

USER MANUAL

MODEL:

TBUS-204

Pop-up Table Connection Bus

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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!

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-204 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-204** 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 **TBUS-204** is a furniture-mounted pop-up connection bus that is easily installed into a table or podium top. The **TBUS-204** interface enables you to power two devices and charge up to two devices via the USB ports.

TBUS-204 is easily opened and closed by pressing down gently on the lid due to its tilting angular construction, pneumatic lift and mechanical latching mechanism. It can be raised (when in use) or lowered (when not in use)

Typical Applications

The **TBUS-204** is ideal for:

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

Defining the TBUS-204 Pop-up Table Connection Bus

This section defines the TBUS-204.

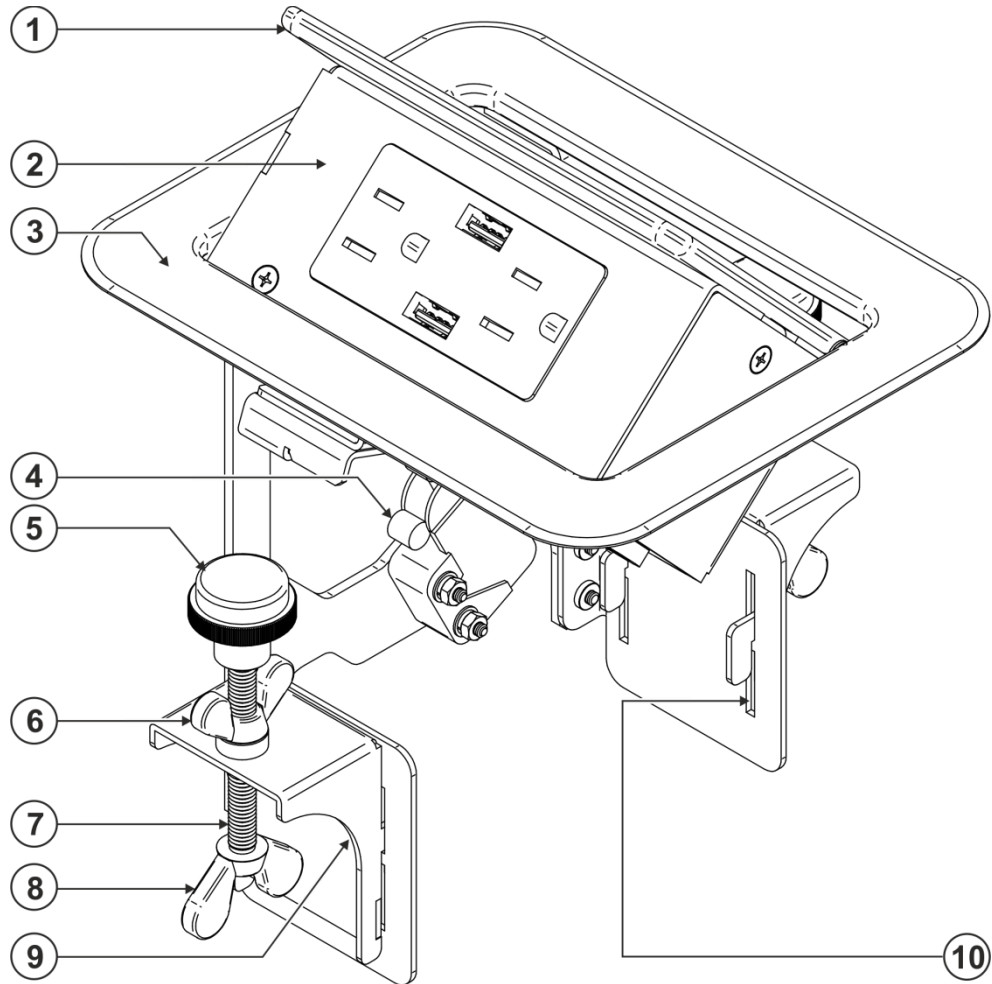


Figure 1: Defining the Parts of the TBUS-204 Pop-up Table Connection Bus

#	Feature	Function
①	Pop-up Lid	Covers the connecting surface, leaving the table surface neat and tidy.
②	Connecting Surface	See Figure 2 .
③	Outer Rim	Fits over the table surface.
④	Mini Latch	Enables closing and opening the lid by applying slight pressure.
⑤	Rubber Protectors (x2)	Ensures gentle tightening to the table's underside.
⑥	Locking Butterfly Nuts (x2)	Tighten to lock the mounting screws.
⑦	Mounting Screws (x2)	For securing the TBUS-204 to the table.
⑧	Mounting Butterfly Nuts (x2)	Tighten to secure the unit to the table's surface.
⑨	Mounting Clamps (x2 units)	Place in the clamp slits after inserting the enclosure into the table – for securing the unit to the table surface.
⑩	Mounting Clamp Slits (two sets on each side)	Insert the mounting clamps to the slits when installing the TBUS-204 .

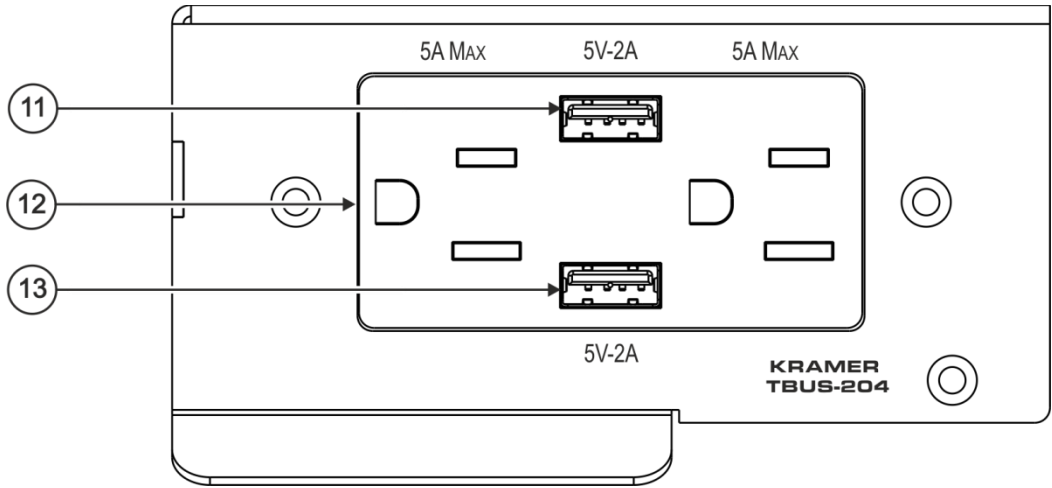



Figure 2: TBUS-204 Connecting Surface

#	Feature	Function
11	5V-2A USB Charging Port	Use to charge a device.
12	5A/125V Power Connector (x2)	Connect to up to two US power consuming devices simultaneously.  When a single power socket is connected, consumption should not exceed 5A. When both power sockets are connected, the total consumption should not exceed 6A.
13	5V-2A USB Charging Port	Use to charge a device.

Installing the TBUS-204

TBUS-204 Installation includes the following steps:

- [Cutting an Opening in the Table](#) on page [5](#).
- [Inserting the TBUS-204 through the Cut-Out Opening](#) on page [6](#).
- [Connecting the Cables](#) on page [7](#).

Cutting an Opening in the Table

The metal cut-out template (supplied) defines the surface you have to cut out to install your TBUS-204.



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

To cut an opening in a table:

1. Before cutting the opening using the cut-out template, check the latest cut-out dimensions from the Kramer website at www.kramerav.com/downloads/TBUS-204.
2. Place the included cut-out template (that is included with your **TBUS-204**) on the surface of the table exactly where you want to install the **TBUS-204**.
3. Attach the cut-out template to the table with the included screws.
4. 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 3](#) (not to scale).

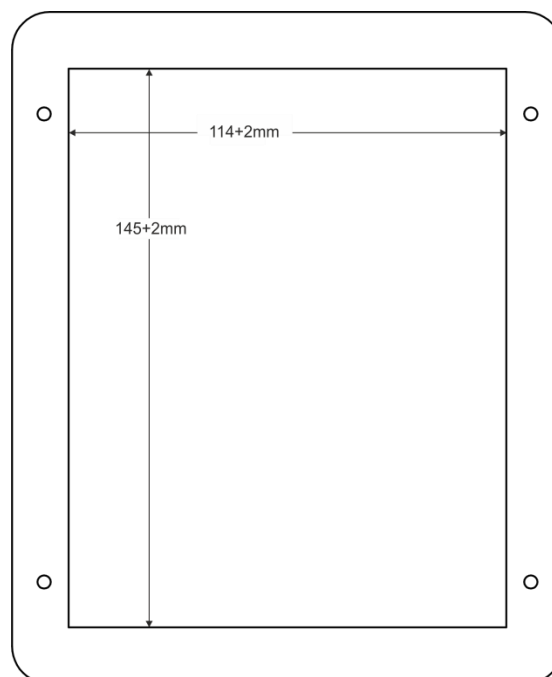


Figure 3: Cut out Dimensions (not to scale)

5. 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 the Kramer website at www.kramerav.com/downloads/TBUS-204.



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

Inserting the TBUS-204 through the Cut-Out Opening

To insert and secure the TBUS-204, do the following:

1. Carefully insert the unit into the prepared opening.
2. Under the table, insert the mounting clamps (9) into the mounting clamp slits (10) at the desired height (on both the front and rear sides of the unit).
3. Make sure that the upper outer rim (3) is situated parallel to the edge of the table.
4. Insert the mounting screws (7) through the holes in the mounting clamps. Tighten the mounting butterfly nuts (8) to secure the unit to the table surface and then lock with the mounting butterfly screws (6).

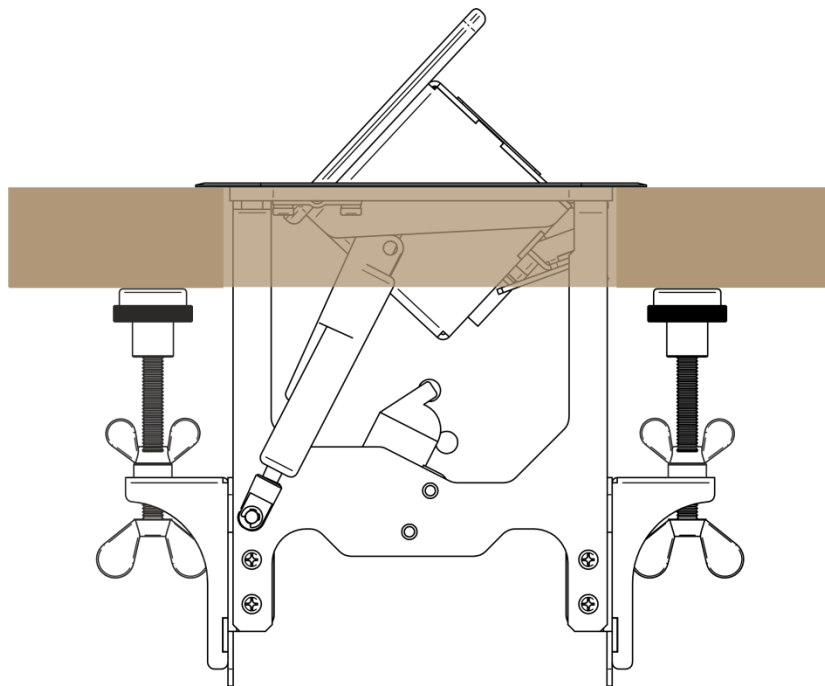


Figure 4: TBUS-204 Table Installation

Connecting the Cables

Connect the power cable from underneath the **TBUS-204** and then power or charge devices as required.



Make sure that when:

- A single power socket is connected, consumption should not exceed 5A.
- Both power sockets are connected, the total consumption should not exceed 6A.

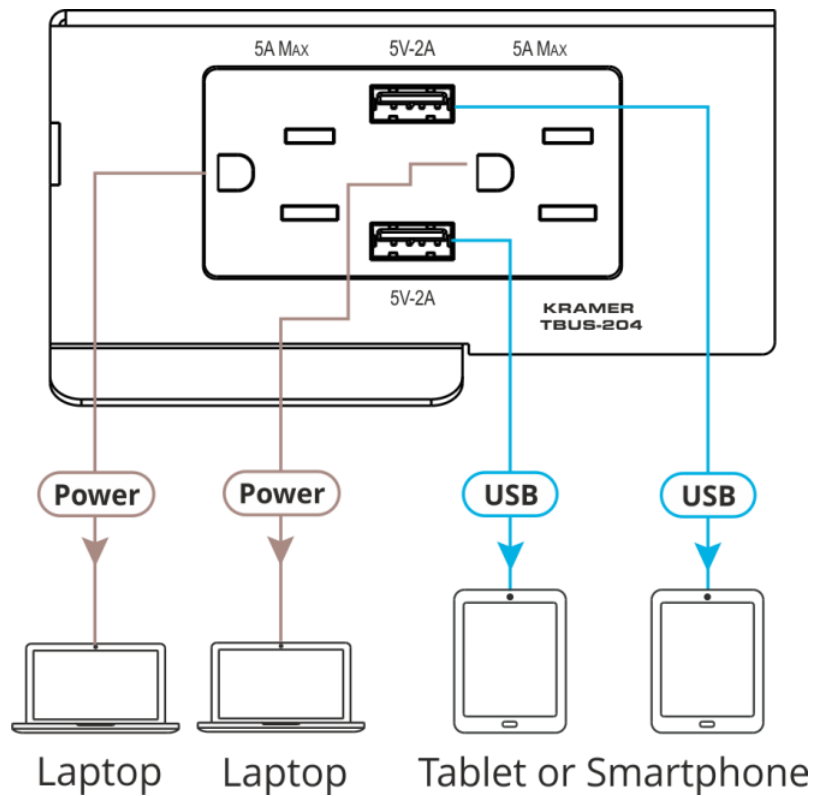



Figure 5: Connecting TBUS-204

Technical Specifications

Ports	2 USB Ports	5V, 2A on female USB-B connectors for charging devices
	2 US Power Sockets	For powering devices
Power	Consumption	125V AC, 50/60Hz, 6.3A max
	Fuse Rating	T 6.3A 250V
	 When a single power socket is connected, consumption should not exceed 5A. When both power sockets are connected, the total consumption should not exceed 6A.	
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 (W, D, H)	16.3cm x 13.2cm x 14.6cm (6.42" x 5.2" x 5.75")
	Shipping Dimensions (W, D, H)	21.5cm x 20.7cm x 19cm (8.5" x 8.2" x 7.5")
	Net Weight	1.1kg (2.4lbs) approx.
	Net Weight with Mounting Brackets	1.4kg (3.1lbs) approx.
	Shipping Weight	1.7 kg (3.8lbs) approx.
Accessories	Included	Clamp set, metal cut-out template
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

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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, 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.



P/N:



2900-300913

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.