

MASTER VIEW KVM SWITCH

4 Port KVM Switch



USER MANUAL

CS-84A

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

This package contains:

- 1 Master View CS-84A KVM Switch
- 1 User Manual

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.

OVERVIEW

The Master View CS-84A 4 Port KVM (Keyboard, Video, Mouse), Switch is a control unit that allows access to four computers from a single console (keyboard, monitor and mouse). Before the development of the Master View, the only way to control multiple computer configurations from a single console was through a complex and costly network system. Now, with the Master View CS-84A, you can easily access four computers in a cost effective manner.

Setup is fast and easy; plugging cables into their appropriate ports is all that is entailed. There is no software to configure; there are no installation routines, and no incompatibility problems. Since the Master View CS-84A intercepts keyboard input directly, it works on any hardware platform and with all operating systems.

The Master View CS-84A provides two convenient methods to access the computers connected to the system: 1) push button Port Selection Switches located on the unit's front panel; and 2) Hotkey combinations entered from the keyboard.

There is no better way to save time and money than with a Master View CS-84A installation. Since a single console manages all of the computers, the CS-84A setup: 1) eliminates the expense of having to purchase a separate keyboard, monitor, and mouse for each computer; 2) saves all the space those extra components would take up; 3) saves on energy costs; and 4) eliminates the inconvenience and wasted effort involved in constantly moving around from one computer to another.

FEATURES

- ♦ Supports Microsoft Intellimouse and the Scrolling Wheel on Most Mice
- ♦ Keyboard and Mouse Emulation For Error Free Booting
- ♦ Easy to Install - No Software Required - Standard Cables to Connect to the Computers Is All It Takes
- ♦ Easy to Operate - Computer Selection Via Push Button Switches or Hotkeys - Auto Scan Function to Monitor Computer Operation
- ♦ LED Display for Easy Status Monitoring
- ♦ Compatible With All Operating Platforms
- ♦ Hot Pluggable: Computers Can Be Added or Removed for Maintenance Without Powering Down the CS-84A
- ♦ Caps Lock, Num Lock, and Scroll Lock, States are Saved and Restored When Switching
- ♦ Superior Video Quality - Up To 1920x1440; DDC; DDC2; DDC2B
- ♦ Compact, Sturdy, Durable Metal Housing
- ♦ Efficient, Ergonomic Design; Logical Connector Layout
- ♦ Follows PC 99 Color Specifications
- ♦ Saves Time, Space, Power, and Equipment Costs
- ♦ Non-Powered

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 Style Mouse
- ♦ A PS/2 Style 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.
- ♦ Either a 6-pin mini-DIN (PS/2 Style) keyboard port with +5V DC on pin 4 and Ground on pin 3, or a 5-pin DIN (AT Style) keyboard port with +5V DC on pin 5 and ground on pin 4.*

* See the note under Cables in the next section.

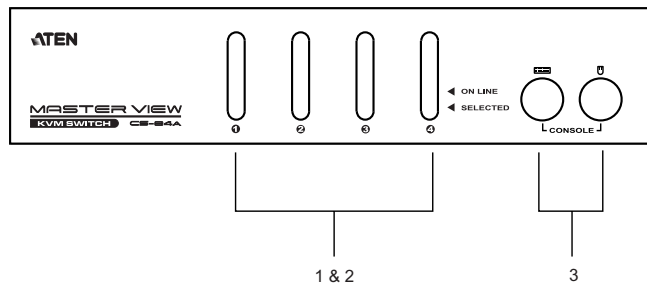
CABLES

Use of substandard cables may damage the connected devices or degrade overall performance. For optimum signal integrity and to simplify the layout, we strongly recommend that you use ATEN high quality CS Custom Cable sets: 2L-1001P/C (1.8 m) and 2L-1003P/C (3 m).

- Note:**
1. If your computer uses a standard AT style keyboard socket you will need to purchase a PS/2-to-AT keyboard adapter (Part No. 2A-106, or any standard keyboard adapter).
 2. The CS-84A does not support serial mice.

INTRODUCTION

FRONT VIEW



1. Port Selection Switches

Press a switch to access the computer attached to the corresponding port.

2. Port LEDs:

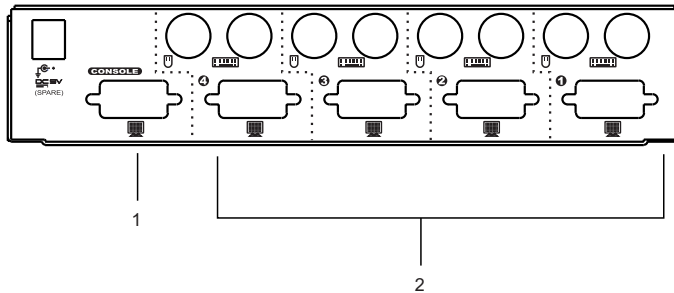
The Port LEDs are built into the Port Selection Switches. The upper ones are the On Line LEDs; the lower ones are the Selected Port LEDs:

- ♦ The *On Line* LEDs lights ORANGE to indicate that the computer attached to the corresponding port is up and running.
- ♦ The *Selected* LED lights GREEN to indicate that the computer attached to 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 the *LED Display* table in the Appendix for details).

3. Console Keyboard and Mouse Ports

The cables from your keyboard and mouse plug in here. Each port is identified by an appropriate icon.

REAR VIEW



1. Console Video Connector

The cable from your monitor plugs in here.

2. CPU Port Connectors

The KVM cables that connect to the computer's monitor, keyboard and mouse ports plug in here. Each port is identified by an appropriate icon.

- Note:** 1. In order to have the console's keyboard and mouse control notebook computers that only have one PS/2 port, you can use a *two PS/2 port to USB adapter*, such as the ATEN UC-100KM. Simply plug the KVM cable's keyboard and mouse connectors into the adapter, then plug the adapter into the computer's USB port.
2. Ordinary PS/2 to USB changers commonly sold in computer shops will not work with the CS-84A.

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 due to ground potential difference, make sure that all devices on the installation are properly grounded. Consult your dealer for technical details, if necessary.

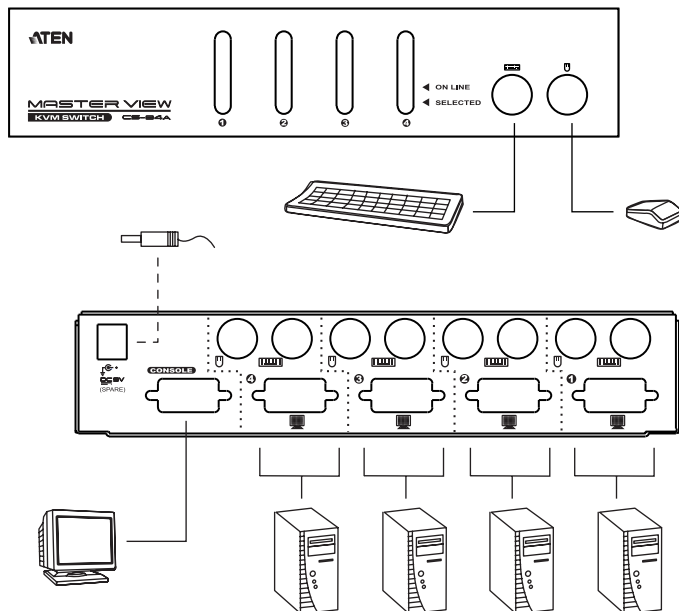
Refer to the diagram on the next page as you perform the following steps:

1. Plug the monitor, keyboard, and mouse into the Console port connectors of the Master View CS-84A unit. Each port is labeled with an appropriate icon to indicate itself.
2. Use KVM cables (see the *Hardware Requirements* section), to connect the keyboard, monitor, and mouse ports from any available CPU Port (1 - 4), to the keyboard, monitor, and mouse ports of the computers you are connecting up (see the diagram on p. 8).

Note: If your computers use AT style connectors for the keyboard, and/or standard serial connectors for the mouse, refer back to the note in the *Cables* section on p. 4.

3. If you choose to use external power (optional) plug the power adapter into an external AC source; plug the power adapter cable into the unit's power jack as shown in the diagram on p. 8.
4. Turn on the power to the connected computers.

Note: The CS-84A's Power On default is to link to the first computer you turn on.



OPERATION

Controlling all the computers in your CS-84A installation from a single console could not be easier. Two port selection methods that provide instant access to the computers are available:

- ♦ Manual Port Selection
- ♦ Hotkey Port Selection

MANUAL PORT SELECTION

With Manual Port Selection you simply press the Port Selection switch that corresponds to the port that the computer you want to access is attached to. The *Selected LED* lights to indicate which port is active.

HOTKEY PORT SELECTION

Hotkey Port Selection allows you to select the active computer directly from the keyboard. The Master View CS-84A provides the following Hotkey Port Selection features:

- ♦ Selecting the Active Port
- ♦ Auto Scan Mode
- ♦ Last/Next Mode

Note: Hotkey operations begin by pressing and releasing the **[Alt+Ctrl+Shift]** combination. The combination must all be on the same side (i.e., **[LeftAlt+LeftCtrl+LeftShift]**, or **[RightAlt+RightCtrl+RightShift]**).

♦ **Selecting the Active Port:**

Each CPU port is assigned a numeric ID (1 - 4). You can directly access any computer on the installation with a Hotkey combination that specifies the ID of the CPU Port that the computer is connected to. The steps involved are:

1. Press and simultaneously release **[Alt+Ctrl+Shift]**
2. Key in the appropriate **Port ID** number (1, 2, 3, or 4)
3. Press **[Enter]** to complete your selection.

♦ **Auto Scan Mode:**

The CS-84A's Auto Scan feature automatically switches among the four computers at regular 5 seconds intervals so that you can monitor their activity without having to take the trouble of switching yourself. To invoke Auto Scan Mode:

1. Press and simultaneously release **[Alt+Ctrl+Shift]**
2. Press **0** (zero)
3. Press **[Enter]**

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, the console will not function. You must exit Auto Scan Mode in order to regain control of the console.

♦ Last/Next Mode:

This feature allows you to switch between computers in order to monitor them manually. You can dwell on a particular port for as long or as little as you like - as opposed to Auto Scan Mode, which switches after a fixed interval. To invoke Last/Next Mode, key in the following Hotkey combination:

1. Press and release **[Alt+Ctrl+Shift]**
2. Press and release **9**
3. Press **[Enter]**

Once Last/Next Mode is active, pressing the left Shift key **[LShift]**, switches to the previous computer (from the currently active one); pressing **[RShift]** switches to the next computer in the installation.

- Note:** 1. There is another, shorter Hotkey combination to produce Last/Next Mode switching: Simply press the Left Ctrl key twice in succession (**[LCtrl] + [LCtrl]**) to switch to the previous computer; or press the Right Ctrl key twice in succession (**[RCtrl] + [RCtrl]**) to switch to the next computer. This method is available all the time - it does not have to first be invoked with **[Alt+Ctrl+Shift]**.
2. While Last/Next Mode is in effect, none of the other keyboard keys will function. You must exit Last/Next Mode by pressing the **[Spacebar]** in order to use the console for anything else.

♦ Hotkey Summary Table

Combination	Action
[Alt + Ctrl + Shift] [Port#] [Enter]	Switches access to the computer that corresponds to that Port Number.
[Alt + Ctrl + Shift 0] [Enter]	Starts Auto Scan Mode.
[Alt + Ctrl + Shift 9] [Enter]	Invokes Last/Next Mode.
[LCtrl] + [LCtrl]	Switches access to the previous computer.
[RCtrl] + [RCtrl]	Switches access to the next computer.

APPENDIX

SELECTED LED DISPLAY

Activity	Meaning
Off	Port is not selected.
On (Steady)	Port is connected to an active computer.
Flashing (On and Off equal)	Port is connected to an active computer and is being accessed in Auto Scan mode.
Flashing (On long; Off short)	Port is connected to an active computer and is being accessed in Last/Next mode.

SPECIFICATIONS

Function		Specification
Power Consumption		360 mW
Computer Connections		4
Port Selection		Push Button Switches; Hotkeys
LEDs	On Line	4 (Orange)
	Selected	4 (Green)
Connectors	Keyboard	1 x 6 pin mini-DIN female (PS/2 style) - Console 4 x 6 pin mini-DIN female (PS/2 style) - CPU Ports
	Mouse	1 x 6 pin mini-DIN female (PS/2 style) - Console 4 x 6 pin mini-DIN female (PS/2 style) - CPU Ports
	Video	1 x HDB-15 female (std. VGA/SVGA) - Console 4 x HDB-15 male (std. VGA/SVGA) - CPU Ports
Scan Interval		5 Seconds
Operating Temperature		5 - 40° C
Storage Temperature		-20 - 60° C
Humidity		0 - 80% RH Non condensing
Housing		Metal
Weight		640 g
Dimensions (L x W x H)		200 x 75 x 45 mm

TROUBLESHOOTING

Symptom	Possible Cause	Action
Keyboard Not Responding ¹	Loose cables.	Check all keyboard cable connections to make sure they are completely seated in their sockets.
	Keyboard needs to be reset.	Unplug the keyboard from the Console Keyboard Port, then plug it back in.
	Switch needs to be reset	Turn off the computers. Unplug the KVM cables from the unit. Wait five seconds; then plug the cables back in and turn the computers on.
	Switch is in Auto Scan or Last/Next Mode.	Press the [Spacebar] to exit Auto Scan or Last/Next Mode.
Pressing Hotkeys Gets No Response.	Selected port connects to a powered Off computer.	Manually change to a connected port by pressing an appropriate Port Selection switch. Resend the Hotkey command selecting a port that has a powered On computer attached.
	Hotkey sequence input incorrectly.	Resend the Hotkey command - press and release each key in the sequence individually.
	Master View is in Auto Scan or Last/Next Mode.	Press the [Spacebar] to exit Auto Scan or Last/Next Mode.
Mouse Not Detected, or Does Not Respond Correctly ²	Loose cables.	Check all mouse cable connections to make sure they are completely seated in their sockets.
	Use of Mouse Port Adapters	This unit is designed to only work with PS/2 mice and computers with PS/2 type mouse ports. PS/2 mouse signals and serial mouse signals are different - adapters will not convert the signals - therefore, the computer must be equipped with a PS/2 type mouse port. Serial mouse ports with adapters cannot be used.
	Mouse needs to be reset.	Unplug the mouse from the Console Keyboard Port, then plug it back in.

Symptom	Possible Cause	Action
Mouse Not Detected, or Does Not Respond Correctly ²	Master View needs to be reset.	Turn off the computers. Unplug the KVM cables from the . Wait five seconds; then plug the cables back in and turn the computers on
	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. Because of the wide variety of mouse driver standards for the modern series of mice (the ones with the extra buttons and wheels), the CS-84A only supports all the extra features of the Microsoft Intellimouse. It supports the scrollwheel function of most other mice, however.
Video Problems	Resolution and/or Bandwidth set too high.	This unit supports VGA, SVGA, Multisync, and XGA (interlaced), with resolutions of up to 1920x1440. The maximum bandwidth is 180 MHz.
	Cable quality not good enough.	We strongly recommend that you use the high quality cables provided with this package. Using high quality cables should eliminate possible video problems.

- ¹ The unit is designed to work with AT and PS/2 keyboards. Older XT (84 key) and some older AT keyboards (those with the function keys on the side), 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.

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