



TruLink™ VGA and PS/2 KVM USER MANUAL



Part #52041



Part #52042

Contents

Introduction	2
Overview	2
Package Contents.....	3
Requirements.....	4
Console	4
Computers	4
Cables	4
Safety Instructions.....	5
Hardware Setup	7
Front View.....	7
Rear View	8
Installation	9
Operation	11
LED Display	11
Manual Port Selection	11
Hotkey Port Selection.....	12
Port Selection	12
Auto Scan Mode	13
Appendix	14
Hotkey Summary Table.....	14
Specifications.....	15
Troubleshooting	16
Getting Help.....	16
Limited Warranty	17
User Notice	17
FCC Information.....	18
RoHS	18

Introduction

Overview

The TruLink™ VGA and PS/2 KVM delivers performance and value to your desktop! By controlling multiple computers from a single PS/2 keyboard, VGA monitor, and PS/2 mouse console, the TruLink VGA KVM eliminates the expense of having to purchase separate console components for each computer. The space those extra components would take up is also eliminated in addition to the inconvenience and wasted effort involved in constantly moving from one computer to another. The TruLink VGA KVM supports superior video quality, up to 2048 x 1536, for even the most demanding video applications. All cables are included so there is nothing more to buy! There is no better way to save time and money than with a TruLink VGA and PS/2 KVM.

- Reduce redundancies and costs by using only one keyboard, mouse, and monitor for several computers
- Easy to install - no software required - connecting cables to the computers is all it takes
- Switch between the computers manually via the push button port selection switches or with *hotkey* combinations entered from the keyboard
- Superior video quality - up to 2048 x 1536
- Compatible with all PC compatible operating platforms
- Supports Microsoft IntelliMouse and the scrolling wheel on most mice
- Power on detection – automatically switches to the first powered on port
- Auto scan function to monitor computer operation
- LED display for easy status monitoring

- Hot pluggable – add or remove computers without powering down the switch
- Caps Lock, Num Lock, and Scroll Lock states are saved and restored when switching
- Keyboard and mouse emulation for error free computer booting
- All cables included so there is nothing more to buy!

Package Contents

The 52041/52042 package consists of:

- TruLink™ 2 or 4 Port VGA and PS/2 KVM
- User Manual
- (2) 1.2m PS/2 KVM cable
- (2) 1.8m PS/2 KVM cable (52042 only)
- (1) Console adapter cable
- (4) Footpad
- 9V DC power adapter

Check to make sure that all of the components are present and in good order. If anything is missing, or was damaged in shipping, contact your dealer.

Read this manual thoroughly and follow the installation and operation procedures carefully to prevent any damage to the switch or to any other devices on the installation.

Requirements

Console

- A VGA, SVGA, or Multisync monitor capable of the highest resolution that you will be using on any computer in the installation
- A PS/2 style keyboard
- A PS/2 style mouse

Computers

The following equipment must be installed on each computer that is to be connected to the system:

- A VGA, SVGA or Multisync port.
- A PS/2 Style keyboard port.
- A PS/2 Style mouse port.

Cables

Only cable sets specifically designed to work with this switch may be used.

- The 52041 package provides one *Console Connector Cable* and two 1.2m KVM cable sets.
- The 52042 package provides one *Console Connector Cable*; two 1.2m KVM cable sets; and two 1.8m KVM cable sets.

KVM cable sets are also available in other lengths. If you need additional cable sets, contact your dealer.

Safety Instructions

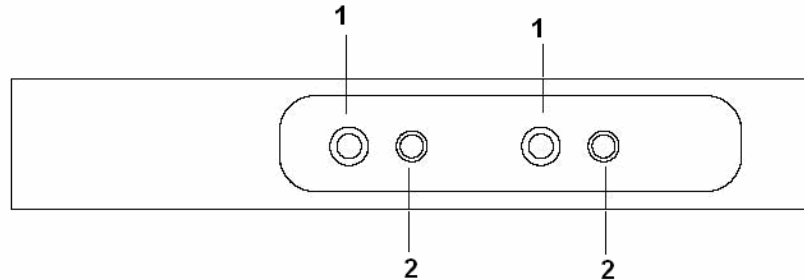
Read all of these instructions. Save them for future reference. Follow all warnings and instructions marked on the device.

•	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.
•	To help protect your system from sudden, transient increases and decreases in electrical power, use a surge suppressor, line conditioner, or uninterruptible power supply (UPS).

•	Position system cables and power cables carefully; Be sure that nothing rests on any cables.
•	When connecting or disconnecting power to hot pluggable power supplies, observe the following guidelines:
•	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.
•	<p>Do not attempt to service the device yourself. Refer all servicing to qualified service personnel. If the following conditions occur, unplug the device from the wall outlet and bring it to qualified service personnel for repair.</p> <ul style="list-style-type: none"> -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.

Hardware Setup

Front View



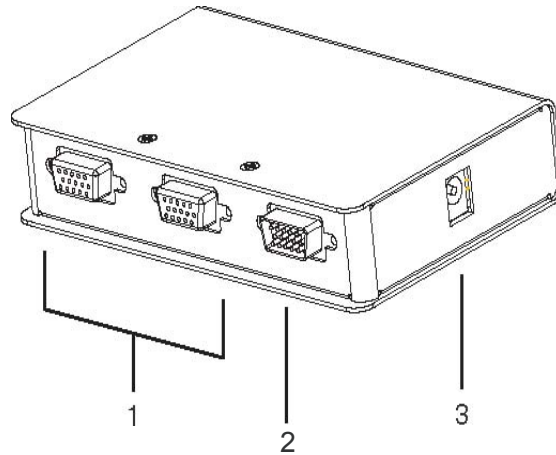
1. Port Selection Switches

- Press a switch to give the KVM focus to the computer attached to its corresponding port.
- Pressing Buttons 1 and 2 simultaneously for more than 3 seconds starts Auto Scan Mode (see p. 13).
- While in Auto Scan Mode, pressing any button exits Auto Scan Mode and switches the KVM focus to its corresponding port.

2. Port LEDs

- The Port LEDs are built into the Port Selection Switches. A lit LED indicates that its corresponding Port is the one that has the KVM focus.
- Depending on the Port's status, the LED may flash according to a specific pattern (see p. 11 for details).

Rear View



1. KVM Ports*

The KVM cables that connect the unit to the keyboard, video, and mouse ports on the computers you are installing can plug into any available port

2. Console Port*

The Console Adapter Cable plugs in here.

3. Power Jack

The power adapter cable plugs in here.

Note: The 52041 and 52042 do not require external power. Use of a power adapter is optional. (See the note under the *Installation* section on page 9).

*The shape of the KVM and Console port connectors have been specifically modified and only cables designed to work with this switch can be used (see *Cables*, page 4, for details).

Installation



1. Important safety information regarding the placement of this device is provided on page 5. Please review it before proceeding.
2. Make sure that power to all the devices you will be connecting has been turned off. You must unplug the power cords of any computers that have the Keyboard Power On function.

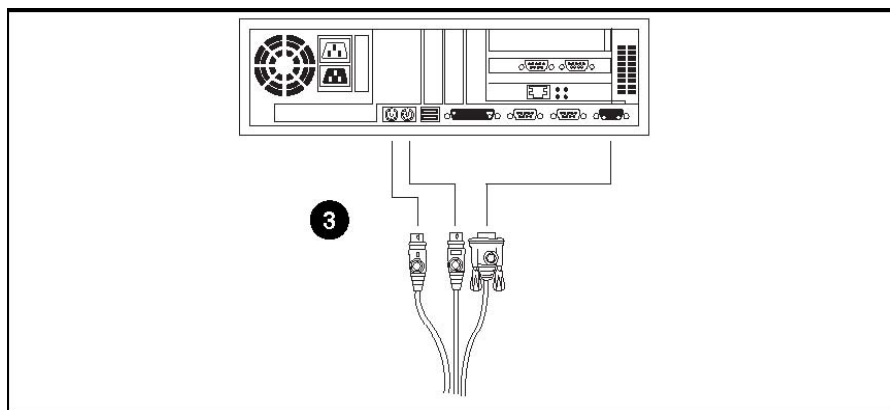
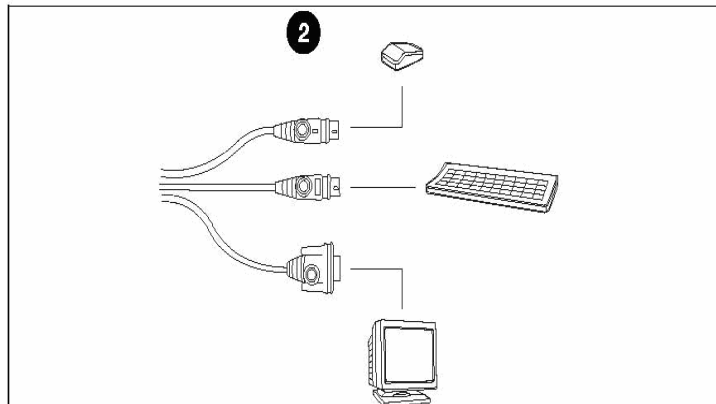
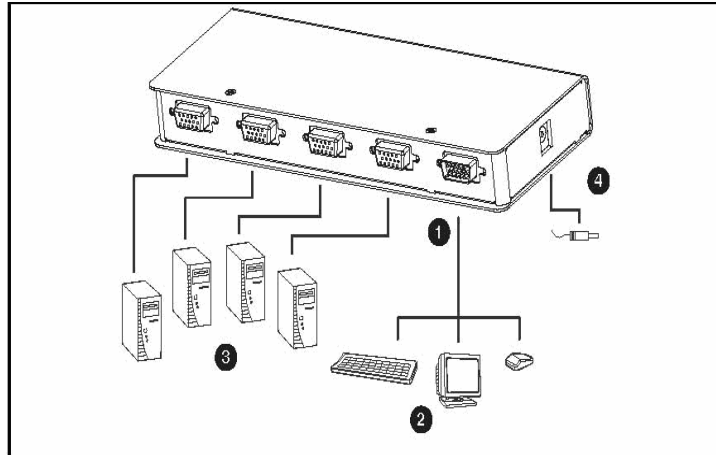
Refer to the installation diagrams on the next page (the numbers in the diagrams correspond to the steps indicated below) as you do the following:

1. Plug the Console Adapter Cable into the Console Port Connector on the rear panel of the switch.
2. Plug your keyboard, monitor and mouse into their respective connectors on the Console Adapter Cable. The connectors are color coded and marked with an appropriate icon for easy identification.
3. Use the custom KVM cable sets (described in the *Cables* section, page 4), to connect KVM Ports to the monitor, keyboard and mouse ports of the computers you are installing.
4. If you choose to use external power, plug the power adapter into an AC power source, then plug the power adapter cable into the unit's Power Jack.

Note: Under ordinary circumstances the switch doesn't require external power. If, for some reason, you find that the quality deteriorates (when using long cables, for example), you may want to use the included power adapter. If you lose your power adapter and need a replacement, the power adapter should be DC9V; 300mA, with the inside positive and the outside negative.

5. Turn on the power to the computers.

Note: The default setting is to link to the first computer you turn on.



Operation

LED Display

The information provided by the front panel LED activity is explained in the following table:

Activity	Explanation
Off	Port is not selected.
On – Steady	The computer connected to the LED's corresponding port is the one that has the KVM focus.
On – Flashing	The computer connected to the LED's corresponding port is the one that has the KVM focus and is being accessed in Auto Scan mode.

Manual Port Selection

- With manual port selection you simply press the appropriate port selection switch on the unit's front panel to give the KVM focus to its corresponding port. The port's Port LED lights to indicate that it has the KVM focus.
- Pressing and holding buttons 1 and 2 for more than 3 seconds invokes *Auto Scan Mode*. Auto Scan Mode allows you to automatically cycle through the ports at regular 5 seconds intervals so that you can monitor the computer activity without having to constantly switch ports yourself.
- When a port is being accessed under Auto Scan Mode, its corresponding Port LED flashes.
- While Auto Scan Mode is in effect, ordinary keyboard and mouse functions are suspended. You must exit Auto Scan Mode in order to regain normal control of their use.
- To exit Auto Scan Mode, press any port selection switch. The KVM focus goes to the port that corresponds to the switch you pressed.

Hotkey Port Selection

Hotkey port selection allows you to directly access a computer from the keyboard, instead of having to manually switch to it with the port selection switches. For both the 52041 and 52042 KVMs, hotkey operations begin by tapping the *Scroll Lock* key twice.

Port Selection

- For the two port 52041, tapping [Scroll Lock] [Scroll Lock] toggles the KVM focus between the two ports.
- For the four port 52042, hotkey port switching is explained in the table below:

Hotkey	Action
[Scroll Lock] [Scroll Lock] [↑]	Brings the KVM focus from the port that currently has the focus to the next port on the installation: 1 to 2; 2 to 3; 3 to 4; 4 to 1.
[Scroll Lock] [Scroll Lock] [↓]	Brings the KVM focus from the port that currently has the focus to the previous port on the installation: 4 to 3; 3 to 2; 2 to 1; 1 to 4.
[Scroll Lock] [Scroll Lock] [Fn]	<p>Where Fn represents a function key (from [F1] to [F4]) that corresponds to the KVM port (1 to 4). When you enter the combination the KVM focus goes directly to the port that corresponds to the function key.</p> <p>For example, if you were to enter the following combination:</p> <p>[Scroll Lock] [Scroll Lock] [F4]</p> <p>The KVM focus would go to the computer connected to port 4.</p>

Auto Scan Mode

In addition to manually invoking Auto Scan Mode (discussed on page 11), the 52042 also provides hotkey invocation.

- To invoke Auto Scan Mode using hotkeys instead of manually, enter the following combination: [Scroll Lock] [Scroll Lock] [A][Enter]
- While Auto Scan Mode is in effect, ordinary keyboard and mouse functions are suspended. You must exit Auto Scan Mode in order to regain normal control of their use.
- To exit Auto Scan Mode, press **[Esc]** or **[Spacebar]**. The KVM focus stays with the last port that was accessed under Auto Scan Mode.

Appendix

Hotkey Summary Table

The hotkey functions are summarized in the following table:

Hotkey	Action
[Scroll Lock] [Scroll Lock] [↑]	Brings the KVM focus from the port that currently has the focus to the next port on the installation: 1 to 2; 2 to 3; 3 to 4; 4 to 1.
[Scroll Lock] [Scroll Lock] [↓]	Brings the KVM focus from the port that currently has the focus to the previous port on the installation: 4 to 3; 3 to 2; 2 to 1; 1 to 4.
[Scroll Lock] [Scroll Lock] [Fn]	Where Fn represents a function key (from [F1] to [F4]) that corresponds to the KVM port (1 to 4). When you enter the combination the KVM focus goes directly to the port that corresponds to the function key. For example, if you were to enter the following combination: [Scroll Lock] [Scroll Lock] [F4] The KVM focus would go to the computer connected to port 4.
[Scroll Lock] [Scroll Lock][A] [Enter]	Invokes Auto Scan Mode.
[Esc] or [Spacebar]	Exits Auto Scan Mode.

Specifications

Function		52041	52042
KVM Ports		2	4
Port Selection		Push Button ; Hotkeys	
Connectors	KVM	2 x SPHD-15 F(Yellow)	4 x SPHD-15 F(Yellow)
	Console	1 x SPHD-15 M(Yellow)	
LEDs		2 x Selected Port (Green)	4 x Selected Port (Green)
Power Consumption		0.4W	0.8W
Power Adapter		DC9V; 300mA	
Emulation	Keyboard	PS/2	
	Mouse	PS/2	
Video		2048 x 1536@60Hz	
Scan Interval		5 Seconds	
Environment		Operation Temperature: 0 ~ 50□ Storage Temperature: -20 ~ 60□ Humidity : 0 ~ 80% RH– Noncondensing	
Housing		Metal	
Weight (kg)		.380	.580
Dimensions (L x W x H cm)		12.5 x 8.0 x 4.2	20.0 x 8.0 x 4.2

Troubleshooting

Symptom	Possible Cause	Action
Keyboard ¹ and/or Mouse ² Not Responding	Loose cables.	Check all cable connections to make sure they are completely seated in their sockets.
	Switch is in Auto Scan Mode.	1. Press a port selection switch to manually exit Auto Scan Mode. 2. Press [Esc] or [Spacebar] to hotkey exit Auto Scan Mode.
	Keyboard / Mouse needs to be reset.	Unplug the keyboard / mouse from the Console Keyboard Port, then plug it back in.
	Mouse set to serial mode.	Some mice can be set to act as a PS/2 or a serial mouse. Make sure the mouse is set to PS/2 mode.
	Incorrect mouse driver.	Check your Device Manager to be sure that the correct driver for your mouse (obtained from the manufacturer, or supplied by the operating system), has been installed. Because of the wide variety of mouse driver standards for the modern series of mice (the ones with the extra buttons and wheels), this unit only supports all of the extra features of the Microsoft Intellimouse. It supports the scroll wheel function of most other mice.
	Switch needs to be reset.	Turn off the computers; wait the computers back on.
Video Problems	Loose cables.	Check all cable connections to make sure they are completely seated in their sockets.
	Resolution and/or bandwidth set too high.	This unit supports VGA, SVGA, Multisync, and XGA (interlaced), with resolutions of up to 2048x1536.

1. This unit is designed to work with PS/2 keyboards and mice. XT (84 key) and AT keyboards will not work. Serial mice will not work.
2. Some notebooks, notably the IBM Thinkpad and Toshiba Tecra, have trouble when their mouse and keyboard ports are used simultaneously. To avoid this, only connect the mouse port or the keyboard port. If you connect the mouse port, you will need to use the notebook's keyboard when the notebook becomes the active computer.

Getting Help

If you need to contact Cables To Go technical support with a problem, visit our website at www.cablestogo.com.

Limited Warranty

IN NO EVENT SHALL THE DIRECT VENDOR'S LIABILITY EXCEED THE PRICE PAID FOR THE PRODUCT FROM DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE PRODUCT, DISK, OR ITS DOCUMENTATION.

The direct vendor makes no warranty or representation, expressed, implied, or statutory with respect to the contents or use of this documentation, and especially disclaims its quality, performance, merchantability, or fitness for any particular purpose.

The direct vendor also reserves the right to revise or update the device or documentation without obligation to notify any individual or entity of such revisions, or update. For further inquiries, please contact your direct vendor.

User Notice

All information, documentation, and specifications contained in this manual are subject to change without prior notification by the manufacturer. The manufacturer makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties as to merchantability or fitness for any particular purpose. Any of the manufacturer's software described in this manual is sold or licensed 'as is'. Should the programs prove defective following their purchase, the buyer (and not the manufacturer, its distributor, or its dealer), assumes the entire cost of all necessary servicing, repair and any incidental or consequential damages resulting from any defect in the software.

The manufacturer of this system is not responsible for any radio and/or TV interference caused by unauthorized modifications to this device. It is the responsibility of the user to correct such interference.

The manufacturer is not responsible for any damage incurred in the operation of this system if the correct operational voltage setting was not selected prior to operation. PLEASE VERIFY THAT THE VOLTAGE SETTING IS CORRECT BEFORE USE.

FCC Information

This is an FCC Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

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.

RoHS

This product is RoHS compliant.



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Notes

Notes