

TWO PORT PETITE KVM SWITCH



USER MANUAL

CS-521 / CS-522

Read this guide thoroughly and follow the installation and operation procedures carefully in order to prevent any damage to the unit and/or any devices that connect to it.

This package contains:

- 1 CS-521 or CS-522 Two Port Petite KVM Switch with Attached Cables
- 1 User Manual
- 1 Quick Start Guide

If anything is damaged or missing, contact your dealer.

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

- ◆ Reorient or relocate the receiving antenna;
- ◆ Increase the separation between the equipment and receiver;
- ◆ Connect the equipment into an outlet on a circuit different from that which the receiver is connected;
- ◆ Consult the dealer or an experienced radio/television technician for help.



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OVERVIEW

The CS-521 or CS-522 KVM Switch is a control unit that allows access to two computer systems from a single console (keyboard, monitor, and mouse).

The CS-521 / CS-522 improves on previous models with a 50% smaller desktop footprint plus built-in custom KVM cables for trouble-free installation and a neat and tidy workspace.

For increased efficiency and cable compactness, each of the CS-522's cables use a USB connector (rather than two PS/2 connectors) to transfer keyboard and mouse input to the computer.

For backward compatibility, only one of the CS-521's cables uses a USB connector. Its other cable uses the traditional two PS/2 connectors to transmit keyboard and mouse input.

Recognizing the increased importance of sound, the CS-521 / CS-522 is speaker enabled. You can listen to the audio output of both computers (one at a time) on a single set of speakers attached the the Switch.

Setup is fast and easy; plugging cables into their appropriate ports is all that is entailed. There is no software to configure, no installation routines, and no incompatibility problems. Since the CS-521 / CS-522 intercepts keyboard input directly, it works on any hardware platform and with all operating systems. The KVM focus is switched among the computers by means of simple Hot Key combinations entered from the keyboard.

There is no better way to save time and money than with a CS-521 / CS-522 installation. By allowing a single console to manage both computers, the CS-521 / CS-522 eliminates the expense of purchasing a separate keyboard, monitor, and mouse for each. Additionally, it saves the extra space they would take up, and eliminates the inconvenience and wasted effort involved in constantly having to move from one computer to the other.

FEATURES

- ◆ One console controls two computers
- ◆ Compact design features two attached KVM (keyboard, video, mouse, and speaker) cables
- ◆ USB connection transfers keyboard and mouse input to both computers (CS-522)
- ◆ USB connection transfers keyboard and mouse input to one of the computers; PS/2 connection transfers keyboard and mouse input to the other (CS-521)
- ◆ Speaker enabled
- ◆ Easy to install - no software required - connecting cables to the computers is all it takes
- ◆ Easy to operate - computer selection via Hotkeys - Auto Scan function to monitor computer operation
- ◆ Hot pluggable - add or remove computers for maintenance without powering down the switch
- ◆ LED display for easy status monitoring
- ◆ Caps Lock, Num Lock, and Scroll Lock states are saved and restored when switching
- ◆ Keyboard and mouse emulation for error free computer booting
- ◆ Supports Microsoft IntelliMouse and the scrolling wheel on most mice
- ◆ Superior video quality - up to 2048 x 1536; DDC2B
- ◆ Non-powered
- ◆ Compatible with all operating platforms

HARDWARE 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 Mouse
- ◆ A PS/2 Keyboard

COMPUTERS

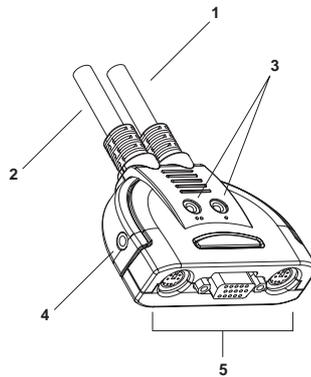
The following equipment must be installed on each computer that is to be connected to the system:

- ◆ A VGA, SVGA or Multisync card.
- ◆ A 6-pin mini-DIN (PS/2 style) mouse port.
- ◆ A 6-pin mini-DIN (PS/2 Style) keyboard port .
- ◆ USB Type A port and Host Controller

CABLES

For optimum signal integrity and to simplify the layout, two high-quality integrated CS Custom KVM cables have been molded into the CS-521 / CS-522 Switch. There is no need for a separate cable purchase.

CS-521 FRONT VIEW



1. USB KVM Cable

This integrated cable connects to the the USB, video, and audio ports of the computer you are installing.

2. PS/2 KVM Cable

This integrated cable connects to the the keyboard, video, mouse, and audio ports of the computer you are installing.

3. Port LEDs

- ◆ A Port LED lights to indicate that its corresponding port has the KVM focus.
- ◆ Depending on the port's status, the LED may flash according to a specific pattern (see the *LED Display Table*, p. 10, for details).

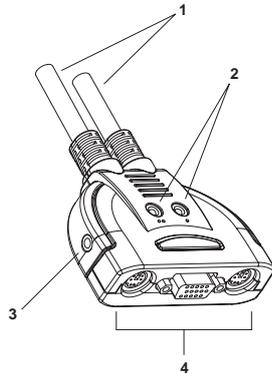
4. Speaker Jack

The cable from your speakers plugs in here.

5. Console Ports

Your keyboard, monitor, and mouse plug in here. Each port is marked with an appropriate icon to indicate itself.

CS-522 FRONT VIEW



1. KVM Cables

These integrated cables connect to the the USB, video, and audio ports of the computers you are installing.

2. Port LEDs

- ◆ A Port LED lights to indicate that its corresponding port has the KVM focus.
- ◆ Depending on the port's status, the LED may flash according to a specific pattern (see the *LED Display Table*, p. 10, for details).

3. Speaker Jack

The cable from your speakers plugs in here.

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Your keyboard, monitor, and mouse plug in here. Each port is marked with an appropriate icon to indicate itself.

INSTALLATION



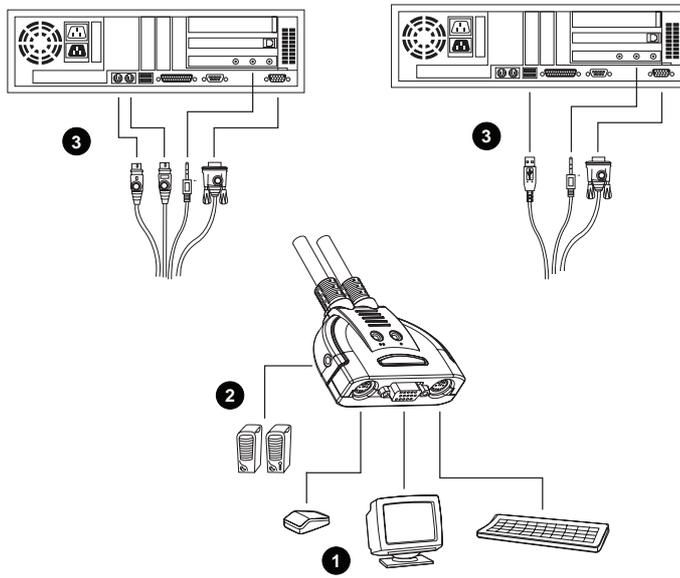
1. Before you begin, make sure that power to all the devices you will be connecting up have been turned off. You must unplug the power cords of any computers that have the *Keyboard Power On* function. Otherwise, the switch will receive power from the computer.
2. To prevent damage to your installation, make sure that all devices on the installation are properly grounded.

Refer to the Installation diagrams on the next two pages as you perform the following steps:

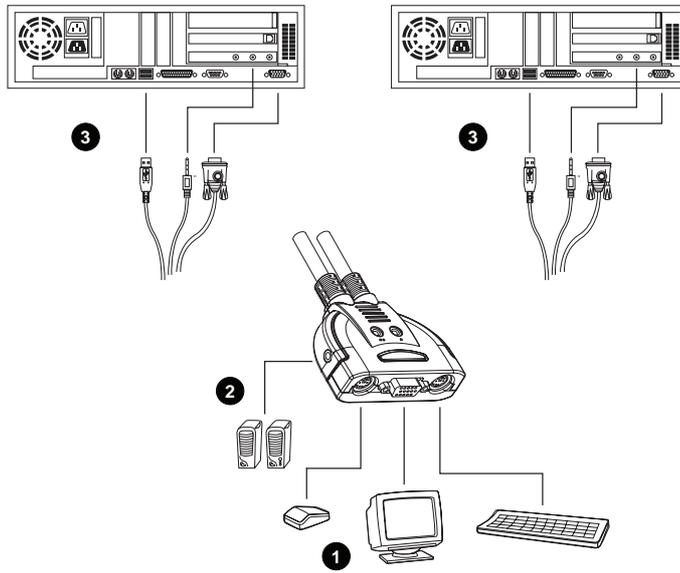
1. Plug your keyboard, monitor, and mouse into the appropriate Console ports of the CS-521 / CS-522 Switch. Each port is labeled with an appropriate icon to indicate itself.
2. (Optional) Plug your speakers into the CS-521 / CS-522's speaker jack.
3. Plug the attached KVM cables' connectors into their respective ports on the computers you are installing.
4. Turn on the power to the computers.

Note: The CS-521 / CS-522's Power On default is to link to the first computer you turn on.

CS-521 INSTALLATION DIAGRAM



CS-522 INSTALLATION DIAGRAM



OPERATION

Accessing both of your computers from a single console could not be easier. The CS-521 / CS-522 Switch uses Hotkey combinations to provide KVM focus to the computers. The Hotkey combinations allow you to:

- ◆ Select the Active Port
- ◆ Invoke Auto Scan Mode
- ◆ Set the Auto Scan Time Interval

SELECTING THE ACTIVE PORT

You can toggle the KVM focus between the two computers by pressing and releasing the Scroll Lock key twice:

[Scroll Lock] [Scroll Lock]

AUTO SCAN MODE

The CS-521 / CS-522's Auto Scan feature automatically switches the KVM focus between the two computers at regular intervals so that you can monitor their activity without having to take the trouble of switching yourself. The default time interval is 5 seconds. To invoke Auto Scan Mode:

Press and release the Left Shift key; then press and release the Right Shift key:

[Left Shift] [Right Shift]

Once scanning begins, it continues until you press the [Spacebar] to exit Auto Scan Mode. The port that was currently active at the time scanning stopped remains active.

Note: While Auto Scan Mode is in effect, ordinary keyboard and mouse functions are suspended. You must exit Auto Scan Mode by pressing the [Spacebar] in order to regain normal control of their use.

CHANGING THE SCAN INTERVAL

Before you invoke Auto Scanning you can change the amount of time Auto Scan dwells on each port. To do so, use the following Hotkey combination.

[Left shift] [Right shift] [S] [*n*]

Where *n* represents a number from 1 to 4 that specifies the desired scan interval time, as shown in the table below:

<i>n</i>	Scan Interval
1	3 sec.
2	5 sec.
3	10 sec.
4	20 sec.

Note: You must press and release the keys one at a time.

LED DISPLAY TABLE

Activity	Indication
Off	Port is not selected.
On (Steady)	The computer connected to the LED's corresponding port has the KVM focus.
Flashing (On and Off equal)	The computer connected to the LED's corresponding port has the KVM focus and is being accessed in Auto Scan mode.

SPECIFICATIONS

Function		CS-521	CS-522
Computer Connections		2	
Port Selection		Hotkeys	
LEDs		Selected x 2 (green)	
Console Ports	Keyboard	1 x 6 pin mini-DIN female (purple)	
	Mouse	1 x 6 pin mini-DIN female (green)	
	Video	1 x HDB-15 female (blue)	
	Audio	1 x Stereo earphone jack	
CPU Connectors	USB	1 x Type A plug	2 x Type A plugs
	Keyboard	1 x 6 pin mini-DIN m (purple)	N/A
	Mouse	1 x 6 pin mini-DIN m (green)	N/A
	Video	2 x HDB-15 m (blue)	
Audio		2 x Stereo earphone plugs	
Scan Interval		3, 5, 10, 20 Seconds	
Video Resolution		2048 x 1536; DDC2B	
Environment		Operating Temperature: 0 - 50° C Storage Temperature: -20 - 60° C Humidity: 0 - 80% RH Noncondensing	
Housing		Plastic	
Weight		0.41 Kg	
Dimensions (L x W x H)		7.3 x 5.85 x 2.25 cm	

TROUBLESHOOTING

Symptom	Possible Cause	Action
Keyboard and/or Mouse Not Responding	Loose cables.	Check cable connections to make sure they are completely seated in their sockets.
	Keyboard/Mouse needs to be reset.	Unplug the keyboard/mouse cable from the Console Keyboard/Mouse Port, then plug it back in. Unplug the keyboard/mouse or USB cable from the computer's keyboard
	Switch needs to be reset	Turn off the computers. Unplug the KVM cables. Wait five seconds; then plug the cables back in and turn the computers on.
	Switch is in Auto Scan Mode.	Press the [Spacebar] to exit Auto Scan Mode.
	Selected port connects to a powered Off computer.	Resend the Hotkey command selecting a port that has a powered On computer attached.
	Use of Mouse Port Adapters	This unit is designed to only work with PS/2 mice and computers with PS/2 type mouse ports. Serial mouse ports with adapters cannot be used.
	Mouse set to Serial Mode.	Some mice can be set to act as either a PS/2 or 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.
Video Problems	Resolution and/or Bandwidth set too high.	Select a lower resolution and/or bandwidth.

TROUBLESHOOTING NOTES

1. The unit is designed to work with PS/2 keyboards. XT (84 key) and AT keyboards 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.

LIMITED WARRANTY

IN NO EVENT SHALL THE DIRECT VENDOR'S LIABILITY EXCEED THE PRICE PAID FOR THE PRODUCT FROM THE 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 specially 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 inquires please contact your direct vendor.

Notes:

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