

# Owner's Manual

## DVI/USB Rack-mount KVM Switch with Audio and Peripheral Sharing

Models: B024-DUA8-SL (Single-Link),  
B024-DUA8-DL (Dual-Link)

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## Package Contents

- B024-DUA8-SL or B024-DUA8-DL KVM Switch
- (x2) DVI/USB KVM Cable Kits, 6 ft.
- External Power Supply  
B024-DUA8-SL – 1-15P Plug with 5 ft. Cord  
(Input: 100-240V, 50/60 Hz, 0.5A; Output: 5.3V 2.4A)  
B024-DUA8-DL – 1-15P Plug with 5 ft. Cord  
(Input: 100-240V, 50/60 Hz, 0.7A; Output: 5.2V 4A)
- RJ11 to DB9 Firmware Upgrade Cable, 6 ft.
- Grounding Wire
- Rackmount Hardware
- Rubber Feet
- Owner's Manual

## Optional Accessories

- P312-Series 3.5 mm Stereo Audio Cables
- P502-Series High-Resolution VGA Monitor 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 Requirements

- DVI or VGA (optional) monitor capable of supporting the highest resolution in the installation
- USB keyboard and mouse
- Microphone and speakers with 3.5 mm connectors (optional)

### Computer Requirements

- DVI\* or VGA (optional) ports
- A USB port
- Microphone and speaker jacks with 3.5 mm connectors (optional)

\*DVI dual-link ports required to obtain DVI dual-link video resolutions.

# System Requirements

## 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 Debian	3.1 / 4.0
Linux SuSE	10 / 11.1 and higher
Linux Ubuntu	7.04 / 7.10
UNIX AIX	4.3 and higher
UNIX FreeBSD	5.5 and higher
UNIX Sun	Solaris 8 and higher
Novell Netware	6.0 and higher

## Features

- 8-Port DVI/USB rack-mount KVM switch with audio and USB 2.0 peripheral sharing
- Connect up to 512 computers by cascading up to three levels of KVM switches
- Multi-view installation feature allows stacking of up to four KVMs for connecting computers with up to four DVI output ports and displaying video on up to four console monitors
- Built-in 2-port USB 2.0 hub allows USB devices to be shared among computers connected to the KVM switch
- 3.5 mm microphone jack provides audio input to connected computers
- 3.5 mm audio jack provides rich 2.1 channel sound with full bass response to a set of speakers via the computer's audio output
- Additional console audio jacks are conveniently located on the front panel of the KVM switch, ideal for use with IP phones
- The KVM and USB focus can be switched independently of one other; for example, you can access one computer while simultaneously printing from another computer
- Switch between connected computers via front panel pushbuttons, keyboard hotkeys, and the on-screen display (OSD)
- Multilingual OSD supports English, German, Japanese, Traditional Chinese, Simplified Chinese, Spanish, Russian and French
- Auto Scan mode scans connected computers without manually switching between them
- Broadcast mode simultaneously sends console commands to all computers to perform operations

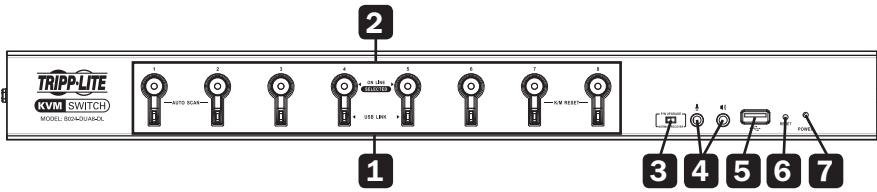
## Features

- OSD Backup and Restore feature allows back up of KVM configuration and user profile information
- Supports analog and digital video signals, allowing VGA computer and/or monitor connections
- Supports digital video resolutions up to 2560 x 1600 (B024-DUA8-DL), 1920 x 1200 (B024-DUA8-SL), and analog video resolutions up to 2048 x 1536 (both models)
- Console mouse port emulation/bypass feature supports most mouse drivers and multifunction mice
- Multi-platform support – compatible with Windows, Mac, Sun and Linux
- Supports hot plugging – computers and devices can be unplugged and re-plugged without shutting down the KVM switch
- The KVM switch stores the monitor's EDID (Extended Display Identification Data) to optimize display resolution
- LEDs provide easy monitoring of connected computers
- HDCP compliant
- Complete keyboard emulation for error-free booting
- Quick installation—no software needed
- Sun/Mac keyboard support and emulation\*
- Multilingual keyboard mapping supports English (US), English (UK), French, German, Japanese, Korean, Traditional Chinese and Spanish
- Firmware upgradeable

\*PC keyboard combinations emulate Sun/Mac keyboards. Sun/Mac keyboards are only compatible with their respective computers.

# Features

## Front Panel



### 1 Port Selection Pushbuttons

- To simultaneously switch the focus of the KVM, audio, and USB hub to a port, press and hold its pushbutton for two seconds.
- To switch the focus of the KVM and audio to one port only, press and hold its pushbutton for less than two seconds.
- To initiate Auto Scan mode, simultaneously press and hold pushbuttons 1 and 2 for two seconds.
- To perform a keyboard/mouse reset, simultaneously press and hold pushbuttons 7 and 8 for two seconds.

### 2 Port LEDs

Each port contains two LEDs.

- The top LED will dimly illuminate orange to indicate a powered-on computer is connected to its corresponding port.
- The top LED will brightly illuminate orange to indicate the corresponding port currently has the KVM and audio focus.
- The top LED will flash when a port is currently being accessed in Auto Scan mode.
- All top LEDs will flash to indicate Firmware Upgrade mode is in effect.
- The bottom LED will illuminate green to indicate the corresponding port currently has the USB hub focus.

### 3 Firmware Upgrade Recover Switch

During normal operation, this switch should remain in the NORMAL position. In the event a firmware upgrade operation does not complete normally, this switch should be set to RECOVER as a part of the Firmware Upgrade Recovery process. See the Firmware Upgrade section in this manual for details.

### 4 Console Audio Connectors

A separate set of console Speaker and Microphone 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 console Speaker and Microphone jacks located on the rear panel of the unit.

### 5 USB 2.0 Peripheral Port

USB 2.0 devices (flash drives, printers, scanners, etc.) can be plugged into this port and shared among connected computers.

**Note:** USB hub functionality is not provided to second- or third-level KVM switches in a cascade installation.

# Features

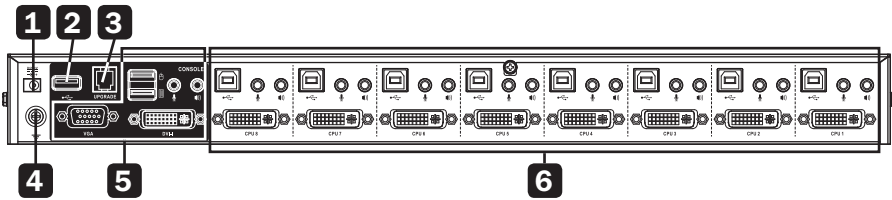
## 6 Reset Button

Press this button with a small, thin object (such as a paper clip) to perform a system reset. When the system resets, the switch will beep and the port LEDs will flash in succession until the reset is complete.

## 7 Power LED

Illuminates green to indicate the KVM switch is powered on.

## Rear Panel



## 1 Power Jack

The included power supply connects to the KVM switch here.

## 2 USB 2.0 Peripheral Port

USB 2.0 devices (flash drives, printers, scanners) can be plugged into this port and shared among connected computers.

**Note:** USB hub functionality is not provided to second- or third-level KVM switches in a cascade installation.

## 3 Firmware Upgrade Port

During a firmware upgrade, the included RJ11 to DB9 firmware upgrade cable connects to the KVM here.

## 4 Grounding Terminal

When grounding the KVM switch, the grounding wire connects to the KVM here.

## 5 Console Ports

Your monitor, keyboard, mouse, microphone and speakers plug into these ports.

## 6 Computer Ports

The DVI/USB KVM cable kits connect from an available set of ports to a computer.

## Safety Instructions

- Read all instructions and save 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's slots and openings 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. The device should also not be placed in a built-in enclosure, unless adequate ventilation is provided.
- Never spill liquid of any kind onto the device.
- Unplug the device from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Always use a damp cloth for cleaning.
- The device should operate from the power source type as indicated on the marking label. If unsure what power type is available, consult your dealer or local power company.
- Do not allow anything to rest on the power cord or cables. Route power cord and cables so they cannot be stepped on or tripped over.
- If an extension cord is used with this device, make sure the total ampere ratings of all products used on this cord does not exceed the extension cord ampere rating. Make sure the total of all products plugged into the wall outlet does not exceed 15 amperes.
- To help protect your system from sudden transient increases and decreases in electrical power, plugging your devices into a Tripp Lite surge protector, line conditioner, or uninterruptible power supply (UPS) is recommended.
- When connecting or disconnecting power to hot-pluggable power supplies, observe the following guidelines:
  - o Install the power supply before connecting the power cable to the power supply.
  - o Unplug the power cable before removing the power supply.
  - o 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. 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.
  - o The power cord or plug has become damaged or frayed.
  - o Liquid has been spilled into the device.
  - o The device has been exposed to rain or water.
  - o The device has been dropped, or the cabinet has been damaged.
  - o The device exhibits a distinct change in performance, indicating a need for service.
  - o The device does not operate normally when the operating instructions are followed.
- Only adjust controls 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.
- Do not connect the RJ11 port on the KVM marked UPGRADE to a public telecommunications network.
- The device is designed for IT power distribution systems with 230V phase-to-phase voltage.
- To prevent damage to your installation, it is important that all devices are properly grounded.

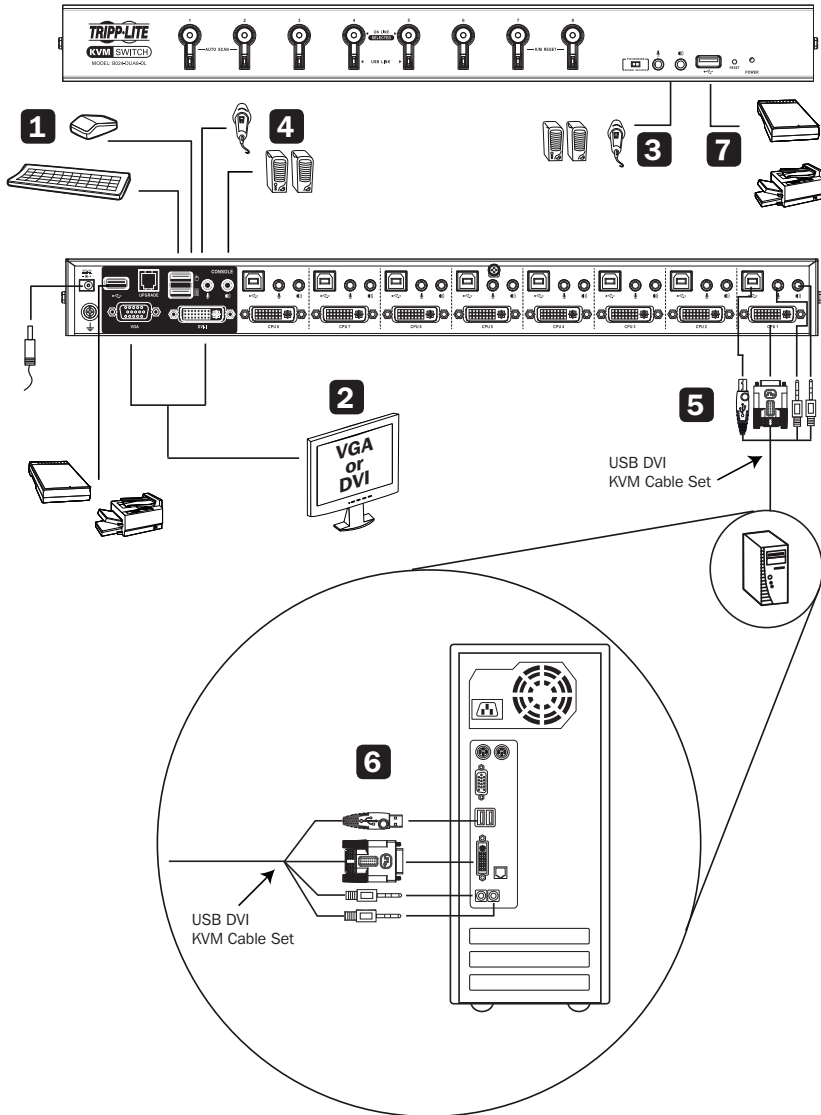


# Installation

## Rack-mount Installation

Attach the included rack-mount brackets to the KVM switch. With the user-supplied screws, fasten the rack-mount brackets to the rack.

## Single Stage Installation



**Note:** Before making any connections, make sure power to all devices being connected to the KVM switch are turned off. Unplug any computer power cords using the Keyboard Power-On function.

# Installation

- 1** Connect a monitor to the KVM using one of the three following methods:
  - a. DVI Monitor – Connect the DVI port on the monitor to the DVI-I console port located on the rear of the KVM switch.
  - b. DVI + VGA Monitor – For monitors with DVI and VGA ports, you can connect both to the KVM switch. Connect the DVI port on the monitor to the KVM's DVI-I console port, and the VGA port on the monitor to the KVM's VGA console port.
  - c. DVI and VGA Monitors – Connect a DVI monitor to the DVI-I console port on the KVM, and a VGA monitor to the VGA console port.

**Note:** Only one video signal will transmit at a time. When connecting to both the DVI and VGA ports on a single monitor, or when connecting DVI and VGA monitors at the same time, the video output used will be determined by the OSD settings. See the **Set Computer Video Input** section in this manual for details.

- 2** Connect a USB keyboard and mouse to the corresponding USB keyboard and mouse console ports located on the rear panel of the KVM switch.
- 3 Optional** – Connect a microphone and speakers to the corresponding 3.5 mm console jacks located on the unit's front or rear panel. The front panel jacks will take priority over those on the rear panel.
- 4 Optional** – Connect USB device(s) to the USB 2.0 hub port(s) on the front and rear of the KVM switch.
- 5** Connect the KVM cable kit to the KVM switch. The USB-B male connector side plugs in to an available set of computer ports on the unit's rear panel. Connect the DVI-D connector to the DVI-I port, and the USB and 3.5 mm connectors to its corresponding USB and 3.5 mm ports.

**Note:** KVMs include two 6 ft. cable kits. For the remaining ports requiring cables, or if a longer cable is needed, separate P759-Series DVI/USB + Audio KVM Cable Kits are needed (sold separately).

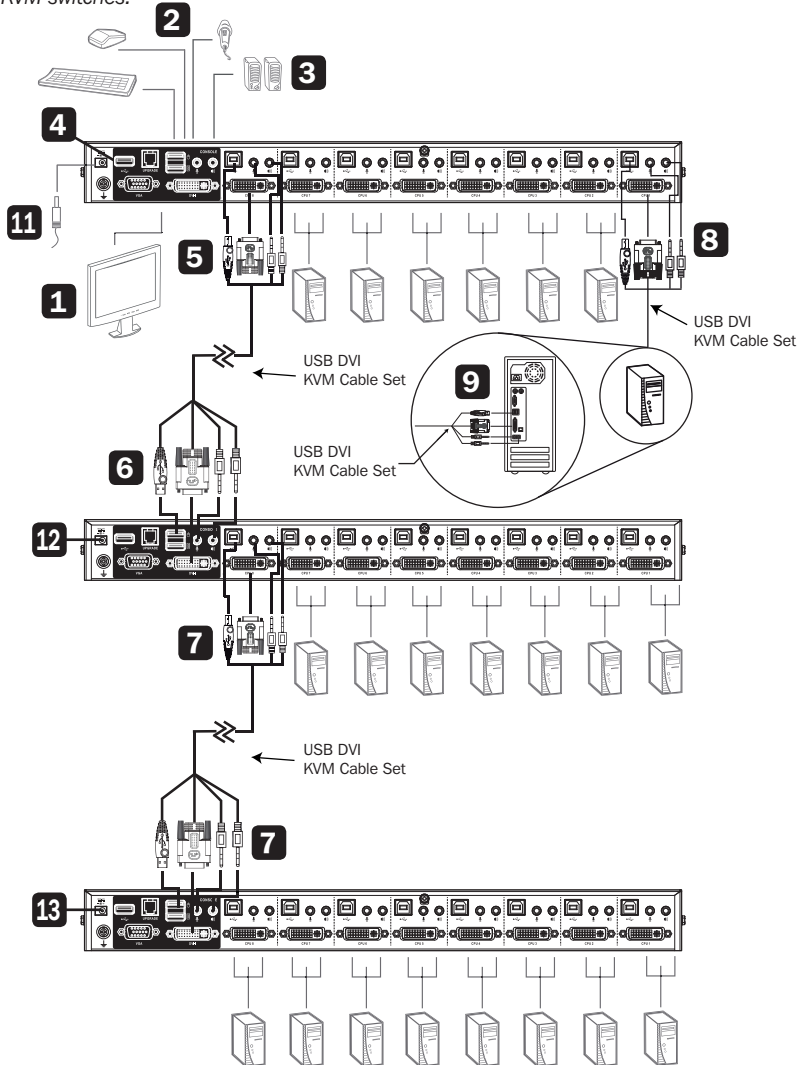
- 6** Connect the other end of the KVM cable kit to the corresponding ports on the computer you wish to add to the installation.
- 7** Repeat steps 5 and 6 for each additional computer added to the installation.
- 8** Connect the included power supply to the KVM switch, then plug it into an appropriate power source. To help protect your system from sudden transient increases and decreases in electrical power, plugging your devices into a Tripp Lite surge protector, line conditioner, or uninterruptible power supply (UPS) is recommended.
- 9** Turn on the power to all connected computers and devices.

# Installation

## Cascade Installation

To expand the number of computers controlled in the KVM installation, up to three levels of BO24-DUA8-SL and/or BO24-DUA8-DL KVM switches can be cascaded together. As many as 512 computers can be controlled in a complete three-level installation. In a three-level cascade installation, the first KVM switch in the chain is considered the first level unit; the KVM switches cascaded to the first level unit are considered second level units, and the KVM switches cascaded to the second level units are third level units.

**Note:** In a cascade installation, USB 2.0 hub functionality is not available in the second or third levels of KVM switches.



# Installation

**Note:** Before making any connections, make sure power to all devices being connected to the KVM switch are turned off. Unplug any computer power cords using the Keyboard Power-On function.

- 1** Connect a monitor to the KVM using one of the three following methods.
  - a. DVI Monitor – Connect the DVI port on the monitor to the DVI-I console port located on the rear of the KVM switch.
  - b. DVI + VGA Monitor – For monitors with DVI and VGA ports, you can connect both to the KVM switch. Connect the DVI port on the monitor to the KVM's DVI-I console port, and the VGA port on the monitor to the KVM's VGA console port.
  - c. DVI and VGA Monitors – Connect a DVI monitor to the DVI-I console port on the KVM, and a VGA monitor to the VGA console port.

**Note:** Only one video signal will transmit at a time. When connecting to both the DVI and VGA ports on a single monitor, or when connecting DVI and VGA monitors at the same time, the video output used will be determined by the OSD settings. See the **Set Computer Video Input** section in this manual for details.

- 2** Connect a USB keyboard and mouse to the corresponding USB keyboard and mouse console ports located on the rear panel of the first level KVM switch.
- 3** **Optional** – Connect a microphone and speakers to the corresponding 3.5 mm console jacks on the unit's front or rear panel. The front panel jacks will take priority over those on the rear panel.
- 4** **Optional** – Connect USB device(s) to the USB 2.0 hub port(s) on the front and rear panels of the KVM switch.

**Note:** In a cascade installation, USB 2.0 hub functionality is not available to the second or third levels of KVM switches.

- 5** Connect the KVM cable kit to the KVM switch. The USB-B male connector side plugs in to an available set of computer ports on the unit's rear panel. Connect the DVI-D connector to the DVI-I port, and the USB and 3.5 mm connectors to its corresponding USB and 3.5 mm ports.

**Note:** KVMs include two 6 ft. cable kits. For the remaining ports requiring cables, or if a longer cable is needed, separate P759-Series DVI/USB + Audio KVM Cable Kits are needed (sold separately).

- 6** Connect the other end of the KVM cable kit to the console ports of a second level KVM switch.

**Note:** Connect the USB-A male connector to the top USB-A console port (labeled for mouse functionality) on the second level KVM switch.

- 7** Repeat steps 5 and 6 for each additional KVM switch added to the installation. Up to 8 second-level KVM switches and up to 64 third level KVM switches can be connected.

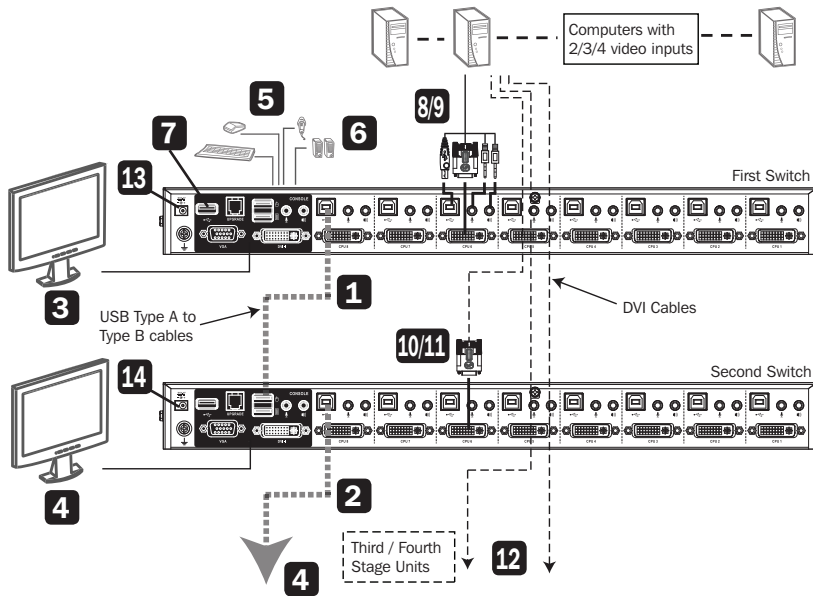
## Installation

- 8** Connect the KVM cable kit to the KVM switch. The USB-B male connector side plugs in to an available set of computer ports on the unit's rear panel. Connect the DVI-D connector to the DVI-I port, and the USB and 3.5 mm connectors to its corresponding USB and 3.5 mm ports.  
*Note: KVMs include two 6 ft. cable kits. For the remaining ports requiring cables, or if a longer cable is needed, separate P759-Series DVI/USB + Audio KVM Cable Kits are needed (sold separately).*
- 9** Connect the other end of the KVM cable kit to the corresponding ports on the computer you wish to add to the installation.
- 10** Repeat steps 8 and 9 for each additional computer added to the installation.
- 11** To properly power on the installation, first connect the included power supply to each third level KVM switch in the installation, then plug it into an appropriate power source. To help protect your system from sudden transient increases and decreases in electrical power, plugging your devices into a Tripp Lite surge protector, line conditioner, or uninterruptible power supply (UPS) is recommended.
- 12** Connect the included power supply to each second level KVM switch, then plug it into a Tripp Lite surge protector, line conditioner, or uninterruptible power supply (UPS).
- 13** Connect the included power supply to the first level KVM switch, then plug it into a Tripp Lite surge protector, line conditioner, or uninterruptible power supply (UPS).
- 14** Turn on the power to all connected computers and devices.

# Installation

## Multi-Monitor Installation

The multi-monitor feature connects two, three or four units to control up to seven dual-, triple- or quad-monitor computers at once. This installation requires different cabling than standard cascade configuration and offers an extra level of switching flexibility for multiple-monitor installations where multiple video cards are installed on each computer.



### Notes:

- Before making any connections, you must first access the OSD and enable the Multi-View setting (see the **Activate Multi-View** section of this manual for details).
- Before making any connections, make sure power to all devices being connected to the KVM switch are turned off. Unplug any computer power cords using the Keyboard Power-On function.

**1** Using a standard USB-A to USB-B device cable, connect the USB-B port on computer port 8 (CPU 8) of the first level KVM switch to the top USB-A console port (labeled for mouse functionality) on the second level KVM switch.

**Note:** Computer port 8 is reserved for connecting KVM switches in a multi-monitor installation. Up to seven computers can be controlled using computer ports 1 through 7.

**2** Repeat step 1 to connect additional KVM switches, with a maximum of four KVM switches in a multi-monitor installation.

## Installation

- 3** Connect a monitor to the first level KVM switch using one of the following three methods.
  - a. DVI Monitor – Connect the DVI port on the monitor to the DVI-I console port located on the rear of the KVM switch.
  - b. DVI + VGA Monitor – For monitors with DVI and VGA ports, you can connect both to the KVM switch. Connect the DVI port on the monitor to the KVM's DVI-I console port, and the VGA port on the monitor to the KVM's VGA console port.
  - c. DVI and VGA Monitors – Connect a DVI monitor to the DVI-I console port on the KVM, and a VGA monitor to the VGA console port.

**Note:** Only one video signal will transmit at a time. When connecting to both the DVI and VGA ports on a single monitor, or when connecting DVI and VGA monitors at the same time, the video output used will be determined by the OSD settings. See the **Set Computer Video Input** section in this manual for details.

- 4** Repeat step 3 for each KVM in the installation.

**Note:** The OSD setting of the first level KVM switch determines the video output used by each KVM in the installation.

- 5** Connect a USB keyboard and mouse to the corresponding USB keyboard and mouse console ports located on the back of the first level KVM switch.

**Note:** This step is required for the first level KVM switch only.

- 6 Optional** – Connect a microphone and speakers to the corresponding 3.5 mm console jacks on the unit's front or rear panel. The front panel jacks will take priority over those on the rear panel.

**Note:** This step is required for the level one KVM switch only.

- 7 Optional** – Connect USB device(s) to the USB 2.0 hub port(s) on the front and rear of the KVM switch.

**Note:** This step is required for the level one KVM switch only.

- 8** Connect the KVM cable kit to the KVM switch. The USB-B male connector side plugs in to an available set of computer ports located on the rear panel of the first level KVM switch. Connect the DVI-D connector to the DVI-I port, and the USB and 3.5 mm connectors to its corresponding USB and 3.5 mm ports.

**Note:** KVMs include two 6 ft. cable kits. For the remaining ports requiring cables, or if a longer cable is needed, separate P759-Series DVI/USB + Audio KVM Cable Kits are need (sold separately).

- 9** Connect the other end of the KVM cable kit to the corresponding ports on the computer you wish to add to the installation.

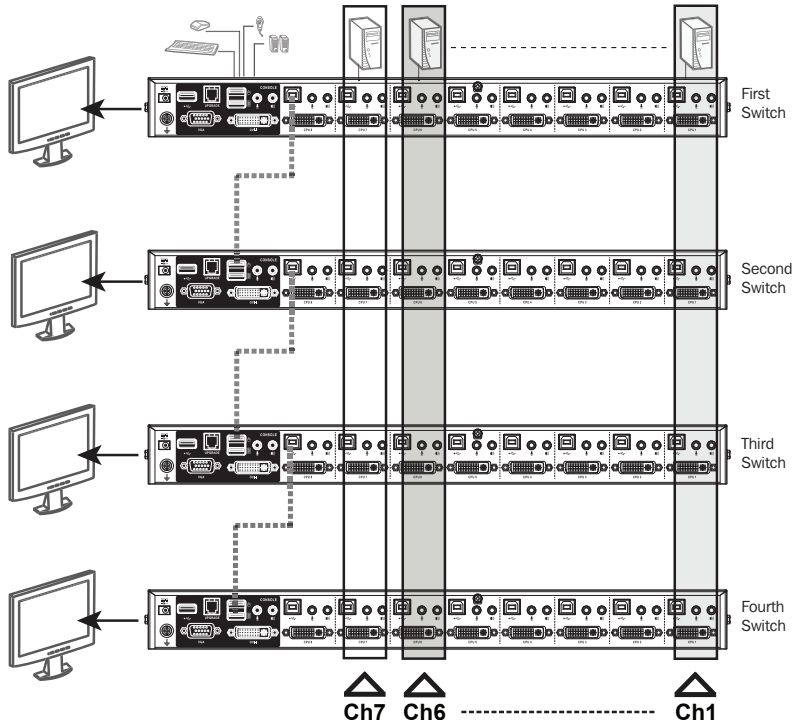
- 10** From the same computer port on the second level KVM switch that was just used to connect a computer to the first level KVM switch, connect the DVI-I port to the second DVI port of the same computer with a DVI cable (such as Tripp Lite P560- and P561-Series cables).

# Installation

- 11** Repeat step 10 for each additional KVM switch on the installation.
- 12** Repeat steps 8 through 11 for each additional computer added to the installation.
- 13** To properly power on the installation, first connect the included power supply to the first level KVM switch, then plug it into an appropriate power source. To help protect your system from sudden transient increases and decreases in electrical power, plugging your devices into a Tripp Lite surge protector, line conditioner, or uninterruptible power supply (UPS) is recommended.
- 14** Repeat step 13 for the second level KVM switch, then for each successive KVM switch in the installation.
- 15** Turn on the power to all connected computers and devices.

## Grouping Ports into Channels

Once the cables are connected and Multi-monitor mode is enabled in the OSD (see “Activate Multiview” in the F4: ADM section in this manual for details), the KVM switch auto-detects the channels and viewing modes. Users can assign a channel number as the port name (channels are represented by the vertical columns in the diagram below). For example, all Port 1s in the installation become Channel 1, and all Port 2s become Channel 2, and so on. The ports will all switch at the same time, channel by channel.





# Basic Operation

## Hot Plugging

B024-DUA8-SL and B024-DUA8-DL KVM Switches support hot plugging, allowing components to be removed and reinstalled back into the installation by unplugging and replugging their cables from the ports without needing to shut the unit down.

### Hot Plugging KVM Ports

If changing computer positions, in order for the OSD menus to correspond to KVM port changes, port names must be edited manually for the OSD to reflect the new port information (see the F3 Set section of this manual for details).

**Note:** *If the computer's operating system does not support hot plugging, this function may not work properly*

### Hot Plugging Console Ports

The keyboard, monitor, and mouse can all be hot plugged.

When hot plugging the mouse:

- You may unplug and replug the mouse (to reset the mouse, for example), as long as the same mouse is used.
- If plugging a different mouse, all computers in the installation must remain shut down for 10 seconds, then restarted following the power up sequence described in the installation section.

**Note:** *If after hot plugging there is no response to keyboard and/or mouse input, perform a keyboard and mouse reset by simultaneously pressing the 7 and 8 front panel pushbuttons.*

## Port Selection

The B024-DUA8-SL and B024-DUA8-DL KVM switches provide three port selection methods to switch between computers on the installation: manual pushbuttons, OSD (on-screen display), and keyboard hotkey commands. The manual pushbutton method is as simple as pressing a pushbutton on the KVM's front panel that corresponds with the port you want to switch to; press a pushbutton for two seconds to simultaneously switch KVM, audio and USB, or press a pushbutton for less than two seconds to switch only the KVM and audio. For OSD and keyboard hotkey commands, subsequent sections of this manual provide greater detail on the operation of these methods, both for port selection and other KVM functions.

## Powering Off and Restarting

In the event the KVM switch needs to be powered off, 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, then plug the power supply back into the KVM switch.
4. Power on all connected computers.

**Note:** *If there are multiple levels in the installation, all cascaded KVM switches and computers must also be shut down and restarted. Power on the installation in the same order as described in the installation instructions.*

# Basic Operation

## OSD (On-Screen Display) Operation

The On-Screen Display (OSD) is a text-based interface that allows control and administration of the KVM switch. When logging onto the KVM switch, the OSD Main Menu is the first screen to appear after entering the username and password.

## First Time Logging In

The KVM switch features two-level security, with one Administrator and four User accounts. If you are an Administrator accessing the KVM switch for the first time, leave the Username and Password fields blank, and press the [Enter] key twice to access the OSD Main Menu. Once logged in to the KVM switch as Administrator, you will be able to access all OSD features and customize KVM settings. At this point, changing the Administrator username and password is highly recommended.

## OSD Invocation Sequence

Once logged in to the KVM switch, use one of two sequences to open the OSD Main Menu: [Scroll Lock, Scroll Lock] or [Ctrl, Ctrl]. The default OSD invocation sequence is [Scroll Lock, Scroll Lock]. The OSD Invocation Sequence can be changed via the OSD (see the **OSD Hotkey** section of this manual for details).




When the OSD is invoked, a screen similar to the one above appears.

### Notes:

- The diagram depicts the Administrator's main screen. The User's main screen does not contain F4 and F6 functions, as they cannot be accessed by ordinary users and are reserved for the Administrator.
- OSD always starts in list view, with the highlight bar at the same position as when it was last closed.
- Only the ports that have been set accessible by the Administrator for the currently logged in User are visible (see the **Set Accessible Ports** section of this manual for details).
- If the port list is collapsed into stations, simply click on the plus sign next to the desired station number, or highlight the desired station number and press the [Enter] key.

# Basic Operation

## OSD Main Screen Headings

Header	Description
<b>PN</b>	This column lists the port ID number for all KVM ports on the installation. The easiest method to access a particular computer is to move the highlight bar over it, then press Enter.
<b>QV</b>	If a port has been selected for quick view scanning (see the <b>Set Quick View Ports</b> section in this manual for details), an arrowhead displays in this column.
	Computers powered on and online have a sun symbol in this column.
<b>NAME</b>	If a port has been given a name (see the <b>Edit Port Names</b> section of this manual for details), its name appears in this column.

## OSD Navigation

- To close the menu and deactivate OSD, click the [X] at the upper right corner of the OSD window or press [Esc].
- To log out, press [F8], click F8 on the OSD Menu Bar or click the **Z** symbol in the upper-right corner of the OSD screen.
- To move up or down one line at a time, click the Up and Down Triangle symbols (**▲▼**), or press the up and down arrow keys. If more entries appear than on the screen, the screen will scroll.
- To move up or down one screen at a time, click the Up and Down Arrow symbols (**↑↓**), or press the [Pg Up] and [Pg Dn] keys. If more entries appear than on the screen, the screen will scroll.
- To activate a port, double-click or move the highlight bar over it, then press [Enter].
- After executing any action, you will automatically return to the menu one level above.

## OSD Functions

OSD functions allow the KVM to be controlled and configured via the OSD. Using these functions, you can quickly skip over to a port on the installation, initiate an auto scan, limit the port list displayed when you access the OSD, create/edit port names, and so on. To access any of the OSD functions, simply click on the corresponding function number at the top of the OSD or type the corresponding function number using the keyboard. When in the OSD function submenus, simply press [Esc] to exit and return to the previous menu.

# Basic Operation

## F1 Go To (GOTO)

Click the F1 field or press [F1] to activate the GOTO function. GOTO switches directly to a port, either by typing in the port's Name or its Port ID.

- To use the Name: press [1], type the port's Name, then press [Enter]
- To use the Port ID: press [2], type the Port ID, then press [Enter]

**Note:** A partial Name or Port ID can be entered. The screen will display all computers matching the Name or Port ID pattern, as well as those the User is allowed access to. To return to the OSD Main Menu without making a choice, press [Esc].

## F2 List Ports (LIST)

This function tailors the list of ports the OSD will display on the Main Screen. The submenu choices and their meanings are provided in the table below:

Setting	Description
<b>ALL</b>	Lists all ports on the installation that are accessible to the logged-on User.
<b>POWERED ON</b>	Lists all ports on the installation that are accessible to the logged-on User AND powered-on.
<b>QUICK VIEW</b>	<b>This is an Administrator-only option.</b> When selected, it only displays ports that have been marked as Quick View ports.
<b>QUICK VIEW + POWERED ON</b>	<b>This is an Administrator-only option.</b> When selected, it only displays ports that have been marked as Quick View ports and are also powered-on.

Move the highlight bar to the desired choice and press [Enter]. An icon will appear next to the choice to indicate it is currently selected.

## F3 Set Environment (SET)

This function allows each User and the Administrator to set up their own working environment. A separate profile for each account type is stored by the OSD and is activated according to the username provided during login.

To change a setting:

1. Double-click the item, or move the highlight bar over to it and press [Enter].
2. After selecting an item, a submenu with more choices will appear. To make a selection, either double-click a choice or move the highlight bar to the desired choice and press [Enter]. An icon will appear beside the selected choice. The settings are explained in detail in the following table:

Setting	Description
<b>OSD HOTKEY</b>	Select the hotkey that activates the OSD function: use either [Scroll Lock] [Scroll Lock] or [Ctrl] [Ctrl]. Since the [Ctrl] key combination may conflict with programs running on the computers, the default setting is the [Scroll Lock] combination.

## Basic Operation

<b>PORT ID DISPLAY POSITION</b>	<p>Position the Port ID identifier anywhere on the screen. The default setting is the upper right corner. Use the mouse, or a combination of the arrow keys and [Pg Up], [Pg Dn], [Home], [End] and [5] (on the numeric keypad with [Num Lock] off) to position the Port ID display. Then double-click or press [Enter] to lock the position and return to the Set submenu.</p> <p><b>Note:</b> The ID (identifier) position is set independently for each port on the installation. The choice specified here only applies to the currently active port.</p>
<b>PORT ID DISPLAY DURATION</b>	<p>This selection gives the option of displaying the Port ID for 3 seconds, or set the Port ID display as always off. The default setting is for the Port ID to display for 3 seconds.</p>
<b>PORT ID DISPLAY MODE</b>	<p>Select how the Port ID is displayed: the Port Number alone (PORT NUMBER), the Port Name alone (PORT NAME), or the Port Number, plus the Port Name (PORT NUMBER + PORT NAME). The default is (PORT NUMBER + PORT NAME).</p>
<b>SCAN DURATION</b>	<p>Determine how long each port is connected as the KVM cycles through the ports in Auto Scan mode (see the <b>F7 Scan</b> section in this manual for more information). Type a value from 1 - 255 seconds, then press [Enter]. The default setting is 5 seconds. A setting of 0 (zero) disables the Auto Scan function.</p>
<b>SCAN/SKIP MODE</b>	<p>Select which ports to access during Auto Scan and Skip modes. Choices are:</p> <ul style="list-style-type: none"> <li>• ALL – All accessible ports in the installation will be accessible in Auto Scan and Skip modes.</li> <li>• POWERED ON – All ports that are accessible and powered on will be accessible in Auto Scan and Skip modes.</li> <li>• QUICK VIEW – <b>This is an Administrator-only option.</b> When selected, only ports that are set as Quick View ports will be accessible in Auto Scan and Skip mode.</li> <li>• QUICK VIEW + POWERED ON – <b>This is an Administrator-only option.</b> When selected, only ports that are set as Quick View ports AND powered on will be accessible in Auto Scan and Skip mode.</li> </ul> <p>The default setting is ALL.</p>
<b>SCREEN BLANKER</b>	<p>If the console is left idle for the set amount of time with this function, the screen will appear blank. Type in a value from 1 - 30 minutes, then press [Enter]. A setting of 0 disables this function. The default setting is 0 (disabled).</p>
<b>HOTKEY COMMAND MODE</b>	<p>Enables / disables the hotkey command function if a conflict with programs running on the computers occurs.</p>
<b>HOTKEY</b>	<p>Toggle between the two Hotkey mode invocation sequences. Options are [Num Lock, Minus] and [Ctrl, F12].</p>
<b>OSD LANGUAGE</b>	<p>Determines which language displays in the OSD menus. Choices are English (default), Simplified Chinese, Traditional Chinese, Spanish, French, German, Russian and Japanese.</p>

# Basic Operation

## F4: ADM

F4 is an Administrator-only function that allows the Administrator to configure and control the OSD's overall operation. To change a setting, either double-click, or use the up and down arrow keys to move the highlight bar over to it, then press [Enter].

After selecting an item, a submenu appears with further choices to select. Double-click an item, or move the highlight bar over to it, then press [Enter]. An icon appears before the selected item for easy identification. The settings are explained in further detail in the following table:

Setting	Description
<b>SET USER LOGIN</b>	<p>This function is used to set usernames and passwords for the Administrator and User accounts. One Administrator and four User accounts are available. To edit an account:</p> <ol style="list-style-type: none"> <li>1. Double-click on the account you wish to edit, or highlight it and press enter. A screen will appear to type in the username and password. Usernames and passwords can range from 1 to 16 characters, and consist of any combination of letters and numbers (A–Z, 0–9) and additional keys * ( ) + : - , ? . / [space].</li> <li>2. For each individual, type the username and password, confirm the password, and press [Enter].</li> <li>3. To modify or delete a previous username and/or password, use the backspace [←] key to erase individual letters or numbers. Press [Enter] when done.</li> </ol> <p><b>Note:</b> <i>Usernames and passwords are not case sensitive. Usernames will display in all capital letters in the OSD.</i></p>
<b>SET ACCESSIBLE PORTS</b>	<p>This function allows the Administrator to define user access to computers in the installation on a port-by-port basis. For each user, select the target port, then press [Spacebar] to cycle through the choices available: F (full access), V (view only), or blank.</p> <p>Repeat until all access rights are set, then press [Enter]. The default is F for all users on all ports.</p> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>• <i>In a blank setting, no access rights have been granted. The port will not appear on the User's list on the main screen.</i></li> <li>• <i>The Administrator always has full access to all ports.</i></li> </ul>

## Basic Operation

<b>SET LOGOUT TIMEOUT</b>	<p>If there is no input from the console for the time duration set within this function, the User is automatically logged out. A log in is necessary before the console can be used again.</p> <p>This enables other users to gain access to a computer when the original User is no longer accessing it, but has forgotten or has not logged out. To set the timeout value, type a number from 1–180 minutes, then press [Enter]. The default setting of 0 disables this function.</p> <p><b>Note:</b> This feature does not function if Set Login mode is disabled (see the Set Login Mode section in this manual for details).</p>
<b>EDIT PORT NAMES</b>	<p>To help remember which computer is attached to a particular port, every port can be given a name. This function allows the Administrator to create, modify, or delete port names.</p> <p>To edit a port name:</p> <ol style="list-style-type: none"> <li>1. Click the port, or highlight it and press [Enter].</li> <li>2. Type the new port name or modify/delete the old one. The maximum character length allowed for the port name is 12. Legal characters include: All alpha characters: <b>A–Z</b>, all numeric characters: <b>0–9</b>, and special characters * ( ) + : - , ? . /</li> </ol> <p>Port names are case insensitive; the OSD displays port names in all capitals, regardless of how they were entered.</p> <ol style="list-style-type: none"> <li>3. When finished editing, press [Enter] for the change to take effect. To abort the change, press [Esc].</li> </ol>
<b>RESTORE DEFAULT VALUES</b>	<p>This function is used to undo all changes and return the setup to the original factory default settings (see the <b>Factory Default Hotkeys and Settings</b> section in this manual for details), except for the port name list, and username and password information, which are saved.</p>
<b>CLEAR THE NAME LIST</b>	<p>This function clears the port name list.</p>
<b>ACTIVATE BEEPER</b>	<p>Choices are Y (on), or N (off). When activated, the beeper sounds whenever a port is changed, when activating the Auto Scan function (see the <b>F7 Scan</b> section in this manual for details), or when an invalid entry is made in an OSD menu. The default is Y.</p>

## Basic Operation

<b>SET QUICK VIEW PORTS</b>	<p>This function allows the Administrator to select which ports to include as quick view ports.</p> <ul style="list-style-type: none"> <li>• To select/deselect a port as a quick view port, click on it or move the cursor over to highlight it and press [Spacebar].</li> <li>• When a port has been selected as a quick view port, an icon displays in the QV column of the LIST on the main screen. When a port is deselected, the icon disappears.</li> <li>• If one of the Quick View options is chosen as the F2 LIST setting (see the <b>F2 List</b> section in this manual for details), only ports selected as Quick View ports will display on the list.</li> <li>• If one of the Quick View options chosen is the SCAN-SKIP MODE setting (see the <b>Scan/Skip Mode</b> section in this manual for details), only ports selected as Quick View ports here will be auto-scanned.</li> </ul> <p>The default is for no ports to be selected for quick view.</p>
<b>SET OPERATING SYSTEM</b>	<p>This function allows the Administrator to define the operating system for the computer connected to each KVM port. The default is WIN (PC compatible).</p> <p>To set the port operating system:</p> <ol style="list-style-type: none"> <li>1. From the list, select the port for which you wish to set the computer's operating system.</li> <li>2. Set the operating system by pressing [Spacebar] to cycle through WIN, MAC, SUN, or OTHER.</li> <li>3. When all of the computers display the desired operating system in this screen, press [Esc] to exit. The operating system selected is assigned to the corresponding KVM port.</li> </ol>
<b>FIRMWARE UPGRADE</b>	<p>In order to upgrade the KVM firmware (see the <b>Firmware Upgrade</b> section in this manual for details), you must first enable Firmware Upgrade mode with this setting. When accessing this menu, the current firmware version will display. Select Y to enable Firmware Upgrade mode, or N to leave this menu without enabling it.</p>
<b>KEYBOARD LANGUAGE</b>	<p>Sets the language for the computer keyboard attached to the KVM console port. To select a keyboard language, double-click, or use the navigation keys to move the highlight bar over to it and press [Enter].</p> <p>Choices are: AUTO (default), ENGLISH (US), ENGLISH (UK), GERMAN (GER.), GERMAN (SWISS), FRENCH, HUNGARIAN, ITALIAN, JAPANESE, KOREAN, RUSSIAN, SPANISH, SWEDISH, TRADITIONAL CHINESE, and SIMPLIFIED CHINESE.</p>
<b>SET COMPUTER VIDEO INPUT</b>	<p>Sets the video signal type for the computers connected to each KVM port. Options are DVI-A and DVI-D.</p>



## Basic Operation

<b>SET CONSOLE VIDEO OUTPUT</b>	<p>Sets the console video output type. If the computer attached to the KVM is VGA output, this can be set to display on either a VGA or DVI console monitor.</p> <p>Options are:</p> <ul style="list-style-type: none"> <li>• DVI-A to VGA – select this option if there is one DVI monitor with a DVI-D plus VGA connector, or if there are two monitors (1 x DVI, 1 x VGA)</li> <li>• DVI-A to DVI-I – select this option if there is one DVI monitor with a DVI-I connector</li> </ul> <p><b>Note:</b> <i>In a cascade installation or if using a VGA-to-DVI adapter in your installation, select DVI-A to DVI-I</i></p>
<b>MOUSE EMULATION</b>	<p>Enables / disables the mouse emulation function.</p> <p><b>Note:</b> <i>Mouse emulation is supported in the first level of an installation only.</i></p>
<b>ACTIVATE MULTIVIEW</b>	<p>Enables multi-view mode for dual-, triple- or quad-monitor viewing in a multiple monitor installation where each computer is fitted with multiple video cards (see the <b>Multi-Monitor Installation</b> section in this manual for details).</p> <p><b>Note:</b> <i>Multi-view mode must be enabled on the OSD before setting up a multi-monitor installation.</i></p>
<b>OSD CONFIG BACKUP / RESTORE</b>	<p>Enters OSD Configuration Backup / Restore mode. The Firmware Management Utility allows back up of the current OSD configuration and restore capability, when necessary. Storing the OSD configuration settings is useful when deploying more than one installation that uses the same settings (see the <b>OSD Configuration Backup/Restore</b> section in this manual for details).</p>
<b>SET LOGIN MODE</b>	<p>This function allows the Administrator to determine which users are required to log in to the KVM with a username and password. When disabled, the system disables the login/logout function.</p>

## Basic Operation

### F5: SKP

Clicking the F5 field or pressing [F5] invokes Skip (SKP) mode. This function enables backward or forward to easily switch the console focus from the currently active computer port to the previous or next accessible one.

- The selection of computers available for skip mode switching is made with the Scan–Skip mode setting under the **F3: SET** function (see **F3: Set Environment** section of this manual for details).

- When in skip mode, press:

[←] to skip to the previous accessible port on the list.

[→] to skip to the next accessible port on the list.

[↑] to skip to the next accessible port. If the next accessible port has cascaded a switch, then it skips to the first accessible port of that switch.

[↓] to skip to the previous accessible port. If the previous accessible port has cascaded a switch, then it skips to the last accessible port of that switch

**Note:** When skipping, you only skip to the previous or next accessible computer that is in the Scan–Skip mode selection.

- If a port has been selected for Scan–Skip mode, when the focus switches to that port, a left/right triangle symbol appears before its port ID display. When the port ID with the triangle symbol displays, the background screen is blank.
- While skip mode is in effect, the console will not function normally. You must exit skip mode in order to regain control of the console.
- When the selected port displays, skip mode is automatically disabled.
- To exit skip mode, press [Spacebar] or [Esc].

### F6: BRC

F6 is an administrator-only function. Clicking the F6 field, or pressing [F6], invokes Broadcast (BRC) mode. When this function is in effect, commands sent from the console are broadcast to all available computers on the installation.

This function is particularly useful for operations that must be performed on multiple computers, such as a system wide shutdown, installing or upgrading software, and so on.

- While BRC mode is in effect, a speaker symbol appears before the port ID display of the port that currently has the console focus. When the port ID with the speaker symbol displays, the background screen is blank.
- While BRC mode is in effect, the mouse will not function normally. You must exit BRC mode in order to regain control of the mouse.
- To exit BRC mode, invoke the OSD (with the OSD hotkey), then click the F6 field, or press [F6] to turn BRC mode off.
- When BRC mode is in effect, the Scroll Lock LED flashes. It stops flashing and reverts to normal status when you exit BRC.

## Basic Operation

### F7: SCAN

Clicking the F7 field or pressing [F7] invokes Auto Scan mode. This function automatically switches among the available computers at regular intervals so you can monitor their activity without having to go through the task of switching manually.

- The selection of computers to be included for auto-scanning is made with the Scan-Skip mode setting under the F3: SET function (see **F3: Set Environment** section of this manual for details).
- The amount of time each port displays is set with the Scan Duration setting under the F3: SET function (see **F3: Set Environment** section for more information). To stop at a particular location, press [Spacebar] to stop scanning.
- If scanning stops on an empty port, or one where the computer is attached but powered Off, the monitor screen will be blank and the mouse and keyboard will have no effect. Once the scan duration time expires, the scan function will proceed to the next port.
- As each computer is accessed, an “S” appears in front of the port ID display to indicate it is being accessed under Auto Scan mode. When the port ID with symbol displays, the background screen is blank.
- While Auto Scan mode is in effect, the console will not function normally. You must exit Auto Scan mode in order to regain control of the console.
- While you are in Auto Scan mode, you can pause the scanning in order to keep the focus on a particular computer either by pressing P, or with a left click of the mouse.
- To exit Auto Scan mode, press [Spacebar] or [Esc].

### F8: LOUT

Clicking the F8 field or pressing [F8] logs you out of OSD control of the computers and blanks the console screen. This is different from simply pressing [Esc] when you are at the main screen to deactivate the OSD. With this function, you must log in again to regain access to the OSD, whereas with [Esc], you will only need to reenter the OSD by pressing the OSD hotkey.

#### Notes:

- *When you re-enter the OSD after logging out, the screen remains blank except for the OSD main screen. You must input your username and password before you can continue.*
- *If you re-enter the OSD after logging out and immediately use [Esc] to deactivate the OSD without having selected a port from the OSD menu, a null port message displays on the screen. The OSD hotkey will open the main OSD screen.*

# Basic Operation

## Hotkeys

Hotkeys switch the 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 B024-DUA8-SL and B024-DUA8-DL.

### Hotkey Setting Mode

All hotkey operations begin by entering Hotkey Setting mode. All commands in Hotkey Setting mode begin 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. A command line will appear on the monitor screen displaying subsequent hotkey information typed in. The following section describes how to activate Hotkey Setting mode, as well as the commands it can perform. A table at the end of this section summarizes all of the commands.

To activate Hotkey Setting mode, perform the following steps:

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 [Num Lock] [-], but can be switched to use [Ctrl] [F12]. When switched to [Ctrl] [F12], the [Ctrl] key takes the place of the [Num Lock] key, and [F12] takes the place of the [-] key. To activate the *Alternate Hotkey Setting Mode Activation Command*, perform the following steps:

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

To revert to the previous command, perform these steps again.

## Select Active Ports

### Select the Active Port via Port ID – KVM, Audio and USB

Each KVM port is assigned a port ID. Any computer on the installation can be directly accessed with a hotkey combination specifying the port ID of the KVM port a computer is connected to.

- A computer attached to a master unit uses a two-digit Port ID (01 through 08) that corresponds to the KVM port number it is connected to.
- A computer attached to a slave unit uses a four-digit Port ID. The first two digits represent the KVM port number on the master and the second two digits represent the KVM port number on the slave unit that the computer is connected to. For example, a Port ID of 02–08 would refer to a computer connected to KVM port 8 of a slave unit that links back to KVM port 2 of the master unit. In a three-level cascade installation, a computer will use a six-digit port ID.

## Basic Operation

To access a computer using hotkeys:

1. Activate Hotkey Setting mode using the aforementioned command.
2. Key in the port ID. The port ID numbers display on the command line as you type them in. If you make a mistake, use [Backspace] to erase the wrong number.
3. Press [Enter].

After pressing [Enter], the KVM, audio and USB focus switches to the designated computer and you automatically exit Hotkey mode.

**Note:** In Hotkey mode, KVM focus will not switch to a port if an invalid switch or port number is entered. The hotkey command line will continue to display on the screen until you enter a valid switch and port number combination, or exit hotkey mode.

### Select the Active Port via Port ID – KVM and Audio

Each KVM port is assigned a port ID. You can directly access any computer on the installation with a hotkey combination that specifies the port ID of the KVM port a computer is connected to.

To access a computer using hotkeys:

1. Activate Hotkey Setting mode using the aforementioned command.
2. Type the port ID, then the letter K.
3. Press [Enter].

After pressing [Enter], the KVM and audio focus switches to the designated computer and automatically exits Hotkey mode.

**Note:** In Hotkey mode, KVM focus will not switch to a port if an invalid switch or port number is entered. The hotkey command line will continue to display on the screen until you enter a valid switch and port number combination, or exit Hotkey mode.

### Select the Active Port via Port ID – USB Only

Each KVM port is assigned a port ID. You can directly access any computer on the installation with a hotkey combination that specifies the port ID of the KVM port that a computer is connected to.

To access a computer using hotkeys:

1. Activate Hotkey Setting mode using the aforementioned command
2. Key in the port ID, and then the letter U.
3. Press [Enter].

After pressing [Enter], the USB focus switches to the designated computer and automatically exits Hotkey mode.

**Note:** In Hotkey mode, KVM focus will not switch to a port if an invalid switch or port number is entered. The hotkey command line will continue to display on the screen until you enter a valid switch and port number combination, or exit Hotkey mode.

# Basic Operation

## Auto Scan

### Initiate Auto Scan Mode

Auto Scan automatically switches between ports at a default of five-second intervals, accessing only ports that have been set as accessible under Scan-Skip Mode (see the **Scan-Skip Mode** section of this manual for details).

To initiate Auto Scan mode:

1. Activate Hotkey Setting mode using the aforementioned command.
2. Press [A] and then [Enter] to automatically exit hotkey mode and enter Auto Scan mode.
  - While in Auto Scan mode, you can pause the scan in order to maintain the focus on a particular computer by pressing P, or with a left click of the mouse. When paused, the command line displays *Auto Scan: Paused*. Pausing when you want to maintain the focus on a particular computer is more convenient than exiting Auto Scan mode, because when scanning resumes, you start from where you left off instead of starting over from the very first computer on the installation. To resume Auto Scanning, press any key or left-click.
  - While Auto Scan mode is in effect, ordinary keyboard and mouse functions are suspended – only Auto Scan mode compliant keystrokes and mouse clicks can be input. You must exit Auto Scan mode in order to regain normal control of the console.
3. To exit Auto Scan mode, press [Esc] or [Spacebar].

### Initiate Auto Scan Mode at a Set Interval

To initiate Auto Scan mode at a set interval:

1. Activate Hotkey Setting Mode using the aforementioned command.
2. Press [A] [n] ([n] = 1-255 seconds) and then [Enter] to automatically exit hotkey mode and enter Auto Scan mode.
  - While in Auto Scan mode, you can pause the scan in order to maintain the focus on a particular computer by pressing [P], or with a left click of the mouse. When paused, the command line displays *Auto Scan: Paused*. Pausing when you want to maintain the focus on a particular computer is more convenient than exiting Auto Scan mode, because when you resume scanning, you start from where you left off instead of starting over from the very first computer on the installation. To resume Auto Scanning, press any key or left-click.
  - While Auto Scan mode is in effect, ordinary keyboard and mouse functions are suspended – only Auto Scan mode compliant keystrokes and mouse clicks can be input. You must exit Auto Scan mode in order to regain normal control of the console.
3. To exit Auto Scan mode, press [Esc] or [Spacebar].

# Basic Operation

## Skip Mode

This feature allows you to switch between computers in order to monitor them manually. You can stay on a particular port for as long as desired, as opposed to auto-scanning, which automatically switches after a fixed interval.

To initiate Skip mode:

1. Activate Hotkey Setting mode using the aforementioned command.
2. Press one of the arrow keys [↑ ↓ → ←] to automatically exit Hotkey mode and enter Skip mode. Depending upon which arrow key is pressed when entering Skip mode, you will enter at a previous or later port used than the one being currently accessed (see table below). You can switch ports, as follows:

Arrow Key	Description
←	Skips to the previous accessible port in the installation.
→	Skips to the next accessible port in the installation.
↑	Skips to the next accessible port in the installation. If the next accessible port is on a cascaded switch, it skips to the first accessible port of that switch.
↓	Skips to the previous accessible port in the installation. If the previous accessible port is on a cascaded switch, it skips to that switch's last accessible port.

- Once in Skip mode, you can continue skipping between ports by pressing the arrow keys.
  - While Skip mode is in effect, ordinary keyboard and mouse functions are suspended – only Skip mode compliant keystrokes can be input.
3. To exit Skip mode, press [Esc] or [Spacebar].

## USB Keyboard/Mouse/Hub Reset

In the event the keyboard, mouse, or USB hub ports are not operating correctly, a reset may be required. To perform a reset, follow the steps below:

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 the command is taking place. This beeper sound can be toggled on/off by performing the following steps:

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

## Basic Operation

### Alternate OSD Invocation Hotkey Command

By default, the OSD Invocation Hotkey is [Scroll Lock] [Scroll Lock]. To toggle between [Scroll Lock] [Scroll Lock] and [Ctrl] [Ctrl], perform the following steps:

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

### Keyboard Operating System

A port's operating system can be changed to match that of the computer it is connected to. To change a port's operating system:

1. Navigate to the port whose *Operating System* setting you wish to change.
2. Activate Hotkey Setting mode using the aforementioned command.
3. Press and release the [F1] (for Windows), [F2] (for Mac), or [F3] (for Sun) key.

### Restore Default Settings

To restore the KVM to its factory default settings, perform the following steps:

1. Activate Hotkey Setting mode using the aforementioned command.
2. Press and release the [R] key, then press and release the [Enter] 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*, perform the following steps:

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

### Mouse Emulation

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

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



## Basic Operation

### Hotkey Setting Mode Command Summary Table

After invoking Hotkey Setting mode, type one of the following key combinations to perform the corresponding function:









Key	Action
[PN] [Enter]	(PN = Port ID Number). Switches KVM, Audio, and USB focus to the corresponding port.
[PN] [K] [Enter]	(PN = Port ID Number). Switches KVM and Audio focus to the corresponding port.
[PN] [U] [Enter]	(PN = Port ID Number). Switches the USB focus to the corresponding port.
[A] [Enter]	Initiates an Auto Scan at the default interval of 5 seconds
[A] [n] [Enter]	(n = 1-255 seconds). Initiates an Auto Scan at a set interval between 1 and 255 seconds.
[H]	Toggles the Hotkey Setting Mode Activation Command between [Num Lock] [-] and [Ctrl] [F12].
[T]	Toggles the OSD Invocation Command between [Scroll Lock] [Scroll Lock] and [Ctrl] [Ctrl].
[F1]	Sets the port OS to Windows.
[F2]	Sets the port OS to Mac.
[F3]	Sets the port OS to Sun.
[F5]	Performs a USB reset.
[B]	Toggles the beeper on/off.
[R] [Enter]	Resets the KVM to its default Hotkey Settings.
[D]	Performs a Video Sync, storing the monitor's EDID information to ensure optimal video settings are being used.
[M]	Enables/disables mouse emulation.
[←]	Initiates Skip mode by skipping to the previous accessible port. Skips to the previous accessible port when in Skip mode.
[→]	Initiates Skip Mode by skipping to the next accessible port. Skips to the next accessible port when in Skip mode.
[↑]	Initiates Skip mode by skipping to the next accessible port. If the next port is a cascaded switch, it switches to the first accessible port on that switch. Skips to the previous accessible port when in Skip mode.
[↓]	Initiates Skip mode by skipping to the previous accessible port. If the previous port is a cascaded switch, it switches to the last accessible port on that switch. Skips to the previous accessible port when in Skip mode.
[Esc] or [Spacebar]	Exits Hotkey Setting mode.

# Basic Operation

## Mac Keyboard Emulation

The PC-compatible (101/104 key) keyboard can emulate the functions of the Mac keyboard using the PC keystrokes shown 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, then press and release the second key.











PC Keyboard	Mac Keyboard
[Shift]	[Shift]
[Ctrl]	[Ctrl]
	
[Ctrl], [1]	
[Ctrl], [2]	
[Ctrl], [3]	
[Ctrl], [4]	
[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 Sun keyboard functions using the PC keystrokes shown 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, 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]
[Ctrl], [F10]	[Cut]
[Ctrl], [1]	 
[Ctrl], [2]	 - 
[Ctrl], [3]	 + 
[Ctrl], [4]	
[Ctrl], [H]	[Help]
	[Compose]
	

## Firmware Upgrade Utility

Firmware upgrades can be found on the internet at [www.tripplite.com/support](http://www.tripplite.com/support). The *Firmware Upgrade Utility* includes the firmware upgrade file. Firmware upgrades cannot be performed simultaneously in a Cascade or Multi-Monitor installation. You must upgrade each KVM separately. To upgrade the firmware of your KVM switch, follow the steps below:

1. From a computer not connected to the KVM switch, go to [www.tripplite.com/support](http://www.tripplite.com/support) to obtain the firmware upgrade download for your KVM switch, and save it to your computer.
2. Shut down all computers connected to the KVM switch.
3. Connect the firmware upgrade cable between the KVM's firmware upgrade port and your computer's DB9 communication port.

## Basic Operation

4. Access the OSD as an Administrator, and navigate to the F4 ADM menu. Select the Firmware Upgrade option from the list, and type [Y] to initiate Firmware Upgrade mode.
5. On the computer where the firmware upgrade file is saved, run the *Firmware Upgrade Utility* file by double-clicking on it or by opening up a command line and typing the path.
6. After reading the license agreement, click on the *I Agree* option, then 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.
7. Highlight the KVM switch in the *Device List* by clicking on it. For the *Firmware Upgrade Utility* to check the KVM's firmware version and determine 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*.
8. 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, a prompt to continue or cancel will display. 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 successful. 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, then the firmware upgrade failed to install properly. In this case, perform the following steps:

1. Power off the KVM switch by disconnecting the external power supply.
2. Connect the firmware upgrade cable to the KVM's firmware upgrade port.
3. Slide the Firmware Upgrade Recovery switch located on the front of the KVM to the Recover position.
4. Power the switch back on and perform the firmware upgrade again.
5. After the switch has been successfully upgraded, power it off, then slide the firmware recovery switch to Normal.
6. Power the switch back on.

# Basic Operation

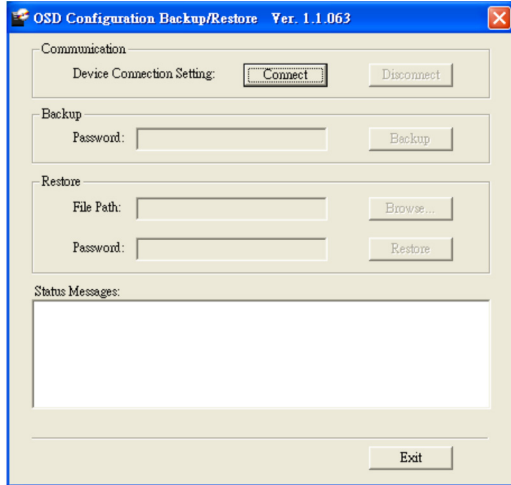
## OSD Configuration Backup/Restore

The Firmware Upgrade Utility allows back up of the KVM's current OSD configuration and the ability to restore it when necessary. Storing OSD configuration settings is useful when deploying more than one installation using the same settings.

### Backup

To store a backup file to a local computer, follow these steps:

1. Make sure your computer is connected to the KVM switch.
2. Connect the Firmware Upgrade Cable from the KVM's firmware upgrade port to your computer's DB9 communication port.
3. Shut down all computers on the KVM installation.
4. From the KVM console, log in to the OSD as Administrator and select the **F4 ADM** function.
5. Once you have selected the F4 ADM function, scroll down to OSD CONFIG BACKUP / RESTORE. Press **[Enter]**, then press **[Y]** to invoke *OSD Config Backup / Restore* mode.
6. Run the Firmware Upgrade Utility. In the dialog box, choose *OSD Configuration Backup/Restore*, then click Next.
7. In the window that appears, click *Connect Device*.



8. In the Password field, type in a password for the file.  
**Note:** Setting a password is optional. If you do not set one, the file can be restored without specifying a password.
9. Click Backup.
10. When the browser asks what you want to do with the file, select Save to disk, then save it in a convenient location.

# Basic Operation

## Restore

To restore a backup file from a local computer, follow these steps:

1. Make sure the computer the configuration is backed up to is connected to the KVM switch.
2. Connect the firmware upgrade cable between the KVM's firmware upgrade port and your computer's DB9 communication port.
3. Shut down all computers on the KVM installation.
4. From the KVM console, log in to the OSD as Administrator and select the **F4 ADM** function.
5. Once you have selected the F4 ADM function, scroll down to OSD CONFIG BACKUP / RESTORE. Press **[Enter]**, then press **[Y]** to invoke *OSD Config Backup / Restore* mode.
6. Run the Firmware Upgrade Utility. In the dialog box, choose *OSD Configuration Backup/Restore*, then click Next.
7. In the window that appears, click Restore to recover an OSD configuration stored in the local computer. If you have previously set a password for this feature, enter the password in the provided field before clicking Restore. A confirmation window will appear; click Yes to proceed.
8. Browse for the OSD configuration file you want to use and click Restore. Make sure the backup file is in the local computer.
9. A confirmation window appears when the restore process is finished and successful. Click OK to close.

## Factory Default Settings

Setting	Default
OSD Invocation Hotkey Command	[Scroll Lock], [Scroll Lock]
Hotkey Setting Mode Activation Command	[Num Lock], [-]
Auto Scan Interval	5 seconds
Hotkey Beeper	Enabled
Port Switching Hotkeys	Enabled
Mouse Emulation	Enabled

## Specifications

Feature	B024-DUA8-SL	B024-DUA8-DL
Computer Ports	8	8
DVI Technology	DVI-I Single-Link	DVI-I Dual-Link
Expandable (Cascade/Daisy chain)	Cascade	Cascade
Form Factor	Rack mount	Rack mount
Port Selection	Hotkeys, Pushbuttons, OSD	Hotkeys, Pushbuttons, OSD
Console Keyboard/ Mouse Ports	(x2) USB A Female	(x2) USB A Female
Console Video Port	DVI-I Female, VGA Female	DVI-I Female, VGA Female
Console Speaker/ Mic Ports	(x4) 3.5 mm Female**	(x4) 3.5 mm Female**
Computer Ports	(x8) DVI-I Single-Link Female, (x8) USB B Female, (x16) 3.5 mm Female	(x8) DVI-I Dual-Link Female, (x8) USB B Female, (x16) 3.5 mm Female
KVM Cable Kits	P759-Series	P759-Series
Included KVM Cable Kits	(x2) P759-006	(x2) P759-006
Power Jack	DC Power Jack for External Power Supply	DC Power Jack for External Power Supply
Power Consumption`	5.3V 4.53W	5.2V 8.26W
USB 2.0 Hub Ports	(x2) USB A Female	(x2) USB A Female
Keyboard/Mouse Emulation	USB	USB
Max Video Resolution	Digital – 1920 x 1200 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)	1.73 x 17.2 x 6.3 in. 44 x 437 x 160 mm	1.73 x 17.2 x 6.3 in. 44 x 437 x 160 mm
Unit Weight	6.2 lb. 2.8 kg	6.2 lb. 2.8 kg

\*\*Includes two sets of Speaker/Mic ports; two 3.5mm jacks on the front panel and two 3.5mm jacks on the rear panel. The front panel ports take priority over the rear panel.

# Warranty and Product Registration

## 1-Year Limited Warranty

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.triplite.com/warranty](http://www.triplite.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.

# Regulatory Compliance

## FCC Notice, Class A

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 A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. The user must use shielded cables and connectors with this equipment. Any changes or modifications to this equipment not expressly approved by Tripp Lite could void the user's authority to operate this equipment.

## 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 marketing name or model number of the product.

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



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