

Owner's Manual

Dual Display DVI/USB KVM Switch with Audio and Peripheral Sharing

Models: B004-2DUA2-K, B004-2DUA4-K

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Package Contents

- B004-2DUA2-K or B004-2DUA4-K KVM Switch
- (x2) 6 ft. USB KVM Cable Kits (B004-2DUA2-K only)
- (x2) 6 ft. DVI-D Dual Link Cables (B004-2DUA2-K only)
- (x4) 6 ft. USB KVM Cable Kits (B004-2DUA4-K only)
- (x4) 6 ft. DVI-D Dual Link Cables (B004-2DUA4-K only)
- External Power Supply (Input: 100-240V, 50/60Hz, 0.5A Output: 5.3V, 2.4A)
- Rackmount Hardware (B004-2DUA4-K only)
- Owner's Manual

Optional Accessories:

- P312-Series Mini Stereo Audio Cables
- P556-Series DVI to VGA Adapter Cables
- P560-Series DVI-D Dual Link Cables
- P561-Series DVI-D Single Link Cables
- P759-Series DVI/USB + Audio KVM Cable Kits
- U022-Series USB 2.0 A/B Device Cables

System Requirements

Console:

- Two DVI or VGA* monitors capable of supporting the highest resolution out of any computer in the installation
- USB keyboard and mouse
- Microphone and speakers with 3.5 mm Mini Stereo connectors (If using the microphone and speakers audio feature)

*Requires an adapter, such as Tripp Lite's P556-Series DVI to VGA adapter cables

Computer:

- (x2) DVI or VGA* ports
- (x4) DVI or VGA* ports (for Quad-View Mode**)
- A USB port
- 3.5 mm Mini Stereo microphone and speaker jacks (If using the microphone and speakers audio feature)

*Requires an adapter, such as Tripp Lite's P556-Series DVI to VGA adapter cables. Note that the included DVI cables and cable kits are DVI-D only, and cannot be converted to VGA using an adapter.

**See the Quad-View Mode section of this manual for details

Supported Operating Systems:

OS	Version
Windows	2000 and higher
Mac	OS 9.0 and higher
Linux Kernel	2.6 and higher
Linux RedHat	9.0 and higher
Linux Fedora	Core 4 and higher
Linux SuSE	9.0 and higher

OS	Version
UNIX AIX	4.3 and higher
UNIX FreeBSD	4.2 and higher
UNIX Sun	Solaris 9 and higher
Novell Netware	6.0 and higher
DOS	6.22 and higher

Features

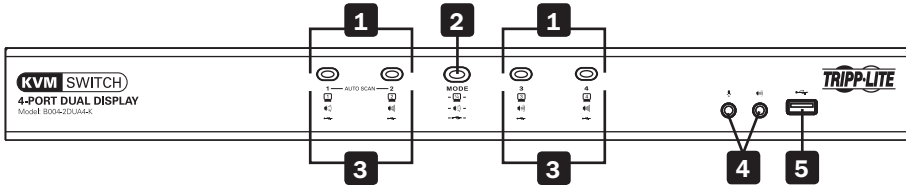
- 2- and 4-Port Dual Display DVI/USB KVM switch with 2.1 channel surround-sound audio and USB 2.0 peripheral sharing
- Quad-View Mode allows computers with four DVI output ports to share KVM, audio and USB peripherals by connecting two Dual Display KVM switches together
- Built-in 2-Port USB 2.0 hub allows USB devices to be shared amongst computers connected to the KVM switch
- 3.5 mm Mini Stereo Speaker and Microphone jacks allow a single microphone to provide audio input to each of the connected computers, and let you listen to the audio output of each computer on a single set of speakers
- Additional console audio jacks are conveniently located on the front panel of the KVM switch, making them ideal for use with IP phones
- The KVM, USB and Audio can be switched independently of each other. For example, you can access one computer while at the same time listening to audio from another computer and printing from a third computer
- Features mouse port switching functionality*, which allows users accessing the KVM switch with a scroll mouse to switch between ports by double-clicking the mouse's scroll wheel
- Switch between connected computers via front panel pushbuttons, keyboard hotkeys, and the mouse switching function*
- Auto Scan mode allows you to scan the connected computers without having to manually switch between them
- Supports both analog and digital video signals, allowing for the connection of a VGA computer and/or monitor with a DVI to VGA adapter
- Supports digital video resolutions up to 2560 x 1600 and analog video resolutions up to 2048 x 1536
- Multi-platform support – Compatible with Windows, Mac, Sun and Linux
- Supports hot plugging – Computers and devices can be unplugged and re-plugged without having to shut down the KVM switch
- The KVM switch stores the monitor's EDID (Extended Display Identification Data) to optimize display resolution
- LEDs provide for easy monitoring of the connected computers
- Power-On-Detection recognizes when a connected computer has been powered-off and automatically switches to the next powered-on computer
- HDCP compliant
- Complete keyboard emulation for error-free booting
- Quick installation without the need for software
- Sun/Mac keyboard support and emulation**
- Firmware upgradeable

**The mouse switching function is disabled by default, and needs to be turned on via keyboard hotkey command. It is only available when using a mouse with a scroll wheel.*

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

Features

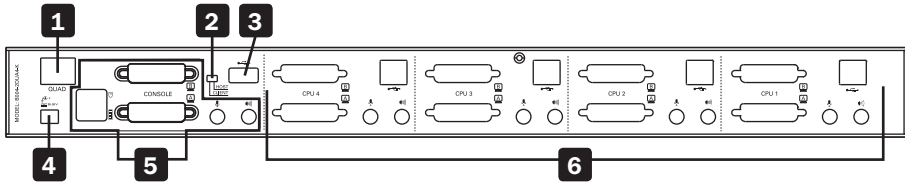
Front Panel



No.	Component	Description
1	Port Selection Pushbuttons	<p>Pressing one of the port selection pushbuttons will bring the focus of one of the following to the corresponding port; <i>KVM only</i>, <i>Audio only</i>, <i>USB only</i>, or <i>KVM, Audio and USB simultaneously</i>. What functionality is switched is determined by the <i>Mode Selection Pushbutton</i> (see below).</p> <p>Pressing and holding pushbuttons 1 and 2 simultaneously for more than 2 seconds will initiate an auto scan. On the B004-2DUA4-K, pressing and holding pushbuttons 3 and 4 simultaneously for more than 2 seconds will perform a USB keyboard/mouse reset.</p>
2	Mode Selection Pushbutton	<p>Press this pushbutton to determine the functionality that is switched to a port when its pushbutton is pressed. Pressing the mode selection pushbutton once highlights the <i>KVM</i>, <i>Audio</i> and <i>USB</i> functionality icons all at the same time. Pressing it twice highlights <i>KVM only</i>; three times <i>Audio only</i>; and four times <i>USB only</i>.</p>
3	Port LEDs	<p>Each port contains three LEDs; <i>KVM</i>, <i>Audio</i>, and <i>USB</i>. The corresponding LED will illuminate under the port that has its focus. For example, if port 1 has the focus of the <i>KVM</i>, <i>Audio</i>, and <i>USB</i> all at the same time, then all three LEDs will illuminate under port 1.</p>
4	Console Audio Connectors	<p>A separate set of <i>Console Speaker</i> and <i>Microphone</i> jacks are located on the front panel of the unit for greater accessibility. Devices plugged into these ports will take priority over devices plugged into the <i>Console Speaker</i> and <i>Microphone</i> jacks on the back panel of the unit.</p>
5	USB 2.0 Peripheral Port	<p>USB 2.0 devices (flash drives, printers, scanners, etc.) can be plugged into this port and shared between the connected computers.</p>

Features

Back Panel



No.	Component	Description
1	Quad-View Mode Port	This port is used to connect two Dual Display KVM switches together via standard Cat5e/6 cable. When connected together, computers with four DVI output ports can share KVM, audio and USB peripherals (see <i>the Quad-View Mode section in this manual for details</i>).
2	Quad-View Mode Switch	This switch determines which unit is the Client and which is the Host in a Quad-View Mode installation (see <i>the Quad-View Mode section in this manual for details</i>).
3	USB 2.0 Peripheral Port	USB 2.0 devices (flash drives, printers, scanners, etc.) can be plugged into this port and shared between the connected computers.
4	Power Jack	The included power supply connects to the KVM switch here.
5	Console Ports	Your monitors, keyboard, mouse, microphone and speakers plug into these ports.
6	Computer Ports	The included DVI cables and KVM cable kits connect from an available set of ports to a computer.

Safety Instructions

- Read all of these instructions. Save them for future reference.
- Follow all warnings and instructions marked on the device.
- Do not place the device on any unstable surface (cart, stand, table, etc.). If the device falls, serious damage will result.
- Do not use the device near water.
- Do not place the device near, or over, radiators or heat registers. The device cabinet is provided with slots and openings to allow for adequate ventilation. To ensure reliable operation, and to protect against overheating, these openings must never be blocked or covered.
- The device should never be placed on a soft surface (bed, sofa, rug, etc.) as this will block its ventilation openings. Likewise, the device should not be placed in a built in enclosure unless adequate ventilation has been provided.
- Never spill liquid of any kind on the device.
- Unplug the device from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.
- The device should be operated from the type of power source indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
- Do not allow anything to rest on the power cord or cables. Route the power cord and cables so that they cannot be stepped on or tripped over.
- If an extension cord is used with this device make sure that the total of the ampere ratings of all products used on this cord does not exceed the extension cord ampere rating. Make sure that the total of all products plugged into the wall outlet does not exceed 15 amperes.
- Position system cables and power cables carefully; be sure that nothing rests on any cables.
- To help protect your system from sudden transient increases and decreases in electrical power, it is recommended that you plug your devices into a Tripp Lite surge protector, line conditioner, or uninterruptible power supply (UPS).
- When connecting or disconnecting power to hot-pluggable power supplies, observe the following guidelines:
 - Install the power supply before connecting the power cable to the power supply.
 - Unplug the power cable before removing the power supply.
 - If the system has multiple sources of power, disconnect power from the system by unplugging all power cables from the power supplies.
- Never push objects of any kind into or through cabinet slots. They may touch dangerous voltage points or short out parts resulting in a risk of fire or electrical shock.
- Do not attempt to service the device yourself. Refer all servicing to qualified service personnel.

Safety Instructions

- If the following conditions occur, unplug the device from the wall outlet and bring it to qualified service personnel for repair.
 - The power cord or plug has become damaged or frayed.
 - Liquid has been spilled into the device.
 - The device has been exposed to rain or water.
 - The device has been dropped, or the cabinet has been damaged.
 - The device exhibits a distinct change in performance, indicating a need for service.
 - The device does not operate normally when the operating instructions are followed.
- Only adjust those controls that are covered in the operating instructions. Improper adjustment of other controls may result in damage that will require extensive work by a qualified technician to repair.
- 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. Do not use this equipment in the presence of a flammable anesthetic mixture with air, oxygen or nitrous oxide.

Installation

Rackmounting the B004-2DUA4-K

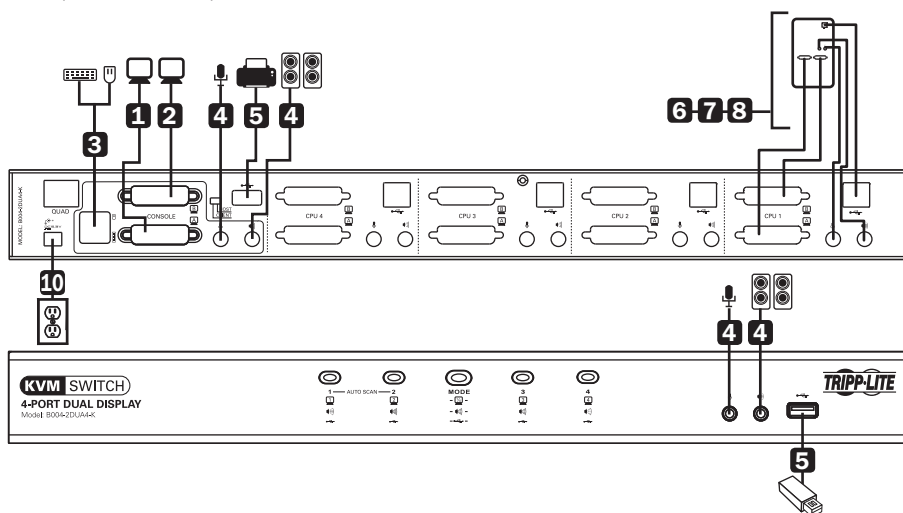
- 1 Attach the rackmount brackets to the B004-2DUA4-K using the supplied screws.
- 2 Fasten the rackmount brackets to the rack with user-supplied screws.

Standard Installation

Refer to the following steps and diagram to set up your KVM switch installation.

Notes:

1. Before making any connections, make sure that power to all devices being connected to the KVM switch is turned off. Unplug the power cords of any computers that have the Keyboard Power On function.
2. The diagram below shows the B004-2DUA4-K installation. Installation for the B004-2DUA2-K is the same except there are fewer ports.



- 1 Connect a monitor to the DVI console A port on the back panel of the KVM switch.
- 2 Connect a monitor to the DVI console B port on the back panel of the KVM switch.
- 3 Connect a USB keyboard and mouse to the corresponding USB keyboard and mouse console ports on the back of the KVM switch.
- 4 **Optional** – Connect your microphone and speakers to the corresponding 3.5 mm Mini Stereo console jacks on the front panel or the back panel. The jacks on the front panel of the unit will take priority over those on the back panel.
- 5 **Optional** – Connect your USB device(s) to the USB 2.0 hub port(s) on the front and back of the KVM switch.
- 6 Connect the end of the KVM Cable Kit that includes the USB Type B Male connector to an available set of computer ports on the back panel of the unit. Connect the DVI connector to the DVI A port, and the USB and 3.5 mm connectors to the corresponding USB and 3.5 mm ports.

Installation

- 7** Connect the other end of the KVM Cable Kit to the corresponding ports on the computer you wish to add to the installation. **Note:** The B004-2DUA2-K and B004-2DUA4-K come with 6 ft. Cable Kits. If you need a longer cable, you will have to purchase a separate P759-Series DVI/USB + Audio KVM Cable Kit of the appropriate length.
- 8** Connect a DVI cable to the DVI B port on the back of the KVM, and then into a DVI port on the computer being added to the installation. **Note:** The B004-2DUA2-K and B004-2DUA4-K come with 6 ft. DVI-D Dual Link Cables. If you need a longer cable, you will have to purchase a separate P560-Series (DVI-D Dual-Link) or P561-Series (DVI-D Single-Link) cable of the appropriate length.
- 9** Repeat steps 6 through 8 for each additional computer you are adding to the installation.
- 10** Connect the included power supply to the KVM switch, and then plug it into an appropriate power source. To help protect your system from sudden transient increases and decreases in electrical power, it is recommended that you plug your devices into a Tripp Lite surge protector, line conditioner, or uninterruptible power supply (UPS).
- 11** Turn on the power to all connected devices.

Installation

- 8** **Optional** – Connect your microphone and speakers to the corresponding 3.5 mm Mini Stereo console jacks on the front panel or the back panel of the *Host* KVM switch. The jacks on the front panel of the unit will take priority over those on the back panel. The 3.5 mm Mini Stereo console ports on the *Client* KVM switch can remain open.
- 9** **Optional** – Connect your USB device(s) to the USB 2.0 hub port(s) on the front and back of the *Host* KVM switch.
- 10** **Optional** – Connect your USB device(s) to the USB 2.0 hub port(s) on the front and back of the *Client* KVM switch. **Note:** The USB ports on the back of the *Client* KVM must be connected to the computers for these ports to work. See step 16.
- 11** Connect the end of the KVM Cable Kit that includes the USB Type B Male connector to an available set of computer ports on the back panel of the *Host* KVM switch. Connect the DVI connector to the DVI A port, and the USB and 3.5 mm connectors to the corresponding USB and 3.5 mm ports.
- 12** Connect the other end of the KVM Cable Kit to the corresponding ports on the computer you wish to add to the installation. **Note:** The B004-2DUA2-K and B004-2DUA4-K come with 6 ft. Cable Kits. If you need a longer cable, you will have to purchase a separate P759-Series DVI/USB + Audio KVM Cable Kit of the appropriate length.
- 13** Connect a DVI cable to the DVI B port on the back of the *Host* KVM switch, and then into a DVI port on the computer being added to the installation. **Note:** The B004-2DUA2-K and B004-2DUA4-K come with 6 ft. DVI-D Dual Link Cables. If you need a longer cable, you will have to purchase a separate P560-Series (DVI-D Dual-Link) or P561-Series (DVI-D Single-Link) cable of the appropriate length.
- 14** Connect a DVI cable to the DVI A port on the back of the *Client* KVM switch, and then into a DVI port on the computer being added to the installation.
- 15** Connect a DVI cable to the DVI B port on the back of the *Client* KVM switch, and then into a DVI port on the computer being added to the installation.
- 16** In order for the USB 2.0 Hub functionality of the *Client* KVM switch to work, the USB computer ports on the back of the *Client* KVM must be connected to USB ports on the computers being added to the installation. If you are using this functionality, connect the USB computer port on the Client KVM switch to a USB port on the computer being added to the installation using a standard USB 2.0 cable. Otherwise, the USB and 3.5 mm Mini Stereo KVM ports on the *Client* KVM switch can remain open.
- 17** Repeat steps 11 through 16 for each additional computer you are adding to the installation.
- 18** Connect the included power supplies to the KVM switches, and then plug them into an appropriate power source. To help protect your system from sudden transient increases and decreases in electrical power, it is recommended that you plug your devices into a Tripp Lite surge protector, line conditioner, or uninterruptible power supply (UPS).
- 19** Turn on the power to all connected devices.

Basic Operation

Powering Off and Restarting

In the event that you need to power off the KVM switch, you must follow the steps below:

1. Shut down all computers connected to the KVM switch
2. Unplug the power supply from the KVM switch
3. Wait 10 seconds and then plug the power supply back into the KVM switch
4. Power on all of the connected computers

Port Switching

There are three ways of accessing computers and devices connected to the KVM switch:

- Manual Pushbuttons
- Mouse port switching functionality
- Hotkeys

Manual Pushbuttons

Pressing a pushbutton will bring the focus of one of the following to the corresponding port; *KVM only*, *Audio only*, *USB only*, or *KVM, Audio and USB focus simultaneously*. What functionality is switched is determined by the *Mode Selection* pushbutton.

Press the *Mode Selection* pushbutton to determine the functionality that is switched to a port when its pushbutton is pressed. Pressing the mode selection pushbutton once highlights the *KVM*, *Audio* and *USB* functionality icons all at the same time. Pressing it twice highlights *KVM only*; three times *Audio only*; and four times *USB only*.

After selecting the desired functionality via the *Mode Selection* pushbutton, press the pushbutton of the port you want to switch that functionality to.

Pressing and holding pushbuttons 1 and 2 simultaneously for more than 2 seconds will initiate *Auto Scan* mode at the default interval of 5 seconds per port. *Auto Scan* mode switches between ports at regular intervals. During *Auto Scan* mode, only the KVM focus switches between ports, while Audio and USB remain on the port they were at when *Auto Scan* mode was initiated. To exit *Auto Scan* mode, press the [Esc] or [Spacebar] key. On the B004-2DUA4-K, pressing and holding pushbuttons 3 and 4 simultaneously for more than 2 seconds performs a keyboard/mouse reset.

Mouse Port Switching Functionality

When enabled, the *Mouse Port Switching Functionality* allows users with scroll mice to simultaneously switch the focus of the *KVM*, *Audio* and *USB* between ports by double-clicking the scroll wheel on their mouse. When used, ports will be accessed in sequential order. (e.g. port 1 will switch to port 2; port 2 to port 3, and so on).

As this function is disabled by default, you have to enable it via hotkey command (See *Mouse Port Switching* in the *Hotkeys* section of this manual for details).

For *Mouse Port Switching Functionality* to work, *Mouse Emulation* must be turned on.

Hotkeys

Hotkeys allow you to switch functionality focus between ports using only the keyboard, as well as configure KVM switch settings. The following section describes the hotkey functionality available for the B004-2DUA2-K and B004-2DUA4-K.

Basic Operation

Port Switching Hotkeys

To switch functionality between ports, a keyboard hotkey command is entered that determines what port is accessed and which functionality is assigned to it. This command starts by pressing [Scroll Lock] [Scroll Lock] or [Ctrl] [Ctrl]. [Scroll Lock] [Scroll Lock] is used by default. To toggle between these two, see *Alternate Port Switching Hotkey Command* in the *Hotkey Setting Mode* section of this manual.

The table below contains the *Port Switching Hotkeys* used to determine what port is accessed and which functionality is assigned to it. **Note:** *The table below uses the [Scroll Lock] [Scroll Lock] preceding sequence. Simply substitute [Ctrl][Ctrl] if you decide to change the Hotkey Preceding Sequence.*

Hotkey Command	Action
[Scroll Lock] [Scroll Lock] [Enter]	Switches focus of the <i>KVM</i> , <i>Audio</i> and <i>USB</i> from the port that currently has the <i>KVM</i> focus to the port that follows it. (e.g. 1 to 2, 2 to 3, etc.)
[Scroll Lock] [Scroll Lock] [K] [Enter]	Switches focus of the <i>KVM only</i> from the port that currently has the <i>KVM</i> focus to the port that follows it.
[Scroll Lock] [Scroll Lock] [U] [Enter]	Switches focus of the <i>USB only</i> from the port that currently has the <i>USB</i> focus to the port that follows it.
[Scroll Lock] [Scroll Lock] [S] [Enter]	Switches focus of the <i>Audio only</i> from the port that currently has the <i>Audio</i> focus to the port that follows it.
[Scroll Lock] [Scroll Lock] [n]* [Enter]	Switches focus of the <i>KVM</i> , <i>Audio</i> and <i>USB</i> to the selected port number.
[Scroll Lock] [Scroll Lock] [n]* [K] [Enter]	Switches focus of the <i>KVM only</i> to the selected port number.
[Scroll Lock] [Scroll Lock] [n]* [U] [Enter]	Switches focus of the <i>USB only</i> to the selected port number.
[Scroll Lock] [Scroll Lock] [n]* [S] [Enter]	Switches focus of the <i>Audio only</i> to the selected port number.
[Scroll Lock] [Scroll Lock] [n]* [K] [U] [Enter]	Switches focus of the <i>KVM and USB</i> to the selected port number.
[Scroll Lock] [Scroll Lock] [n]* [K] [S] [Enter]	Switches focus of the <i>KVM and Audio</i> to the selected port number.
[Scroll Lock] [Scroll Lock] [n]* [U] [S] [Enter]	Switches focus of the <i>USB and Audio</i> to the selected port number.
[Scroll Lock] [Scroll Lock] [n]* [K] [S] [U] [Enter]	Switches focus of the <i>KVM, Audio and USB</i> to the selected port number.
[Scroll Lock] [Scroll Lock] [A] [Enter]	Initiates <i>Auto Scan</i> mode at the default interval of 5 seconds per port. Press the [Esc] or [Spacebar] key to exit <i>Auto Scan</i> mode.
[Scroll Lock] [Scroll Lock] [A] [n]* [Enter]	Initiates <i>Auto Scan</i> mode at the selected time interval. Press the [Esc] or [Spacebar] key to exit <i>Auto Scan</i> mode.

* [n] stands for the port number of the computer that you are switching to, or the number of seconds (from 1 to 99) that an *Auto Scan* remains on each port.

Basic Operation

Hotkey Setting Mode

All configuration of the KVM's settings takes place in *Hotkey Setting* mode. All commands in *Hotkey Setting* mode start by entering the *Hotkey Setting Mode Activation Command*. When *Hotkey Setting Mode* is activated, the [Scroll Lock] and [Caps Lock] keyboard LEDs flash in succession and ordinary keyboard and mouse functions are suspended. The section that follows describes how to activate *Hotkey Setting* mode, and the commands that can be performed in it. A table at the end of this section summarizes all of the commands.

Hotkey Setting Mode Activation Command

To activate *Hotkey Setting* mode, do the following.

1. Press and hold down the [Num Lock] key
2. While holding down the [Num Lock] key, press and release the minus [-] key
3. After releasing the minus [-] key, release the [Num Lock] key

Alternate Hotkey Setting Mode Activation Command

The *Hotkey Setting Mode Activation Command* defaults at [Scroll Lock] [-], but can be switched to use [Ctrl] [F12]. When switched to [Ctrl] [F12], the [Ctrl] key takes the place of the [Scroll Lock] key, and [F12] takes the place of the [-] key. To activate the *Alternate Hotkey Setting Mode Activation Command*, perform the following steps. To revert back to the previous command, perform these steps again.

1. Activate *Hotkey Setting Mode* using the aforementioned command
2. Press and release the [H] key

Alternate Port Switching Hotkey Command

By default, the hotkey proceeding sequence used in *Port Switching Hotkeys* is [Scroll Lock] [Scroll Lock]. To toggle between [Scroll Lock] [Scroll Lock] and [Ctrl] [Ctrl], do the following.

1. Activate *Hotkey Setting Mode* using the aforementioned command
2. Press and release the [T] key

Keyboard Operating System

The B004-2DUA2-K and B004-2DUA4-K default keyboard configuration is for use with PC compatible keyboards. If you have a Mac or Sun computer, you can enable the KVM to emulate Mac or Sun keyboard commands. When enabled, your PC compatible keyboard can be used to perform commands specific to Mac or Sun (See the *Keyboard Emulation* section in this manual for details). To set the *Keyboard Operating System*, do the following.

1. Navigate to the port whose *Keyboard Operating System* setting you wish to change
2. Activate *Hotkey Setting Mode* using the aforementioned command
3. Press and release the [F2] (for Mac), [F3] (for Sun), or [F10] (for Auto-Detect) key

When enabled for Auto-Detect, a pass-through keyboard mode is enabled in which keystrokes are sent directly to the computer without first going through the Mac or Sun emulator.

Basic Operation

List KVM Settings

This function allows you to display a list of the current KVM settings; *Hotkeys*, *Keyboard OS*, *Keyboard Emulation*, *Mouse Emulation*, *Mouse Port Switching*, *Power On Detection* and *Keyboard Language*. To perform this function, do the following.

1. Open up a Word, Wordpad, Notepad or Excel file
2. Activate *Hotkey Setting Mode* using the aforementioned command
3. Press and release the [F4] key

USB Keyboard/Mouse Reset

In the event that the keyboard and mouse are not operating correctly, a reset may be needed. To perform a USB keyboard/mouse reset, do the following.

1. Activate *Hotkey Setting Mode* using the aforementioned command
2. Press and release the [F5] key

Hotkey Beeper Control

When performing a keyboard hotkey command, a beeper sounds to indicate that the command is taking place. This beeper sound can be toggled on/off by performing the following command.

1. Activate *Hotkey Setting Mode* using the aforementioned command
2. Press and release the [B] key

Disable Port Switching Hotkeys

By default, *Port Switching Hotkeys* are available that allow you to switch between ports. To disable the *Port Switching Hotkeys* and require the front panel pushbuttons to be used for switching functions, do the following.

1. Activate *Hotkey Setting Mode* using the aforementioned command
2. Press and release the [x] key and then press and release the [Enter] key

Firmware Upgrade Mode

The B004-2DUA2-K and B004-2DUA4-K firmware can be upgraded as updates become available on Tripp Lite's website (See the *Firmware Upgrade* section in this manual for details). In order to perform a firmware upgrade, *Firmware Upgrade Mode* must first be initiated. To initiate *Firmware Upgrade Mode*, do the following.

1. Activate *Hotkey Setting Mode* using the aforementioned command
2. Key in the text "**upgrade**"
3. Press and release the [Enter] key

The LEDs on the front of the KVM flash to indicate that *Firmware Upgrade Mode* has been initiated.

Restore Default Settings

To restore the KVM to its factory default settings, do the following.

1. Activate *Hotkey Setting Mode* using the aforementioned command
2. Press and release the [R] key, and then press and release the [Enter] key

Basic Operation

Power on Detection

By default, the KVM is set to recognize when a connected computer is powered off, at which time it automatically switches to the next powered on port. To turn *Power on Detection on/off*, do the following.

1. Activate *Hotkey Setting Mode* using the aforementioned command
2. Press and release the [E] key

Video Sync

Video Sync allows the KVM to store the monitor's EDID (Extended Display Identification Data), which helps to ensure optimal video settings are being used. To initiate a *Video Sync*, do the following.

1. Activate *Hotkey Setting Mode* using the aforementioned command
2. Press and release the [D] key

Keyboard Emulation

By default, *Keyboard Emulation* is enabled. To toggle keyboard emulation on/off, do the following.

1. Activate *Hotkey Setting Mode* using the aforementioned command
2. Press and release the [N] key

Mouse Emulation

By default, *Mouse Emulation* is enabled. To toggle mouse emulation on/off, do the following.

1. Activate *Hotkey Setting Mode* using the aforementioned command
2. Press and release the [M] key

Mouse Port Switching

When enabled, the *Mouse Port Switching Functionality* allows users with scroll mice to simultaneously switch the focus of the KVM, *Audio* and *USB* between ports by double-clicking the scroll wheel on their mouse. When used, ports will be accessed in sequential order. (e. g. port 1 will switch to port 2; port 2 to port 3, and so on). By default, *Mouse Port Switching Functionality* is disabled. To toggle *Mouse Port Switching Functionality* on/off, do the following.

1. Activate *Hotkey Setting Mode* using the aforementioned command
2. Press and release the [W] key

SPC Mode

The keyboard/mouse can be set to work under special operating systems as a standard (104 key) keyboard/mouse. To turn *SPC Mode* on/off, do the following.

1. Activate *Hotkey Setting Mode* using the aforementioned command
2. Press and release the [F1] key

Basic Operation

Pushbutton 1 and 2 Command

By default, pressing pushbuttons 1 and 2 at the same time for two seconds will initiate *Auto Scan Mode*, but you can set it to perform any *Hotkey Setting Mode* command that you want. The *Restore Default Settings*, *Disable Port Switching Hotkeys*, and *Firmware Upgrade Mode* commands cannot be used. To set the *Pushbutton 1 and 2 Command*, do the following.

1. Activate *Hotkey Setting Mode* using the aforementioned command
2. Press and release the [C] key
3. Perform the command that you wish to set. (e.g. Press and release the [W] key to set the *Pushbutton 1 and 2 Command* to turn *Mouse Port Switching Functionality* on/off.)

To return the *Pushbutton 1 and 2 Command* to its default, press and release the [A] key in step 3.

Pushbutton 3 and 4 Command

By default, pressing pushbuttons 3 and 4 at the same time for two seconds will perform a *USB Keyboard/Mouse Reset*, but you can set it to perform any *Hotkey Setting Mode* command that you want. The *Restore Default Settings*, *Disable Port Switching Hotkeys*, and *Firmware Upgrade Mode* commands cannot be used. To set the *Pushbutton 3 and 4 Command*, do the following.

1. Activate *Hotkey Setting Mode* using the aforementioned command
2. Press and release the [C] key, and then press and release the [2] key
3. Perform the command that you wish to set. (e.g. Press and release the [W] key to set the *Pushbutton 3 and 4 Command* to turn *Mouse Port Switching Functionality* on/off.)

To return the *Pushbutton 3 and 4 Command* to its default, press and release the [F5] key in step 3.

Basic Operation







Hotkey Setting Mode Command Summary Table



Action	Hotkey Command
Activate <i>Hotkey Setting Mode</i>	Press and hold the [Num Lock] key, press and release the minus [-] key, release the [Num Lock] key.
Change <i>Hotkey Setting Mode</i> activation command to [Ctrl] [F12]	Activate <i>Hotkey Setting Mode</i> , [H]
Change the <i>Port Switching Hotkey Command</i> to [Ctrl] [Ctrl]	Activate <i>Hotkey Setting Mode</i> , [T]
Change the <i>Keyboard Operating System</i>	Activate <i>Hotkey Setting Mode</i> , [F2] (for Mac), [F3] (for Sun), or [F10] (for Auto-Detect)
List KVM Settings	Open a Word, Wordpad, Notepad or Excel file, Activate <i>Hotkey Setting Mode</i> , [F4]
USB Keyboard/Mouse Reset	Activate <i>Hotkey Setting Mode</i> , [F5]
Hotkey Beeper Control	Activate <i>Hotkey Setting Mode</i> , [B]
Disable Port Switching Hotkeys	Activate <i>Hotkey Setting Mode</i> , [X], [Enter]
Firmware Upgrade Mode	Activate <i>Hotkey Setting Mode</i> , upgrade, [Enter]
Restore Default Settings	Activate <i>Hotkey Setting Mode</i> , [R], [Enter]
Video Sync	Activate <i>Hotkey Setting Mode</i> , [D]
Power on Detection	Activate <i>Hotkey Setting Mode</i> , [E]
Keyboard Emulation	Activate <i>Hotkey Setting Mode</i> , [N]
Mouse Emulation	Activate <i>Hotkey Setting Mode</i> , [M]
Mouse Port Switching	Activate <i>Hotkey Setting Mode</i> , [W]
SPC Mode	Activate <i>Hotkey Setting Mode</i> , [F1]
Pushbutton 1 and 2 Command	Activate <i>Hotkey Setting Mode</i> , [C], Choose your hotkey Press [A] for the last step when returning command to default.
Pushbutton 3 and 4 Command	Activate <i>Hotkey Setting Mode</i> , [C], [2], Choose your hotkey Press [F5] for the last step when returning command to default.

Mac Keyboard Emulation

The PC compatible (101/104 key) keyboard can emulate the functions of the Mac keyboard using the PC keystrokes in the table below.

Note: When more than one key is required on the PC Keyboard to emulate the Mac keyboard, press and release the first key, and then press and release the second key.

PC Keyboard	Mac Keyboard
[Shift]	[Shift]
[Ctrl]	[Ctrl]
	
[Ctrl], [1]	
[Ctrl], [2]	
[Ctrl], [3]	
[Ctrl], [4]	

PC Keyboard	Mac Keyboard
[Alt]	[Alt]
[Print Screen]	[F13]
[Scroll Lock]	[F14]
	[=]
[Enter]	[Return]
[Backspace]	[Delete]
[Insert]	[Help]
[Ctrl], 	[F15]








Basic Operation

Sun Keyboard Emulation

The PC compatible (101/104 key) keyboard can emulate the functions of the Sun keyboard using the PC keystrokes in the table below.

Note: When more than one key is required on the PC Keyboard to emulate the Sun keyboard, press and release the first key, and then press and release the second key.

PC Keyboard	Sun Keyboard
[Ctrl], [T]	[Stop]
[Ctrl], [F2]	[Again]
[Ctrl], [F3]	[Props]
[Ctrl], [F4]	[Undo]
[Ctrl], [F5]	[Front]
[Ctrl], [F6]	[Copy]
[Ctrl], [F7]	[Open]
[Ctrl], [F8]	[Paste]
[Ctrl], [F9]	[Find]

PC Keyboard	Sun Keyboard
[Ctrl], [F10]	[Cut]
[Ctrl], [1]	
[Ctrl], [2]	
[Ctrl], [3]	
[Ctrl], [4]	
[Ctrl], [H]	[Help]
	[Compose]
	

Firmware Upgrade

Firmware Upgrade Utility

As firmware upgrades become available, they can be found on the internet at www.tripplite.com/support. The *Firmware Upgrade Utility* comes with the firmware upgrade file. Firmware upgrades cannot be performed simultaneously when in Quad-View Mode. KVMs in Quad-View mode will need to be disconnected from each other, switched to the Host position, and upgraded separately. To upgrade the firmware of your KVM switch, follow the steps below:

1. From a computer connected to your KVM switch, go to www.tripplite.com/support to obtain the firmware upgrade for your KVM switch, and save it to your computer.
2. Shut down all of the computers connected to the KVM switch, except for the computer that you downloaded the firmware upgrade to.
3. Invoke *Firmware Upgrade Mode* via the *Firmware Upgrade* hotkey command. (See *Firmware Upgrade Mode* in the *Hotkey Setting Mode* section of this manual for details.)
4. On the computer the firmware upgrade file is saved to, run the *Firmware Upgrade Utility* file by double-clicking on it or by opening up a command line and typing in the path to it.
5. After reading the license agreement, click on the *I Agree* option and click *Next*. The *Firmware Upgrade Utility* main screen appears and displays the KVM switch in the *Device List* on the left side of the screen.
6. Highlight the KVM switch in the *Device List* by clicking on it with the mouse. If you want the *Firmware Upgrade Utility* to check the KVM's firmware version to see if it is older/newer than the firmware upgrade file, check the *Check Firmware Version* box in the lower-left of the screen. If you want the *Firmware Upgrade Utility* to upload the firmware upgrade file without checking the KVM's firmware version, leave this box unchecked. Click *Next*.
7. If the *Check Firmware Version* box is checked, and the *Firmware Upgrade Utility* finds the KVM's firmware is newer than that of the firmware upgrade file, you will be prompted to continue or cancel. Once the firmware upgrade starts, status messages appear in the *Status Message* panel and progress towards completion is shown in the *Progress Bar*. When the upgrade is complete, the *Status Message* panel will inform you that the firmware upgrade was ok. At this point, click *Finish* to complete the firmware upgrade. After a successful firmware upgrade, the switch will reset itself.

Firmware Upgrade Failure

If you are not notified of a successful firmware upgrade, it means that the firmware upgrade failed to install properly. In this case, do the following.

1. Power off the KVM switch by disconnecting the external power supply.
2. Press and hold the *Mode Selection Pushbutton*, while at the same time connecting the external power supply to restore power to the KVM switch. The front panel LEDs will begin to flash to indicate that the KVM is in firmware upgrade mode.
3. Perform the firmware upgrade again.

Factory Default Settings

Setting	Default
Port Switching Hotkey Command	[Scroll Lock], [Scroll Lock]
Hotkey Setting Mode Activation Command	[Num Lock], [-]
Keyboard Operating System	Auto-Detect
Hotkey Beeper	On
Port Switching Hotkeys	Enabled
Keyboard Emulation	Enabled
Mouse Emulation	Enabled
Mouse Switching Function	Disabled
Power on Detection	Enabled
SPC Mode	Disabled
Pushbutton 1 and 2 Command	Auto Scan Initiation
Pushbutton 3 and 4 Command	USB Keyboard/Mouse Reset

Specifications

Feature	B004-2DUA2-K	B004-2DUA4-K
# of Computer Ports	2	4
Expandable (Cascade/Daisychain)	Yes (Quad-View Mode)	Yes (Quad-View Mode)
Form Factor	Desktop	Desktop
Port Selection	Hotkeys, Pushbuttons, Mouse Switching Function*	Hotkeys, Pushbuttons, Mouse Switching Function*
Console Keyboard/Mouse Ports	(x2) USB A Female	(x2) USB A Female
Console Video Port	(x2) DVI-I Female	(x4) DVI-I Female
Console Speaker/Mic Ports	(x4) 3.5 mm Female**	(x4) 3.5 mm Female**
Computer Ports	(x4) DVI-I Female, (x2) USB B Female, (x4) 3.5 mm Female	(x8) DVI-I Female, (x4) USB B Female, (x8) 3.5 mm Female
KVM Cable Kits	P759-Series	P759-Series
Included KVM Cable Kits	(x2) P759-006	(x4) P759-006
Power Jack	DC Power Jack for External Power Supply	DC Power Jack for External Power Supply
Power Consumption	5.3V, 10.6W	5.3V, 12.19W
USB 2.0 Hub Ports	(x2) USB A Female	(x2) USB A Female
Keyboard/Mouse Emulation	USB	USB
Max Video Resolution	Digital – 2560 x 1600, Analog – 2048 x 1536	Digital – 2560 x 1600, Analog – 2048 x 1536
Operating Temperature	32 to 122 F (0 to 50 C)	32 to 122 F (0 to 50 C)
Storage Temperature	-4 to 140 F (-20 to 60 C)	-4 to 140 F (-20 to 60 C)
Humidity	0 to 80% RH, Non-Condensing	0 to 80% RH, Non-Condensing
Unit Dimensions (H x W x D, in.)	1.75 x 10.25 x 3	1.75 x 17 x 6
Unit Weight (lb.)	1.23	5.11

*The mouse switching function is disabled by default, and needs to be turned on via hotkey command. For mouse switching function to work, mouse emulation must be enabled. It is only available when using a mouse with a scroll wheel.

**The B004-2DUA2-K and B004-2DUA4-K include 2 sets of Speaker/Mic ports; (2) 3.5mm jacks on the front and (2) 3.5mm jacks on the back. The front panel ports take priority over the back panel.

Warranty and Product Registration

Tripp Lite warrants its products to be free from defects in materials and workmanship for a period of one (1) year from the date of initial purchase. Tripp Lite's obligation under this warranty is limited to repairing or replacing (at its sole option) any such defective products. To obtain service under this warranty, you must obtain a Returned Material Authorization (RMA) number from Tripp Lite or an authorized Tripp Lite service center. Products must be returned to Tripp Lite or an authorized Tripp Lite service center with transportation charges prepaid and must be accompanied by a brief description of the problem encountered and proof of date and place of purchase. This warranty does not apply to equipment, which has been damaged by accident, negligence or misapplication or has been altered or modified in any way.

EXCEPT AS PROVIDED HEREIN, Tripp Lite MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to the purchaser.

EXCEPT AS PROVIDED ABOVE, IN NO EVENT WILL Tripp Lite BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF THIS PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. Specifically, Tripp Lite is not liable for any costs, such as lost profits or revenue, loss of equipment, loss of use of equipment, loss of software, loss of data, costs of substitutes, claims by third parties, or otherwise.

PRODUCT REGISTRATION

Visit www.tripplite.com/warranty today to register your new Tripp Lite product. You'll be automatically entered into a drawing for a chance to win a FREE Tripp Lite product!*

* No purchase necessary. Void where prohibited. Some restrictions apply. See website for details.

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

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.

Tripp Lite has a policy of continuous improvement. Specifications are subject to change without notice.



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