Lightweight PS/2-USB LCD Console
CL3000

User Manual

www.aten.com

FCC, CE Information

FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT: 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

CE Warning: This is a 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.

RoHS

This product is RoHS compliant.

SJ/T 11364-2006

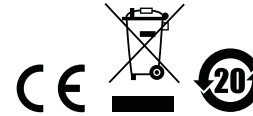
The following contains information that relates to China.

部件名称	有毒有害物质或元素					
	铅	汞	镉	六价铬	多溴联苯	多溴二苯醚
电器部件	●	○	○	○	○	○
机构部件	○	○	○	○	○	○

○: 表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T 11363-2006规定的限量要求之下。

●: 表示符合欧盟的豁免条款，但该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T 11363-2006的限量要求。

×: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T 11363-2006的限量要求。



User Information

Online Registration

Be sure to register your product at our online support center:

International	http://eservice.aten.com

Telephone Support

For telephone support, call this number:

International	886-2-8692-6959
China	86-10-5255-0110
Japan	81-3-5615-5811
Korea	82-2-467-6789
North America	1-888-999-ATEN ext 4988
United Kingdom	44-8-4481-58923

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.

Package Contents

Basic Package

The basic CL3000 package consists of:

- 1 CL3000 Lightweight PS/2-USB LCD Console with Standard Rack Mounting Kit
- 1 Custom KVM Cable
- 1 Power Cord
- 1 User Instructions*

Optional Equipment

Depending on any optional equipment that you may have purchased, one of the following may be included in your package:

- Standard Rack Mounting Kit - Long
- Easy-Installation Rack Mounting Kit - Short
- Easy-Installation Rack Mounting Kit - Long

Check to make sure that all the components are present and that nothing got damaged in shipping. If you encounter a problem, contact your dealer.

Read this manual thoroughly and follow the installation and operation procedures carefully to prevent any damage to the unit, and/or any of the devices connected to it.

***** Features may have been added to the CL3000 since this manual was published. Please visit our website to download the most up-to-date version of the manual.

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About this Manual

This User Manual is provided to help you get the most from your CL3000 system. It covers all aspects of installation, configuration and operation. An overview of the information found in the manual is provided below.

Chapter 1, Introduction, introduces you to the CL3000 system. Its purpose, features and benefits are presented, and its front and back panel components are described.

Chapter 2, Hardware Setup, describes how to set up your installation.

Chapter 3, Basic Operation, explains the fundamental concepts involved in operating the CL3000.

Chapter 4, The Firmware Upgrade Utility, explains how to use this utility to upgrade the CL3000's firmware with the latest available versions.

An Appendix, provides specifications and other technical information regarding the CL3000.

Conventions

This manual uses the following conventions:

Monospaced	Indicates text that you should key in.
[ ]	Indicates keys you should press. For example, [Enter] means to press the **Enter** key. If keys need to be chorded, they appear together in the same bracket with a plus sign between them: [Ctrl+Alt].
1.	Numbered lists represent procedures with sequential steps.
♦	Bullet lists provide information, but do not involve sequential steps.
→	Indicates selecting the option (on a menu or dialog box, for example), that comes next. For example, Start → Run means to open the *Start* menu, and then select *Run*.
⚠	Indicates critical information.

Product Information

For information about all ATEN products and how they can help you connect without limits, visit ATEN on the Web or contact an ATEN Authorized Reseller. Visit ATEN on the Web for a list of locations and telephone numbers:

International	http://www.aten.com
North America	http://www.aten-usa.com

Chapter 1
Introduction

Overview

The CL3000 is an integrated KVM (keyboard, monitor, and mouse) console module that serves as the front end console for compatible KVM switches.

Lightweight and with a 19" power-saving LED-backlit LCD, the CL3000 offers a space-saving, streamlined approach to KVM switch technology by integrating a keyboard, LED-backlit LCD monitor, and touchpad in a 1U housing. Additional console ports allows the second user local access, while in conjunction with an ATEN Over the Net KVM switch or IP access unit, you can remotely control computers that are located anywhere around the world.

MIL-STD-810G testing provides certified reliable operation of the CL3000 Console in harsh environments. The MIL-STD-810G uses advanced testing procedures to emphasize the equipment's environmental design and limits in real world conditions which it will experience throughout its life; such as operating in moving vehicles or functioning on factory floors where vibrations are high and experienced frequently.

There is no better way to save time and money than with a CL3000 installation. By using the CL3000 with its light weight and green power LED-backlit LCD monitor to manage your installation, you: (1) eliminate the expense of having to purchase a separate keyboard, monitor, and mouse for each computer; (2) save all the space those extra components would take up; (3) save on energy costs; and (4) eliminate the inconvenience and wasted effort involved in constantly moving from one computer to another.

The Benefits of LED-backlit LCDs

LED-backlit LCDs are a new generation of display technology that uses LED backlighting instead of the cold cathode fluorescent lamps (CCFLs) used in traditional LCDs. This provides great benefits that include lower power consumption, a more dynamic range of colors, and better heat dissipation, as well as increased display brightness and higher contrast levels. When you factor in the LED-backlit LCDs longer life and greater stability, it is no wonder that they are fast becoming the display of choice in many different environments, from commercial advertising and sports venues to advanced computer displays and high-end televisions.

Features

- Integrated KVM console featuring a 19” LED-backlit LCD monitor in a Single-Rail Slideaway™ housing
- Green power LED-backlit LCD monitor saves energy
- Lightweight design for easier installation
- MIL-STD-810G Standard Certified Testing
- Dual Interface – supports computers with PS/2 or USB keyboards and mice
- Additional hot-pluggable USB mouse port on front panel (also functions as USB peripheral port)
- Multiplatform support – Windows, Linux, Mac, and Sun
- Supports high-resolution video – up to 1280 x 1024 @ 75 Hz; DDC2B
- Firmware upgradable
- Extra console port – manage computers from an external console (monitor, USB or PS/2 keyboard and mouse)
- Console lock – the console remains securely locked away when not in use
- Slideaway™ housing is slightly less than 1U with top and bottom clearance for smooth operation in 1U of rack space
- DDC emulation – video settings of each computer are automatically adjusted for optimal output to the monitor
- Adjustable depth to fit within a rack
- Standard 105-key keyboard
- Keyboard Language support: English (US); English (UK); German; German (Swiss); French; Spanish; Traditional Chinese; Japanese; Korean; Swedish; Italian; Russian; Hungarian and Greek

Requirements

LED-backlit LCD Console

- The LED-backlit LCD console supports most KVM switches. If you are unsure whether your switch is supported or not, check with your dealer.
- The integrated LED-backlit LCD monitor's maximum resolution is 1280 x 1024 @ 75Hz. Make sure that none of the resolution settings of the connected computers exceed the LED-backlit LCD monitor's maximum resolution.

External Console

- A VGA, SVGA, or MultiSync monitor capable of displaying the highest resolution provided by any computer in the installation
- USB or PS/2 keyboard and mouse

Cables

For optimum signal integrity and to simplify the layout, we strongly recommend that you use high quality custom cable sets available in varying lengths, described in the table below, which can be purchased from your dealer.

Length (m)	Part Number
1.20	2L-5201P
1.80	2L-5202P
3.00	2L-5203P
6.00	2L-5206P
1.80	2L-5702P
1.20	2L-5201U
1.80	2L-5202U
3.00	2L-5203U
5.00	2L-5205U

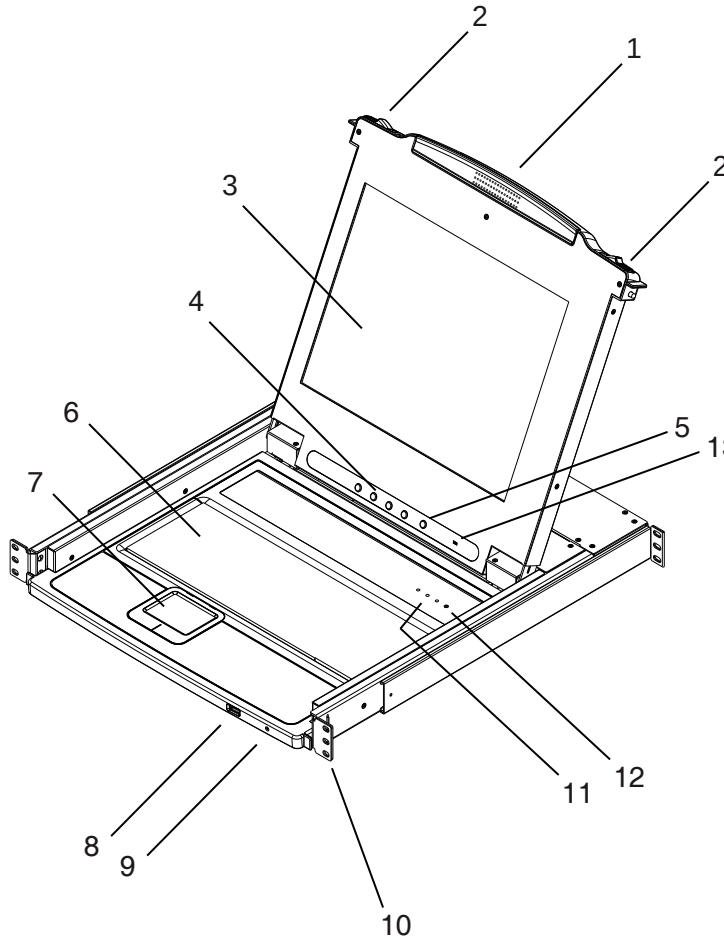
Operating Systems

Supported operating systems are shown in the table, below:

OS		Version
Windows		2000 and higher
Linux	RedHat	9 and higher
	SuSE	10 and higher
	Debian	3.1, 4.0
	Ubuntu	7.04, 7.10
UNIX	IBM	AIX 4.3, 5L
	FreeBSD	4.2 and higher
	Sun	Solaris 8 and higher
Novell	Netware	6.0 and higher
Mac		OS 9 and higher
DOS		6.22

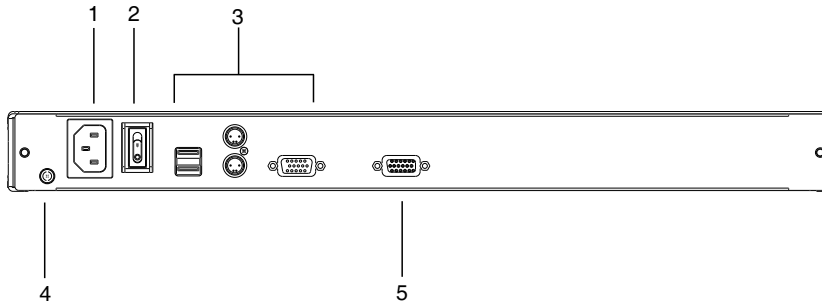
Components

Front View



No.	Component	Description
1	Upper Handle	Pull to slide the LED-backlit LCD module out; push to slide it in. See *Opening the Console*, page 19, for details on sliding the console in and out
2	Module Release Catches	In order to slide the console out, you must first release it by sliding these catches to the inside.
3	LED-backlit LCD Module	See *Rear View*, page 7.
4	LED-backlit LCD Controls	The buttons to control the position and picture settings of the LED display are located here. See page 16, for details.
5	LED-backlit LCD On / Off Button	Push this button to turn the LED-backlit LCD monitor on and off. The button lights when the LED-backlit LCD monitor is off. **Note:** The light indicates that only the monitor is off, not the attached KVM switch.
6	Keyboard Module	Standard 105-key keyboard
7	Touchpad	Standard mouse touchpad
8	USB Port	The USB port is available to connect a USB peripheral device (flash drive, CD-ROM drive, etc.) to the console, or a USB mouse for users who prefer to use an external mouse.
9	Power LED	Lights (blue) to indicate that the unit is receiving power.
10	Rack Mounting Tabs	Rack mounting tabs are located at each corner of the unit. See *Standard Rack Mounting*, page 9, for details.
11	Lock LEDs	The Num Lock, Caps Lock, Scroll Lock LEDs are located here.
12	Reset Switch	Located to the right of the Lock LEDs. Press this recessed switch in with a thin object to perform a system reset.
13	Firmware Upgrade Switch	During normal operation and while performing a firmware upgrade, this switch should be in the NORMAL position. If a firmware upgrade operation does not complete successfully, this switch is used to perform a firmware upgrade recovery. See *Firmware Upgrade Recovery*, page 26, for details.

Rear View



No.	Component	Description
1	Power Socket	This is a standard 3-prong AC power socket. The power cord from an AC source plugs in here.
2	Power Switch	This standard rocker switch powers the unit on and off.
3	External Console Section	The external KVM console cables plug into the ports in this section. The section consists of ports for USB or PS/2 keyboard and mouse, and a VGA monitor.
4	Grounding Terminal	The grounding wire used to ground the switch attaches here.
5	KVM Port Section	The cable that links the CL3000 to the KVM switch plugs in here. **Note:** The shape of this SPHD connector has been specifically modified so that only KVM cables designed to work with this switch can plug in (see *Cables*, page 3, for details).

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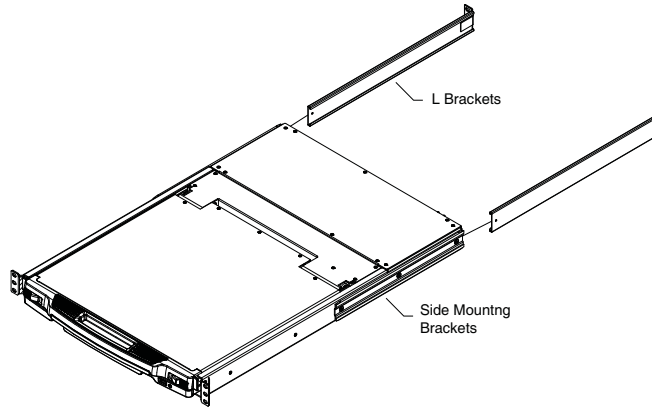
Chapter 2
Hardware Setup

Before you Begin

1. Important safety information regarding the placement of this device is provided on page 27. Please review it before proceeding.
2. 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.

Standard Rack Mounting

A standard rack mount kit is provided with your CL3000. The kit enables the console to be mounted in rack with a depth of 42–72 cm.

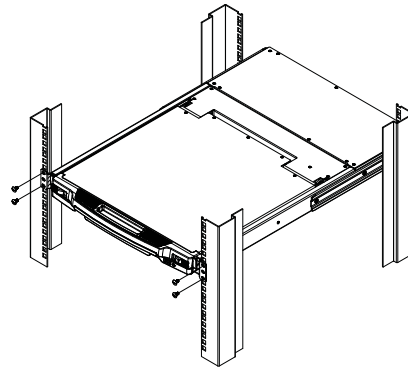


Note: 1. It takes two people to mount the console: one to hold it in place, the other to screw it in.

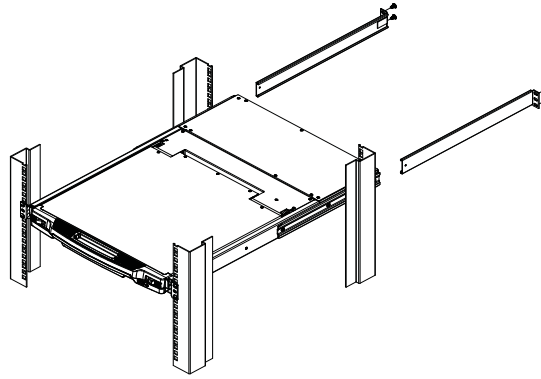
2. The standard rack mounting kit does not include screws or cage nuts. If you need additional screws or cage nuts, contact your rack dealer.
3. Optional mounting kits, including single person *Easy Installation* kits, are available with a separate purchase.

To rack mount the console, do the following:

1. While one person positions the CL3000 in the rack and holds it in place, the second person loosely screws the front brackets to the rack.



2. While the first person still holds the CL3000 in place, the second person slides the L brackets into the CL3000's side mounting brackets from the rear until the bracket flanges contact the rack, then screws the L brackets to the rack.



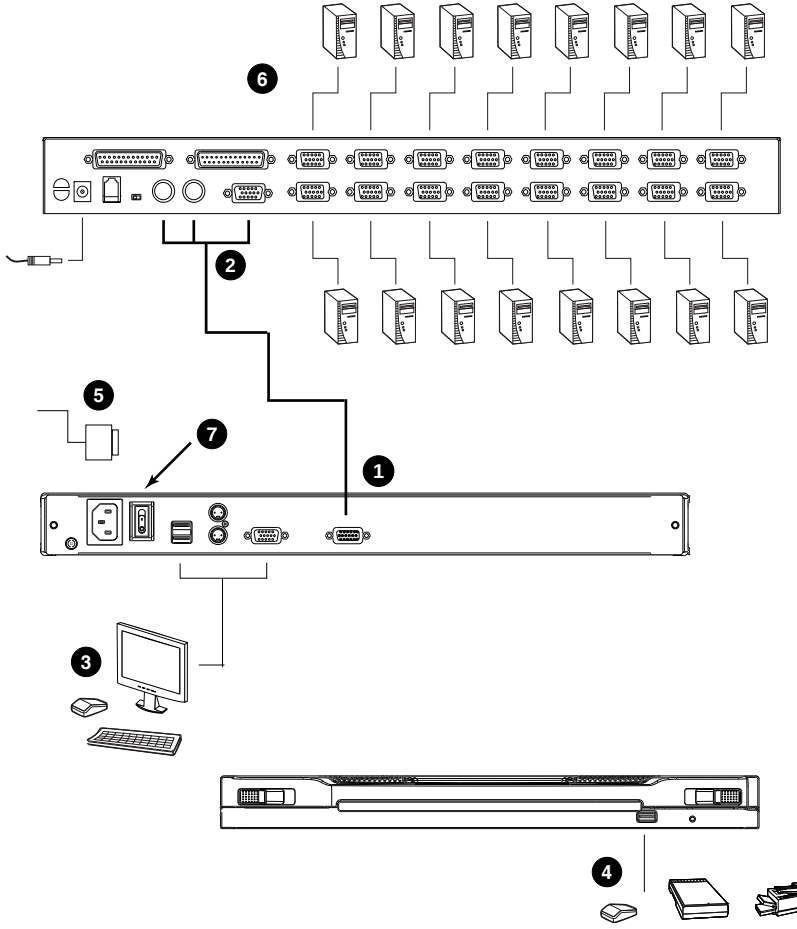
3. After the L brackets have been secured, tighten the front bracket screws.

Note: Allow at least 5.1 cm on each side for proper ventilation, and at least 12.7 cm at the back for the power cord and cable clearance.

Connecting Up

Refer to the installation diagram on the following page as you perform the installation steps. The numbers in the diagrams correspond to the numbers of the steps.

1. Plug the SPHD connector end of the KVM cable provided with this unit into the CL3000's KVM port.
2. Plug the keyboard, monitor, and mouse connectors of the KVM cable into their respective ports in the Console Section of the KVM switch.
3. Plug your external console keyboard, monitor, and mouse connectors into their respective ports in the Console Section of the CL3000, located on the unit’s back panel.
4. If you are using an external USB mouse or USB peripheral in your installation, plug it into the USB port located on the CL3000’s front panel.
5. Plug the power cord into the CL3000's power socket and into an AC power source.
6. Power up your KVM installation.
7. Turn on the power to CL3000.

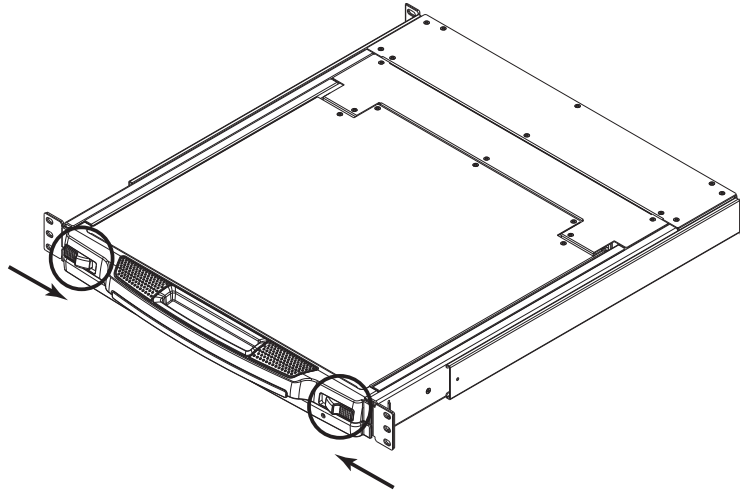

6
2
5
7
1
3
4

Chapter 3
Operation

Opening the Console

The CL3000's console is located under the top cover. To access the console, slide the console module out and raise the cover.

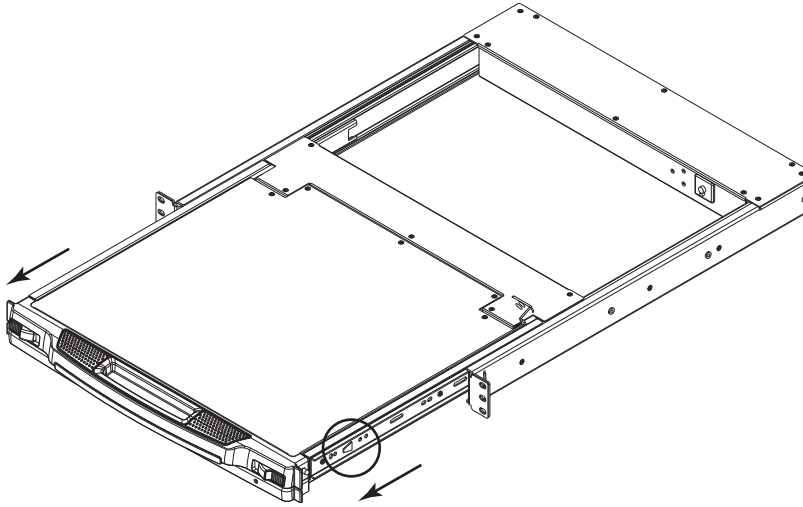
Note: As a safety precaution, to keep the console from accidentally sliding out, the console is locked into the *In* position. Before you can pull the console module out, you must release it by pushing the catches on the unit's front panel as indicated below.



Closing the Console

To slide the console module back in, close the cover and do the following:

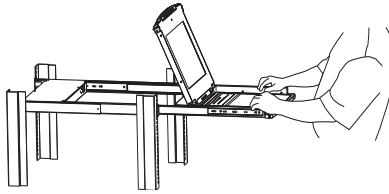
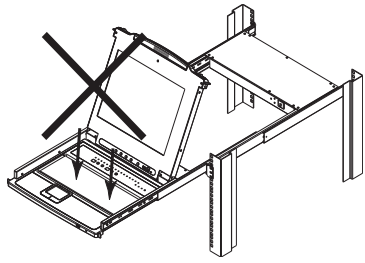
1. Pull the safety catches on the unit's side rails toward you and push the module in until it stops.
2. Release the catches. Pull the module slightly toward you, then push it all the way in.



Note: The reason for the two step procedure is to minimize the chances of you pinching your fingers when sliding the module in.

Operating Precautions

The maximum load bearing capacity of the keyboard module is 30 kg. Failure to heed the information below can result in damage to the keyboard module.

	**Right!** Rest your hands and arms lightly on the keyboard module as you work.
	**Wrong**! ◆ **DO NOT** lean your body weight on the keyboard module. ◆ **DO NOT** place heavy objects on the keyboard module.

LED-backlit LCD OSD Configuration

The LED-backlit LCD Buttons

The OSD allows you to set up and configure the LED-backlit LCD display. Four buttons are used to perform the configuration, as described in the table, below:

Button	Function
MENU	◆ When you have not entered the LED-backlit LCD OSD Menu function, pressing this button invokes the Menu function, and brings up the Main Menu. ◆ When you have entered the LED-backlit LCD OSD Menu function, and have reached a setting choice with the navigation buttons, pressing this button brings up its adjustment screen.
▶|▲	When navigating through the menus, this button moves you Right or Up. When making an adjustment, it increases the value.
◀|▼	When navigating through the menus, this button moves you Left or Down. When making an adjustment, it decreases the value.
EXIT	◆ When you have not entered the LED-backlit LCD OSD Menu function, pressing this button performs an auto adjustment. An auto adjustment automatically configures all the settings for the LED-backlit LCD panel to what the OSD considers their optimum values to be. ◆ When you have entered the LED-backlit LCD OSD Menu function, pressing this button exits the current menu and returns you to the previous menu. Use it to leave an adjustment menu when you are satisfied with the adjustment you made. ◆ When you are at the Main Menu, pressing this button exits the LED-backlit LCD OSD.

The Adjustment Settings

An explanation of the LED-backlit LCD OSD adjustment settings is given in the table below:

Setting	Explanation
Brightness	Adjusts the background black level of the screen image.
Contrast	Adjusts the foreground white level of the screen image.
Phase	If pixel jitter or horizontal line noise is visible on the display, your LED-backlit LCD may have the wrong phase setting. Adjust the phase setting to eliminate these problems.
Clock	If vertical banding is visible on the display, your LED-backlit LCD may have the wrong clock setting. Adjust the clock setting to eliminate vertical banding.
H-Position	Positions the display area on the LED-backlit LCD panel horizontally (moves the display area left or right).
V-Position	Positions the display area on the LED-backlit LCD panel vertically (moves the display area up or down).
Color Temperature	Adjusts the color quality of the display. You can adjust the warmth value, color balance, etc. The *Adjust Color* selection has a further submenu that lets you fine tune the RGB values.
Language	Selects the language that the OSD displays its menus in.
OSD Duration	Lets you set the amount of time the OSD displays on the screen. If there is no input for the amount of time you choose, the OSD display turns off.
Reset	Resets the adjustments on all menus and submenus to their factory default settings. **Note:** The *Language* setting does not return to the factory default, but remains at the one that you have set it to.

Hot Plugging

The CL3000 supports *hot plugging* – components can be removed and added to the console by unplugging their cables from the ports without the need to shut down the CL3000.

Powering Off and Restarting

If it becomes necessary to Power Off the CL3000 (to upgrade the firmware, for example), simply turn off the power to the unit using the rear panel power switch. To restart the CL3000, turn the rear panel power switch back on.

Port ID Numbering & Port Selection

Port ID numbering and Port Selection follow the method used by the KVM switch connected to the CL3000. Consult your KVM switch's User Manual for details.

Hotkeys

Console selection on the CL3000 is accomplished with hotkey combinations, as described in the following table:

Combination	Action
[Ctrl] [Alt] [Shift] [P] [C] [Enter]	To select normal mode (pc, etc.).
[Ctrl] [Alt] [Shift] [S] [U] [N] [Enter]	To select SUN
[Ctrl] [Alt] [Shift] [u] [p] [g] [r] [a] [d] [e] [Enter]	Activates the Firmware Upgrade Mode. **Note:** this Hotkey sequence only works when the Firmware Upgrade Recovery Switch (see page 22) is in the **Normal** position.
[Ctrl] [Alt] [Shift] [L] [Enter]	Enable Local (LED-backlit LCD) console; Disable Remote (external) console.
[Ctrl] [Alt] [Shift] [R] [Enter]	Enable Remote (external) console Disable Local (LED-backlit LCD) console.
[Ctrl] [Alt] [Shift] [L] [R] [Enter] or [Ctrl] [Alt] [Shift] [R] [L] [Enter]	Enable both consoles (default).
[Ctrl] [Alt] [Shift] [U] [M] [Enter]	Configures the front USB Port to mouse mode (Mouse functionality is immediate upon switching to USB mouse mode).
[Ctrl] [Alt] [Shift] [U] [P] [Enter]	Configures the front USB Port to peripheral mode.

Note: 1. Press the keys in sequence – one key at a time. First **[Ctrl]**, then **[Alt]**, then **[Shift]**, etc.

2. Console selections are not saved. If the CL3000 is powered off, it reverts to the default setting of both consoles enabled when it is powered on again.

3. If the KVM switch connected to the CL3000 uses the **[Ctrl] [Alt] [Shift]** combination to invoke its hotkey mode, you won't be able to access any of its hotkey operations because the CL3000 will capture the combination for console selection first.

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Chapter 4
The Firmware Upgrade Utility

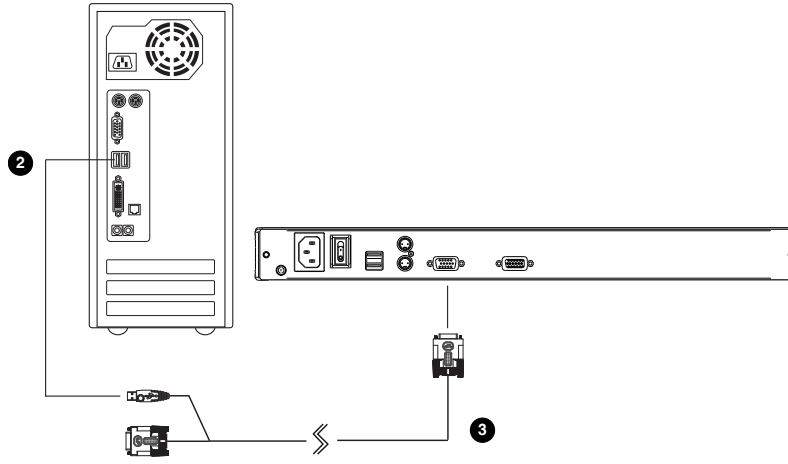
Introduction

The purpose of the Windows-based firmware upgrade utility is to provide an automated process for upgrading the CL3000 firmware. As new firmware versions become available, new firmware upgrade packages are posted on our website. Check the website regularly to find the latest information and packages.

Before You Begin

To download the firmware upgrade package:

1. From a computer that is not part of your KVM installation go to our website and choose the model name that relates to your device. Choose the firmware upgrade package that you wish to install (usually the most recent) and download it to your computer.
2. Connect the KVM cable set's Type A USB connector to a USB port on the computer.
3. At the other end of the cable set, connect the SPHD connector to the KVM port of the CL3000.



Firmware Upgrade Mode

The CL3000's firmware upgrade mode can be accessed one of two ways: by entering a hotkey sequence (see *Hotkeys*, page 19), or by placing the CL3000 in firmware upgrade recovery mode (see *Firmware Upgrade Recovery*, page 26).

Note: In order to activate the Firmware Upgrade Mode using a hotkey sequence, the Firmware Upgrade Recovery Switch (see page 6) must be set to the **Normal** position.

1. Turn off the power to the CL3000 using the power switch located on the back side of the console.
2. Slide the firmware switch to NORMAL (see page 6).
3. Turn on the power to the CL3000 using the power switch located on the back side of the console.

When the CL3000 is in Firmware Upgrade Mode, the Num Lock, Caps Lock and Scroll Lock LEDs will continually flash on and off.

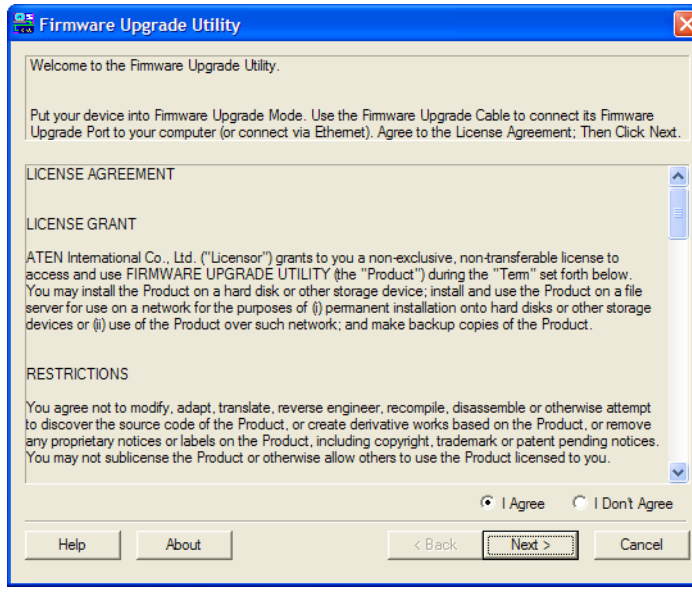
To exit the Firmware Upgrade Mode, see *Exiting Firmware Upgrade Mode*, page 26.

Starting the Upgrade

To upgrade the firmware:

1. Run the downloaded firmware upgrade package file either by double clicking the file icon, or by opening a command line and entering the full path to it.

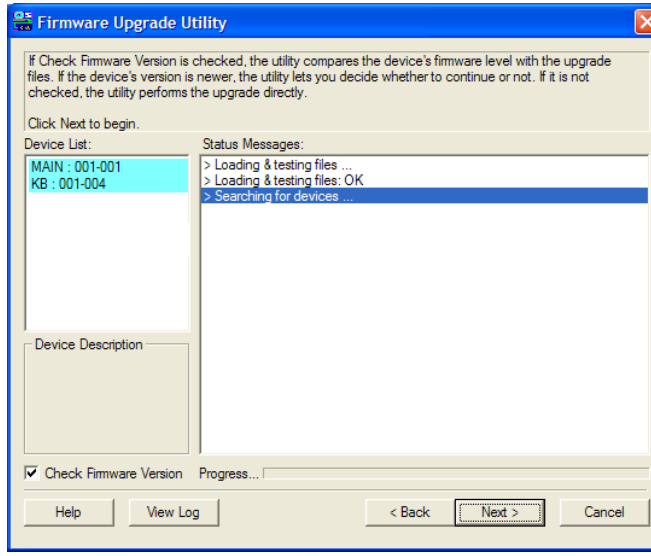
   The *Firmware Upgrade Utility* welcome screen appears:



Note: The screens shown in this section are for reference only. The wording and layout of the actual screens put up by the *Firmware Upgrade Utility* may vary slightly from these examples.

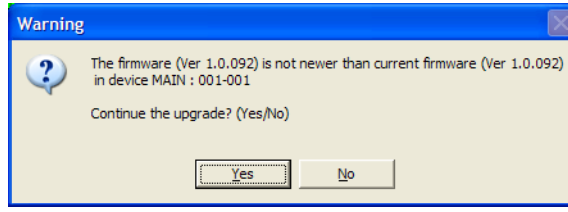
2. Read and *Agree* to the License Agreement (enable the I Agree radio button).
3. Click **Next** to continue.

The *Firmware Upgrade Utility* main screen appears. The devices capable of being upgraded are listed in the *Device List* panel:



4. Click **Next** to perform the upgrade.

   If you enabled *Check Firmware Version*, the utility compares the device's firmware level with that of the upgrade files. If it finds that the device's version is higher than the upgrade version, it brings up a dialog box informing you of the situation and gives you the option to continue or cancel.

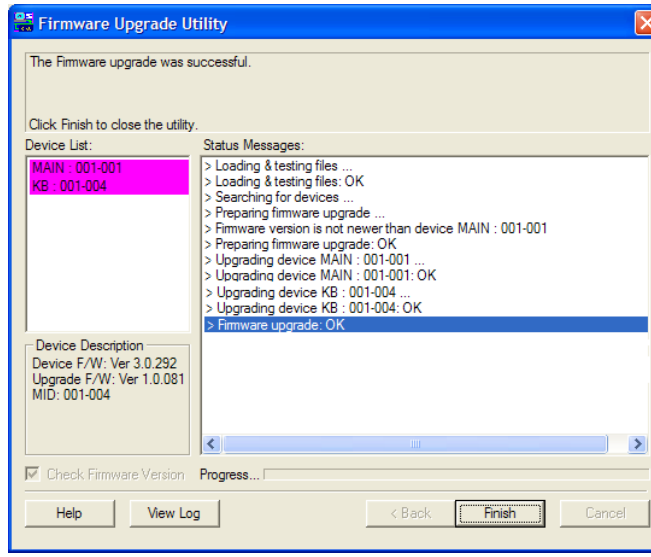


   If you didn't enable *Check Firmware Version*, the utility installs the upgrade files without checking whether they are a higher level, or not.

   As the upgrade proceeds, status messages appear in the *Status Messages* panel, and the progress toward completion is shown on the *Progress* bar.

Upgrade Succeeded

After the upgrade has completed, a screen appears to inform you that the procedure was successful:



Click **Finish** to close the firmware upgrade utility.

Upgrade Failed

If the *Upgrade Succeeded* screen doesn't appear, it means that the upgrade failed to complete successfully. See the next section, *Firmware Upgrade Recovery*, for how to proceed.

Firmware Upgrade Recovery

There are three conditions that call for firmware upgrade recovery:

- When the unit's firmware becomes corrupted for some reason and you are unable to operate it.
- When a firmware upgrade procedure is interrupted.
- When a firmware upgrade procedure fails.

To perform a firmware upgrade recovery, do the following:

1. Power off the CL3000.
2. Slide the *Firmware Upgrade Recovery Switch* to the **Recover** position.
3. Power the CL3000 back on and repeat the upgrade procedure.
4. After the switch has been successfully upgraded, power it off, and slide the *Firmware Upgrade Recovery Switch* back to the **Normal** position.
5. Power the CL3000 back on.

Exiting Firmware Upgrade Mode

To exit the Firmware Upgrade Mode, do the following:

1. Slide the *Firmware Upgrade Recovery Switch* (see page 6) to the **Normal** position.
2. Power off and restart the CL3000 according to the instructions given in the *Powering Off and Restarting* section (see page 18).

Appendix

Safety Instructions

General

- This product is for indoor use only.
- 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, or other surfaces). If the device falls, serious damage will result.
- Do not use the device near water.
- Do not place the device near, or over, heat radiators or heat vents.
- The device housing 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, or other soft surface) as this will block its ventilation openings. Likewise, the device should not be placed in an 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.
- 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.
- The device is equipped with a 3-wire grounding type plug. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not attempt to circumvent the purpose of the grounding-type plug. Always follow your local/national wiring codes.
- 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 un-interruptible power supply (UPS).
- Never push objects of any kind into or through cabinet slots. They may touch dangerous voltage points or short-circuit parts resulting in a risk of fire or electrical shock.
- Do not attempt to service the device yourself. Refer all servicing to qualified service personnel.
- If the following conditions occur safely remove the power to the wall outlet, then unplug the device and bring it to qualified service personnel for repair.
  - The power cord or plug has become damaged or frayed.
  - Liquid has been spilled into the device.
  - The device has been exposed to rain or water.
  - The device has been dropped, or the cabinet has been damaged.
  - The device exhibits a distinct change in performance, indicating a need for service.
  - The device does not operate normally when the operating instructions are followed.
- Only adjust those controls that are covered in the operating instructions. Improper adjustment of other controls may result in damage that could require extensive work by a qualified technician to repair.
- Do not connect the RJ-11 connector marked “UPGRADE” to any type of telephone network.

Rack Mounting

- Before working on the rack, make sure that the stabilizers are secured to the rack, extended to the floor, and that the full weight of the rack rests on the floor. Install front and side stabilizers on a single rack or front stabilizers for joined multiple racks before working on the rack.
- Always load the rack from the bottom up, and load the heaviest item in the rack first.
- Make sure that the rack is level and stable before extending a device from the rack.
- Use caution when pressing the device rail release latches and sliding a device into or out of a rack; the slide rails can pinch your fingers.
- After a device is inserted into the rack, carefully extend the rail into a locking position, and then slide the device into the rack.
- Do not overload the AC supply branch circuit that provides power to the rack. The total rack load should not exceed 80 percent of the branch circuit rating.
- Make sure that all equipment used on the rack – including power strips and other electrical connectors – is properly grounded.
- Ensure that proper airflow is provided to devices in the rack.
- Ensure that the operating ambient temperature of the rack environment does not exceed the maximum ambient temperature specified for the equipment by the manufacturer.
- Do not step on or stand on any device when servicing other devices in a rack.
- **Caution:** Slide/rail (LED-backlit LCD/LCD KVM) mounted equipment is not to be used as a shelf or a work space.

Technical Support

International

- For online technical support – including troubleshooting, documentation, and software updates: **http://support.aten.com**
- For telephone support, *Telephone Support*, page iii

North America

Email Support		support@aten-usa.com
Online Technical Support	Troubleshooting Documentation Software Updates	http://www.aten-usa.com/support
Telephone Support		1-888-999-ATEN ext 4988

When you contact us, please have the following information ready beforehand:

- Product model number, serial number, and date of purchase.
- Your computer configuration, including operating system, revision level, expansion cards, and software.
- Any error messages displayed at the time the error occurred.
- The sequence of operations that led up to the error.
- Any other information you feel may be of help.

Specifications

Function			CL3000
Computer Connections			1
Console Selection			Hotkey
Connectors	External Console Ports	Keyboard	1 x 6-pin Mini-DIN Female (Purple) 1 x USB Type A Female (Black)
		Video	1 x HDB-15 Female (Blue)
		Mouse	1 x 6-pin Mini-DIN Female (Green) 1 x USB Type A Female (Black)
	KVM Ports		1 x SPHD-18 Male (Yellow)
	USB Port		1 x USB Type A Female (Black)
	Power		1 x 3-prong AC Socket
Switches	Reset		1 x Semi-recessed Pushbutton
	Power		1 x Rocker
	F/W Upgrade		1 x Slide
	LED-backlit LCD Power		1 x Pushbutton
	LED-backlit LCD Adjustment		4 x Pushbutton
LEDs	Power		1 (Green)
	Lock	Num	1 (Green)
		Caps	1 (Green)
		Scroll	1 (Green)
Emulation	Keyboard / Mouse		PS/2; USB
Video			1280 x 1024@75Hz, DDC2B
I/P Rating			100–240VAC; 50–60Hz; 1A
Power Consumption			120V, 21.4W / 230V. 22.7W
Vibration Test			MIL–STD–810G Certified
Environment	Operating Temp.		0–40^{o} C
	Storage Temp.		-20–60^{o} C
	Humidity		0–80% RH, Non-condensing
Physical Properties	Housing		Metal
	Weight		8.41 kg
	Dimensions (L x W x H)		58.51 x 48.50 x 4.40 cm

Optional Rack Mounting

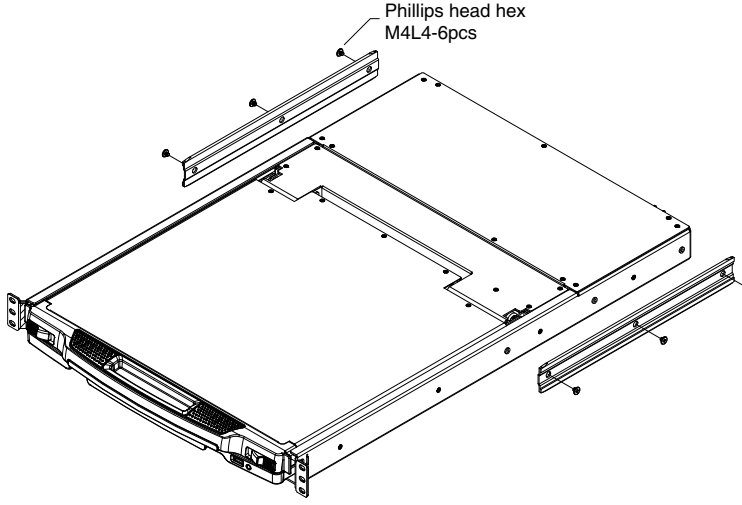
For convenience and flexibility, three optional rack mounting kits are available as shown in the following table:

Bracket Type	Size (cm)
Standard Installation – Long	70.0—105.0
Easy Installation – Short	57.0—70.0
Easy Installation – Long	68.0—105.0

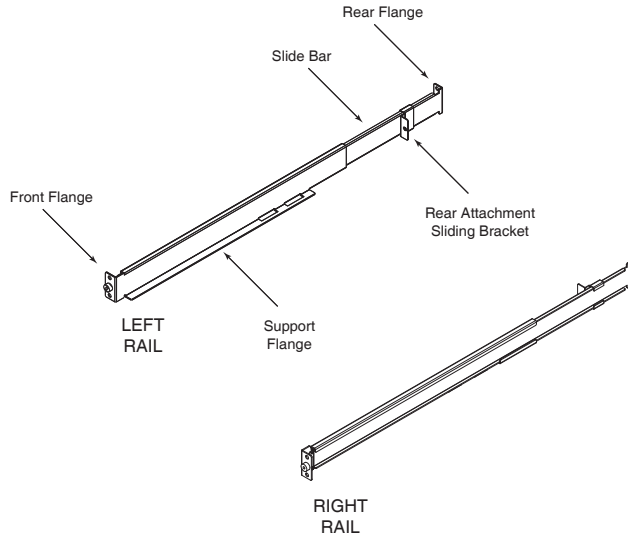
To install the long bracket standard rack mount kit, simply replace the short L brackets on the standard rack mount kit with the long ones, and mount the CL3000 according to the instructions given for *Standard Rack Mounting*, page 9.

While it takes two people to perform a standard installation, with an *Easy-Installation*, kit, one person can mount the CL3000. To install the *Easy-Installation* kit, do the following:

1. Remove the standard sliding L brackets (not shown) and the side mounting brackets from both sides of the CL3000.

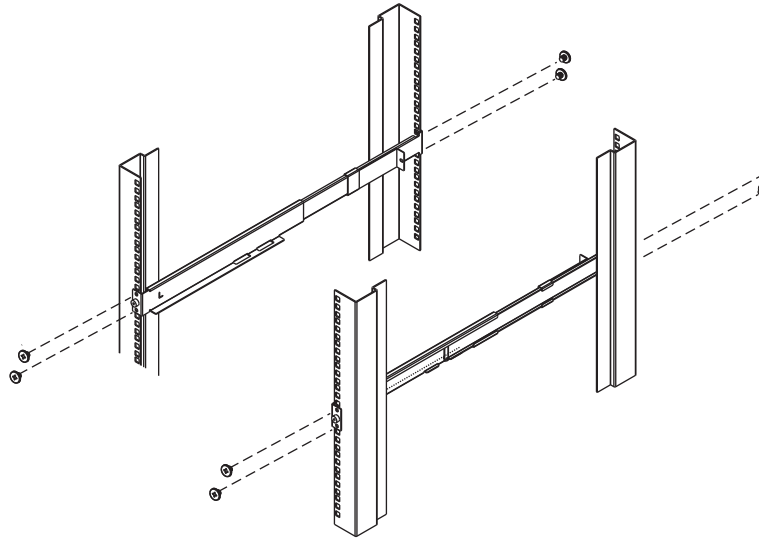


2. Attach the left and right *easy-installation* mounting rails to the inside of the rack. The flange that supports the CL3000 will be to the inside.



a) Screw the front flanges to the rack first.

b) Slide the bars with the rear flanges toward the rack until the flanges make contact with the rack, then screw the rear flanges to the rack.



5. Slide the CL3000 open and closed a couple of times to be sure that it is properly aligned and operating smoothly. (See *Opening the Console*, page 13, for opening and closing procedures.)
6. After determining that the CL3000 is lined up and operating correctly, finish by fully tightening the front attachment screws inserted in Step 3.

Sun Keyboard Emulation

The PC compatible (101/104 key) keyboard can emulate the functions of the Sun keyboard when the Control key [Ctrl] is used in conjunction with other keys. The corresponding functions are shown in the table below.

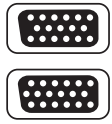
PC Keyboard	Sun Keyboard
[Ctrl] [T]	Stop
[Ctrl] [F2]	Again
[Ctrl] [F3]	Props
[Ctrl] [F4]	Undo
[Ctrl] [F5]	Front
[Ctrl] [F6]	Copy
[Ctrl] [F7]	Open
[Ctrl] [F8]	Paste
[Ctrl] [F9]	Find
[Ctrl] [F10]	Cut
[Ctrl] [1]	
[Ctrl] [2]	
[Ctrl] [3]	
[Ctrl] [4]	
[Ctrl] [H]	Help
	Compose
	◆

Note: When using key combinations, press and release the first key (Ctrl), then press and release the activation key.

Troubleshooting

Symptom	Action
Some characters I enter from the keyboard do not display correctly.	The keyboard layout setting for the port does not match the keyboard you are using. On your switch, change the keyboard layout setting for the port to match the layout of the keyboard you are using.
I can't use the special keys on the Sun external keyboard to control Sun computers.	Use Sun keyboard emulation keystrokes (page 36) to achieve all Sun keyboard functions.

About SPHD Connectors



This product uses SPHD connectors for its KVM and/or Console ports. We have specifically modified the shape of these connectors so that only KVM cables that we have designed to work with this product can be connected.

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.

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