KRAMER

USER MANUAL

MODEL:

TBUS-3US-22
Table Connection Bus

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 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; and GROUP 14: Collaboration; GROUP 15: KM & KVM Switches.

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/TBUS-3US-22 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 neighbouring electrical appliances that may adversely influence signal quality.

- Position your Kramer **TBUS-3US-22** 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.

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.

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

The Kramer **TBUS-3US-22** is a high-quality, anodized aluminum, table-mounted connection bus enclosure for boardrooms and conference rooms. Its attractive enclosure is designed to provide maximum connectivity in the smallest possible footprint. **TBUS-3US-22** includes two US power sockets and two inserts (one pass-through and one blank, both which can be replaced by any other Kramer inserts).

The unit is sturdy, cost-effective, and easy to install.

Typical Applications

The **TBUS-3US-22** is ideal for:

- Boardrooms.
- Conference rooms.
- Training rooms.
- Hotel lobbies.
- Cafes and restaurants.

Defining the TBUS-3US-22 Table Connection Bus

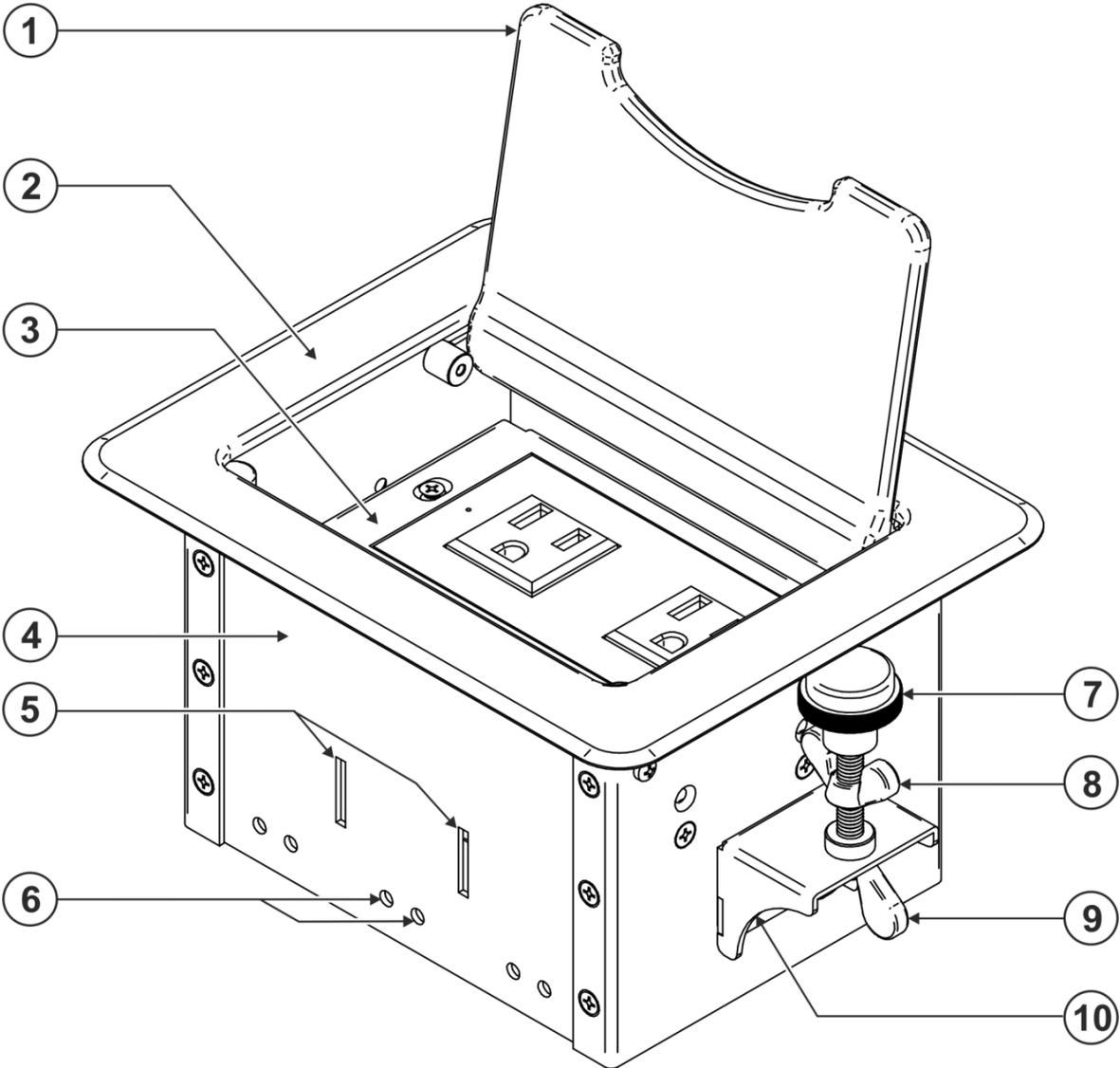This section defines the **TBUS-3US-22**.

Figure 1: Defining the Parts of the TBUS-3US-22 Table Connection Bus

#	Feature	Function
1	Black/Clear Anodized Sandblast Textured Lid	Includes an opening for cable pass-through; covers the inner frame, leaving the table surface neat and tidy.
2	Outer Rim	Fits over the table surface. A protective rubber guard protects the outer rim during shipping. Remove it before installing the unit.
3	Connecting Surface	See Figure 2.
4	Enclosure	Inserted into the table cut out.
5	Mounting Clamp Slits (4 sets on each of the sides)	Insert the mounting clamps to the slits when installing **TBUS-3US-22**.

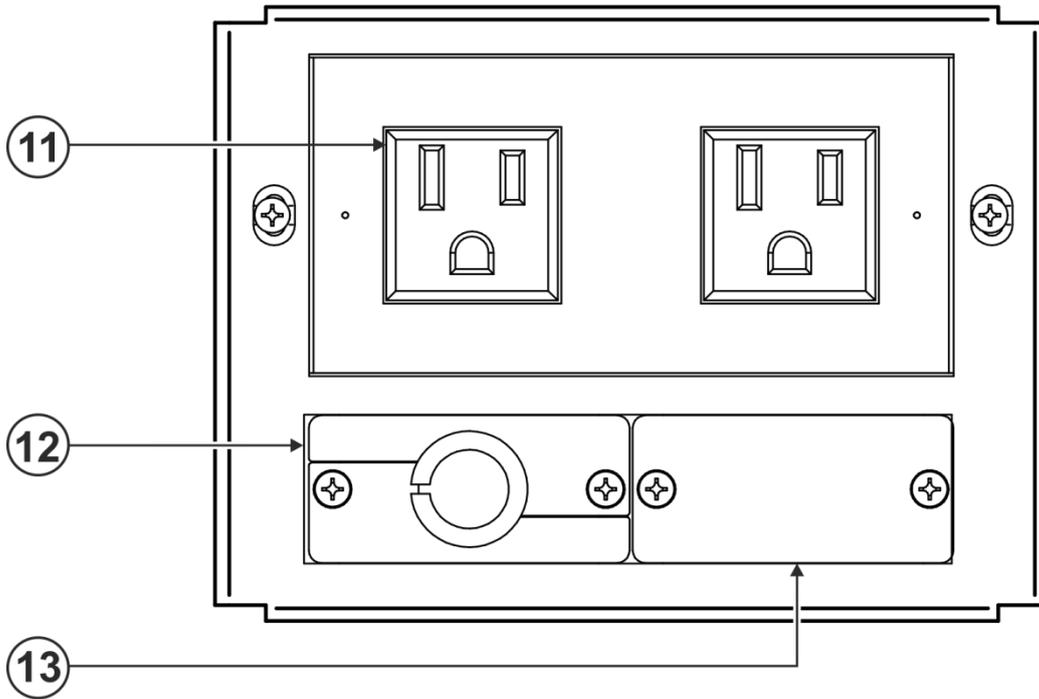| #	Feature	Function
6	Tie Holes	Insert the self-locking tie through the holes to fix the pass-through cables to the inside walls of the unit.
7	Mounting Screws with Rubber Protectors (x2)	Protect the table surface when mounting the unit and ensure soft tightening to the table underside (one for each clamp).
8	Locking Butterfly Nuts(x2)	Tighten to lock the mounting butterfly screw (one for each clamp).
9	Mounting Butterfly Nuts(x2)	Tighten to secure the unit to the table surface (one for each clamp).
10	Mounting Clamp (x2 units)	Place in the clamp slits after inserting the enclosure into the table – for securing the unit to the table surface.

Figure 2: TBUS-3US-22 Connecting Surface

#	Feature	Function
11	5A/125V Power Connector (x2)	Connect to a US power consuming device.
12	Split Pass-through Bracket with Grommet	Use for passing through cables.
13	Blank Single Insert	Can be replaced with Kramer passive wall plates or connector modules for interfacing A/V type signals.

Installing the TBUS-3US-22

TBUS-3US-22 Installation includes the following steps:

- Cutting an Opening in the Table on page 5.
- Inserting the TBUS-3US-22 through the Cut-out Opening on page 6.
- Replacing the Blank Insert on page 7.
- Inserting the Pass-through Cables on page 7.
- Connecting to the TBUS-3US-22 on page 8.

Cutting an Opening in the Table

The cut-out template defines the surface you have to cut out to install your **TBUS-3US-22**.

ⓘ   The thickness of the table should be 76mm (3") or less.

To cut an opening in a table:

1. Download the latest cut-out dimensions from the Kramer website at www.kramerav.com/downloads/TBUS-3US-22 and print it.

2. Place the cut-out template on the surface of the table exactly where you want to install the **TBUS-3US-22**.

3. Mark the size of the opening according to the template.

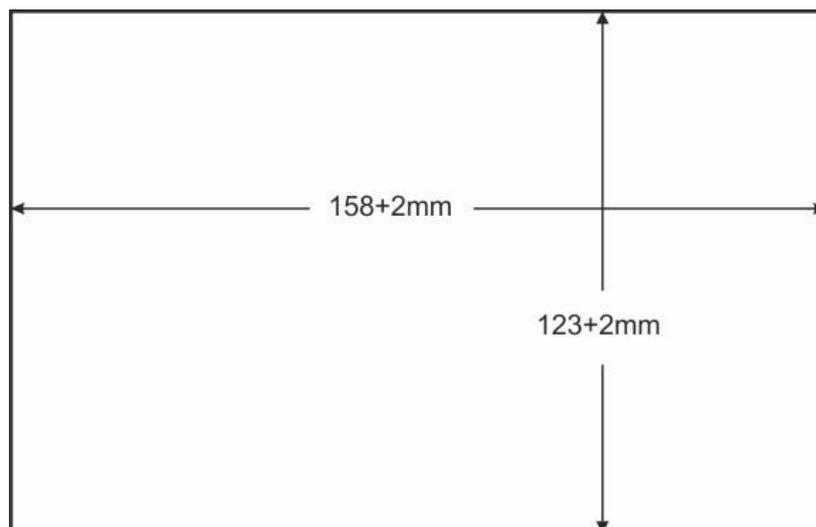4. Cut a hole in the table surface with a sabre, keyhole or jig saw according to the cut out dimensions.

Figure 3: Cut-out Dimensions (not to scale)

5. Clean the table surface.

⚠   Take care not to damage the table. Kramer Electronics is not responsible for any damage caused to the table.

Inserting the TBUS-3US-22 through the Cut-out Opening

To insert and secure the TBUS-3US-22:

1. Remove the protective rubber guard from around the outer rim ② of the
   TBUS-3US-22 housing. **Beware of the sharp edge!**

2. Carefully insert the unit into the prepared opening.

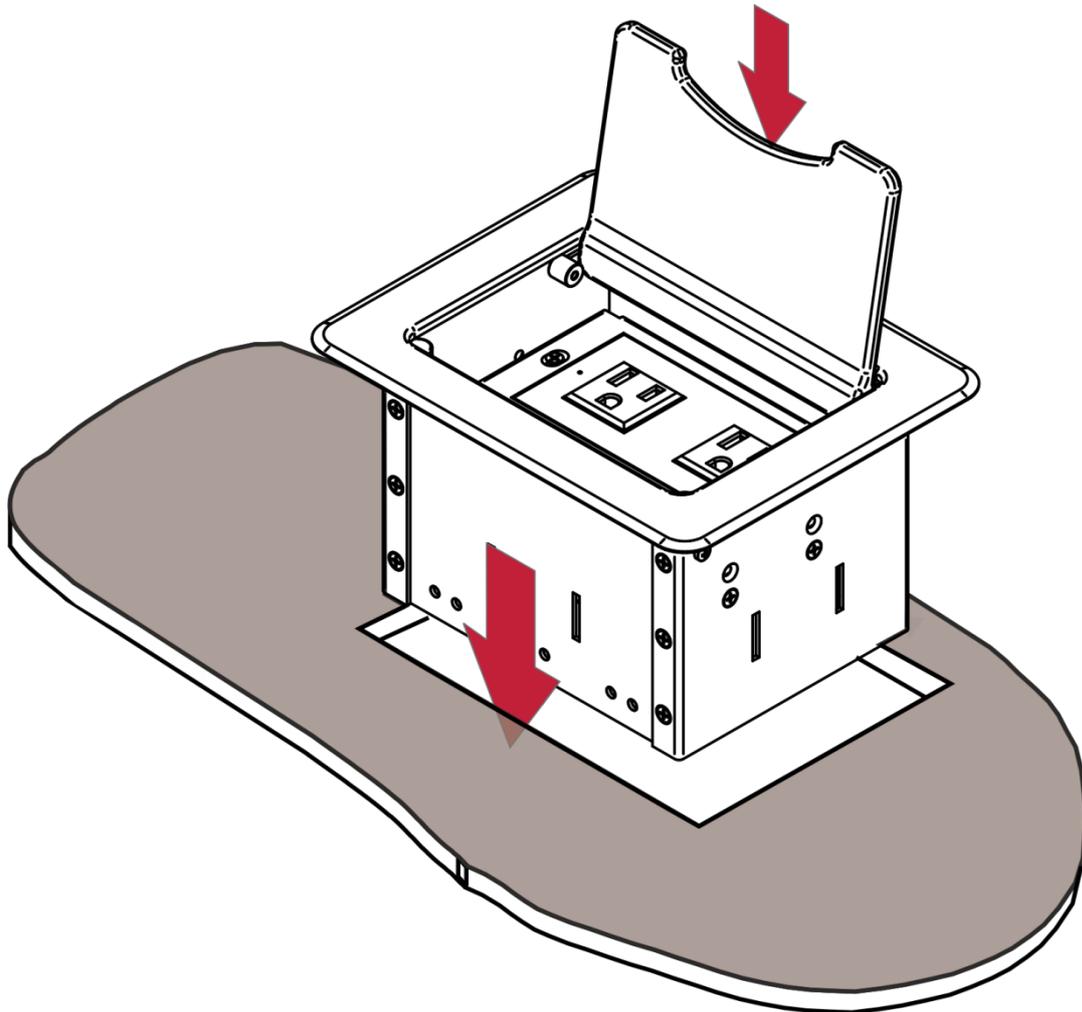Figure 4: Inserting TBUS-3US-22 into the Table Opening

3. Take the mounting clamps ⑩ under the table and place them into the support clamp
   slits ⑤ on both sides of the unit.

4. Verify proper alignment of the unit before tightening the mounting screws ⑦.

5. Tighten both mounting butterfly nuts ⑨ upward until the rubber protectors on the
   mounting screws ⑦ reach the table surface (from underneath). Tighten firmly.

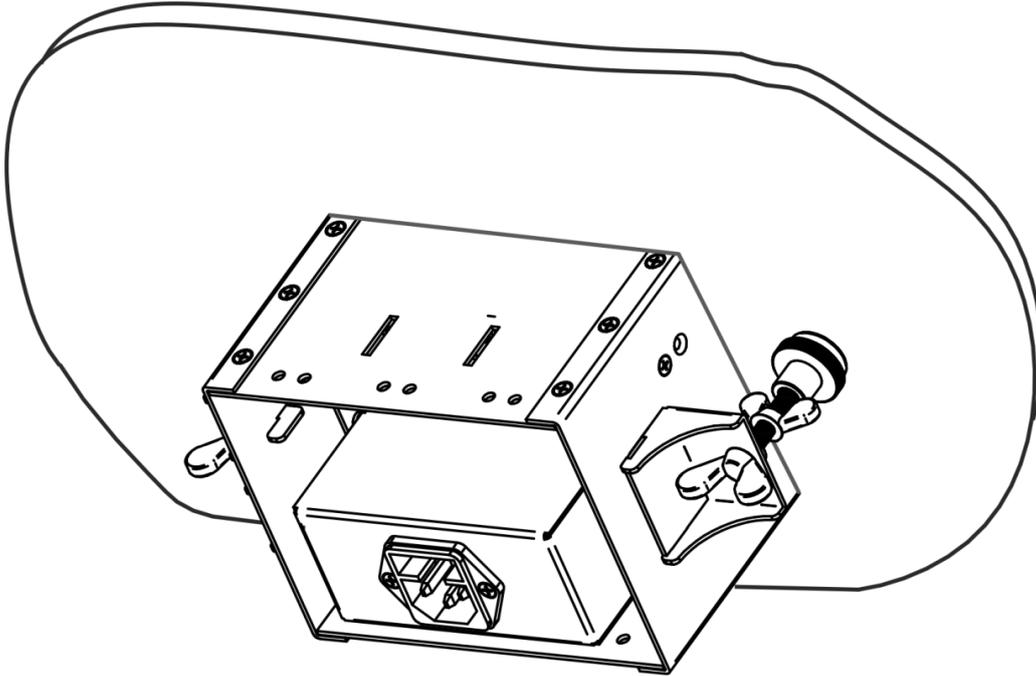6. Tighten the locking butterfly screws ⑧ downward until they are tight against the mounting clamp.

Figure 5: Locking TBUS-3US-22 under the Table

7. Connect the power cable from underneath the **TBUS-3US-22**.

Replacing the Blank Insert

To mount a Kramer insert or connector module:

1. Unscrew the two screws that fasten the blank plate ⑬ to the inner frame and remove the blank plate.

2. Place the required Kramer insert over the opening, insert the two screws to fix the Kramer insert in place, and tighten them.

Inserting the Pass-through Cables

To insert the pass through cables (for example, to connect to a laptop):

1. Remove the two screws that fasten the split pass-through bracket ⑫.

2. Remove the split grommet.

3. Insert the cable through the rectangular opening.

4. Open the split grommet slightly and insert the required cables.

5. Replace the split pass-through bracket.

Connecting to the TBUS-3US-22

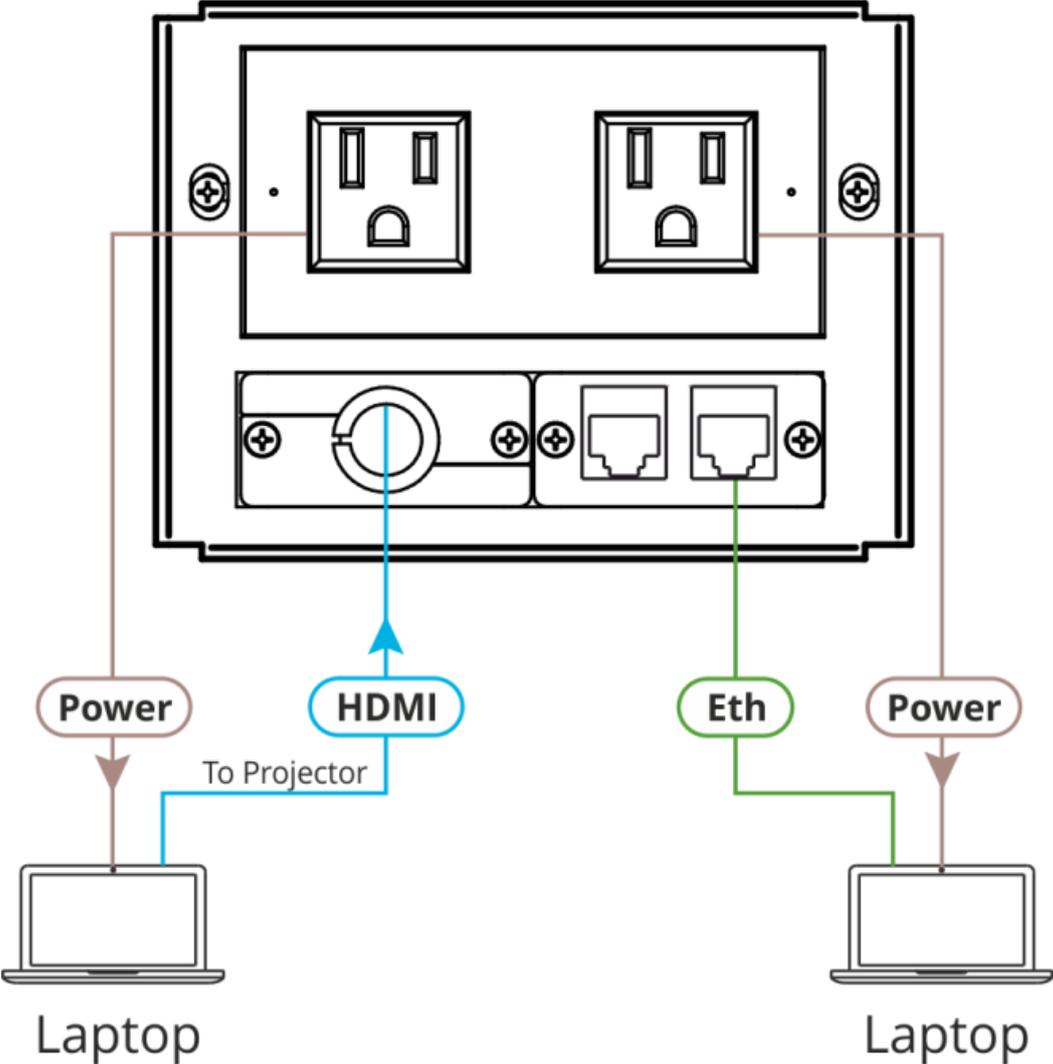You can connect the following devices to the **TBUS-3US-22**.

Figure 6: Connecting TBUS-3US-22

Technical Specifications

Ports	2 US Power Sockets	For powering devices
Inserts	1 Single Blank	For replacing with Kramer inserts
	1 Pass-through Single	For passing cables from beneath the table
Power	Consumption	125V AC, 50/60Hz, 5A max
	Fuse Rating	T 6.3A 250V
Environmental Conditions	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
Regulatory Compliance	Safety	CE, UL
	Environmental	RoHs, WEEE
Enclosure	Type	Aluminum
General	Net Dimensions with Clamps (W, D, H)	21.2cm x 11cm x 14cm (8.4" x 4.3" x 5.5")
	Shipping Dimensions (W, D, H)	26.5cm x 30cm x 21.5cm (10.4" x 11.8" x 8.5")
	Net Weight with Clamps	1.5kg (3.3lbs) approx.
	Net Weight without Clamps	1.4kg (3.1lbs) approx.
	Shipping Weight	2.3kg (5.1lbs) approx.
Accessories	Included	Clamp set, metal cut-out template, 6 self-locking ties
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, 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 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 APPICABLE 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 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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⚠ **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.

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