Owner's Manual

4-Port USB VGA/Audio Cable KVM Switch

Model: B032-VUA4

Este manual está disponible en español en la página de Tripp Lite: tripplite.com

Ce manuel est disponible en français sur le site Web de Tripp Lite : tripplite.com

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Package Contents

- B032-VUA4
- Quick Start Guide

Product Features

- Control four computers from a single USB keyboard, mouse and VGA monitor
- Compact design features built-in 4 ft. (1.2 m) cables for KVM and audio connections
- USB mouse port can be used to connect a USB 1.1 hub for peripheral sharing
- Supports video resolutions up to 2048 x 1536; DDC2B
- Hotkey commands let you set OS and keyboard language
- KVM stores the monitor's EDID information to optimize display resolution
- Console mouse port emulation/bypass feature supports most mouse drivers and multi-function mice
- Supports gaming keyboards and wireless keyboards/mice
- HDCP compliant
- Features Hotkey and Mouse Port Switching
- Supports Windows®, Mac®, Sun and Linux®
- Sun/Mac keyboard support and emulation*
- No external power required
- Firmware upgradable

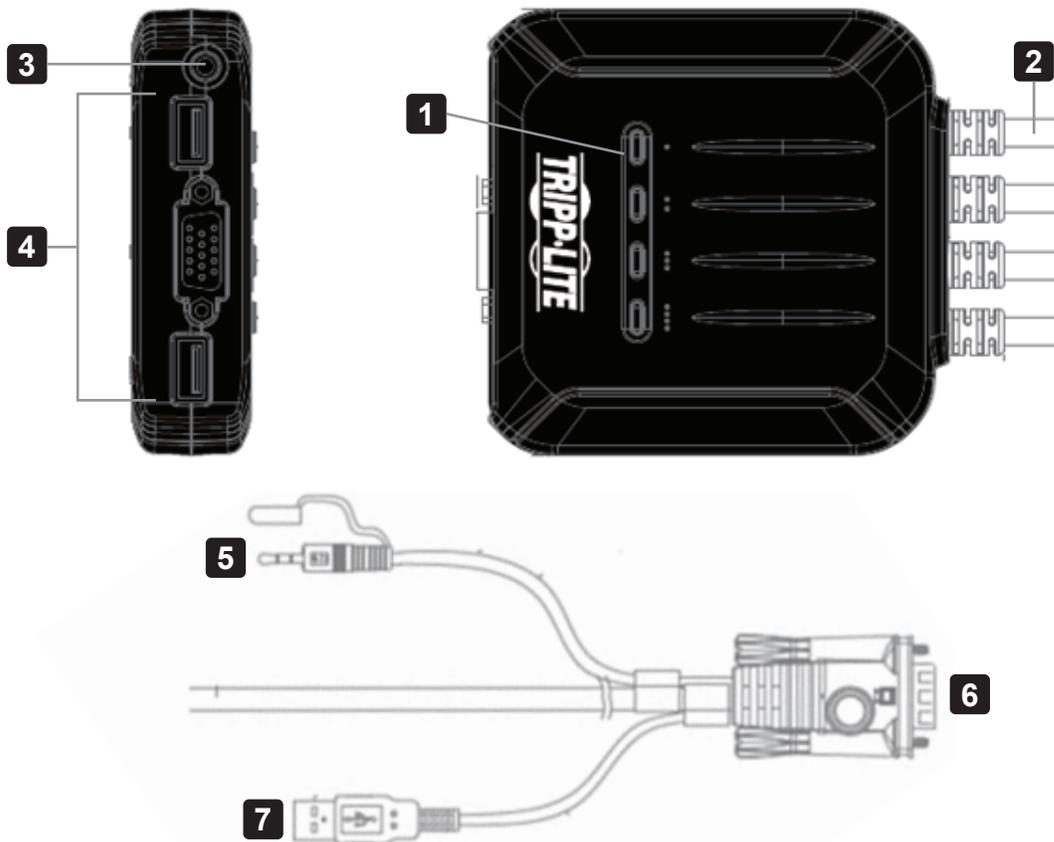*PC keyboard combinations emulate Sun/Mac keyboards. Sun/Mac keyboards only work with their own computers.

Optional Accessories

- P502-006-SM coaxial, VGA, SVGA or Multisync monitor cable recommended
- U222-004-R 4-Port USB 2.0 Hub
- U222-007-R 7-Port USB 2.0 Hub
- U222-010-R 10-Port USB 2.0 Hub
- U022-Series USB 2.0 A/B Device Cables
- U030-Series USB 2.0 Mini-B Cables
- U050-Series USB 2.0 Micro-B Cables
- UR024-001 Universal Reversible USB 2.0 Extension Cable (recommended if the USB cable is designed with special molding)

System Requirements

- VGA, SVGA or Multisync monitor (P502-006-SM cable recommended)
- USB keyboard
- USB mouse
- Computer with a VGA port
- Computer with USB ports

Product Overview

No.	Component	Description
1	Port LEDs	The port LEDs illuminate to indicate the computer attached to its corresponding port has the KVM focus.
2	KVM cables	These cables attach to the computers in your installation.
3	Audio speaker jack	Your console speakers plug in here.
4	Console ports	The cables from your console monitor, USB keyboard and USB mouse plug into these ports.
5	Speaker connector	The user must plug keyboard into B032-VUA4's keyboard port for the hotkey command to function. The keyboard port indicator can be found on the bottom of unit.
6	Video connector	
7	USB keyboard / mouse connector	

Installation

Note: Make sure the power to all devices is turned off prior to installation. You must unplug the power cords of any computers that have the Keyboard Power On Function.

1 Plug your USB keyboard, mouse and VGA monitor into the console ports on the unit.

Note: If using a wireless keyboard and mouse, the dongle must be plugged into the unit's keyboard port to use the hotkey function.

2 **(Optional)** A USB hub can be connected to the USB console mouse port, allowing you to add multiple USB peripherals to your installation.

Note: To ensure proper functionality, use a hub with an external power supply. The KVM's Mouse Emulation Mode must also be disabled (see the Keyboard Hotkey Commands table in this manual for details) when connecting a hub.
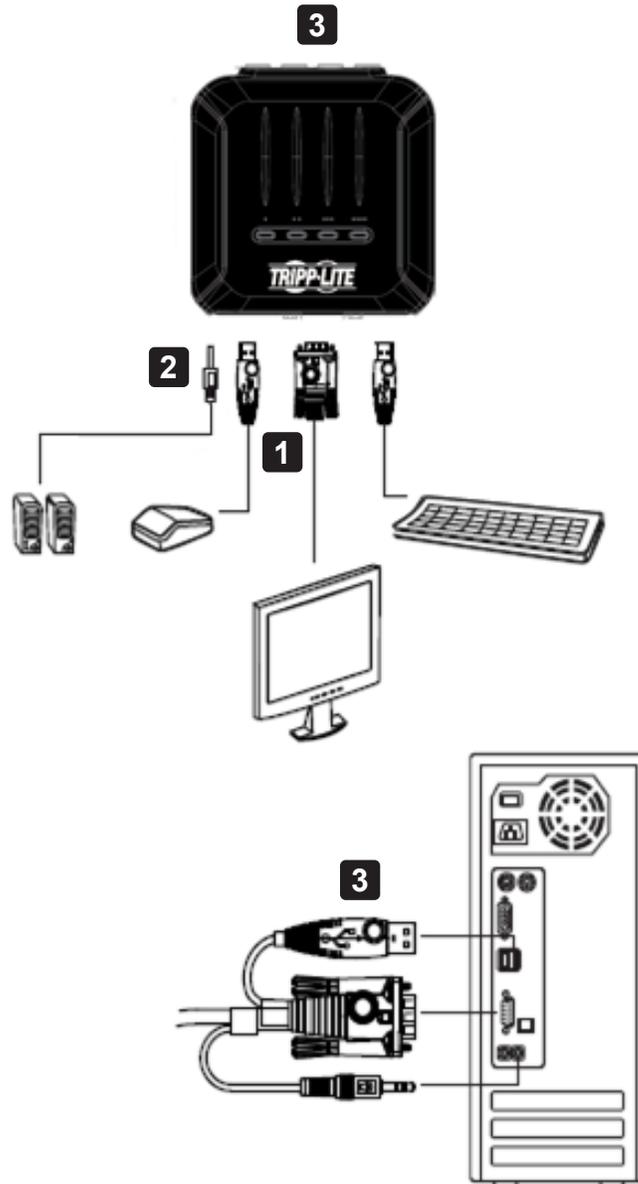
Note: If the USB cable is designed with special molding, we recommend UR024-001 Universal Reversible USB 2.0 Extension Cable (Reversible A to A M/F).

3 Plug your speakers into the 3.5 mm speaker jack.

4 Plug the unit's built-in USB, VGA and audio cables into the computers' corresponding ports.

5 Power on your devices.

Note: The unit's default power on function will link to the first computer being powered on.

Operation

There are two ways to access computers and devices connected to the KVM switch: Mouse Port Switching and Keyboard Hotkeys.

Notes:

- *When switching ports, wait a few seconds for the selected computer's video to display on the console monitor prior to switching ports again.*

- *Do not switch ports when a USB peripheral device is in operation.*

Port Switching

All port switching operations begin by tapping the Scroll Lock key twice.

Hotkey		Action
[Scroll Lock] [Scroll Lock] +	[Enter]	Brings the KVM and Audio focus from the port that currently has the KVM focus to the next port on the installation (1 to 2; 2 to 3; 3 to 4; 4 to 1) ***Note:*** *If the KVM and Audio focus are on different ports, only the KVM focus switches.*
	[n] [Enter]	Brings the KVM and Audio focus to the computer attached to the corresponding Port ID. ***Note:*** *Replace [n] with the port number (1, 2, 3, 4).*

Example 1

To bring the KVM, USB hub, and audio focus from Port 1 to Port 2:

1. Press **[Scroll Lock]** twice.

2. Press **[Enter]**.

Example 2

To bring the KVM and audio focus from a port to a specified port number (e.g., Port 2):

1. Press **[Scroll Lock]** twice.

2. Press **[2]**.

3. Press **[Enter]**.

Mouse Port Switching Functionality

Note: *Mouse port switching is disabled by default and must be enabled via keyboard hotkey command. In addition, it is only supported when the KVM's mouse emulation mode is enabled (KVM mouse emulation is enabled by default—see the Keyboard Hotkey Commands table for details).*

Invoking Hotkey Setting Mode

All hotkey operations begin by holding the **Num Lock** key, pressing and releasing the **Minus** key, then releasing the **Num Lock** key.

Note: *If using [Num Lock] [-] conflicts with other programs, [Ctrl] [F12] can be used instead. See Hotkey Summary Table for details.*

Operation

Auto Scanning

Hotkey	Action
[Scroll Lock] [Scroll Lock] [A] [Enter]	Starts Auto Scan. The KVM focus cycles from port to port at 5-second intervals.
[Scroll Lock] [Scroll Lock] [A] [n] [Enter]	Starts Auto Scan. The KVM focus cycles from port to port at n-second intervals. **Note:** *Replace **n** with a number between 1 and 99.*

Note: *To exit Auto Scan, press [Esc] or [Spacebar]. Auto Scanning stops when you exit Auto Scan mode.*

Hotkey Summary Table

Combination		Function
[Num Lock] [-] +	[H]	Toggles between the default [Num Lock][-] and alternate [Ctrl][F12] HSM invocation keys.
	[T]	Toggles between the default [Scroll Lock] [Scroll Lock] and alternate [Ctrl] [Ctrl] port-switching keys.
	[F2]	Activates Mac keyboard mapping.
	[F3]	Activates Sun keyboard mapping.
	[F10]	Activates Windows keyboard mapping.
	[F4]	Lists current switch settings via the paste function of a text editor.
	[F5]	Performs a USB keyboard and mouse reset.
	[F6] [nn] [Enter]	Sets the keyboard language layout.
	[R] [Enter]	Resets hotkeys to the default setting.
	[N]	Enables / disables keyboard emulation.
	[u] [p] [g] [r] [a] [d] [e] [Enter]	Invokes Firmware Upgrade Mode.
[Esc] or [Space Bar]		Quits Hotkey Setting Mode.

Keyboard Emulation

Mac		Sun	
PC Keyboard	**Mac Keyboard**	**PC Keyboard**	**Sun Keyboard**
[Shift]	Shift	[Ctrl] [T]	Stop
[Ctrl]	Ctrl	[Ctrl] [F2]	Again
⊞	⌘	[Ctrl] [F3]	Props
[Ctrl] [1]	🔇	[Ctrl] [F4]	Undo
[Ctrl] [2]	🔉	[Ctrl] [F5]	Front
[Ctrl] [3]	🔊	[Ctrl] [F6]	Copy
[Ctrl] [4]	⏏	[Ctrl] [F7]	Open
[Alt]	Alt	[Ctrl] [F8]	Paste
[Print Screen]	F13	[Ctrl] [F9]	Find
[Scroll Lock]	F14	[Ctrl] [F10]	Cut
📄	=	[Ctrl] [1]	⬜🔇
[Enter]	Return	[Ctrl] [2]	◑ - 🔉
[Backspace]	Delete	[Ctrl] [3]	◑ + 🔊
[Insert]	Help	[Ctrl] [4]	☾
[Ctrl] ⊞	F15	[Ctrl] [H]	Help
		📄	Compose
		⊞	

Note: *When using key combinations, press and release the first key [Ctrl], then press and release the activation key.*

Operation

Firmware Upgrade Utility

To upgrade the B032-VUA4 firmware:

1. From a computer that is not part of your KVM installation, download the latest Firmware Upgrade package for the B032-VUA4 from tripplite.com.

2. Invoke Firmware Upgrade Mode **[Num Lock] [-] [Upgrade]**. The LEDs will flash together to indicate Firmware Upgrade Mode is in effect.

   Note: While the switch is in Firmware Upgrade Mode, normal keyboard and mouse functions are suspended. You must complete the upgrade or exit Firmware Upgrade Mode to regain normal control of the console.

3. Run the Firmware Upgrade Package file. The Firmware Upgrade Utility Welcome screen will appear.

4. Read the License Agreement and enable **I Agree** button.

5. Click **Next** to continue. The Firmware Upgrade Utility main screen will appear. All the devices capable of being upgraded by the package are listed in the Devices List panel.

6. Select your device. Its description appears in the Device Description panel. Click **Next** to perform the upgrade. As the upgrade proceeds, status messages appear in the Status Messages panel and the progress towards completion is shown in the Progress bar.

7. After the upgrade has completed, a screen will appear to inform you the procedure was successful. Click **Finish** to close the Firmware Upgrade Utility.

8. Set up your KVM installation again. See the **Installation** section for details.

Upgrade Failed

If the Upgrade Succeeded screen does not appear, it means the upgrade failed to complete successfully, in which case you should return the unit to your local service center for assistance.

Troubleshooting

Symptom	Possible Cause	Action(s)
Mouse and/or Keyboard not responding	Improper mouse and/or keyboard reset.	Unplug the cable(s) from the console port(s), then plug it/them back in.
	KVM switch needs to be reset.	Power off all devices on the installation; power off the KVM switch; wait five seconds; then power up.
USB devices not responding	USB ports need to reset.	Unplug the device's USB cable from the USB port on the switch's rear panel, then plug it back in.
Device not recognized (Windows)	Windows timing problem.	Unplug the KVM cable from the computer's USB port; go into Windows System Settings and remove the Unknown Device entry; plug the KVM cable back in. Windows will now recognize the device.
Cannot switch ports by pressing [Scroll Lock] twice	Keyboard is incompatible with Scroll Lock invocation.	Switch to the Alternate HSM invocation keys using hotkey **[T]**.
Cannot invoke HSM using [Num Lock][-]	Incorrect operation for invoking HSM.	Hold the [Num Lock] key, press and release the [-] key, then release the [Num Lock] key. The Caps Lock and Scroll Lock LEDs will flash together to indicate that the unit is in HSM.
	Keyboard is incompatible with [Num Lock] invocation.	Switch to the alternate HSM invocation keys by using hotkey [H].

Factory Default Settings

Setting	Default
Port Switching	[Scroll Lock] [Scroll Lock]
Hotkey Invocation	[Number Lock] + [-]
Auto Scan Interval	5 seconds
Port Switching Keys	ON
Keyboard Operating Platform	PC compatible

Factory Default Settings

Status	Indication
Off	Port is not selected
On	Port is connected to an active computer
Flashing (one)	Port is connected to an active computer and is being accessed in Auto Scan Mode
Flashing (all)	Firmware Upgrade Mode is invoked

Specifications

Function			B032-VUA4	
Computer Connections			4	
Console Connections			1	
Port Selection			Hotkeys	
Connectors	Console Ports	Keyboard	1 x USB-A Female (White)	
		Video	1 x HDB-15 Female (Blue)	
		Mouse	1 x USB-A Female (White)	
		Speakers	1 x Mini Stereo Jack Female (Green)	
	KVM Ports	Keyboard / Mouse	4 x USB-A Male (White)	
		Video	4 x HDB-15 Male (Blue)	
		Speakers	4 x Mini Stereo Jack Female (Green)	
LEDs	Selected		4 (Green)	
Cable Length			2 x 3 ft. (0.9 m); 2 x 4 ft. (1.2 m)	
Emulation	Keyboard /Mouse		USB	
Video			2048 x 1536; DDC2B	
Scan Interval			5 sec.	1-99 sec. (default: 5 sec.)
Power Consumption			DC5V: 0.33W: 14BTU	DC5V: 0.9W: 8BTU
Environment	Operating Temp.		32 - 122ºF (0 - 50ºC)	
	Storage Temp.		-4 - 140ºF (-20 - 60ºC)	
	Humidity		0–80% RH, Non-condensing	
Physical Properties	Housing		Plastic	
	Weight		0.62 lb. (0.28 kg)	1.28 lb. (0.58 kg)
	Dimensions (L x W x H)		3.44 x 2.39 x 1.1 in. (8.75 x 6.08 x 2.8 cm)	3.7 x 3.83 x 1.02 in. (9.41 x 9.72 x 2.6 cm)

Warranty and Product Registration

3-YEAR LIMITED WARRANTY

Seller warrants this product, if used in accordance with all applicable instructions, to be free from original defects in material and workmanship for a period of three (3) years from the date of initial purchase. If the product should prove defective in material or workmanship within that period, Seller will repair or replace the product, in its sole discretion. Service under this Warranty can only be obtained by your delivering or shipping the product (with all shipping or delivery charges prepaid) to: Tripp Lite; 1111 W. 35th Street; Chicago IL 60609; USA. Seller will pay return shipping charges. Visit tripplite.com/support before sending any equipment back for repair. THIS WARRANTY DOES NOT APPLY TO NORMAL WEAR OR TO DAMAGE RESULTING FROM ACCIDENT, MISUSE, ABUSE OR NEGLECT. SELLER MAKES NO EXPRESS WARRANTIES OTHER THAN THE WARRANTY EXPRESSLY SET FORTH HEREIN. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ALL IMPLIED WARRANTIES, INCLUDING ALL WARRANTIES OF MERCHANTABILITY OR FITNESS, ARE LIMITED IN DURATION TO THE WARRANTY PERIOD SET FORTH ABOVE; AND THIS WARRANTY EXPRESSLY EXCLUDES ALL INCIDENTAL AND CONSEQUENTIAL DAMAGES. (Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This Warranty gives you specific legal rights, and you may have other rights which vary from jurisdiction to jurisdiction). Tripp Lite; 1111 W. 35th Street; Chicago IL 60609; USA WARNING: The individual user should take care to determine prior to use whether this device is suitable, adequate or safe for the use intended. Since individual applications are subject to great variation, the manufacturer makes no representation or warranty as to the suitability or fitness of these devices for any specific application.

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*No purchase necessary. Void where prohibited. Some restrictions apply. See website for details. Use of this equipment in life support applications where failure of this equipment can reasonably be expected to cause the failure of the life support equipment or to significantly affect its safety or effectiveness is not recommended. Regulatory

Compliance Identification Numbers

For the purpose of regulatory compliance certifications and identification, your Tripp Lite product has been assigned a unique series number. The series number can be found on the product nameplate label, along with all required approval markings and information. When requesting compliance information for this product, always refer to the series number. The series number should not be confused with the marking name or model number of the product

FCC Notice, Class B

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.

• Increase the separation between the equipment and receiver. • Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

• Consult the dealer or an experienced radio/TV technician for help. Any changes or modifications to this equipment not expressly approved by Tripp Lite could void the user's authority to operate this equipment.

WEEE Compliance Information for Tripp Lite Customers and Recyclers (European Union)

Under the Waste Electrical and Electronic Equipment (WEEE) Directive and implementing regulations, when customers buy new electrical and electronic equipment from Tripp Lite they are entitled to:

• Send old equipment for recycling on a one-for-one, like-for-like basis (this varies depending on the country)

• Send the new equipment back for recycling when this ultimately becomes waste.

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