PS/2 KVM Switch

ACS1208A / ACS1216A

User Manual

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.

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://support.aten.com
North America	http://www.aten-usa.com/product_registration

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

The ACS1208A / ACS1216A package consists of:

◆ 1 ACS1208A / ACS1216A KVM Switch with Standard Rack Mounting Kit

◆ 2 Custom KVM Cable Sets

◆ 1 Firmware Upgrade Cable

◆ 1 Power Cord

◆ 1 User Manual*

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.

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* Features may have been added to the ACS1208A / ACS1216A since this manual was printed. Please visit our website to download the most up-to-date version of the manual.

Contents

*Chapter 4.*OSD Operation

*Chapter 5.*The Firmware Upgrade Utility

Appendix

About this Manual

This User Manual is provided to help you get the most from your ACS1208A / ACS1216A 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 ACS1208A / ACS1216A 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. The necessary steps – from a basic single stage hookup to a complete 32 switch daisy chained operation are provided.

Chapter 3, Hotkey Operation, details all of the concepts and procedures involved in the Hotkey operation of your ACS1208A / ACS1216A installation.

Chapter 4, OSD Operation, provides a complete description of the ACS1208A / ACS1216A's OSD (On Screen Display), and how to work with it.

Chapter 5, The Firmware Upgrade Utility, explains how to use this utility to upgrade the ACS1208A / ACS1216A's firmware with the latest available versions.

An Appendix, provides specifications and other technical information regarding the ACS1208A / ACS1216A.

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 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 Master View ACS1208A / ACS1216A KVM Switches are control units that allow access to multiple computers from a single console (keyboard, mouse, and monitor). 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 ACS1208A / ACS1216A, you can easily access multiple computers in a cost effective manner.

A single Master View ACS1208A / ACS1216A can control up to 8 or 16 computers. As many as 31 additional ACS1208A / ACS1216A switches can be daisy chained to each other, so that up to 512 computers can all be controlled from a single keyboard-monitor-mouse console.

A custom ASIC (patent pending) provides an auto-sensing function that recognizes the position of each station on the chain, eliminating the need to manually set the position with DIP switches. A seven segment front panel LED displays each Station's position for easy identification.

For further convenience, the ACS1208A / ACS1216A features high density 15 pin connectors instead of the usual 25 pin connectors. This space-saving innovation allows a full, 16 port switch, to be installed in a 1U system rack.

Setup is fast and easy; plugging cables into their appropriate ports is all that is entailed. Because the ACS1208A / ACS1216A intercepts keyboard input directly, there is no software to configure, so there is no need to get involved in complex installation routines or be concerned with incompatibility problems.

Access to any computer connected to the installation is easily accomplished either by entering *Hotkey* combinations from the keyboard, or by means of a powerful menu driven OSD (On Screen Display) system. A convenient *Auto Scan* feature also permits automatic scanning and monitoring of the activities of all computers running on the installation one by one.

There is no better way to save time and money than with a Master View ACS1208A / ACS1216A installation. By allowing a single console to manage all the attached computers, an ACS1208A / ACS1216A installation: (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 from one computer to another.

Features

- A Single Console Controls Up To 8 (ACS1208A) or 16 (ACS1216A) Computers
- Daisy chain Up To 31 Additional Units – Control Up to 512 computers From a Single Console
- No Software Required - Convenient Computer Selection via *Hotkeys* and Intuitive On Screen Display (OSD) Menus
- Auto Scan Feature for Monitoring User-Selected Computers
- Hot Pluggable – Add or Remove Computers Without Having To Power Down the Switch
- Custom ASIC (patent pending) Auto-Senses Station's Position on Daisy Chained Installations – No Need For Manual DIP Switch Setting – Front Panel LED Indicates Station's Position
- Port Names Automatically Reconfigured When Station Sequence Is Changed
- Two Level Password Security – Only Authorized Users View and Control the Computers – Up to Four Users Plus an Administrator – Separate Profiles For Each
- Two Level Logout – Manual and Timed
- PS/2 Keyboard and Mouse Emulation – Computers Boot Even When the Console Focus is Elsewhere
- Supports* PS/2 Compatible Mice, Microsoft Intellimouse Explorer, Logitech FirstMouse+
- Superior Video Quality – Supports Resolutions of Up To 2048 x 1536
- Rack Mountable in 19" System Rack (1U)

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* PS/2 compatible mouse support is for 3 button wheel mice. The Logitech Mouse Ware program's *Change Device* procedure does not work on Microsoft NT computers.

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:

- ◆ 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.

Cables

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 the high quality CS Custom Cable sets described below:

Function	CS Part Number
KVM Switch to KVM Switch (Daisy Chaining)	2L-1700 – 0.6 m 2L-1701 – 1.8 m
KVM Switch to Computer	2L-5201P – 1.2 m 2L-5202P – 1.8 m 2L-5203P – 3.0 m 2L-5206P – 6.0 m

Front View

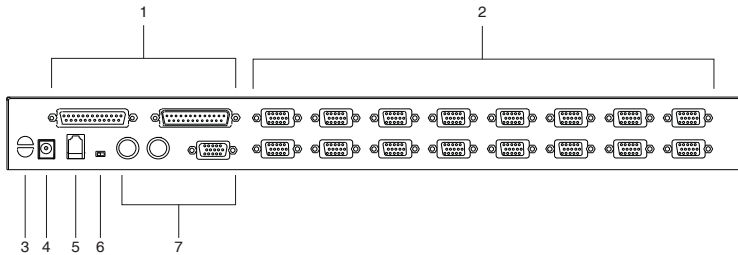| No.	Component	Description
1	Port LEDs	◆ An orange LED indicates that a computer is connected to the corresponding port.
		◆ A green LED indicates that the computer connected to the corresponding port has focus.
2	Reset Button	Pressing in this button performs a system reset. When the system is reset, the ACS1208A / ACS1216A beeps, and then the KVM port LEDs flash in succession until the reset is completed. After the reset is completed you can login again.
		Note: This button is semi-recessed and must be pushed with a small object, such as the end of a paper clip or a ballpoint pen.
3	Power LED	Lights (green) to indicate that the unit is receiving power.
4	Station ID LED	The ACS1208A / ACS1216A Station ID is displayed here. If this is a Single Station installation (see page 9), or the First Station on a daisy chained installation (see page 10), the switch has a Station ID of **01**.
		On a daisy chained installation, the ACS1208A / ACS1216A auto-senses its position and displays the Station ID that corresponds to its place in the chain. (see *Port ID Numbering*, page 13 for details).

Note: The ACS1216A is pictured above. The ACS1208A front panel is the same as that of the ACS1216A, except that it has 8 KVM ports.

Rear View

No.	Component	Description
1	Daisy Chain Ports	When daisy chaining units, the cables plug in here. The port on the right is the *Chain Out* port; the one on the left is the *Chain In* port.
2	KVM Ports	The cables that link to the computers plug in here.
		Note: The shape of these 15-pin connectors has been specifically modified so that only custom KVM cables designed to work with this switch can plug in. (See *Cables*, page 4, for details.) Do **NOT** attempt to use ordinary 15-pin VGA connector cables to link these ports to the computers.
3	Cable Tie Slot	If you want to use a cable tie to gather the cables together, you can run it through this slot to attach it to the unit.
4	Power Jack	The power adapter cable plugs in here.
5	Firmware Upgrade Port	The Firmware Upgrade Cable that transfers the firmware upgrade data from the administrator's computer to the ACS1208A / ACS1216A (see page 35), plugs into this RJ-11 connector.
6	Firmware Upgrade Recovery 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 39, for details.
7	Local Console Ports	The keyboard, monitor, and mouse that make up the Local Console plug in here.

Note: The ACS1216A is pictured above. The ACS1208A front panel is the same as that of the ACS1216A, except that it has 8 KVM ports.

Hardware Setup

Overview

For convenience and flexibility using a PS/2 interface, the ACS1208A / ACS1216A's design utilizes KVM adapter cables that serve as intermediaries between the KVM switch and the connected computers.

A separate KVM adapter cable is required for each computer connection. The KVM adapter cables are listed in the *Cables* section on page 4. Consult your dealer to find out which KVM adapter cables best fit your needs.

Before You Begin

1. Important safety information regarding the placement of this device is provided on page 41. Please review it before proceeding.

2. Make sure that the power to any device that you connect to the installation has been turned off. You must unplug the power cords of any computers that have the Keyboard Power On function.

Rack Mounting

The ACS1208A / ACS1216A can be mounted in a 1U system rack. For convenience and flexibility, the mounting brackets can screw into either the front or the back of the unit so that it can attach to the front or the back of the rack. To rack mount the unit do the following:

1. Screw the mounting brackets into the sides of the unit at the front or the rear, as shown in the diagrams below.

2. Slide the unit into the rack and secure it to the rack.
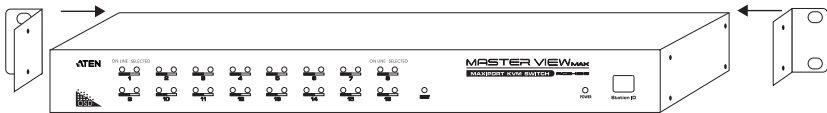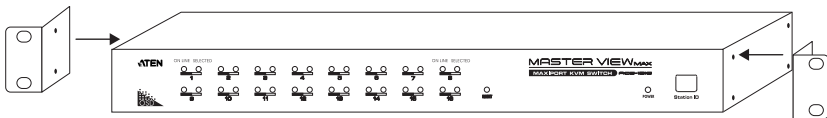
Single Stage Installation

In a single stage installation, there are no additional switches daisy chained down from the first unit. To set up a single stage installation do the following:

1. Plug your keyboard, mouse, and monitor into the unit's console ports.

2. Use KVM cable sets (as described in the *Cables* section on page 4), to connect any available KVM port to the keyboard, video and mouse ports of the computer you are installing.

   Note: Ignore the daisy chain ports at this time. They are only used when daisy chaining additional Master View units. Daisy chaining is described in the next section.

3. Plug the power adapter cable into the Master View's power jack, then plug the power adapter into an AC power source.

4. Turn on the power to the computers.

Single Stage Installation Diagram
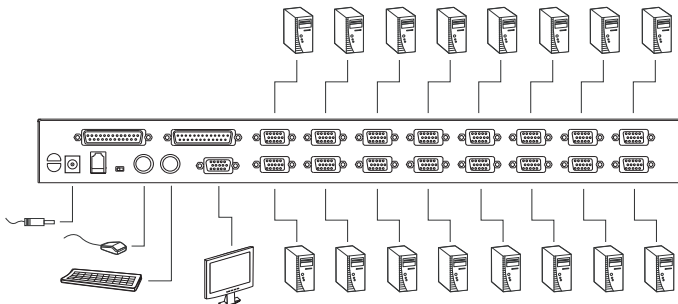
Daisy Chained Installation

To control even more computers, up to 31 additional switches can be daisy chained down from the first unit. As many as 512 computers can be controlled from a single console in a complete installation. Tables showing the relation between the number of computers and the number of Master View ACS1208A / ACS1216A units needed to control them are provided on page 46 in the Appendix.

To set up a daisy chained installation, do the following:

1. Make sure that power to all the devices you will be connecting up has been turned off.

2. Use a daisy chain cable set (described in the *Cables* section, page 4), to connect the *Chain Out* port of the parent ACS1208A / ACS1216A unit to the *Chain In* port of the child ACS1208A / ACS1216A unit (First Station Out to Second Station In, Second Station Out to Third Station In, etc.).

Note:	You cannot use the *Chain In* port of the First Station Master View, since it is the highest level parent.

3. Use KVM cable sets (described in the *Cables* section, page 4), to connect any available KVM Port on the ACS1208A / ACS1216A installation to the Keyboard, Video and Mouse ports of the computers you are installing.

4. Repeat the above steps for any additional ACS1208A / ACS1216A units you wish to add to the chain.

5. Power up the installation according to the following procedure:

   a) Plug in the power adapter for the First Station.

   Wait for the unit to ascertain its Station ID and display it on the Station ID LED. (The Station ID for the First Stage unit is **01**, the ID for the Second Stage unit is **02**, the ID for the Third Stage unit is **03**, etc.).

   b) Plug in the power adapters for each Station on the installation in turn (Second Station, then Third Station, etc.).

   In each case, wait for the Station ID to be ascertained and displayed on the current Station before plugging in the next one.

   c) After all the Stations are up, power on the computers.

Daisy Chained Installation Diagram
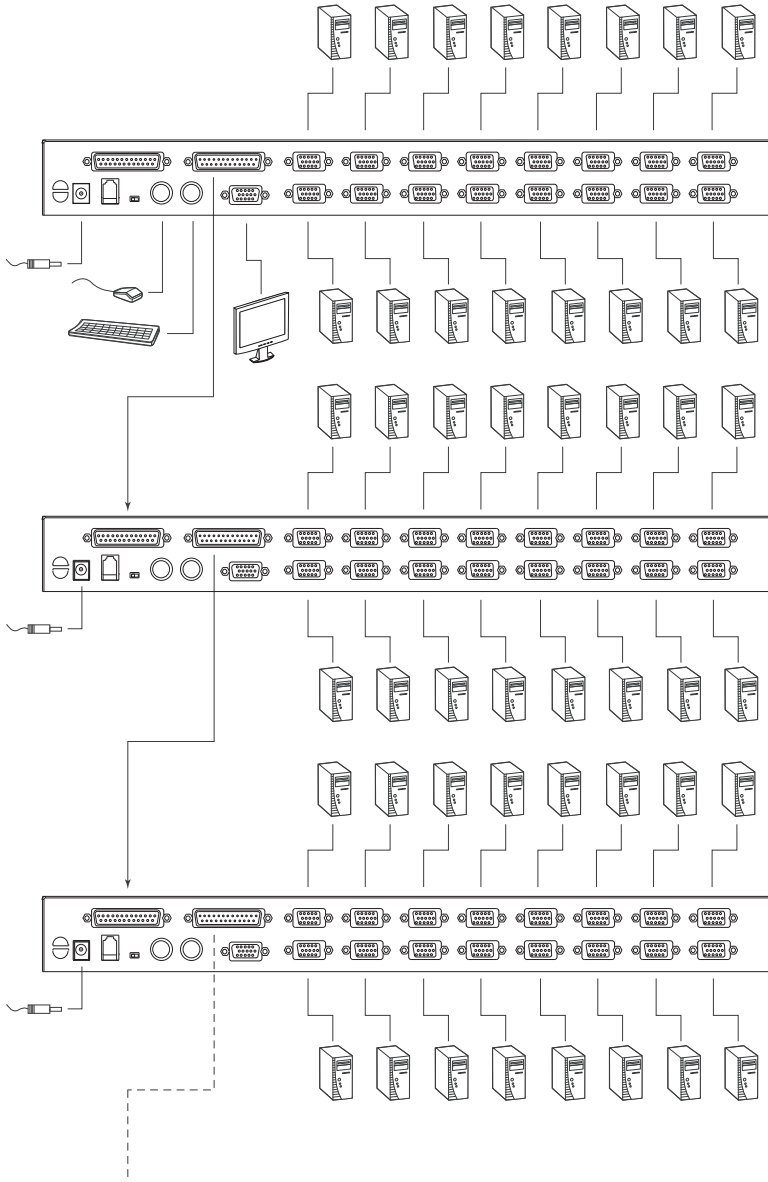
Hot Plugging

The ACS1208A / ACS1216A supports *hot plugging* - components can be removed and added back into the installation by unplugging their cables from the ports without the need to shut the unit down. In order for hot plugging to work properly, however, the procedures described below must be followed:

Switching Station Positions

You can switch station positions by simply unplugging from the old parent and plugging into a new one. After you do, in order for the OSD menus to correspond to the change, you must reset the Station IDs in the OSD. See *RESET STATION ID*, page 30 for details.

Note: If the computer's Operating System does not support hot plugging, this function may not work properly.

Hot Plugging KVM Ports

In order for the OSD menus to correspond to the change, you must manually reconfigure the OSD to reflect the new Port information. See the *F3 SET* (page 26) and *F4 ADM* (page 28), functions for details.

Hot Plugging Console Ports

Keyboard, monitor, and mouse can all be hot plugged. When hot plugging the mouse:

- You may unplug and replug the mouse (to reset the mouse, for example), as long as you use the *same* mouse.

- If you plug in a different mouse, all the stations and all the computers on the installation must be shut down for 10 seconds, then restarted following the Power Up Sequence described under Step 4 on page 10.

    Note: If, after hot plugging there is no response to keyboard and/or mouse input, perform a *Keyboard and Mouse Reset* by pressing in the Reset button (see page 5).

Port ID Numbering

Each KVM port on a ACS1208A / ACS1216A installation is assigned a unique Port ID. The Port ID is made up of two parts: a *Station Number*, and a *Port Number*:

- The *Station Number* - is a two digit number which reflects the switch's position in the daisy chain sequence. This corresponds to the number displayed on the front panel Station ID LED.

- The *Port Number* - is a two digit number which reflects the port on the ACS1208A / ACS1216A station that the computer is connected to.

- The Station Number precedes the Port Number.

- Station and Port numbers from 1 - 9 are padded with a preceding zero, so they become 01 - 09.

For example, a computer attached to **Port 6** of **Station 12** would have a Port ID of: **12-06**.

Powering Off and Restarting

If it becomes necessary to Power Off one of the ACS1208A / ACS1216A units, before starting it back up you must do the following:

1. Shut down all the computers that are attached to it.

   Note: You must unplug the power cords of any computers that have the *Keyboard Power On* function. Otherwise, the unit will still receive power from the computers.

2. Wait 10 seconds, then plug the ACS1208A / ACS1216A back in.

3. After the ACS1208A / ACS1216A is up, Power On the computers.

Note: If you have shut down more than one station, power up the highest station first and work your way down to the lowest one.

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Chapter 3
Hotkey Operation

Hotkey Port Control

Hotkey Port Control allows you to provide KVM focus to a particular computer directly from the keyboard. The Master View ACS1208A / ACS1216A provides the following Hotkey Port Control features:

- ◆ Selecting the Active Port
- ◆ Auto Scanning
- ◆ Skip Mode Switching

Invoking Hotkey Mode

All Hotkey operations begin by invoking *Hotkey Mode*. Invoking Hotkey Mode takes three steps:

1. Hold down the **Num Lock** key;

2. Press and release the **asterisk** or the **minus** key;

3. Release the **Num Lock** key:

    ```
    [Num Lock] + [*];
    ```

    or:

    ```
    [Num Lock] + [-];
    ```

Note: The asterisk or minus key must be released within one half second, otherwise Hotkey invocation is cancelled and it has no effect.

When Hotkey Mode is active:

◆ The Num Lock, Caps Lock, and Scroll Lock LEDs flash in succession to indicate so. They stop flashing and revert to normal status when you exit Hotkey Mode.

◆ A Command Line appears on the monitor screen. The command line prompt is the word *Hotkey:* in yellow text on a blue background, and displays the subsequent Hotkey information that you key in.

◆ Ordinary keyboard and mouse functions are suspended - only Hotkey compliant keystrokes and mouse clicks (described in the sections that follow), can be input.

Pressing **[Esc]** exits Hotkey Mode.

Selecting the Active Port

Each KVM port is assigned a Port ID (see *Port ID Numbering*, page 13). You can directly access any computer on the installation with a Hotkey combination that specifies the Port ID of the KVM Port that the computer is connected to. The steps involved are:

1. Invoke Hotkey Mode with the **[NumLock]** + **[*]** or **[NumLock]** + **[-]** combination

2. Key in the Port ID

   The Port ID numbers display on the Command Line as you key them in. If you make a mistake, use [Backspace] to erase the wrong number.

3. Press **[Enter]**

   After you press [Enter], the KVM focus switches to the designated computer and you automatically exit Hotkey Mode.

Auto Scanning

Auto Scan automatically switches among all the active KVM ports that are accessible to the currently logged on user at regular intervals, so that he can monitor their activity automatically. (See *Scan/Skip Mode* of the OSD **F3 SET** function, page 27 for information regarding accessible ports).

Setting the Scan Interval:

The amount of time Auto Scan dwells on each port is set with the *Scan Duration* setting of the OSD **F3 SET** function (see page 27). You can change the scan interval before activating Hotkey Auto Scanning, if you wish, with the following Hotkey combination:

1. Invoke Hotkey Mode with the **[NumLock]** + **[*]** or **[NumLock]** + **[-]** combination

2. Key in **[T] [n]**

   Where [T] is the letter **T**, and [n] is a number from 1–255 that represents the number of seconds for the dwell time.

   The letter **T**, and the numbers display on the Command Line as you key them in. If you make a mistake, use **[Backspace]** to erase the wrong number.

3. Press **[Enter]**

   After you press [Enter], you automatically exit Hotkey Mode, and are ready to invoke Auto Scanning.

Invoking Auto Scan:

To start Auto Scanning, key in the following Hotkey combination:

1. Invoke Hotkey Mode with the **[NumLock]** + **[*]** or **[NumLock]** + **[-]** combination

2. Press **[A]**. After you press **A**, you automatically exit Hotkey Mode, and enter Auto Scan Mode.

   ◆ While you are in Auto Scan Mode, you can pause the scanning in order to keep the focus on a particular computer either by pressing **P** or with a Left Click of the mouse. During the time that Auto Scanning is paused, the Command Line displays: **Auto Scan: Paused.**

   Pausing when you want to keep the focus on a particular computer is more convenient than Exiting Auto Scan Mode because when you Resume scanning, you start from where you left off. If, on the other hand, you Exited and restarted, Scanning would start over from the very first computer on the installation.

To resume Auto Scanning, press any key or Left Click. Scanning continues from where it left off.

◆ While Auto Scan mode is in effect, ordinary keyboard and mouse functions are suspended - only Auto Scan mode compliant keystrokes and mouse clicks can be input. You must exit Auto Scan mode in order to regain normal control of the console.

3. To exit Auto Scan mode press **[Esc]** or **[Spacebar]**. Auto Scanning stops when you exit Auto Scan mode.

Skip 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 Scanning, which automatically switches after a fixed interval. To invoke Skip mode, key in the following Hotkey combination:

1. Invoke Hotkey mode with the **[NumLock]** + **[*]** or **[NumLock]** + **[-]** combination

2. Key in **[Arrow]**

   ◆ Where [Arrow] refers to one of the Arrow keys. After you press [Arrow], you automatically exit Hotkey mode, and enter Skip mode where you can switch ports as follows:

←	Skips from the current port to the first accessible port previous to it. (See *Scan/Skip Mode*, page 27, for information regarding accessible ports.)
→	Skips from the current port to the next accessible port.
↑	Skips from the current port to the last accessible port of the previous Station.
↓	Skips from the current port to the first accessible port of the next Station.

   ◆ Once you are in Skip mode, you can keep on skipping by pressing the Arrow keys. You don't have to use the [NumLock] + [-] combination again.

   ◆ While Skip Mode is in effect, ordinary keyboard and mouse functions are suspended – only Skip mode compliant keystrokes can be input. You must exit Skip mode in order to regain normal control of the console.

3. To exit Skip mode, press **[Esc]** or **[Spacebar]**.

Hotkey Beeper Control

The Beeper (see Activate Beeper, page 29) can be Hotkey toggled On and Off. To toggle the Beeper, key in the following Hotkey combination:

1. Invoke Hotkey Mode with the **[NumLock]** + **[*]** or **[NumLock]** + **[-]** combination

2. Press **[B]**

After you press **B**, the Beeper toggles On or Off. The Command Line displays *Beeper On* or *Beeper Off* for one second; then the message disappears and you automatically exit Hotkey Mode.

Hotkey Summary Table

[Num Lock] + [*] or [Num Lock] + [-]	[Port ID] [Enter]	Switches access to the computer that corresponds to that Port ID.
	[T] [n] [Enter]	Sets the Auto Scan interval to **n** seconds - where **n** is a number from 1–255.
	[A]	Invokes Auto Scan mode. When Auto Scan mode is in effect, [P] or Left Click pauses Auto Scanning. When Auto Scanning is paused, pressing Any Key or another Left Click resumes Auto Scanning.
	[←]	Invokes Skip mode and Skips from the current port to the first accessible port previous to it.
	[→]	Invokes Skip mode and Skips from the current port to the next accessible port.
	[↑]	Invokes Skip mode andSkips from the current port to the last accessible port of the previous Station.
	[↓]	Invokes Skip mode andSkips from the current port to the first accessible port of the next Station.
	[B]	Toggles the Beeper On or Off.

Chapter 4
OSD Operation

OSD Overview

The On Screen Display (OSD) is a menu driven method to handle computer control and switching operations. All procedures start from the OSD Main Screen. To pop up the Main Screen, tap the **[Scroll Lock]** key twice.
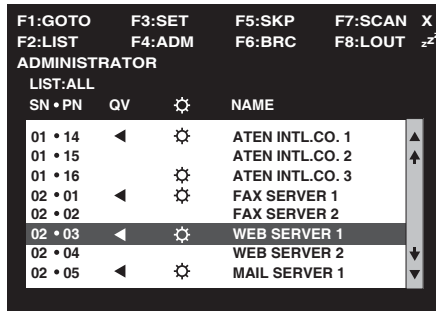

Note: You can optionally change the Hotkey to the Ctrl key, in which case you would tap [Ctrl] twice (see *OSD Hotkey*, page 26). With this method, the [Ctrl] keys must be on the same side (both left, or both right).

The OSD incorporates a two level (Administrator / User) password system. Before the OSD Main Screen comes up, a dialog box appears that asks you to provide your password. If the password function has been set, you must provide the password in order to access the OSD Main Screen.

If this is the first time that the OSD is being run, or if the password function has not been set, simply press **[Enter]**. The OSD Main Screen comes up in Administrator Mode. In this mode, you have Administrator privileges, with access to all Administrator and User functions, and can set up operations (including password authorization for the future), as you would like.

OSD Main Screen

When you invoke the OSD, a screen similar to the one below appears:

F1:GOTO	F3:SET	F5:SKP	F7:SCAN X
F2:LIST	F4:ADM	F6:BRC	F8:LOUT z^{z^z}

ADMINISTRATOR
LIST:ALL

SN • PN	QV	☼	NAME	
01 • 14	◄	☼	ATEN INTL.CO. 1	▲
01 • 15			ATEN INTL.CO. 2	▲
01 • 16		☼	ATEN INTL.CO. 3	
02 • 01	◄	☼	FAX SERVER 1	
02 • 02			FAX SERVER 2	
02 • 03	◄	☼	WEB SERVER 1	
02 • 04			WEB SERVER 2	▼
02 • 05	◄	☼	MAIL SERVER 1	▼

Note: 1. The diagram depicts the Administrator's Main Screen. The User Main Screen does not show the **F4** and **F6** functions, since these are reserved for the Administrator and can't be accessed by ordinary Users.

2. OSD always starts in List view, with the highlight bar at the same position it was in the last time it was closed.

3. Only the ports that have been set accessible by the Administrator for the currently logged in User are visible (see *SET ACCESSIBLE PORTS*, page 30, for details).

OSD Main Screen Headings

SN-PN	This column lists the Port ID numbers (Station Number - Port Number) for all the KVM ports on the installation. The simplest method to access a particular computer is move the Highlight Bar to it, then press **Enter**.
QV	If a port has selected for Quick View scanning (see *Set Quick View Ports*, page 30), an arrowhead displays in this column to indicate so.
☼	The computers that are powered on and are On Line have a Sun symbol in this column to indicate so.
NAME	If a port has been given a name (see *Edit Port Names*, page 29), its name appears in this column.

OSD Navigation

- To dismiss the menu, and deactivate OSD, Click the **X** at the upper right corner of the OSD Window; or press **[Esc]**.

- To Logout, Click **F8** at the top of the Main Screen, or press **[F8]**.

- To move up or down through the list one line at a time, Click the Up and Down Triangle symbols (▲▼) or use the Up and Down Arrow Keys. If there are more list entries than what can appear on the Main Screen, the screen will scroll.

- To move up or down through the list one screen at a time, Click the Up and Down Arrow symbols (↑↓), or use the [Pg Up] and [Pg Dn] keys. If there are more list entries than what can appear on the Main Screen, the screen will scroll.

- To activate a port, Double Click it, or move the Highlight Bar to it then press **[Enter]**.

- After executing any action, you automatically go back to the menu one level above.

OSD Functions

OSD functions are used to configure and control the OSD. For example, you can: rapidly switch to any port; scan selected ports only; limit the list you wish to view; designate a port as a Quick View Port; create or edit a port name; or make OSD setting adjustments.

To access an OSD function:

1. Either Click a Function Key field at the top of the Main Screen, or press a Function Key on the keyboard.

2. In the Submenus that appear make your choice either by Double Clicking it, or moving the Highlight Bar to it, then pressing **[Enter]**.

3. Press **[Esc]** to return to the previous menu level.

F1 GOTO:

Clicking the **F1** field or pressing **[F1]** activates the GOTO function. GOTO allows you to switch directly to a port either by keying in the port's *Name*, or its *Port ID*.

◆   To use the Name method, key in **1**; key in the port's Name; then press **[Enter]**.

◆   To use the Port ID method, key in **2**; key in the *Port ID*; then press **[Enter]**.

Note: You can key in a partial Name or Port ID. In that case, the screen will show all the computers that the User has *View* rights to (see *SET ACCESSIBLE PORTS*, page 30), that match the Name or Port ID pattern, regardless of the current List settings (see *F2 LIST*, page 25, for details).

To return to the OSD Main Screen without making a choice, press [Esc].

F2 LIST:

This function lets you broaden or narrow the scope of which ports the OSD displays (lists) on the Main Screen. Many of the OSD functions only operate on the computers currently selected for Listing on the Main Screen with this function. The submenu choices and their meanings are given in the table below:

Choice	Meaning
ALL	Lists all of the ports on the installation.
POWERED ON	Lists only the ports that have their attached computers Powered On.
QVIEW*	Lists only the ports that have been selected as Quick View Ports (see *SET ACCESSIBLE PORTS*, page 30).
QVIEW + POWERED ON*	Lists only the ports that have been selected as Quick View Ports (see *SET QUICK VIEW PORTS*, page 30), and that have their attached computers Powered On.

* These items only show up on the Administrator's screen, since only he has *Quick View* setting rights (see *SET QUICK VIEW PORTS*, page 30, for details).

Move the highlight bar to the choice you want, then press **[Enter]**. An icon appears before the choice to indicate that it is the currently selected one.

F3 SET:

This function allows the Administrator and each User to set up his own working environment. A separate profile for each is stored by the OSD and is activated according to the Username that was provided during Login.

To change a setting:

1. Double Click it; or move the highlight bar to it, then press **[Enter]**.

2. After you select an item, a submenu with further choices appears. To make a selection, either Double Click it; or move the highlight bar to it, then press **[Enter]**. An icon appears before the selected choice to indicate which one it is. The settings are explained in the following table:

Setting	Function
OSD HOTKEY	Selects which Hotkey activates the OSD function: **[Scroll Lock] [Scroll Lock]** or **[Ctrl] [Ctrl]**. Since the Ctrl key combination may conflict with programs running on the computers, the default is the Scroll Lock combination.
PORT ID DISPLAY POSITION	Allows you to position where the Port ID appears on the screen. The default is the upper right corner, but you can choose to have it appear anywhere on the screen. Use the Mouse or the Arrow Keys plus Pg Up, Pg Dn, Home, End, and 5 (on the numeric keypad with Num Lock off), to position the Port ID display, then Double Click or press **[Enter]** to lock the position and return to the Set submenu. **Note:** The ID display position for each port on the installation is set independently; the choice specified here only applies to the currently active computer.
PORT ID DISPLAY DURATION	Determines how long a Port ID displays on the monitor after a port change has taken place. The choices are: **User Defined** - which lets you select the amount of time (from 1 - 255 sec.); and **Always On** - which displays the Port ID at all times. If you select *User Defined*, key in the number of seconds, then press **[Enter]**. The default is 3 Seconds. A setting of 0 (zero) disables this function.

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Setting	Function
PORT ID DISPLAY MODE	Selects how the Port ID is displayed: the Port Number alone (**PORT NUMBER**); the Port Name alone (**PORT NAME**); or the Port Number plus the Port Name (**PORT NUMBER + PORT NAME**). The default is PORT NUMBER + PORT NAME).
SCAN DURATION	Determines how long the focus dwells on each port as it cycles through the selected ports in Auto Scan Mode (see *F7 SCAN*, page 33). Key in a value from 1 - 255 seconds, then press **[Enter]**. Default is 5 seconds; a setting of 0 disables the Scan function.
SCAN/SKIP MODE	Selects which computers will be accessed under Skip Mode (see *F5 SKP*, page 31), and Auto Scan Mode (see *F7 SCAN*, page 33. Choices are: **ALL** - All the Ports which have been set Accessible (see *SET ACCESSIBLE PORTS*, page 30); **POWERED ON** - Only those Ports which have been set Accessible and are Powered On; **QUICK VIEW** - Only those Ports which have been set Accessible and have been selected as Quick View Ports (see *SET QUICK VIEW PORTS*, page 30); **QUICK VIEW + POWERED ON** - Only those Ports which have been set Accessible and have been selected as Quick View Ports and are Powered On. The default is ALL. **Note:** The Quick View choices only show up on the Administrator's screen, since only he has *Quick View* setting rights (see *SET QUICK VIEW PORTS*, page 30, for details).
SCREEN BLANKER	If there is no input from the console for the amount of time set with this function, the screen is blanked. Key in a value from 1–30 minutes, then press **[Enter]**. A setting of 0 disables this function. The default is 0 (disabled).
HOTKEY COMMAND MODE	Enables / Disables the Hotkey Command function in case a conflict with programs running on the computers occurs.

F4 ADM:

F4 is an Administrator only function. It allows the Administrator to configure and control the overall operation of the OSD. To change a setting Double Click it; or use the Up and Down Arrow Keys to move the highlight bar to it then press **[Enter]**.

After you select an item, a submenu with further choices for you to select from appears. Double Click the choice you want, or move the Highlight Bar to it then press **[Enter]**. An icon appears before the selected choice so that you know which one it is. The settings are explained in the following table:

Setting	Function
SET USERNAME AND PASSWORD	This function is used to set Usernames and Passwords for the Administrator and Users: 1. One Administrator and four User passwords can be set. 2. After you select the Administrator field or one of the User fields, a screen that allows you to key in your password appears. The password may be up to 12 characters long, and can consist of any combination of letters and numbers (A - Z, 0 - 9). 3. For each individual, key in the Username and Password, then press **[Enter]**. 4. To modify or delete a previous Username and/or Password, use the backspace key to erase individual letters or numbers.
SET LOGOUT TIMEOUT	If there is no input from the console for the amount of time set with this function, the Operator is automatically logged out. A login is necessary before the console can be used again. This enables other Operators to gain access to the computers when the original Operator is no longer accessing them, but has forgotten to log out. To set the timeout value, key in a number from 1–180 minutes, then press **[Enter]**. If the number is 0 [zero], this function is disabled. Default is 0 (disabled).

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Setting	Function
EDIT PORT NAMES	To help remember which computer is attached to a particular port, every port can be given a name. This function allows the Administrator to create, modify, or delete port names. To Edit a port name: 1. Click the port you want, or use the Navigation Keys to move the highlight bar to it, then press **[Enter]**. 2. Key in the new Port Name, or modify/delete the old one. The maximum number of characters allowed for the Port Name is 12. Legal characters include: ◆ All alpha characters: **a - z; A - Z** ◆ All numeric characters: **0 - 9** ◆ **+ - / : .** and **Space** Case does not matter; OSD displays the Port Name in all capitals no matter how they were keyed in. 3. When you have finished editing, press **[Enter]** to have the change take effect. To abort the change, press **[Esc]**.
RESTORE DEFAULT VALUES	This function is used to undo all changes and return the setup to the original factory default settings (see *OSD FACTORY DEFAULT SETTINGS*, page 47) - except for the *Names* settings that were assigned to the Ports, which are saved.
CLEAR THE NAME LIST	This function clears the port name list.
ACTIVATE BEEPER	Choices are **Y** (for Yes), or **N** (for No). When activated, the beeper sounds whenever a Port is changed; when activating the Auto Scan function (see *F7 SCAN*, page 33); or an invalid entry is made on an OSD menu. The default is Y (activated).

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Setting	Function
SET QUICK VIEW PORTS	This function lets the Administrator select which Ports to include as Quick View ports. ◆ To select/deselect a port as a Quick View Port, Double Click the port you want, or use the Navigation Keys to move the highlight bar to it, then press **[Enter]**. ◆ When a port has been selected as a Quick View Port, an arrowhead displays in the QV column of the LIST on the Main Screen to indicate so. When a port is deselected, the arrowhead disappears. ◆ If one of the Quick View options is chosen for the LIST view (see *F2 LIST*, page 25), only a Port that has been selected here will display on the List. ◆ If one of the Quick View options is chosen for Auto Scanning (see *SCAN/SKIP MODE*, page 27), only a Port that has been selected here will be Auto Scanned. The default is for no ports to be selected.
SET ACCESSIBLE PORTS	This function allows the Administrator to define User access to the computers on the installation on a Port-by-Port basis. For each User, select the target Port; then press the **[Spacebar]** to cycle through the choices: **F** (Full access), **V** (View Only), or blank. Repeat until all access rights have been set, then press **[Enter]**. The default is **F** for all users on all Ports. **Note:** A blank setting means that no access rights are granted. The Port will not show up on the User's LIST on the Main Screen.
RESET STATION IDS	If you change the position of one of the Stations in the daisy chain, the OSD settings will no longer correspond to the new situation. This function directs the OSD to rescan the Station positions of the entire installation and updates the OSD so that the OSD Station information corresponds to the new physical layout. **Note:** Only the Station Numbers get updated. Except for the Port Names, all Administrator settings (such as Set Accessible Ports, Set Quick View Ports, etc.), for all of the computers affected by the change, have to be manually redone.
FIRMWARE UPGRADE	In order to upgrade the ACS1208A / ACS1216A firmware (See chapter 5), you must first enable *Firmware Upgrade Mode* with this setting. When you bring up this menu, the current firmware version levels display. Select **Y** to enable Firmware Upgrade Mode, or **N** to leave this menu without enabling it.

F5 SKP:

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

* The selection of computers to be available for Skip mode switching is made with the *Scan/Skip* mode setting under the **F3 SET** function (see page 26).

* When you are in Skip mode, press [←] to switch to the previous computer in the List; press [→] to switch to the next computer in the List; press [↑] to switch to the last computer on the previous station in the List; press [↓] to switch to the first computer on the next station in the List.

   Note: When you Skip, you only Skip to the the previous or next available computer that is in the *Scan/Skip* mode selection (page 27).

* If a Port has been selected for *Scan/Skip* mode, when the focus switches to that port a Left/Right Triangle symbol appears before its Port ID Display to indicate so.

* While Skip mode is in effect, the console will not function normally. You must exit Skip Mode in order to regain control of the console.

* To exit Skip mode, press **[Spacebar]** or **[Esc]**.

F6 BRC:

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

This function is particularly useful for operations that need to be performed on multiple computers, such as performing a system wide shutdown, installing or upgrading software, etc.

◆ While BRC mode is in effect, a Speaker symbol appears before the Port ID Display of the port that currently has the console focus.

◆ While BRC mode is in effect, the mouse will not function normally. You must exit BRC mode in order to regain control of the mouse.

◆ To exit BRC mode, invoke the OSD (with the OSD Hotkey), then Click the **F6** field, or press **[F6]**, to turn BRC mode off.

F7 SCAN:

Clicking the **F7** field or pressing **[F7]** invokes Auto Scan mode. This function allows you to automatically switch among the available computers at regular intervals so that you can monitor their activity without having to take the trouble of switching yourself.

- The selection of computers to be included for Auto Scanning is made with the *Scan/Skip* mode setting under the **F3 SET** function (see page 27).

- The amount of time that each Port displays for is set with the *Scan Duration* setting under the **F3 SET** function (see page 27). When you want to stop at a particular location, press the [Spacebar] to stop scanning.

- If the scanning stops on an empty port, or one where the computer is attached but is powered Off, the monitor screen will be blank, and the mouse and keyboard will have no effect. After the *Scan Duration* time is up, the Scan function will move on to the next port.

- As each computer is accessed, an **S** appears in front of the Port ID display to indicate that it is being accessed under *Auto Scan* mode.

- While Auto Scan mode is in effect, the console will not function normally. You must exit Auto Scan mode in order to regain control of the console.

- While you are in Auto Scan mode, you can pause the scanning in order to keep the focus on a particular computer either by pressing **P**, or with a Left Click of the mouse. See *Invoking Auto Scan*, page 17, for details.

- To exit Auto Scan mode, press the **[Spacebar]** or **[Esc]**.

F8 LOUT:

Clicking the **F8** field, or pressing **[F8]** logs you out of OSD control of the computers, and blanks the Console screen. This is different from simply pressing **[Esc]** when you are at the Main Screen to deactivate the OSD. With this function you must log in all over again to regain access to the OSD, whereas with **[Esc]**, all you have to do to reenter the OSD is tap the OSD Hotkey.

Note: 1. When you reenter the OSD after logging out, the screen stays blank except for the OSD Main Screen. You must input your password before you can continue.

2. If you reenter the OSD after logging out, and immediately use [Esc] to deactivate the OSD without having selected a port from the OSD menu, a Null Port message displays on the screen. The OSD Hotkey will bring up the Main OSD Screen.

Chapter 5
The Firmware Upgrade Utility

## Preparation

To prepare for the firmware upgrade, do the following:

1. From a computer that is not part of your KVM installation go to our Internet support site and choose the model name that relates to your device to get a list of available Firmware Upgrade Packages.

2. Choose the Firmware Upgrade Package you want to install (usually the most recent), and download it to your computer.

3. Use the *Firmware Upgrade Cable* provided with this unit to connect a COM port on your computer to the *Firmware Upgrade Port* of your switch.

Note: On a daisy chained installation, the chained stations will automatically receive the upgrade via the daisy chain cables.

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4. Shut down all of the computers – but not the Stations – on your KVM installation.

5. From your KVM switch console, bring up the OSD (see p. 21) and select the **F4 ADM** function.

6. Scroll down to FIRMWARE UPGRADE. Press [Enter], then press [Y] to invoke Firmware Upgrade Mode (see p. 30.) For your reference, the current firmware upgrade version displays on the screen.

Starting the Upgrade

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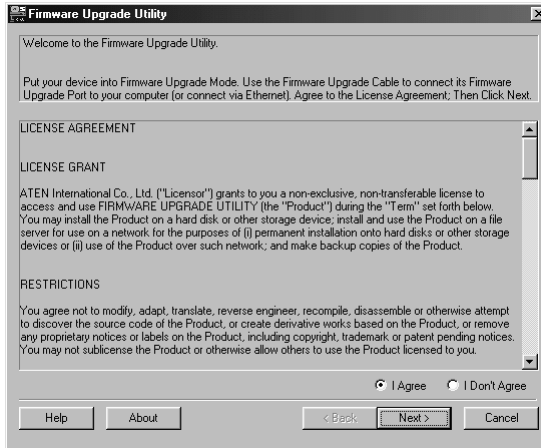
Note: The screens shown in this section are for reference only. The wording and layout of the actual screens put up by the Firmware Upgrade Utility may vary slightly from these examples.

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:
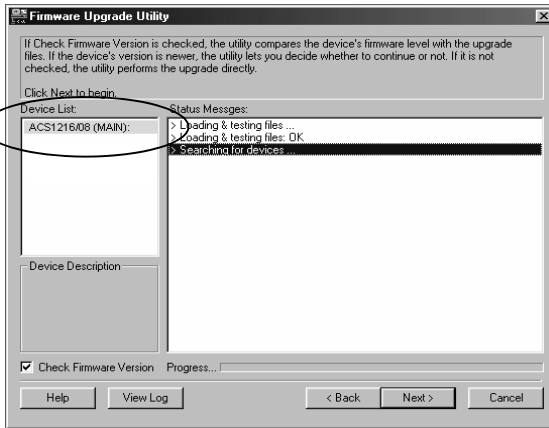
4. After you have made your device selection(s), click **Next** to perform the upgrade.

    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.
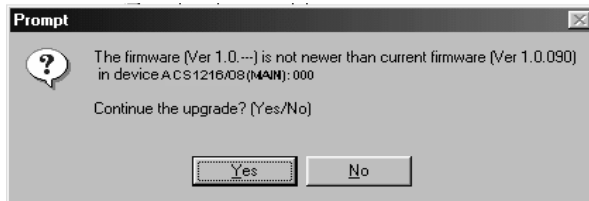

    If you didn't enable *Check Firmware Version*, the Utility installs the upgrade files without checking whether they are a higher level, or not.

    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:
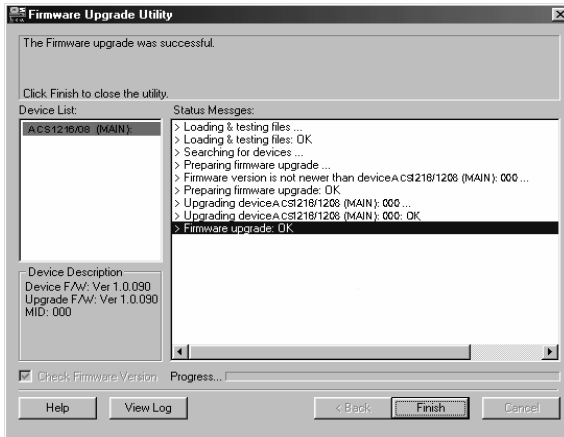
Click **Finish** to close the Firmware Upgrade Utility.

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 basically three conditions that call for firmware upgrade recovery:

◆ When you invoke Firmware Upgrade Mode (see *Preparation*, page 35), but decide not to proceed with the upgrade.

◆ When the Mainboard firmware upgrade fails.

◆ When the I/O firmware upgrade fails.

To perform a firmware upgrade recovery, do the following:

1. Power off the switch. If it is part of a daisy chain, disconnect it from the chain.

2. Connect the *Firmware Upgrade Cable* to its *Firmware Upgrade Port*.

3. Slide the *Firmware Upgrade Recovery Switch* to the **Recover** position.

4. Power the switch back on and repeat the upgrade procedure.

5. After the switch has been successfully upgraded, power it off, and slide the *Firmware Upgrade Recovery Switch* back to the **Normal** position.

6. If the switch is part of a daisy chain, replace it in the chain.

7. Power the switch back on.

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Appendix

Safety Instructions

General

- 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.

- The device is designed for IT power distribution systems with 230V phase-to-phase voltage.

- 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 defeat 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).

- Position system cables and power cables carefully; Be sure that nothing rests on any cables.

- Never push objects of any kind into or through cabinet slots. They may touch dangerous voltage points or short out parts resulting in a risk of fire or electrical shock.

- Do not attempt to service the device 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.

  - 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.

- Do not connect the RJ-11 connector marked "UPGRADE" to a public telecommunication 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.

Technical Support

International

 For online technical support – including troubleshooting, documentation, and software updates: **http://support.aten.com**

 For telephone support, see *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		ACS1208A	ACS1216A
Computer Connections	Direct	8	16
	Max	256 (via daisy chain)	512 (via daisy chain)
Port Selection		OSD (On Screen Display); Hotkeys	
LEDs	On Line	8 (Orange)	16 (Orange)
	Selected	8 (Green)	16 (Green)
	Power	1 (Blue)	
		2 x 7 Segments	
Console Connectors	Keyboard	1 x 6 pin mini DIN F	
	Mouse	1 x 6 pin mini DIN F	
	Video	1 x HDB-15 F	
Computer Port Connectors		8 x SPDB-15 F	16 x SPDB-15 F
Daisy Chain Ports		1 x DB-25 M; 1 x DB-25 F	
Scan Interval (OSD Select)		User Specified: 1–255 sec.	
Emulation	Keyboard	PS/2	
	Mouse	PS/2	
Video		2048 x 1536; DDC2	
Power Consumption		DC 9V; 7.5W (max.)	DC 9V; 8W (max.)
Operating Temperature		0–50° C	
Storage Temperature		-20–60° C	
Humidity		0–80% RH	
Housing		Metal	
Weight		2.73 kg	2.83 kg
Dimensions (L x W x H)		483 x 517 x 45 mm (19" 1U)	

ACS1208A / ACS1216A Connection Tables

The following tables indicate the relationship between the number of Master View units and the number of computers that they control:

ACS1208A

MVs	Computers	MVs	Computers	MVs	Computers	MVs	Computers
1	1 - 8	9	65 - 72	17	129 - 136	25	193 - 200
2	9 - 16	10	73 - 80	18	137 - 144	26	201- 208
3	17 - 24	11	81 - 88	19	145 - 152	27	209 - 216
4	25 - 32	12	89 - 96	20	153 - 160	28	217 - 224
5	33 - 40	13	97 - 104	21	161 - 168	29	225 - 232
6	41 - 48	14	105 - 112	22	169 - 176	30	233 - 240
7	49- 56	15	113 - 120	23	177- 184	31	241 - 248
8	57 - 64	16	121 - 128	24	185 - 192	32	249 - 256

ACS1216A

MVs	Computers	MVs	Computers	MVs	Computers	MVs	Computers
1	1 - 16	9	129 - 144	17	257 - 272	25	385 - 400
2	17 - 32	10	145 - 160	18	273 - 288	26	401 - 416
3	33 - 48	11	161 - 176	19	289 - 304	27	417 - 432
4	49 - 64	12	177 - 192	20	305 - 320	28	433 - 448
5	65 - 80	13	193 - 208	21	321 - 336	29	449 - 464
6	81 - 96	14	209 - 224	22	337 - 352	30	465 - 480
7	97- 112	15	225 - 240	23	353 - 368	31	481 - 496
8	113 - 128	16	241 - 256	24	369 - 384	32	497 - 512

OSD Factory Default Settings

The factory default settings are as follows:

Setting	Default
OSD Hotkey	[Scroll Lock] [Scroll Lock]
Port ID Display Position	Upper Right Corner
Port ID Display Duration	3 Seconds
Port ID Display Mode	The Port Number plus the Port Name
Scan Duration	5 Seconds
Scan/Skip Mode	All
Screen Blanker	0 (Disabled)
Logout Timeout	0 (Disabled)
Beeper	Y (Activated)
Accessible Ports	F (Full) For all Users on all Ports

Restoring Original Factory Default Settings

You can restore the original factory default settings for the ACS1208A / ACS1216A. The original password for the default administrator account is restored; all administrator and user accounts are removed from the system. Only the station name and date and time are retained. This procedure requires the use of a jumper cap.

1. Turn off the ACS1208A / ACS1216A and unplug the power cord.

2. Remove the cover of the ACS1208A / ACS1216A.

3. Place a jumper cap over pins 1-2 of the J18 jumper on the mainboard.
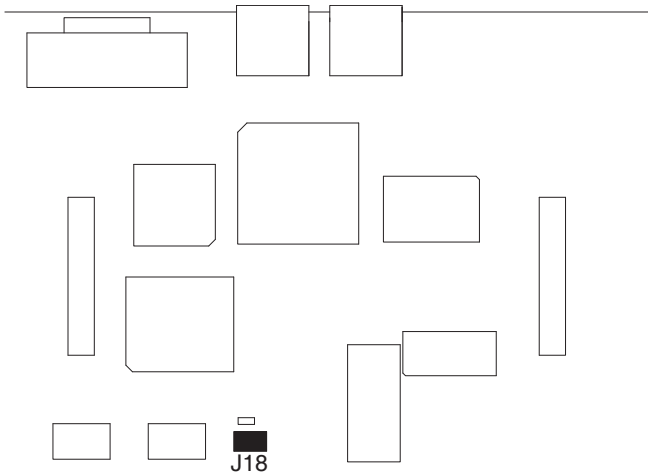
4. Plug in the power cord and turn on the ACS1208A / ACS1216A. The following directions appear on the KVM console screen:

   ```
   USERNAME AND PASSWORD INFORMATION AND PORT/USER
   INFORMATION HAS BEEN CLEARED. PLEASE POWER OFF THE
   SWITCH, REMOVE THE JUMPER, CLOSE THE CASE, THEN
   RESTART.
   ```

5. Turn off the ACS1208A / ACS1216A and unplug the power cord.

6. Remove the jumper cap from pins 1-2 of the J18 jumper.

7. Replace the cover on the KVM switch. Plug in the power cord and turn on the ACS1208A / ACS1216A.

8. You should now use the default username and password to log in to the ACS1208A / ACS1216A.

Troubleshooting

Overview

Operation problems can be due to a variety of causes. The first step in solving them is to make sure that all cables are securely attached and seated completely in their sockets.

In addition, updating the product's firmware may solve problems that have been discovered and resolved since the prior version was released. If your product is not running the latest firmware version, we strongly recommend that you upgrade. See *The Firmware Upgrade Utility*, page 35, for upgrade details.

Symptom	Action
Erratic behavior.	Check that the Power Adapter that was supplied with the unit is plugged in and functioning properly.
Mouse and/or Keyboard not responding.	Unplug the cable(s) from the console port(s), then plug it/them back in.
All Station IDs display as 01.	Wait a few seconds for the system to reinitialize the station sequence and display the proper IDs.

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.

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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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