4 Port / 8 Port KVM Switch

CS9134 / CS9138

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

Technical Support

Telephone: International: 886-2-8692-6959
North America: 1-888-999-ATEN

Online: Online technical support is available to ATEN customers through our support center. See *Technical Support*, page xii, for details.

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.

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 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.
- When connecting or disconnecting power to hot-pluggable power supplies, observe the following guidelines:
  - Install the power supply before connecting the power cable to the power supply.
  - Unplug the power cable before removing the power supply.
  - If the system has multiple sources of power, disconnect power from the system by unplugging all power cables from the power supplies.
- Never push objects of any kind into or through cabinet slots. They may touch dangerous voltage points or short out parts resulting in a risk of fire or electrical shock.
- 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.

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.

◆ Ensure that proper airflow is provided to devices in the rack.

◆ Do not step on or stand on any device when servicing other devices in a rack.

Package Contents

The CS9134 / CS9138 package consists of:

1   CS9134 or CS9138 PS/2 KVM Switch

1   DC9V Power Adapter

1   Rack Mount Kit

1   User Manual*

1   Quick Start Guide

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 CS9134 / CS9138 since this manual was printed. Please visit our website to download the most up to date version of the manual.

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4. OSD Operation

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About this Manual

This User Manual is provided to help you get the most from your c/c 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 CS9134 / CS9138. Its purpose, features and benefits are described.

Chapter 2, Hardware Setup, presents the front and back panel components, and explains how to connect the switch to your computers.

Chapter 3, Basic Operation, explains the fundamental concepts involved in operating the CS9134 / CS9138.

Chapter 4, OSD Operation, provides a complete description of the CS9134 / CS9138's OSD (On Screen Display), and how to work with it.

An Appendix, at the end of the manual provides specifications and other technical information regarding the CS9134 / CS9138.

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**

Technical Support

International

Email Support	Email your questions and concerns to: support@aten.com
Online Support ◆ Technical Support ◆ Troubleshooting ◆ Documentation ◆ Software Updates	1. Online technical support is available to ALTUSEN customers through our e-Support Center: **http://support.aten.com** 2. Online troubleshooting that describes the most commonly encountered problems and offers possible solutions to them; online documentation (including electronically available manuals); and the latest drivers and firmware for your product are available at our website: **http://www.aten.com**

North America

Email Support	Email your questions and concerns to: support@aten-usa.com
Online Support ◆ Technical Support ◆ Troubleshooting ◆ Documentation ◆ Software Updates	1. Online technical support is available to ALTUSEN customers through our e-Support Center: **http://www.aten-usa.com/support** 2. Online troubleshooting that describes the most commonly encountered problems and offers possible solutions to them; online documentation (including electronically available manuals); and the latest drivers and firmware for your product are available at our website: **http://www.aten-usa.com**

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

Chapter 1
Introduction

Overview

The Master View CS9134 and CS9138 KVM switches are control units that allow access to multiple computers from a single console (keyboard, monitor, and mouse). Before the development of the Master View, the only way to control multiple computer configurations from a single console was through a complex and costly network system. Now, with the Master View / CS9134 / CS9138, you can easily access multiple computers in a cost effective manner.

A single Master View CS9134 or CS9138 can control up to 4 or 8 computers, respectively. Since the switches can be cascaded to three levels, in a full three stage installation up to 21 CS9134 Master Views can control up to 64 computers and 73 CS9138 Master Views can control up to 512 computers - all from a single console.

Setup is fast and easy; plugging cables into their appropriate ports is all that is entailed. There is no software to configure, so there is no need to get involved in complex installation routines or be concerned with incompatibility problems. Because the / CS9134 / CS9138 intercepts keyboard input directly, it works on any hardware platform and with all operating systems.

There are three convenient methods to access any computer connected to the system: (1) using the push button port selection switches located on each unit's front panel; (2) entering Hotkey combinations from the keyboard; and (3) selecting from menus provided by the OSD (On Screen Display) feature. A powerful Quick View Scan feature also permits auto scanning and monitoring the activities of all operating computers on the installation one by one.

There is no better way to save time and money than with a Master View / CS9134 / CS9138 installation. By allowing a single console to manage all the attached computers, a Master View CS9134 / CS9138 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 around from one computer to another.

Features

◆ Cascadable To Three Levels - Control Up to 64 (CS9134) or 512 (CS9138) Computers From a Single Console

◆ No Software Required - Computer Selection via Front Panel Switches, Hot Keys, or OSD (On Screen Display)

◆ Quick View Scan Feature for Monitoring Selected Computers

◆ PS/2 Mouse Emulation For System Bootup

◆ Console's PS/2 Mouse Controls All Connected Computers

◆ PS/2 Compatible Mouse Support - Microsoft Intellimouse Explorer and Logitech FirstMouse+ Support*

◆ SVGA, VGA, and Multisync Monitor Support

◆ Superior Video Quality; 1920 x 1440@60Hz; DDC; DDC2; DDC2B

◆ LED Display For Easy Status Monitoring

◆ Hot Pluggable - Add or Remove Computers for Maintenance Without Powering Down the Switch

◆ Supports Windows 98SE and higher; Linux RedHat 7.1 and higher; FreeBSD; AIX 4.3

◆ Rack Mountable in 1U (19") System Rack

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*   1. PS/2 compatible mouse support is for three button (wheel) mice.

2. The Logitech Mouse Ware program's *Change Device* procedure does not work on Microsoft NT systems.

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 keyboard
- A PS/2 style mouse

Computers

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

- A VGA, SVGA or Multisync port.
- A 6-pin mini-DIN (PS/2 style) mouse port.
- A 6-pin mini-DIN (PS/2 style) keyboard port.

Cables

Use of substandard cables may damage the connected devices or degrade overall performance. For optimum signal integrity and to simplify the layout, we strongly recommend that you use the following high quality Custom Cable sets.

Cable Type	Length	Part Number
Standard	1.8m	2L-1001P/C
	3.0m	2L-1003P/C
Slim	1.2m	2L-5001P/C
	1.8m	2L-5002P/C

Components

Front View

CS9134

CS9138

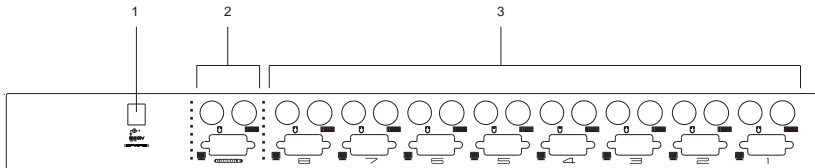| No.	Component	Description
1	Port Selection Switches	◆ Press a switch to give the KVM focus to the computer attached to its corresponding port.
		◆ Simultaneously pressing Buttons 1 and 2 for 3 seconds performs a Keyboard and Mouse Reset.
		◆ Simultaneously pressing Buttons 3 and 4 on the CS-9134 starts Auto Scan Mode.
		◆ Simultaneously pressing Buttons 7 and 8 on the CS-9138 starts Auto Scan Mode.
2	Port LEDs	The Port LEDs are built into the Port Selection Switches. The upper ones are the *On Line* LEDs; the lower ones are the *Selected Port* LEDs:
		◆ An On Line LED lights GREEN to indicate that the computer attached to its corresponding port is up and running. A flashing LED indicates that the Port is being used for cascading to another switch.
		◆ A Selected LED lights ORANGE to indicate that the computer attached to its corresponding port is the one that has the KVM focus. The LED is steady under normal conditions, but flashes when its port is accessed under Auto Scan Mode.
3	Sound Opening	System sounds (beeps, etc.) are emitted from this opening.
4	Reset	Use a thin object (such as the end of a paper clip, or a ballpoint pen), to press this recessed switch in to initiate a warm reset. If the switch is kept in for longer than three seconds, a cold reset takes place.
5	Power LED	Lights to indicate that the unit is receiving power.

Rear View

CS9134

CS9138

No.	Component	Description
1	Power Jack	The unit is designed to be non-powered (external power is not required - its operating power comes from the computers). In general, the only time that external power is necessary is when you cascade it, or if operation becomes erratic because the unit isn't obtaining enough power from the computer connections. If you choose to use external power, the power adapter cable plugs in here.
2	Console Port Section	◆ If this is a first station unit, your monitor, keyboard and mouse plug in here. ◆ If this is a daisy chained unit, the cables that link back to a port on a higher Master View unit plug in here.
3	Computer Port Section	The KVM cables that connect the unit to the keyboard, video, and mouse ports on the computers you are installing can plug into any available port.

Hardware Setup

Before you Begin

1. Important safety information regarding the placement of this device is provided on page iv. 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.

Stacking and Rack Mounting

Stacking

CS9134 / CS9138 switches can be stacked one on top of the other using the stacking brackets that come already attached to the unit. Line up the four bottom brackets of the top unit with the four top brackets of the bottom unit; then fit the top unit down onto the bottom unit.
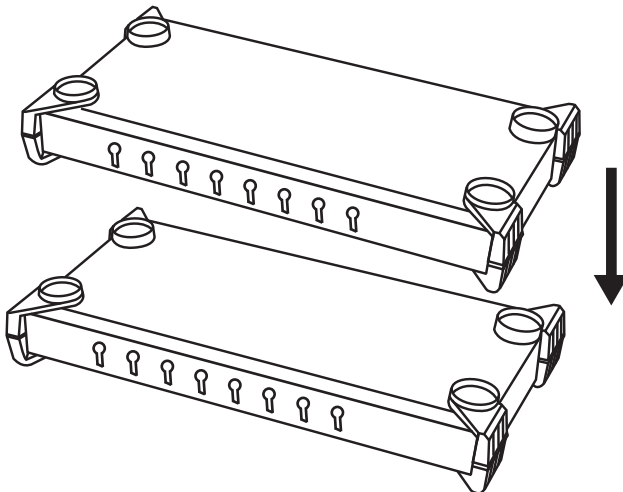
Rack Mounting

1. Remove the stacking brackets by unscrewing them from the unit, as shown in the diagram below:
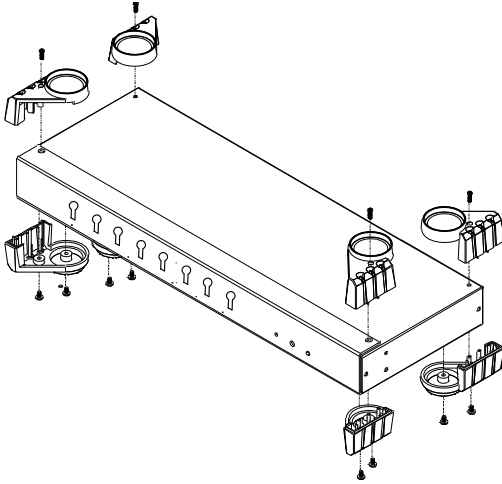
2. Screw the mounting brackets into the sides of the unit, as shown in the diagram below:

Phillips hex head
M3 x 8

3. Slide the unit into the rack and secure it to the rack.

Single Station Installation

In a Single Stage installation, there are no additional Master View's cascaded 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 (see *Cables*, page 3), to connect any available CS-9134 or CS9138 KVM port to the Keyboard, Video and Mouse ports of the computer you are installing.

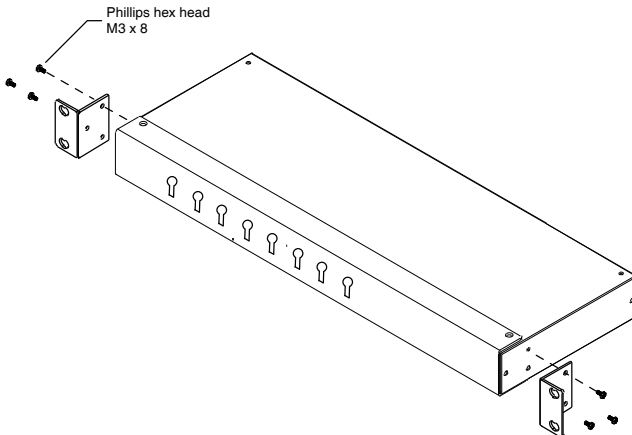3. If you choose to use external power, plug the power adapter cable into the Master View's Power Jack, then plug the adapter into an AC power source.

   Note: The switch is designed for non-powered operation in a single stage installation by taking its power from the computers via the KVM cables. If a computer, only supplies 3.3V of power for the keyboard and mouse instead of 5V (as in the case of Notebooks, for example), the unit will not receive enough power, and you will need to use the external power adapter.

4. Turn on the power to the computers.

   Note: If you choose to use external power, the Master View unit must be plugged in and receiving power prior to turning on the power to the computers.
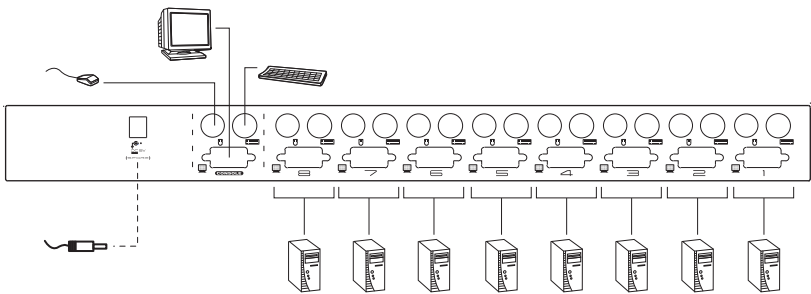
Two Stage Installation

To control even more computers, up to four (CS9134) or eight (CS9138) additional Master View units can be cascaded from the KVM ports of the First Stage unit. The cascaded Master Views that connect back to the First Stage unit are considered Second Stage units.

As many as 16 (CS9134) or 64 (CS9138) computers can be controlled in a complete two stage installation. Tables showing the relation between the number of computers and the number of Master View units needed to control them are provided in the Appendix.

Note: Although several models of ATEN KVM switches can be cascaded (see *Compatible Cascade Switches*, page 32 for a list), mixing different Master View models on the same installation may cause problems with OSD port switching. Therefore, we strongly recommend that all cascaded units be the same model as the First Stage unit.

To set up a two stage installation, do the following:

1. Make sure that power to all the devices you will be connecting up, including all preexisting devices on the installation, have been turned off.

2. Use a KVM cable set (see *Cables*, page 3), to connect any available KVM Port on the First Stage unit to the Console Port connectors of the Second Stage unit.

3. Use KVM cable sets (see *Cables*, page 3), to connect any available KVM port on the Second Stage unit to the keyboard, video, and mouse ports of the computers you are installing.

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

Note: Repeat the above steps for any other Second Stage units you wish to connect.

5. Plug in the power adapter for the First Stage Master View unit.

6. Turn on the power to all the computers.

> **Note:** The Power On sequence requires that all Second Stage units be powered on first. After all the Second Stage units have been powered on, the First Stage unit must be powered on next. After the Second and First stage units have been powered on, the computers can be powered on.

Two Stage Installation Diagram:
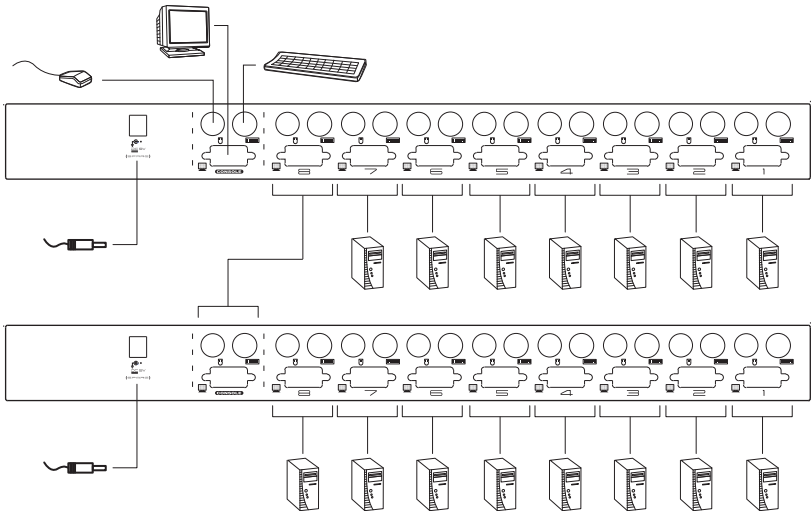
Three Stage Installation

The procedures for setting up a three stage installation are essentially the same as for a two stage installation. With a three stage setup, as many as 64 (CS9134) or 512 (CS9138) computers can be controlled in a complete installation. A table showing the relation between the number of computers and the number of Master View units needed to control them is provided in the Appendix.

Note: Master View units cannot be cascaded beyond the third level.

To set up a three stage installation, do the following:

1. Make sure that power to all the devices you will be connecting up, including all preexisting devices on the installation, have been turned off.

2. Use a KVM cable set (see *Cables*, page 3), to connect any available KVM Port on the Second Stage unit to the Console Port connectors of the Third Stage unit.

3. Use KVM cable sets (see *Cables*, page 3), to connect any available KVM port on the Third Stage unit to the keyboard, video, and mouse ports of the computers you are installing, as shown in the diagram on page 13.

4. Plug the power adapter cable into the Master View's Power Jack, then plug the adapter into an AC power source.

Note: Repeat the above steps for any other Third Stage units you wish to connect.

5. Plug in the power adapters for all the Second Stage Master View units.

6. Plug in the power adapter for the First Stage Master View unit.

7. Turn on the power to all the computers.

> **Note:** The Power On sequence requires that all Third Stage units be powered on first. After they are all on, the Second Stage units must be powered on next. After all the Second Stage units are on, the First Stage unit must be powered on. Only after all the Master Views have been powered on in this sequence, can the computers be powered on.

Three Stage Installation Diagram:
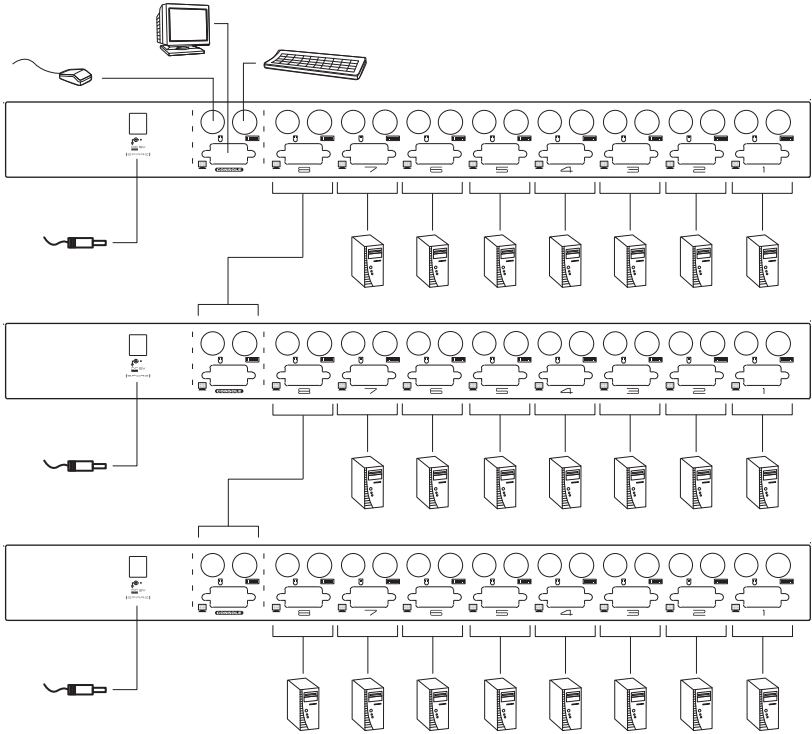
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Chapter 3
Basic Operation

Hot Plugging

The Master View CS9134 / CS9138 supports hot plugging. Components can be removed and added back into the installation by unplugging and replugging their cables from their respective ports without the need to shut the switch down. For hot plugging to work properly, the following procedures must be observed:

Hot Plugging KVM Ports

When hot plugging cables from the KVM ports:

* The cable must be plugged back into the same port it was removed from.

* The mouse cable must be plugged in before the keyboard cable.

* After plugging the cable back in, you must perform a *KVM Reset* on the First Stage unit (by pressing the *Reset* switch In).

Hot Plugging Console Ports

The unit supports hot plugging of the keyboard, monitor, and mouse from its console ports.

Note: 1. When hot plugging the mouse from the console mouse port (to reset the mouse, for example), however, you must plug the same mouse back in.

2. If, after hot plugging (or at any other time), there is no response to mouse and/or PS/2 keyboard input, simultaneously press and hold Port Select buttons 1 and 2 on the First Stage unit for 3 seconds to perform a PS/2 Keyboard and PS/2 Mouse reset.

Powering Off and Restarting

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

1. Shut down all the computers that are attached to the unit. If there are Master View stations cascaded down from it, all the cascaded stations and the computers attached to them must be shut down, as well.

   Note: 1. You must unplug the power cords of any computers that have the Keyboard Power On function that are connected to the shut down switches. Otherwise, the switches will still receive power from the computers.

   2. If the unit is operating under external power, unplug the power adapter cable.

2. Wait 10 seconds, then plug the stations back in, starting with the lowest stations in the chain and working back to the station you originally shut down.

3. After all the Master View's are up, power On the computers, starting with the ones attached to the lowest stations in the chain and working back to the station you originally shut down.

Toggling the Buzzer

The CS9134 / CS9138 system buzzer can be toggled on and off with a hotkey combination as follows:

1. Press **[Ctrl] [Shift] [Alt]** to invoke the hotkey function.

2. Press **[B]**, then press **[Enter]**.

   Note: 1. Press the keys in sequence - one key at a time.

   2. After invoking the hotkey function with the [Ctrl] [Shift] [Alt] combination, you must press [B] and [Enter] within 1 second for each keypress.

   3. The default is for the buzzer to be On.

Port Selection

The Master View CS9134 / CS9138 provides three methods to obtain instant access to any computer in your installation: Manual, Hotkey, and OSD.

Manual Port Selection

Port Selection:

- Press the *Port Selection Switch* on the CS-9134 / CS-9138's front panel that corresponds to the KVM port you want to access.

- After you press the switch, the *Selected LED* lights to indicate that the port you selected has the KVM focus.

- The OSD (see page 21) automatically switches to highlight the computer that you have selected.

> **Note:** On a cascaded installation, you must press the Port Selection switch on the Station that connects directly to the computer you want to access.

Auto Scanning:

- Simultaneously pressing Port Selection switches 3 and 4 (CS9134) or 7 and 8 (CS9138) on the First Stage unit initiates the Auto Scan feature.

- All the ports currently selected for Quick View scanning with the OSD's F4 QV function (see page 24), are cycled through. The length of time spent on each port is determined OSD's F6 SET function (see page 26).

- There are two ways to exit scan mode:

  1. Press any Port Selection switch. Scan mode stops and the KVM focus goes to the switch's corresponding port.

  2. Press the [Spacebar]. Scan mode stops and the KVM focus stays on the port that had the focus when scan mode stopped.

<u>Hotkey Port Selection</u>

Port Selection:

To select a port with the hotkey method, do the following:

1. Press **[Ctrl] [Shift] [Alt]** to invoke the hotkey function.

2. Key in the Port ID number (see page 19), then press **[Enter]**.

Auto Scanning:

- To invoke auto scanning with the hotkey method, do the following:

  1. Press **[Ctrl] [Shift] [Alt]** to invoke the hotkey function.

  2. Key in **0** (zero), then press **[Enter]**.

- To exit scan mode, press the [Spacebar]. Scan mode stops and the KVM focus stays on the port that had the focus when scan mode stopped.

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

      2. After invoking the hotkey function with the [Ctrl] [Shift] [Alt] combination, you must key in the Port ID and press [Enter] within 1 second for each keypress.

<u>OSD</u>

OSD (On Screen Display), provides a menu driven interface to handle the computer switching procedure. OSD operation is discussed in detail beginning on page 21.

Port ID Numbering

Each KVM Port on a Master View installation is assigned a unique Port ID. You can directly access any computer on any level of the installation by specifying the Port ID of the KVM port that the computer is connected to – either with the Hotkey port selection method, or with the OSD.

The Port ID is a one, two, or three digit number. It is determined by the Stage Level and KVM Port number of the Master View unit that a computer is connected to.

The first digit represents the KVM Port number of the First Stage unit; the second digit represents the KVM Port number of the Second Stage unit; the third digit represents the KVM Port number of the Third Stage unit.

- A computer attached to a First Stage unit has a one digit Port ID (from 1 to 4 for the CS9134; from 1 to 8 for the CS9138). The number corresponds to the KVM Port number that the computer is connected to.

- A computer attached to a Second Stage unit has a two digit Port ID:
  - The first digit represents the KVM Port number on the First Stage unit that the Second Stage unit links back to.
  - The second digit represents the KVM Port number on the Second Stage unit that the computer is connected to.

  For example, a Port ID of **2 3** refers to a computer that is connected to KVM Port 3 of a Second Stage unit that links back to KVM Port 2 of the First Stage unit.

- Likewise, a computer attached to a Third Stage unit has a three digit Port ID. A Port ID of **2 4 1** refers to a computer that is connected to KVM Port 1 of a Third Stage unit, that links back to KVM Port 4 of a Second Stage unit, which, in turn, links back to KVM Port 2 of the First Stage unit.

Port Key In Examples

1. To access a computer attached to port 3 of a Single Stage installation, after invoking hotkey mode, key in 3 for the Port ID, as follows:

       [Ctrl] [Shift] [Alt] 3 [Enter]

2. To access a computer attached to port 3 of a Second Stage unit that is cascaded down from port 2 of the First Stage unit, after invoking hotkey mode, key in 2 3 for the Port ID, as follows:

       [Ctrl] [Shift] [Alt] 2 3 [Enter]

Note: You must key in the numbers one at a time.

3. To access a computer attached to port 1 of a Third Stage unit that is cascaded down from port 4 of a Second Stage unit, which, in turn, is cascaded down from port 2 of the First Stage unit, after invoking hotkey mode, key in 2 4 1 for the Port ID, as follows:

       [Ctrl] [Shift] [Alt] 2 4 1 [Enter]
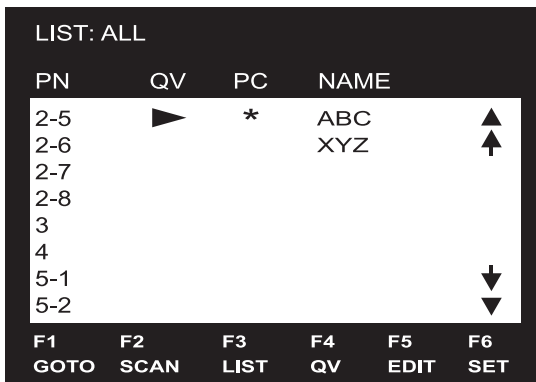
OSD Operation

OSD Overview

The On Screen Display (OSD) provides a menu driven interface to handle all computer control and switching procedures. Although Hotkey switching still works, using OSD is a great deal more convenient - especially in large, cascaded installations where it is difficult to keep track of which port a particular computer is attached to.

All operations start from the OSD Main Menu. To pop up the Main Menu, tap either Ctrl key twice.

Note: 1. The keys must be on the same side (both left, or both right).

2. You can optionally change the Hotkey to the Scroll Lock key (see *OSD ACTIVATING HOTKEY*, page 26), in which case you would tap **[Scroll Lock]** twice.

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

```
LIST: ALL

PN          QV      PC      NAME
2-5         ▶       *       ABC         ▲
2-6                         XYZ         ▲
2-7
2-8
3
4
5-1                                     ▼
5-2                                     ▼

F1      F2      F3      F4      F5      F6
GOTO    SCAN    LIST    QV      EDIT    SET
```

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

The next two sections explain how to navigate using the OSD and OSD Hotkey methods.

OSD Navigation

◆ [Esc] cancels the current selection, or dismisses the current menu and moves back to the menu one level above. If you are at the highest menu level, it deactivates OSD.

◆ 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 items than appear on the 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 items than appear on the screen, the screen will scroll.

◆ To activate a port, move the Highlight Bar to it then press [Enter].

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

OSD Main Screen Headings

Heading	Explanation
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 F2 and F4, below), an arrowhead symbol displays in this column to indicate so.
PC	The computers that are powered on and are On Line have a Plus sign (+) in this column to indicate so.
NAME	If a port has been given a name (see F5, below), its name appears in this column.

The Function Keys

Pressing a Function Key brings up a submenu that is 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 for Quick View scanning; create or edit a port name; or make OSD setting adjustments.

F1 GOTO

GOTO allows you to switch directly to a port by either of the following two methods:

1. Move the Highlight Bar to the port you want, then press [Enter].

2. Key in the Port ID or Name, then press [Enter].

Note: GOTO has a special feature that narrows the list of available choices as you type the name. For example, if the first letter you type is **a**, the list only displays those ports whose names begin with a. If the next letter you type is **b**, the list is narrows down even further to only those ports whose names begin with ab, etc.

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

F2 SCAN

Pressing [F2] initiates *Quick View Scanning*, in which the OSD cycles through all the ports that are currently selected for this with the *QV* feature (see **F4 QV**, below).

It stays on each port for the amount of time set with the Scan Duration setting under the **F6 SET** function (see *SCAN DURATION*, page 26). When you want to stop at a particular location, press the [Spacebar] to stop scanning.

Note: 1. If the scanning stops on an empty port, or one where the system 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.

2. As each system is accessed, an $\boxed{S}$ appears in front of the Port ID display to indicate that it is being accessed under *Quick Scan Mode*.

F3 LIST

This function lets you broaden or narrow the scope of which ports the OSD lists. On the submenu that appears, an icon of a pointing finger indicates the currently selected choice. To change a setting, move the highlight bar to the choice you want, then press [Enter]. An explanation of the settings is given in the table below:

Choice	Meaning
ALL	Lists the Port ID numbers and Names (if names have been specified - see F5, below), of all the ports on the installation.
QVIEW	Lists only the ports that have been selected for Quick View scanning (see F4, below).
POWERED ON + QVIEW	Lists only the ports that have been selected for Quick View scanning (see F4, below), and that have their attached computers Powered On.
QVIEW + NAME	Lists only the ports that have been selected for Quick View scanning (see F4, below), and have been assigned names (see F5, below).
NAME	Lists only the ports that have been assigned names (see F5, below).
POWERED ON	Lists only the ports that have their attached systems Powered On.

Note: 1. You can access any port on any list by using the Navigation Keys then pressing [Enter].

2. If you select a port that does not have a computer attached to it, or if the attached system is powered Off, the OSD will still switch to it, and will not show an error.

F4 QV

QV lets you select which ports you want to include for automatic scanning under the *Quick View Scanning* function (see F2, above).

[F4] is a toggle. To select/deselect a port, move the highlight bar to it, then press [F4]. When a port has been selected, an arrowhead displays in the QV column to indicate so. When a port is deselected, the arrowhead disappears.

F5 EDIT

To help remember which computer is attached to a particular port, every port can be given a name. The EDIT function allows you to create, modify, or delete port names. To edit a port name:

1. Move the highlight bar to the port you want to edit.

2. Press **[F5]**.

3. Key in the new Port Name, or modify/delete the old one.

   The maximum number of characters allowed for the Port Name is 15. Legal characters include:

   - ◆ All alpha characters: a - z; A - Z
   - ◆ All numeric characters: 0 - 9
   - ◆ + - / . and Space

   Case does not matter; the OSD displays the Port Name in all capitals no matter how they were keyed in.

4. When you have finished editing, press [Enter] to have the change take effect. To abort the change, press [Esc].

F6 SET

Pressing [F6] brings up the OSD configuration menu. To change a setting:

1. Move the highlight bar to the choice you want (an icon of a pointing finger indicates which choice is the currently selected one), then press [Enter].

2. On the submenu that appears, move the highlight bar to the choice you want and press [Enter].

An explanation of the choices is given in the table below:

Setting	Function
CHANNEL DISPLAY MODE	Selects how the Port ID is displayed: the Port Number plus the Name (PN + NAME); the Port Number alone (PN); or the Name alone (NAME).
CHANNEL DISPLAY DURATION	Determines how long a Port ID displays on the monitor after a port change has taken place. The choices are 3 Seconds, or Always On.
CHANNEL DISPLAY POSITION	Allows you to position where the Port ID appears on the screen. Use the Arrow Keys, Pg Up, Pg Dn, Home, End, and 5 (on the numeric keypad with Num Lock off), to position the Port ID display, then press [Enter] to lock the position and return to the *SET* submenu.
SCAN DURATION	Determines how long the display dwells on each port as it cycles through the selected ports in Auto Scan Mode. The options are: 3, 5, 10, 15, 20, 30, 40, and 60 seconds.
OSD ACTIVATING HOTKEY	Selects which Hotkey activates the OSD function: [Ctrl] [Ctrl] or [Scroll Lock] [Scroll Lock]. The default is the Ctrl key combination, but this may conflict with programs running on the systems, in which case, the Scroll Lock option should be used.
SET PASSWORD	Allows you to set a password in order to control access to: Clearing the Name List; Restoring Default Values; and Locking/Unlocking the Console. See *OSD Security*, page 28, for password setting details.

Setting	Function
CLEAR THE NAME LIST*	Clears all Port Names from the Name List. You are asked to confirm before the procedure goes on. Key in **Y**, then press [Enter] to confirm. While the names are being cleared, a message appears on the display to indicate so. After the names have been cleared, another message appears to indicate that the procedure completed successfully.
RESTORE DEFAULT VALUES*	Clears all settings from memory, and returns the unit to the factory default settings (see *OSD Factory Default Settings*, page 32). You are asked to confirm before the procedure goes on. Key in **Y**, then press [Enter] to confirm. While the settings are being cleared, a message appears on the display to indicate so. After the settings have been cleared, another message appears to indicate that the procedure completed successfully.
LOCK CONSOLE*	Locks / Unlocks the Console. When the Console is locked, only the current monitor screen displays. Attempts to input information from the console have no effect; attempts to switch to a different port, either from the Console or by pressing the manual switches, have no effect either. The only way to regain access to the systems is by Unlocking the Console. If a password has been set, you must provide the password in order to Lock / Unlock the Console. If no password has been set, pressing [Enter] will Lock / Unlock the Console.

* If a password has been set, this setting requires you to supply it in order to gain access. See *SET PASSWORD*, page 26, and *OSD Security*, page 28, for details.

Factory Default Settings

The factory default settings are as follows:

Setting	Default
Display Duration	Always On
Display Mode	The Port Number plus the Port Name
Scan Duration	3 Seconds

OSD Security

In order to prevent unauthorized access to the systems, the OSD provides a password security feature. If a password has been set, the OSD will request that the user specify it before allowing entry.

Setting a New Password

To set a new password:

1. Press **[F6]** to bring up the setup configuration menu.

2. Move the highlight bar to *SET PASSWORD*, then press **[Enter]**.

   a) If this is the first time this function is being used by the administrator, the screen displays *ENTER PASSWORD*. Simply press **[Enter]** to move on.

   b) Otherwise, the screen displays *NEW PASSWORD*.

3. Key in the new password, then press **[Enter].**

   The password may be up to 8 characters long, and can consist of any combination of letters and numbers (Aa - Zz, 0 - 9).

4. Key in the new password again, in order to confirm that it is correct, then press **[Enter]**.

   If the two entries match, the new password is accepted and the screen displays the following message:

   ```
   SET PASSWORD OK
   ```

   If the entries do not match, the screen displays the message:

   ```
   PASSWORD NOT MATCH
   ```

in which case you must start again from the beginning.

Changing a Password

To change a password:

1. Follow steps 1 and 2 of the *Setting a New Password* section.

2. Delete the old password; key in the new password, then press **[Enter].**

   As mentioned above, the password may be up to 8 characters long, and can consist of any combination of letters and numbers (Aa - Zz, 0 - 9).

3. Follow step 4 of the *Setting a New Password* section to finish up.

Deleting a Password

To delete a password:

1. Follow steps 1 and 2 of the *Setting a New Password* section.

2. Delete the old password, then press **[Enter].**

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Appendix

Computer Connection Tables

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

CS9138

MVs	Comps	MVs	Comps	MVs	Comps	MVs	Comps
1	8	20	134 - 141	39	267 - 274	58	400 - 407
2	8-15	21	141 - 148	40	274 - 281	59	407 - 414
3	15 - 22	22	148 - 155	41	281 - 288	60	414 - 421
4	22 - 29	23	155 - 162	42	288 - 295	61	421 - 428
5	29 - 36	24	162 - 169	43	295 - 302	62	428 - 435
6	36 - 43	25	169 - 176	44	302 - 309	63	435 - 442
7	43 - 50	26	176 - 183	45	309 - 316	64	442 - 449
8	50 - 57	27	183 - 190	46	316 - 323	65	449 - 456
9	57 - 64	28	190 - 197	47	323 - 330	66	456 - 463
10	64 - 71	29	197 - 204	48	330 - 337	67	463 - 470
11	71 - 78	30	204 - 211	49	337 - 344	68	470 - 477
12	78 - 85	31	211 - 218	50	344 - 351	69	477 - 484
13	85 - 92	32	218 - 225	51	351 - 358	70	484 - 491
14	92 - 99	33	225 - 232	52	358 - 365	71	491 - 498
15	99 - 106	34	232 - 239	53	365 - 372	72	498 - 505
16	106 - 113	35	239 - 246	54	372 - 379	73	505 - 512
17	113 - 120	36	246 - 253	55	379 - 386		
18	120 - 127	37	253 - 260	56	386 - 393		
19	127 - 134	38	260 - 267	57	393 - 400		

CS9134

MVs	Comps	MVs	Comps	MVs	Comps	MVs	Comps
1	4	7	19 - 22	13	37 - 40	19	55 - 58
2	4 - 7	8	22 - 25	14	40 - 43	20	58 - 61
3	7 - 10	9	25 - 28	15	43 - 46	21	61 - 64
4	10 - 13	10	28 - 31	16	46 - 49		
5	13 - 16	11	31 - 34	17	49 - 52		
6	16 - 19	12	34 - 37	18	52 - 55		

Compatible Cascade Switches

The following ATEN Master View KVM switches can be cascaded from the CS9134 / CS9138:

- CS-88A

- CS-114A

- CS-124A

- CS-128A

- CS-138A

Note: Although the models mentioned above are capable of being cascaded, mixing different Master View models on the same installation may cause problems with OSD port switching. Therefore, we recommend that all cascaded units be the same model as the First Stage unit.

OSD Factory Default Settings

Setting	Default
Display Duration	Always On
Display Mode	The Port Number plus the Port Name
Scan Duration	3 Seconds

Troubleshooting

Symptom	Possible Cause	Action
Erratic behavior.	Unit not receiving enough power under self powered operation.	Use the Power Adapter that was supplied with the unit to provide the necessary power.
Pressing the Hotkeys gets no response.	The connection from the selected port to the target computer has been broken, or the computer is turned OFF.	Check the Online LED for the selected port. If it is not lit: 1. Manually press one of the Select switches to connect to a computer that is powered ON. 2. Check the cables to make sure they are all properly connected.
	Improper keyboard reset.	1. Reset the keyboard (and mouse) by simultaneously pressing Buttons 1 and 2 on the First Stage unit for 3 seconds. 2. Unplug the keyboard connector from the Console Keyboard Port, then plug it back in.
	Improper Master View reset.	Turn off all Master View units and wait five seconds before turning them back on. See *Powering Off and Restarting*, page 16 for details.
	Incorrectly keying in the Port ID.	After invoking the Hotkey function (see page 18), be sure to key in the Port ID and press [Enter] within one second for each key.
Mouse is not responding.	Improper mouse reset	1. Reset the mouse (and keyboard) by simultaneously pressing Buttons 1 and 2 on the First Stage unit for 3 seconds. 2. Unplug the mouse connector from the Console Mouse Port, then plug it back in.

Specifications

Function			CS9134	CS9138
Computer Connections	Direct		4	8
	Max		64 (via Cascade)	512 (via Cascade)
Port Selection			Push Button; Hotkey; OSD	
Connectors	Console	Keyboard	1 x 6 pin mini DIN F	
		Video	1 x HDB 15 F	
		Mouse	1 x 6 pin mini DIN F	
	Computer	Keyboard	4 x 6 pin mini DIN F	8 x 6 pin mini DIN F
		Video	4 x HDB 15 M	8 x HDB 15 M
		Mouse	4 x 6 pin mini DIN F	8 x 6 pin mini DIN F
LEDs	Power		1 (Blue)	
	On Line		4 (Green)	8 (Green
	Selected		4 (Orange)	8 (Orange)
Video			1920 x 1440@60Hz; DDC; DDC2; DDC2B	
Scan Interval			3, 5, 10, 15, 20, 30, 40, 60 secs.	
Power Consumption			DC9V; 1.62W (max.)	DC9V; 1.98W (max.)
Environment	Operating Temp.		0 ~ 50° C	
	Storage Temp.		-20 ~ 60° C	
	Humidity		0 ~ 80% RH – Noncondensing	
Physical Properties	Housing		Metal	
	Weight (kg)		2.5	2.85
	Dimensions (L x W x H)		48.3 x 15.0 x 4.45 cm (19" 1 U)	

Limited Warranty

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