

KRAMER TBUS-10xl Table Connection Bus User Manual

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KRAMER TBUS-10xl Table Connection Bus



TBUS-10xl Quick Start Guide

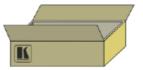
This guide helps you install and use your product for the first time. For more detailed information, go to http://www.kramerelectronics.com/support/product_downloads.asp to download the latest manual or scan the QR code on the left.



Step 1: Check what's in the box

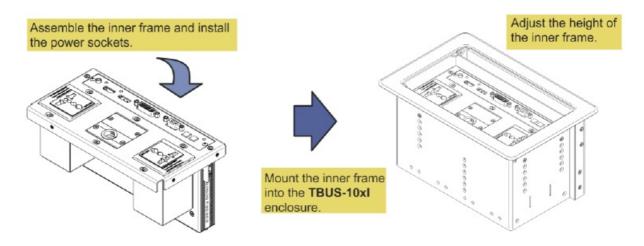
What's in the box

- The TBUS-10xl Table Connection Bus Enclosure
- 2 table clamps
- · 6 self locking ties
- 1 cut out template
- 1 quick start guide



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

Step 2: Prepare the TBUS-10x| for mounting

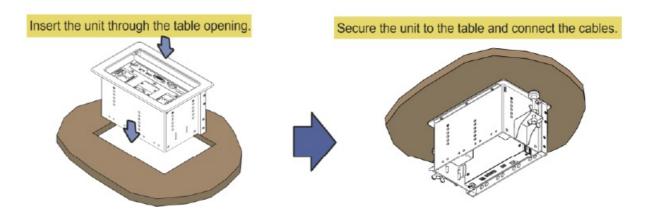


Step 3: Prepare the table for mounting

Cut out an opening in the table using the cut out template



Step 4: Install the TBUS-10xl to the table



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 video, audio, presentation, and broadcasting professionals 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 11 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 and GROUP 11: Sierra Video Products.

Thank you for purchasing the Kramer TBUS-10xl enclosure, which is ideal for boardrooms, conference and training rooms!

Note that the inner frame, power socket assembly, power cord and other inserts for the TBUS-10xl enclosure

are purchased separately.

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 <u>www.kramerav.com</u> to check for up-to-date user manuals, a complete list of Kramer wall plates and module connectors, application programs, and to check if firmware upgrades are available (where appropriate).

Achieving the Best Performance

To achieve 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 TBUS-10xl 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.
 - There are no operator serviceable parts inside the unit.

Glossary

• Inner frame:

The inner frame fits into the TBUS enclosure

Universal socket:

The Universal socket fits almost all power cords, worldwide

Insert:

The insert fits into the inner frame. Go to our Web site to check for a variety of single and dual sized inserts

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-10xl 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. The unit is sturdy, cost-effective, and easy to install.

The TBUS-10xl:

- Has a modular design, letting you tailor the TBUS-10xl according to your requirements
- Is available with a black sand blasted anodized, silver sand blasted anodized, or sliver brushed anodized aluminum lid with a special opening for cable pass-through (note, that other customized colors can also be ordered)
- Includes height adjustment screw holes to set the inner frame (ordered separately) to the desired height
- Features a cover that opens and closes manually and retracts into the unit to remain out of sight when the TBUS-10xl is in use. When closed, all cables and connectors are out-of-sight under the anodized cover
 - Do not place heavy objects on top of the TBUS-10xl.

Your TBUS-10xl Enclosure

This section defines the TBUS-10xl enclosure and the Inner frame options.

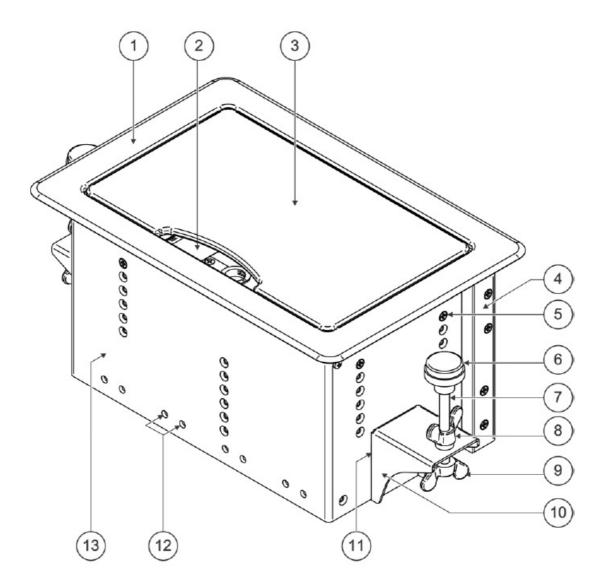


Figure 1: TBUS-10xl Enclosure Top View

#	Feature	Function	
1	Outer Rim	Fits over the table surface. A protective rubber guard protects the outer rim during shipping. Remove it before installing the unit	
2	Inner Frame	Installed within the TBUS-10xl enclosure	
3	Black Sand Blasted Anodized / Silver Sand Blast ed Anodized / Silver Brushed Anodized Textured Aluminum Lid	Includes an opening for cable pass-through; covers the inner frame, leaving the table surface neat and tidy	
4	Lid Housing	When opened, the lid retracts into the lid housing	
5	Height Adjustment Screw hol es	The screw holes on each side panel are used for mounting and adjusting the height of the Inner Frame	

6		Rubber Protectors	Protect the table surface when mounting the unit (one for each clamp)
7		Mounting Screws	For mounting onto table (one for each clamp)
8	Table Clamp	Locking Butterfly Scre ws	Tighten to lock the mounting butterfly screw (one for each clamp)
9	ing Se	Mounting Butterfly Scr ews	Tighten to secure the unit to the table surface (one for each clamp)
10		Mounting Clamps	Fit in the clamps slits after inserting the enclosure into the table – to secure the unit to the table surface (one for each clamp)
11	Bracket	Slits	For attaching the two mounting clamps on opposite sides
12	Tie Holes		Insert the self-locking tie through the holes to fix the pass- through cab les to the inside walls of the unit (4)
13	Enclosure		Inserted into the table cut out

TBUS-10xl Optional Inner Frames

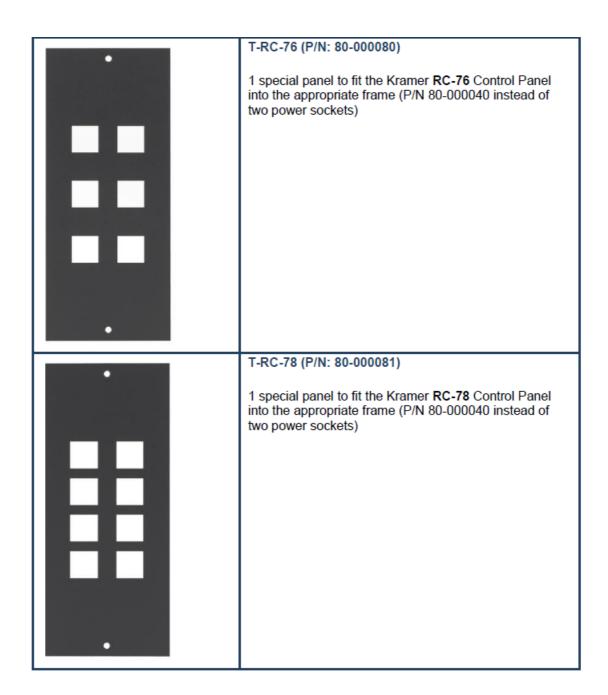
The following inner frames can be installed in the TBUS-10xl enclosure:

Inner Frames for TBUS-10xl Specifications (defines what you can include in this inner frame): T10F-22M (P/N: 80-000028) 1 opening for 1 MegaTOOL, specially designed for the Kramer SID-X1 2 openings for 2 power sockets 1 blank insert 1 pass-through insert T10F-33 (P/N: 80-000040) 2 openings for 3 power sockets (1 dual and 1 single) 2 blank inserts 1 pass-through insert

- Custom made inner frames can be designed if required.
- Contact Kramer Electronics for more details.

TBUS-10xl Optional Inserts

Accessories	Description
Inserts	You can install any wall plate device as well as any of the single or dual inserts—see our Web site for details.
	T-2INSERT (P/N: 80-00006699) The T-2INSERT kit can be installed inside a single power socket opening and includes: 1 single cable pass-through insert 1 dual cable pass-through insert
	T-RC8IR (P/N: 80-000599) 1 special panel to fit the Kramer RC-8IR Control Panel into the appropriate frame (P/N 80-000040 instead of two power sockets)



Power Socket Options

- Inner frames support installing one or more of the following power socket assemblies.
- **Note:** The Brazilian power sockets are supplied as dual power sockets in a single power socket assembly (see table below).

Single Power Socket Assemblies

Socket Type	Power Specs	
Universal:	TS-1U (80-000899) 100-240V AC, 50/60Hz, 5A Maximum 5A per power outlet	Fully compatible with power plugs in the UK, India, Italy and Denmark, as well as with the 2-prong Europlug. Partially compatible (if the polarity is reversed) with plugs in China, Switzerland, Israel and the USA. The universal socket does not supply grounding to plugs in Central Europe and France and so you should order country specific sockets instead. Not compatible with South African plugs.

Socket Type	Power Specs	Socket Type	Power Specs
USA:	TS-1US (80-000999) 100-125V AC, 50/60Hz, 5A Maximum 5A per power outlet	UK	TS-1UK (91-000022) 100-240V AC, 50/60Hz, 5A Maximum 5A per power outlet
Belgium and France:	TS-1FR (80-001399) 100-240V AC, 50/60Hz, 5A Maximum 5A per power outlet	Israel:	TS-1IL (80-001799) 100-240V AC, 50/60Hz, 5A Maximum 5A per power outlet
Germany and EU:	TS-1DE (80-001299) 100-240V AC, 50/60Hz, 5A Maximum 5A per power outlet	South Africa	TS-1ZA (80-001699) 100-240V AC, 50/60Hz, 5A Maximum 5A per power outlet
Italy:	TS-1IT (80-001499) 100-240V AC, 50/60Hz, 5A Maximum 5A per power outlet	Australia:	TS-1AU (80-001599) 100-240V AC, 50/60Hz, 5A Maximum 5A per power outlet
Switzerland	TS-1CH (80-000027) 100-240V AC, 50/60Hz, 5A Maximum 5A per power outlet	Brazil	TS-BR (80-000034) 100-240V AC, 50/60Hz, 5A Maximum 5A/2.5A per power outlet

Dual Power Socket Assemblies

Socket Type	Power Specs
Universal:	TS-2U (80-001899)
	10 20 (00 00 1000)
	100-240V AC, 50/60Hz, 5A
	Maximum 5A/2.5A per power outlet
USA:	TO 0110 (00 004000)
OSA.	TS-2US (80-001999)
_	100-125V AC, 50/60Hz, 5A
	Maximum 5A/2.5A per power outlet
	TO 077 (00 00000)
Belgium and France:	TS-2FR (80-002299)
	100-240V AC, 50/60Hz, 5A
	Maximum 5A/2.5A per power outlet
	TO ODE (00 000400)
Germany and EU:	TS-2DE (80-002199)
	100-240V AC, 50/60Hz, 5A
	Maximum 5A/2.5A per power outlet
Italy	TS-2IT (80-002399)
0	
- ••• ••• -	100-240V AC, 50/60Hz, 5A
	Maximum 5A/2.5A per power outlet
Switzerland	TS-2CH (80-000026)
	100-240V AC, 50/60Hz, 5A Maximum 5A/2.5A per power outlet
	Maximum SA/2.SA per power outlet
UK	TS-2UK (91-000023)
- - -	100-240V AC, 50/60Hz, 5A
	Maximum 5A/2.5A per power outlet
Israel:	TS-2IL (80-002699)
• (• •) (• •) •	100-240V AC, 50/60Hz, 5A
	Maximum 5A/2.5A per power outlet
Socket Type	Power Specs
South Africa:	TS-2ZA (80-002599)
	,
	100-240V AC, 50/60Hz, 5A
	Maximum 5A/2.5A per power outlet
Australia:	TS-2AU (80-002499)
.	100-240V AC, 50/60Hz, 5A
	Maximum 5A/2.5A per power outlet
الْـــــــالْ	

Power Cord Options
You can order any of the following power cords to use with a modular TBUS:

Power Cord Type	Description	P/N
6ft/110V (North America)	C-AC/US (110V)	91-000099
6ft/125V (Japan)	C-AC/JP (125V)	91-000699
6ft/220V (Europe)	C-AC/EU (220V)	91-000199
6ft/220V (Israel)	C-AC/IL (220V)	91-000999
6ft/250V (UK)	C-AC/UK (250V)	91-000299
6ft/250V (India)	C-AC/IN (250V)	91-001099
6ft/250V/10A (China)	C-AC/CN (250V)	91-001199
6ft/250V/10A (South Africa)	C-AC/ZA (250V)	91-001299

To use one power cord for a 3-socket configuration on the T10F-33, you can order any of the following types of power cords separately:

Power Cord Type	Description	P/N
110V Y-version (6ft), North America	C-ACY/US	91-000399
220V Y-version (6ft), Europe	C-ACY/EU	91-000499
240V Y-version (6ft), UK	C-ACY/UK	91-000599

Installing the TBUS-10xl

To install the TBUS-10xl perform the following steps:

- 1. Assemble the inner frame.
- 2. Install the inner frame.
- 3. Cut an opening in the table.
- 4. Insert the unit through the opening and secure to the table.
- 5. Connect the cables.
- 6. Insert pass-through cables.
- 7. Adjust the height of the inner frame.

Assembling the Inner Frame

The modules mounted on the inner frame can include a MegaTOOL, single inserts and/or dual inserts as well as a power socket (in some models). This section describes how to assemble these modules.

Each module kit comes with detailed assembly instructions.

Mounting the Inserts

You can rearrange or remove any of the plates mounted on the inner frame and replace them with Kramer passive wall plates or connector modules for interfacing A/V type signals.

To mount a Kramer insert or connector module:

- 1. Unscrew the two screws that fasten the blank plate 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.

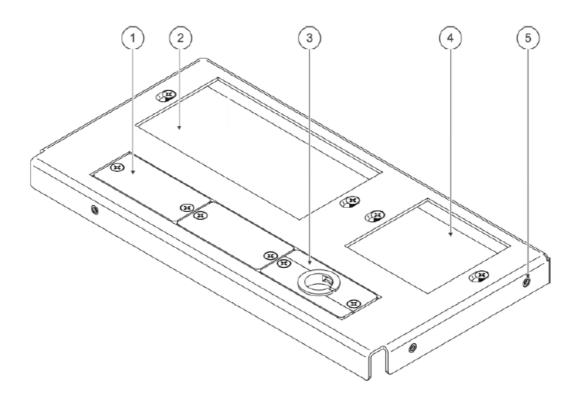


Figure 2: TBUS-10xl Inner Frame (P/N: 80-000028)

#	Feature	Function
1	Blank Plates	Two blank covers that can be replaced with wall plates as required
2	Dual Power Socket O pening	Suitable for 2 power sockets or optional TBUS insert kits (for example, the T-R C18 insert kit)
3	Split Brackets	Support the split grommet for the pass through-cables
4	Power Socket Openin g	Suitable for a single power socket or the optional insert kit for TBUS
5	Adjustable Height Scr ew Holes	For adjusting the height of the Inner frame

Mounting the Power Socket Assemblies

To mount the power socket, place the power socket under the frame in its appropriate place and tighten with the two screws (supplied).

Power socket kits come with assembly instructions.

Mounting the T-2INSERT

• The T-2INSERT optional insert kit lets you add 2 more inserts to the TBUS configuration of the TBUS instead of a power socket.

- To mount the T-2INSERT, place the T-2INSERT under the frame in its appropriate place and tighten with the two screws (supplied).
 - The T-2INSERT comes with assembly instructions.

Mounting a MegaTOOL

To install a MegaTOOL, as shown in Figure 3:

- 1. Screw the supplied TOOL brackets to their designated places (one on each side).
- 2. Insert the MegaTOOL, from beneath, through the MegaTOOL opening.
- 3. Screw the screws (one on each side) through the inner frame holes and TOOL brackets.

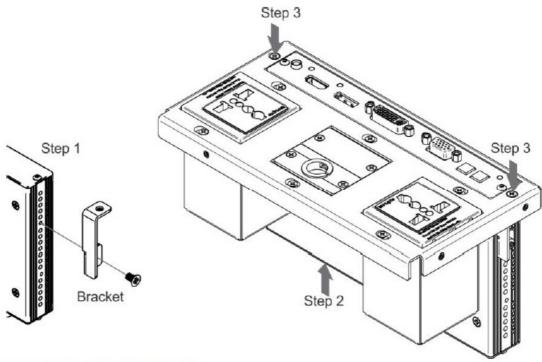


Figure 3: Installing the MegaTOOL

Mounting an RC-8IR Device

The Kramer T-RC8IR for the TBUS-10xl Table Connection bus is used to fit the Kramer RC-8IR Control Panel into the appropriate frame (P/N 80-000040).

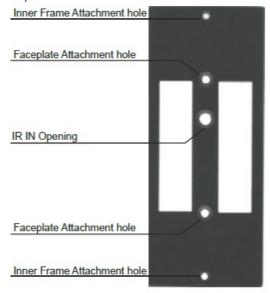


Figure 4: T-RC8IR (P/N: 80-000599)

To mount the RC-8IR, do the following

1. Before installing the T-RC8IR, unscrew the two faceplate attachment screws and remove the RC-8IR faceplate.

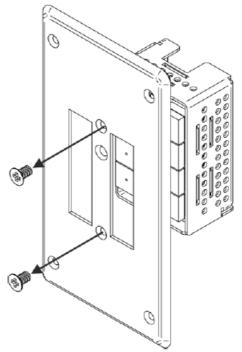


Figure 5: Removing the RC-8IR Faceplate

- 2. Place the T-RC8IR over the RC-8IR enclosure so that both faceplate holes are aligned with the faceplate holes on the RC-8IR enclosure and the IR IN receiver fits into the IR IN opening.
- 3. Insert the faceplate screws through the T-RC8IR and RC-8IR enclosure faceplate holes, and tighten.

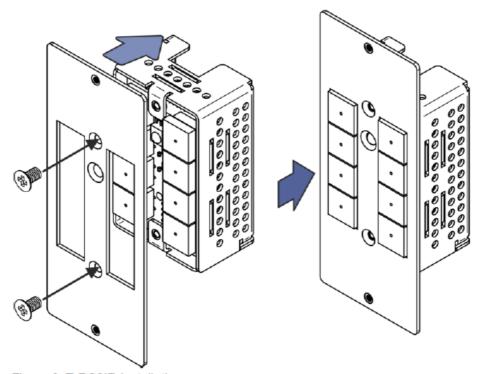


Figure 6: T-RC8IR Installation

- 4. Place the assembled T-RC8IR + RC-8IR under the dual socket opening.
- 5. Insert the two screws (supplied with the kit) to fix the T-RC8IR in place, and tighten them.
 - The T-RC8IR comes with assembly instructions.

Mounting RC-76 and RC-78 Devices

Note that the T-RC-76 installation example also applies to the T-RC-78.

To install the T-RC-76/T-RC-78 insert:

1. Remove the design frame from the device by removing the two mounting plate screws (see Figure 7) and remove the mounting plate. Put the screws aside.

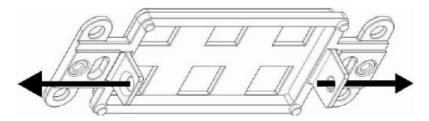


Figure 7: Removing the Mounting Plate Screws

2. Fit the T-RC-76 over the buttons of the RC-76; insert the two mounting plate screws through the T-RC-76 mounting bracket screw holes and tighten them (see Figure 8).

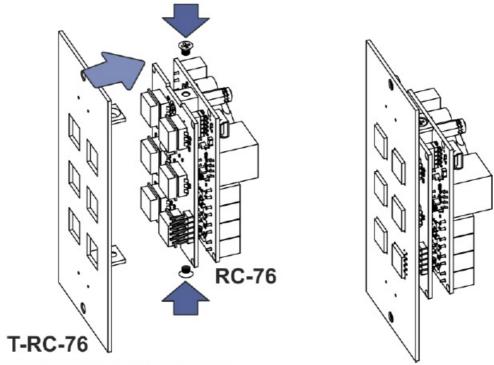


Figure 8: T-RC-76/T-RC-78 Installation

- 3. Place the assembled T-RC-76 + RC-76 under the dual socket opening.
- 4. Insert the two screws (supplied with the kit) to fix the T-RC-76/T-RC-78 in place, and tighten them.
- 5. Install the inner frame (when configuration is complete) according to the specific TBUS inner frame installation instructions.
 - The T-RC-76 and T-RC-78 come with assembly instructions.

Installing the Inner Frame

To install the inner frame:

- 1. Place the inner frame inside the TBUS-10xl enclosure.
- 2. Set the required height using your fingers to bring the inner frame to the desired position, screw and tighten it in place using the height adjustment screws (supplied with the inner frame).
 - Inner frame kits come with assembly instructions.

Cutting an Opening in the Table

To cut an opening in the table:

- 1. Place the cut out template (that is included with your TBUS-10xl) on the surface of the table exactly where you want to install the TBUS-10xl.
- 2. Attach the template to the table with the included screws (if using the cut out template).
- 3. Following the inside edge of the template, cut a hole in the table surface with a sabre or keyhole saw according to the dimensions shown in Figure 9 (not to scale).
 - The thickness of the table should be 76.2mm / 3 inches or less.

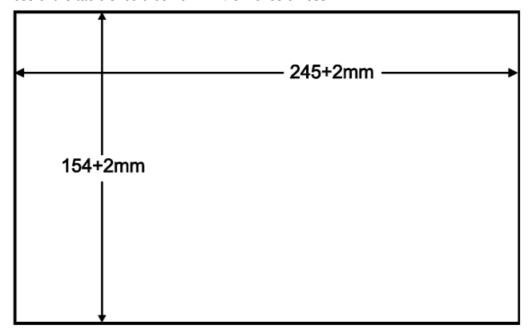


Figure 9: Cut out Dimensions

- 4. Unscrew and remove the template from the surface of the table and clean the table surface.
 - Take care not to damage the table.
 - If needed, you can download a full-scale template from our Web site.
 - Kramer Electronics is not responsible for any damage caused to the table.

Inserting the TBUS-10xl through the Cut Out Opening

To install TBUS-10xl in the opening:

- 1. Remove the protective rubber guard from around the outer rim of the TBUS-10xl housing. Beware of the sharp edge!
- 2. Carefully insert the unit into the prepared opening (see Figure 10).
- 3. Take the support clamps under the table and place them into the support clamp grooves on both sides of the unit (see Figure 1).
- 4. Verify proper alignment of the unit before tightening the mounting screws.
- 5. Tighten both mounting butterfly screws upward until they reach the table surface (from underneath). Tighten firmly (see Figure 10).
- 6. Tighten the locking butterfly screws downward until tight against the mounting bracket.

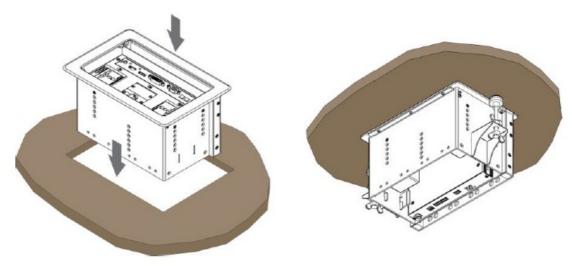


Figure 10: Inserting TBUS-10xl into the Prepared Opening

Connecting the Cables

When replacing blank inserts with connector inserts (for example, VGA, audio, HDMI and so on):

- 1. Insert the cables to their appropriate connectors from underneath.
- 2. Secure the cables to the tie holes using the included self-locking ties. Do not secure the cables too tightly or too loosely. Leave a small amount of slack.

After the TBUS-10xl is connected to mains power and the proper cables, it is ready for use.

Inserting Pass-through Cables

When replacing inserts with the pass-through insert, for example, to connect a laptop, do the following:

- 1. Remove the two screws attaching the split pass-through bracket.
- 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. Place the split bracket around the grommet and position this assembly over the Inner Frame.
- 6. Place the two screws appropriately and tighten the split bracket together with the grommet and inserted cables to the inner frame.
- 7. Insert the self-locking ties through the tie holes to secure the cables to the inside walls of the enclosure.

Adjusting the Height of the Inner frame

If needed, you can adjust the inner frame height to accommodate large or bulky cables. To adjust, perform the following:

- 1. Remove the four height adjustment screws, while supporting the surface from underneath with your fingers.
- 2. Raise or lower the inner frame to the required height, insert the screws, and tighten them in place.

Using the TBUS-10xl

Once the TBUS-10xl is installed, you can easily customize it to suit your own requirements by plugging in the required A/V equipment, as illustrated in the example in Figure 11.

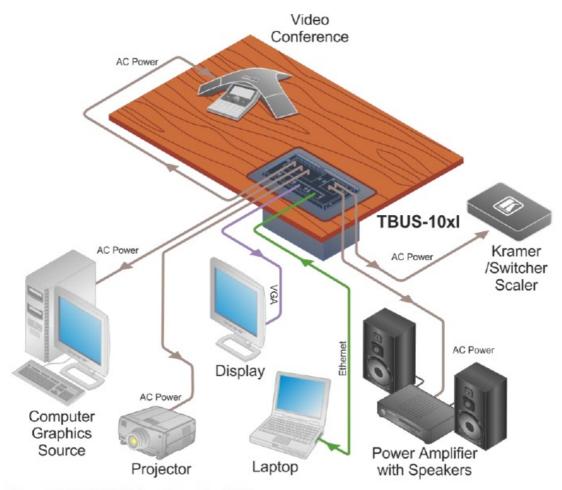


Figure 11: TBUS-10xl Boardroom Installation

Technical Specifications of the Assembled TBUS-10xl

POWER SOUR CE	Single Socket Assemblies:	
	Universal	100-240V AC, 50/60Hz, 5A Maximum 5A per power outlet
-prong Europlug. Partially compatible (if the polarity is reversed) with plugs in China, Switzerland		patible with power plugs in the UK, India, Italy and Denmark, as well as with the 2 roplug.
		compatible (if the polarity is reversed) with plugs in China, Switzerland, Israel and The universal socket does not supply grounding to plugs in Central Europe and Frashould order country specific sockets instead).
		patible with South African plugs.
	USA	100-125V AC, 50/ 60Hz, 5A Maximum 5A per power outlet

	100-240V AC, 50/ 60Hz, 5A
Belgium and France	Maximum 5A per power outlet
	100-240V AC, 50/ 60Hz, 5A
Germany and EU	Maximum 5A per power outlet
	100-240V AC, 50/ 60Hz, 5A
Italy	Maximum 5A per power outlet
	100-240V AC, 50/ 60Hz, 5A
Switzerland	Maximum 5A per power outlet
	100-240V AC, 50/ 60Hz, 5A
UK	Maximum 5A per power outlet
	100-240V AC, 50/ 60Hz, 5A
Israel	Maximum 5A per power outlet
	100-240V AC, 50/ 60Hz, 5A
South Africa	Maximum 5A per power outlet
	100-240V AC, 50/ 60Hz, 5A
Australia	Maximum 5A per power outlet
	100-240V AC, 50/ 60Hz, 5A
Brazil	Maximum 5A/2.5 A per power outle

(AC power limits):

Dual Power Kit Assemblies:		
	100-240V AC, 50/ 60Hz, 5A	
Universal	Maximum 5A/2.5 A per power outle t	
	100-125V AC, 50/ 60Hz, 5A	
USA	Maximum 5A/2.5 A per power outle t	
	100-240V AC, 50/ 60Hz, 5A	
Belgium and France	Maximum 5A/2.5 A per power outle t	
	100-240V AC, 50/ 60Hz, 5A	
Germany and EU	Maximum 5A/2.5 A per power outle t	
	100-240V AC, 50/ 60Hz, 5A	
Italy	Maximum 5A/2.5 A per power outle t	
	100-240V AC, 50/ 60Hz, 5A	
Switzerland	Maximum 5A/2.5 A per power outle t	
	100-240V AC, 50/ 60Hz, 5A	
UK	Maximum 5A/2.5 A per power outle t	

Israel	100-240V AC, 50/ 60Hz, 5A Maximum 5A/2.5 A per power outle t
South Africa	100-240V AC, 50/ 60Hz, 5A Maximum 5A/2.5 A per power outle t

	Australia	100-240V AC, 50/60Hz, 5A Maximum 5A/2.5A per power outlet		
FUSE RATING:	T 6.3A 250V			
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			
STORAGE HUMIDITY RANGE:	5 to 95% RHL, non-condensing			
DIMENSIONS:	Top plate: 171.6mm x 261mm (6.8" x 10.3") W, D Enclosure: 203mm x 121mm x 130mm (8.0" x 4.8" x 5.1") W, D, H			
WEIGHT:	1.35kg (2.98lbs) approx. Table clamps: 0.25kg (0.55lbs)			
ACCESSORIES:	Six self-locking ties, cut out template, template screws			
OPTIONS:	Inner frames, passive wall plates and interfaces, power socket kits, power cord, T-2INSERT kit, T-RC-8IR kit, T-RC-76 kit, T-RC-78 kit, Kram er K-Able Box (furniture- mounted cable extension)			
Specifications are subject to change without notice at www.kramerav.com				

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 circuits) 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:

- 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 part 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 reinstallation 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/o Kramer Electronics authorized service providers, please visit our
 web site at 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

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 MAGNUSONMOSS 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 (ili) 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 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.

SAFETY WARNING

Disconnect the unit from the power supply before opening andservicing.

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.

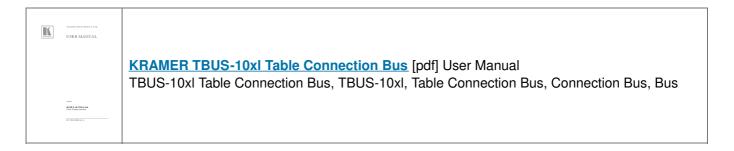
• Web site: www.kramerelectronics.com

• E-mail: info@kramerel.com.

SAFETY WARNING

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

Documents / Resources



References

• User Manual

Manuals+,