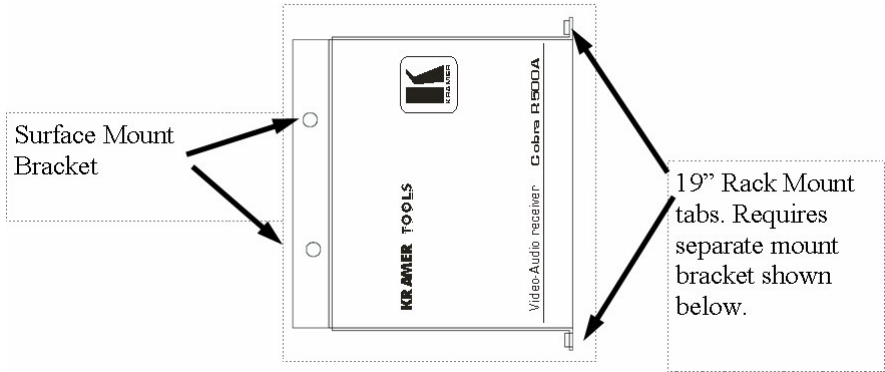


Figure 2: Cobra TWM Built-in Mounting Tabs

4.3 Cobra TM-4 (for the Cobra R500A, R500-2 Series)

The Rackmount Kits include brackets for mounting a single transmitter, single receiver, or a single dual daisy-chainable receiver.

Figure 3 shows the 4-Unit Rackmount Bracket, which holds up to four units (for the **R500A**, **R500-2** series) in a 19" x 1U rack.

Blank panels (**Cobra TMB**) are also available for the **Cobra TM-4**, to cover empty spaces.

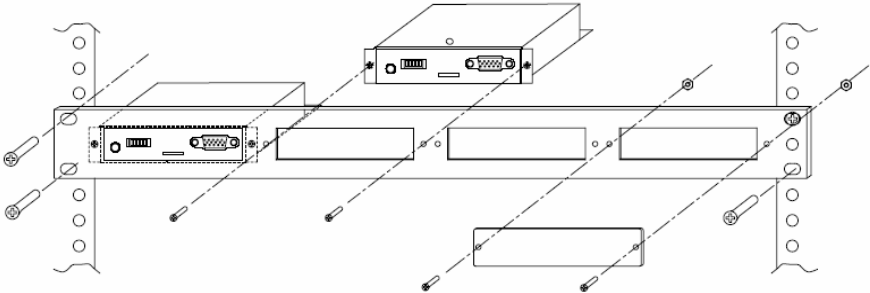


Figure 3: Cobra TM-4 Rack Mounting Kit

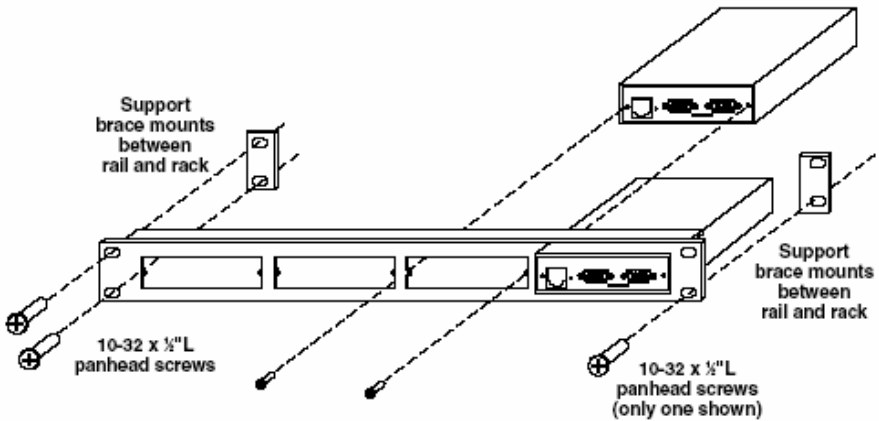


Figure 4: Cobra Transmitter Rack Mounting Kit

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, where updates to this user manual may be found. We welcome your questions, comments and feedback.



Caution

Safety Warning:

Disconnect the unit from the power supply before opening/servicing.



Kramer Electronics, Ltd.

Web site: www.kramerelectronics.com

E-mail: info@kramerel.com

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