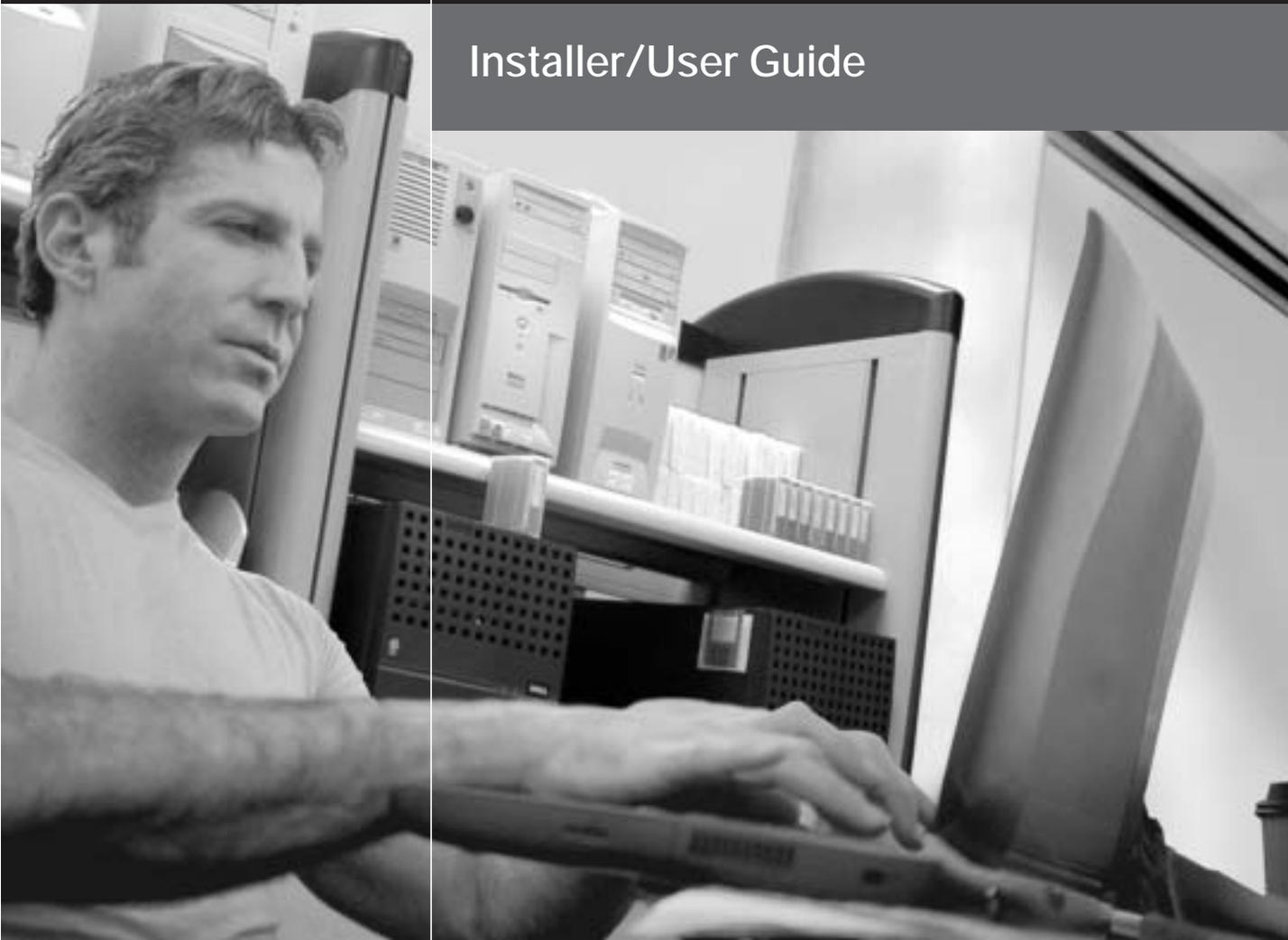




Avocent™

AutoView® 2000

Installer/User Guide





INSTRUCTIONS

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



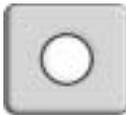
DANGEROUS VOLTAGE

This symbol is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



POWER ON

This symbol indicates the principal on/off switch is in the on position.



POWER OFF

This symbol indicates the principal on/off switch is in the off position.



PROTECTIVE GROUNDING TERMINAL

This symbol indicates a terminal which must be connected to earth ground prior to making any other connections to the equipment.



- **AutoView[®] 2000**
Installer/User Guide

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USA Notification

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: 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.

Canadian Notification

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le Ministère des Communications du Canada.

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Taiwanese Approvals

警告使用者：
這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

Agency Approvals

UL 60950, CSA C22. 2 No. 60950, EN60950, EN55024, EN 61000-3-3,
FCC CFR 47 part 15A, EN55022, ACA AS/NZS 3548A

Republic of Korea EMI Standard Certificate Number: E-F900-01-2012 (A)

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1

Product Overview

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Chapter 1: Product Overview

Features and Benefits

The multiuser, 16 port AutoView 2000 integrates Avocent's field-proven analog keyboard, video and mouse (KVM) switching technology with advanced cable management, flexible access for two simultaneous users and a patented, next-generation user interface. The AutoView 2000 KVM switch conveniently supports all major server platforms and features powerful on-screen management for easy system configuration and server selection.

A unique benefit of the AutoView 2000 is the AVRIQ intelligent module. The AVRIQ module with CAT 5 design dramatically reduces cable clutter, while providing optimal resolution and video settings. The built-in memory of the AVRIQ simplifies configuration by assigning and retaining unique server names and Electronic ID (EID) numbers for each attached server. The AVRIQ is powered directly from the server and provides Keep Alive™ functionality even if the AutoView is not powered.

NOTE: Throughout the documentation you will see the word "appliance" used generically to describe the AutoView 2000 switch.



Figure 1.1: AutoView 2000

AVRIQ intelligent module

AVRIQ modules allow direct KVM connectivity to servers in your AutoView system. Each AutoView 2000 has 16 Avocent Rack Interface (ARI) ports for connecting AVRIQ modules.

Utilizing an AVRIQ, you can attach additional switches to expand your AutoView system. This flexibility allows you to add capacity as your data center grows.

Multiplatform support

The AVRIQ modules available with the AutoView 2000 support PS/2, Sun and USB server environments. Using the On-Screen Configuration and Activity Reporting interface (OSCAR) in conjunction with these modules allows you to switch easily across platforms.

OSCAR graphical user interface

An AutoView 2000 switch uses OSCAR, which features intuitive menus to configure your switch system and select computers. Computers can be identified by unique name, EID or port number, allowing you to assign unique server names.

Security

OSCAR allows you to protect your system with a screen saver password. After a user-defined time, the screen saver mode engages and access is prohibited until the appropriate password is entered to reactivate the system.

Operation modes

The OSCAR user interface provides convenient operation modes for easy AutoView 2000 system administration. These modes (Broadcast, Scan, Switch and Share) allow you to manage your switching activities. Chapter 3 explains these modes in detail.

Video

AutoView 2000 provides optimal resolution for analog VGA, SVGA and XGA video. Achieve resolutions of up to 1600 x 1200 with a 10 foot cable and up to 800 x 600 with a 50 foot cable. Resolutions will vary depending upon the length of cable separating your switch and servers.

Plug and Play

The AutoView 2000 also supports Display Data Channel Plug and Play, which automates configuration of the monitor and is compliant with the VESA DDC2B standard.

FLASH upgradable

Upgrade your firmware at any time through a simple update utility to ensure that your AutoView system is always running the most current version available. Both the AutoView 2000 switch and the AVRIQ modules are FLASH upgradable. See *Appendix A* for more information.

Cascading expansion

Each AutoView 2000 switch supports up to 16 directly attached servers and can conveniently scale to support more. You can expand your system using cascable Avocent products such as other AutoViews or Outlook appliances. This extra “cascade” of units allows you to attach up to 256 servers in one system.

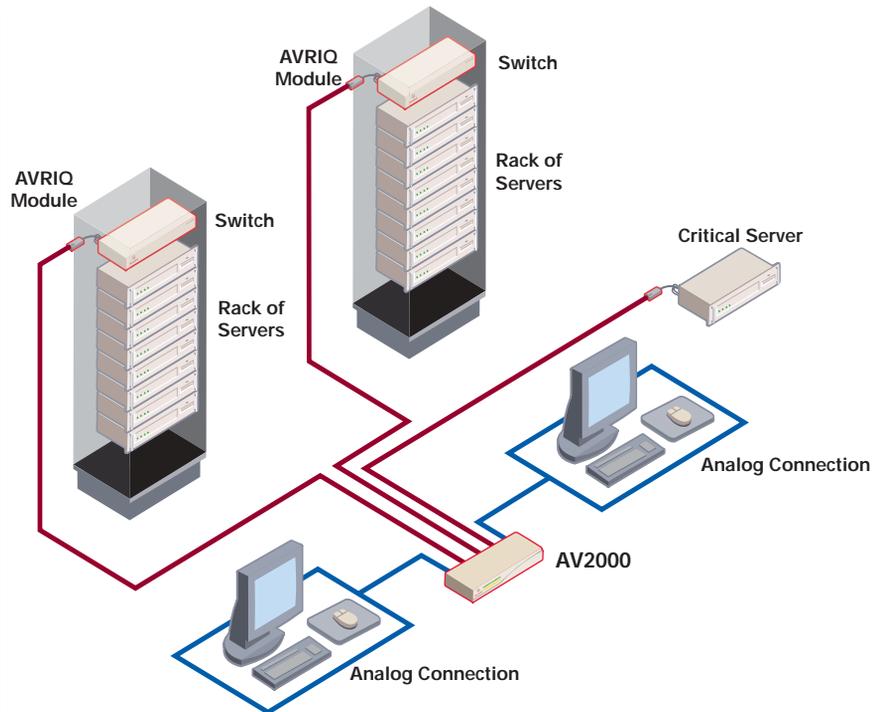


Figure 1.2: Example AutoView 2000 Configuration

Safety Precautions

To avoid potential video and/or keyboard problems when using Avocent products:

- If the building has 3-phase AC power, ensure that the computer and monitor are on the same phase. For best results, they should be on the same circuit.
- Use only Avocent-supplied cable to connect computers and KVM switches. Avocent warranties do not apply to damage resulting from user-supplied cable.

To avoid potentially fatal shock hazard and possible damage to equipment, please observe the following precautions:

- Do not use a 2-wire extension cord in any Avocent product configuration.
- Test AC outlets at the computer and monitor for proper polarity and grounding.
- Use only with grounded outlets at both the computer and monitor. When using a backup power supply (UPS), power the computer, the monitor and the appliance off the supply.



NOTE: The AC inlet is the main disconnect.

Rack mount safety considerations

- **Elevated Ambient Temperature:** If installed in a closed rack assembly, the operation temperature of the rack environment may be greater than room ambient. Use care not to exceed the rated maximum ambient temperature of the unit.
- **Reduced Air Flow:** Installation of the equipment in a rack should be such that the amount of airflow required for safe operation of the equipment is not compromised.
- **Mechanical Loading:** Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
- **Circuit Overloading:** Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of circuits might have on overcurrent protection and supply wiring. Consider equipment nameplate ratings for maximum current.
- **Reliable Earthing:** Reliable earthing of rack mounted equipment should be maintained. Pay particular attention to supply connections other than direct connections to the branch circuit (for example, use of power strips).



2

Installation

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Chapter 2: Installation

Getting Started

Before installing your AutoView appliance, refer to the following list to ensure you have all items that shipped with the appliance as well as other items necessary for proper installation.

Supplied with the AutoView 2000

- AutoView 2000 unit
- Power cord
- One null modem serial cable
- AutoView 2000 Installer/User Guide
- AutoView 2000 Quick Installation Guide

Additional items needed

- One AVRIQ module and UTP cabling per attached server or switch
- (Optional) Rack mounting kit

Rack Mounting Your AutoView

NOTE: Rack mounting kits are sold separately.

Your AutoView appliance may be rack mounted using brackets available through Avocent. Before installing the appliance and other components in the rack cabinet (if not already installed), stabilize the rack in a permanent location. Install your equipment starting at the bottom of the rack cabinet, then work to the top. Avoid uneven loading or overloading of rack cabinets.

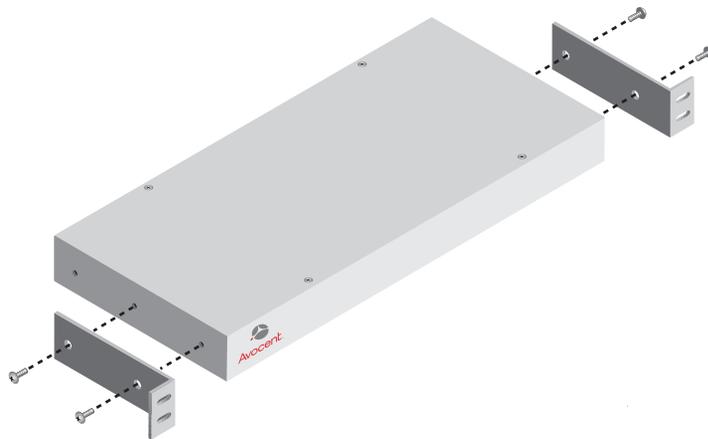


Figure 2.1: AutoView 2000 Horizontal Installation

CAUTION: Rack Loading - Overloading or uneven loading of racks may result in shelf or rack failure, causing damage to equipment and possible personal injury. Stabilize racks in a permanent location before loading begins. Mount components beginning at the bottom of the rack, then work to the top. Do not exceed your rack load rating.

To install the 1U switch mounting bracket: (kit sold separately)

1. Remove the first two screws on each side.
 2. Line up the holes in the “long side” of the kit’s side brackets with the screw holes in the switch.
 3. With a Phillips screwdriver, fasten the mounting brackets to the switch using two screws on each side.
 4. Attach four cage nuts or clip nuts to the rack mounting flange of the rack cabinet so that the nut is positioned on the inside of the rack.
-

NOTE: Nuts are not included with the rack mount kit.

5. Mount the switch assembly to the rack cabinet by matching the holes in the “short side” of each bracket to an appropriate set of matching holes on your rack cabinet. Next, insert the combination hex head screws through the slots in the bracket and the holes in the mounting rail, then into the cage nuts or clip nuts.

Installing the AutoView 2000

Plug the supplied power cord into the back of the appliance and then into an appropriate power source. Figure 2.2 illustrates one possible configuration for your AutoView appliance. See the following detailed set of procedures to successfully install your appliance.

CAUTION: To reduce the risk of electric shock or damage to your equipment -

- Do not disable the power cord grounding plug. The grounding plug is an important safety feature.
 - Plug the power cord into a grounded (earthed) outlet that is easily accessible at all times.
 - Disconnect the power from the unit by unplugging the power cord from either the electrical outlet or the unit.
-

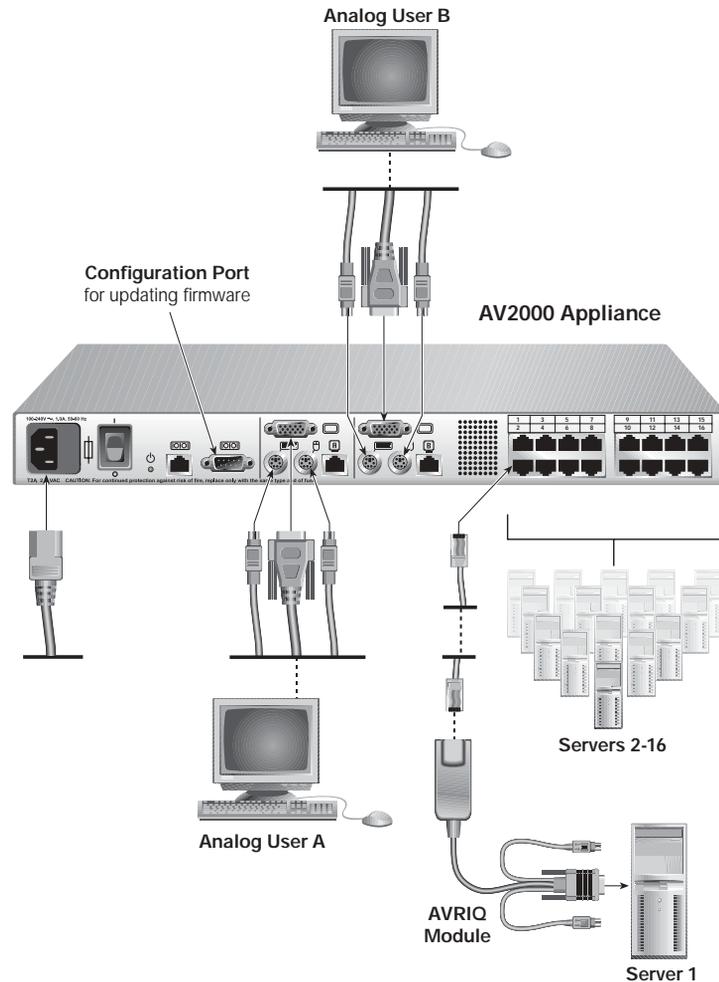


Figure 2.2: Basic AutoView 2000 Configuration

To connect an AVRIQ module to each server:

1. Locate the AVRIQ modules for your AutoView 2000 unit.
2. Attach the appropriately color-coded cable ends to the keyboard, monitor and mouse ports on the first server you will be connecting to the unit.
3. Attach one end of the CAT 5 cabling that will run between your AVRIQ and AutoView unit to the RJ45 connector on the AVRIQ module.
4. Connect the other end of the CAT 5 cable to the desired ARI port on the back of your AutoView unit.
5. Repeat steps 2-4 for all servers you wish to attach.

NOTE: When connecting a Sun AVRIQ module, you must use a multi-sync monitor to accommodate Sun computers that support both VGA and sync-on-green or composite sync.

Adding legacy switches

You can add cascade switches to the AutoView 2000 system for easy integration into your existing configuration. In a cascaded system, each ARI port will accommodate up to 24 servers. See the following table for legacy switches compatible with the AutoView 2000 system.

Legacy Switch Support

Legacy Product	Model Numbers
OutLook ES	140ES, 180ES, 280ES, 1160ES, 2160ES, 4160ES
AutoView	AV200-4, AV200-8, AV400-4, AV400-8, AV416, AV424

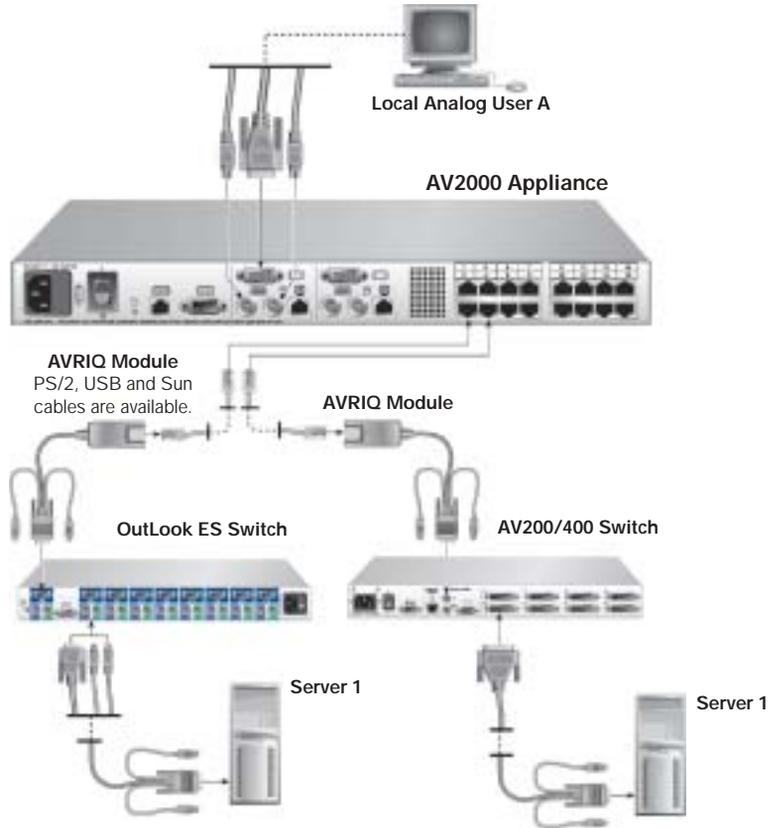


Figure 2.3: AutoView 2000 Configuration with a Legacy KVM Switch

To add a legacy KVM switch:

1. Mount the KVM switch into your rack cabinet. Locate a length of CAT 5 cabling to connect between your AutoView 2000 appliance and the AVRIQ for your switch.
2. Attach the keyboard, monitor and mouse connectors of the AVRIQ to a user port on your cascade switch.
3. Attach one end of the CAT 5 cabling to the RJ45 connector on the AVRIQ.
4. Connect the other end of the CAT 5 cable to an available port on the back of your AutoView 2000.
5. Connect the servers to your Avocent cascade switch according to the instructions included with the device.
6. Power cycle the cascade switch to enable the cascade code.
7. Repeat steps 2-5 for all cascade switches you wish to attach to your system.

To connect local peripherals:

1. Select the keyboard, monitor and mouse to be connected to local analog user A.
2. Locate the port set labeled *A* on the back of the appliance. Connect these peripherals to their respective ports.
3. Repeat these steps for the local analog port set labeled *B*.
4. Bundle and label the cables for easy identification.

Setting Up Your AutoView System

With the AutoView 2000 system, you can auto detect and configure each port on your appliance. Chapter 3 provides detailed instructions on naming, customization and OSCAR setup and configuration.



3

Basic Operations

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Chapter 3: Basic Operations

Controlling Your System at the Analog Ports

The AutoView 2000 features two analog port sets on the back of the unit that allow you to connect a monitor and a PS/2 keyboard and mouse for direct analog access. The appliance uses OSCAR, the On-Screen Configuration and Activity Reporting interface, which utilizes intuitive menus to configure your system and select computers.

Viewing and Selecting Ports and Servers

Use the OSCAR Main dialog box to view, configure and control servers in the AutoView 2000 system. View your servers by name, port or by the unique Electronic ID number (EID) embedded in each AVRIQ. You will see an OSCAR-generated port list by default when you first launch OSCAR.

The Port column indicates the ARI port to which a server is connected. If you connect a legacy KVM switch to the appliance, the port numbering displays the ARI port first, then the switch port to which the server is connected. For example, in Figure 3.1, servers 04-03 and 01-02 are connected to switches.

To access the Main dialog box:

Press Print Screen to launch OSCAR. The Main dialog box appears.



Figure 3.1: Example of Configured Main Dialog Box

NOTE: You can also press the **Control** key twice within one second to launch OSCAR. You can use this key sequence in any place you see **Print Screen** throughout this installer/user guide.

Viewing the status of your appliance

The status of the servers in your system is indicated in the right columns of the Main dialog box. The following table describes the status symbols.

OSCAR Status Symbols

Symbol	Description
	AVRIO is online (green circle).
	AVRIO is offline or is not operating properly.
	Connected switch is online.
	Connected switch is offline or is not operating properly.
	AVRIO is being upgraded (yellow circle).
	AVRIO is being accessed by the indicated user channel (green channel letter).
	AVRIO is blocked by the indicated user channel (black channel letter).

Selecting servers

Use the Main dialog box to select servers. When you select a server, the appliance reconfigures the keyboard and mouse to the proper settings for that server.

To select servers:

Double-click the server name, EID or port number.

-or-

If the display order of your server list is by port (*Port* button is depressed), type the port number and press **Enter**.

-or-

If the display order of your server list is by name or EID number (*Name* or *EID* button is depressed), type the first few characters of the name of the server or the EID number to establish it as unique and press **Enter**.

To select the previous server:

Press **Print Screen** and then **Backspace**. This key combination toggles you between the previous and current connections.

To disconnect the user from a server:

Press **Print Screen** and then **Alt+Ø**. This leaves the user in a free state, with no server selected. The status flag on your desktop displays *Free*.

Soft switching

Soft switching is the ability to switch servers using a hotkey sequence. You can soft switch to a server by pressing **Print Screen** and then typing the first few characters of its name or number. If you have set a Screen Delay Time and you press the key sequences before that time has elapsed, OSCAR will not display.

To configure servers for soft switching:

1. Press **Print Screen** to launch OSCAR. The Main dialog box appears.
2. Click *Setup - Menu*. The Menu dialog box appears.
3. For Screen Delay Time, type the number of seconds of delay desired before the Main dialog box is displayed after **Print Screen** is pressed.
4. Click *OK*.

To soft switch to a server:

1. To select a server, press **Print Screen**. If the display order of your server list is by port (*Port* button is depressed), type the port number and press **Enter**.
-or-
If the display order of your server list is by name or EID number (*Name* or *EID* button is depressed), type the first few characters of the name of the server or the EID number to establish it as unique and press **Enter**.
2. To switch back to the previous server, press **Print Screen** then **Backspace**.

Navigating OSCAR

This table describes how to navigate OSCAR using the keyboard and mouse.

OSCAR Navigation Basics

This Keystroke	Does This
Print Screen	Opens OSCAR. Press Print Screen twice to send the Print Screen keystroke to the currently selected device.
F1	Opens the Help screen for the current dialog box.
Escape	Closes the current dialog box without saving changes and returns to the previous one. In the Main dialog box, it closes OSCAR and returns to the flag. In a message box, it closes the pop-up box and returns to the current dialog box.
Alt	Opens dialog boxes, selects or checks options and executes actions when used with underlined or other designated letters.
Alt+X	Closes the current dialog box and returns to the previous one.
Alt+O	Selects the <i>OK</i> button, then returns to the previous dialog box.
Single-click, Enter	In a text box, it selects the text for editing and enables the Left and Right Arrow keys to move the cursor. Press Enter again to quit the edit mode.
Enter	Completes a switch in the Main dialog box and exits OSCAR.
Print Screen, Backspace	Toggles back to previous selection.
Print Screen, Alt+Ø	Immediately disengages user from a server; no server is selected. Status flag displays <i>Free</i> . (This only applies to the Ø on the keyboard and not the keypad.)

OSCAR Navigation Basics (continued)

This Keystroke	Does This
Print Screen, Pause	Immediately turns on screen saver mode and prevents access to that specific console, if it is password protected.
Up/Down Arrows	Moves the cursor from line to line in lists.
Right/Left Arrows	Moves the cursor between columns. When editing a text box, these keys move the cursor within the column.
Page Up/Page Down	Pages up and down through Name and Port lists and Help pages.
Home/End	Moves the cursor to the top or bottom of a list.
Delete	Deletes current selection in the scan list or characters in a text box.
Shift-Del	Deletes from the current selection to the end of the list when editing a scan list.
Numbers	Type from the keyboard or keypad.

Configuring OSCAR

You can configure your AutoView 2000 from the Setup menu within OSCAR. Select the *Names* button when initially setting up your appliance to identify servers by unique names. Select the other setup features to manage routine tasks for your servers from the OSCAR menu.

Setup Features to Manage Routine Tasks for your Servers

Feature	Purpose
Menu	Change the server listing between numerically by port or EID number and alphabetically by name. Change the Screen Delay Time before OSCAR displays after pressing Print Screen .
Flag	Change display, timing, color or location of the status flag.
Broadcast	Set up to simultaneously control multiple servers through keyboard and mouse actions.
Scan	Set up a custom scan pattern for up to 16 servers.
Security	Set passwords to restrict server access. Enable the screen saver.
Devices	Identify the appropriate number of ports on an attached cascade switch.
Names	Identify servers by unique names.
Switch	Choose the switch mode and the share mode time-out.

To access the Setup menu:

1. Press Print Screen to launch OSCAR. The Main dialog box appears.
2. Click *Setup*. The Setup dialog box appears.



Figure 3.2: Setup Dialog Box

Assigning server names

Use the Names dialog box to identify individual servers by name rather than by port number. The Names list is always sorted by port order. Names are stored in the AVRIQ, so even if you move the cable/server to another ARI port, the name and configuration will be recognized by the appliance.

NOTE: If a server is turned off, its respective AVRIQ will not appear in the Names list.

To access the Names dialog box:

1. Press Print Screen. The Main dialog box will appear.
2. Click *Setup - Names*. The Names dialog box appears.

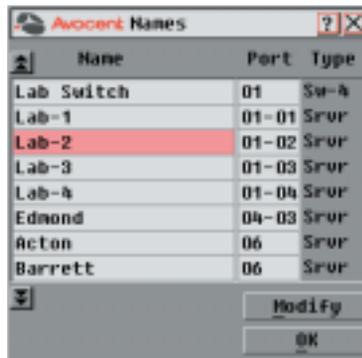


Figure 3.3: Names Dialog Box

NOTE: If the server list changes, the mouse cursor will turn into an hourglass as the list is automatically updated. No mouse or keyboard input will be accepted until the list update is complete.

To assign names to servers:

1. In the Names dialog box, select a server name or port number and click *Modify*. The Name Modify dialog box appears.



Figure 3.4: Name Modify Dialog Box

2. Type a name in the New Name box. Names of servers may be up to 15 characters long. Legal characters include: A-Z, a-z, Ø-9, space and hyphen.
3. Click *OK* to transfer the new name to the Names dialog box. Your selection is not saved until you click *OK* in the Names dialog box.
4. Repeat steps 1-3 for each server in the system.
5. Click *OK* in the Names dialog box to save your changes.
-or-
Click *X* or press *Escape* to exit the dialog box without saving changes.

NOTE: If an AVRIO has not been assigned a name, the EID is used as the default name.

Assigning device types

While the appliance automatically discovers cascade KVM switches attached to your unit, you will need to specify the number of ports on the cascade switch through the Devices dialog box. You will see an Sw-8 or Sw-24 appear in the Type category for the cascade switch. Select the switch from the list and the Modify button appears, allowing you to assign it the appropriate number of ports.

NOTE: The Modify button will only be available if a configurable switch is selected.

To access the Devices dialog box:

1. Press *Print Screen*. The Main dialog box will appear.
2. Click *Setup - Devices*. The Devices dialog box appears.



Figure 3.5: Devices Dialog Box

When the AutoView appliance discovers a cascade switch, you will notice the port numbering change to accommodate each server under that switch. For example, if the switch is connected to ARI port 6, the switch port would be listed as 06 and each server under it would be numbered sequentially 06-01, 06-02 and so on.

To assign a device type:

1. In the Devices dialog box, select the desired port number.
2. Click *Modify*. The Device Modify dialog box appears.

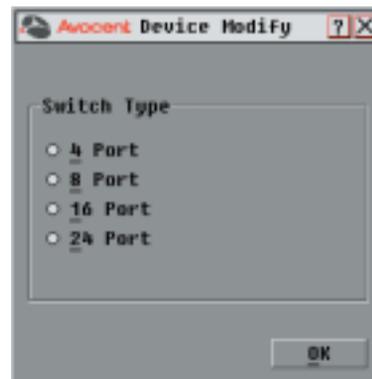


Figure 3.6: Device Modify Dialog Box

3. Choose the number of ports supported by your cascade switch and click *OK*.
4. Repeat steps 1–3 for each port requiring a device type to be assigned.
5. Click *OK* in the Devices dialog box to save settings.

NOTE: Changes made in the Device Modify dialog box are not saved until you click *OK* in the Devices dialog box.

Changing the display behavior

Use the Menu dialog box to change the display order of servers and set a Screen Delay Time for OSCAR. The display order setting alters how servers will display in several screens including the Main, Devices and Broadcast dialog boxes.

To access the Menu dialog box:

1. Press Print Screen to launch OSCAR. The Main dialog box appears.
2. Click *Setup - Menu* in the Main dialog box. The Menu dialog box appears.



Figure 3.7: Menu Dialog Box

To choose the default display order of servers:

1. Select *Name* to display servers alphabetically by name.
-or-
Select *EID* to display servers numerically by EID number.
-or-
Select *Port* to display servers numerically by port number.
2. Click *OK*.

To set a Screen Delay Time for OSCAR:

1. Type in the number of seconds (0-9) to delay OSCAR display after you press Print Screen. Entering 0 will instantly launch OSCAR with no delay.
2. Click *OK*.

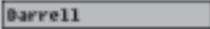
Setting a Screen Delay Time allows you to complete a soft switch without OSCAR displaying. To perform a soft switch, see *Soft switching* in this chapter.

Controlling the status flag

The status flag displays on your desktop and shows the name or EID number of the selected server or the status of the selected port. Use the Flag dialog box

to configure the flag to display by server name or EID number, or to change the flag color, opacity, display time and location on the desktop.

OSCAR Status Flags

Flag	Description
	Flag type by name
	Flag type by EID number
	Flag indicating that the user has been disconnected from all systems
	Flag indicating that Broadcast mode is enabled
	Flag indicating that the user is sharing but has no control
	Flag indicating that the user is sharing and has control

To access the Flag dialog box:

1. Press Print Screen. The Main dialog box will appear.
2. Click *Setup - Flag*. The Flag dialog box appears.



Figure 3.8: Flag Dialog Box

To determine how the status flag is displayed:

1. Select *Name* or *EID* to determine what information will be displayed.
2. Select *Displayed* to show the flag all the time or select *Timed* to display the flag for only five seconds after switching.
3. Select a flag color in Display Color.
4. In Display mode, select *Opaque* for a solid color flag or select *Transparent* to see the desktop through the flag.
5. To position the status flag on the desktop:
 - a. Click *Set Position* to gain access to the Set Position Flag screen.
 - b. Left-click on the title bar and drag to the desired location.
 - c. Right-click to return to the Flag dialog box.



Figure 3.9: Set Position Flag

NOTE: Changes made to the flag position are not saved until you click *OK* in the Flag dialog box.

6. Click *OK* to save settings.
- or-
- Click *X* to exit without saving changes.

Setting console security

OSCAR enables you to set security on your analog port console. You can establish a screen saver mode that engages after your console remains unused for a specified Inactivity Time. Once engaged, your console will remain locked until you press any key or move the mouse. You will then need to type in your password to continue.

Use the Security dialog box to lock your console with password protection, set or change your password and enable the screen saver.

NOTE: If a password has been previously set, you will have to enter the password before you can access the Security dialog box.

To access the Security dialog box:

1. Press Print Screen. The Main dialog box will appear.
2. Click *Setup - Security*. The Security dialog box appears.

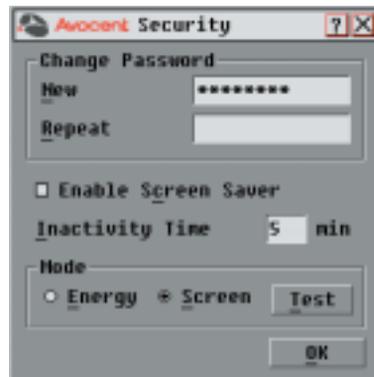


Figure 3.10: Security Dialog Box

To set or change the password:

1. Single-click and press Enter or double-click in the New text box.
2. Type the new password in the New text box and press Enter.
Passwords must contain both alpha and numeric characters, are case

sensitive and may be up to 12 characters long. Legal characters are: A-Z, a-z, 0-9, space and hyphen.

3. In the Repeat box, type the password again and press Enter.
4. Click *OK* to change only your password, and then close the dialog box.

NOTE: If you should lose or forget your password, you must return your switch for service or technical support. See *Appendix C: Technical Support* for contact information.

To password protect your console:

1. Set your password as described in the previous procedure.
2. Select *Enable Screen Saver*.
3. Type the number of minutes for Inactivity Time (from 1 to 99) to delay activation of password protection and the screen saver feature.
4. For Mode, select *Energy* if your monitor is ENERGY STAR® compliant; otherwise select *Screen*.

CAUTION: Monitor damage can result from the use of Energy mode with monitors not compliant with ENERGY STAR®.

5. (Optional) Click *Test* to activate the screen saver test which lasts 10 seconds then returns you to the Security dialog box.
6. Click *OK*.

To log in to your console:

1. Press any key or move the mouse.
2. The Password dialog box appears. Type your password, then click *OK*.
3. The Main dialog box appears if the password was entered properly.

To remove password protection from your console:

1. From the Main dialog box, click *Setup - Security*; the Password dialog box appears. Type your password, then click *OK*.
2. In the Security dialog box, single-click and press Enter or double-click in the New box. Leave the box blank. Press Enter.
3. Single-click and press Enter or double-click in the Repeat box. Leave the box blank. Press Enter.
4. Click *OK* to eliminate your password.

To enable the screen saver mode with no password protection:

1. If your console does not require a password to gain access to the Security dialog box, proceed to step 2.

-or-

If your console is password protected, see the previous procedure, then go to step 2.

2. Select *Enable Screen Saver*.
3. Type the number of minutes for Inactivity Time (from 1–99) to delay activation of the screen saver.
4. Choose *Energy* if your monitor is ENERGY STAR® compliant; otherwise select *Screen*.

CAUTION: Monitor damage can result from the use of Energy mode with monitors not compliant with ENERGY STAR®.

5. (Optional) Click *Test* to activate the screen saver test which lasts 10 seconds then returns you to the Security dialog box.
6. Click *OK*.

NOTE: Activation of the screen saver mode disconnects the user from a server; no server is selected. The status flag displays *Free*.

To exit the screen saver mode:

Press any key or move your mouse. The Main dialog box appears and any previous server connection will be restored.

To turn off the screen saver:

1. In the Security dialog box, clear *Enable Screen Saver*.
2. Click *OK*.

To immediately turn on the screen saver:

Press Print Screen, then press Pause.

Displaying Version Information

OSCAR enables you to display the AutoView 2000 and AVRIQ firmware versions. For optimum performance, keep your firmware current. For more information, see *Appendix A*.

To display version information:

1. Press Print Screen. The Main dialog box will appear.
2. Click *Commands - Display Versions*. The Version dialog box appears. The top half of the box lists the subsystem versions in the appliance.



Figure 3.11: Version Dialog Box

3. Click *AVRIQ* to view individual AVRIQ version information. The AVRIQ Selection dialog box appears.



Figure 3.12: AVRIQ Selection Dialog Box

4. Select an AVRIQ to view and click the *Version* button. The AVRIQ Version dialog box appears. For more information on loading firmware, see *Appendix A*.

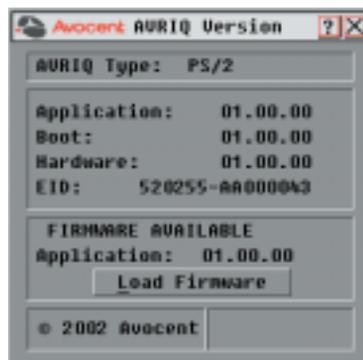


Figure 3.13: AVRIQ Version Dialog Box

5. Click *X* to close the AVRIQ Version dialog box.

Scanning Your System

In scan mode, the appliance automatically scans from port to port (server to server). You can scan up to 16 servers, specifying which servers to scan and the number of seconds that each server will display. The scanning order is determined by placement of the server in the list. The list is always shown in scanning order. You can, however, choose to display the server's name or EID number by pressing the appropriate button.

To add servers to the scan list:

1. Press Print Screen. The Main dialog box will appear.
2. Click *Setup - Scan*. The Scan dialog box appears.



Figure 3.14: Scan Dialog Box

3. Determine the order within the list to add the server. If there are no servers in the scan list, your cursor will appear in a blank line at the top of the list.
 - or-
 - To add a server to the end of the list, place your cursor in the last server entry and press the Down Arrow key.
 - or-
 - To add a server in the midst of an existing list, place your cursor in the line below where you want to insert a new server and press Insert.
4. Type the first few characters of a server name or port number to scan. The first matching server will appear in the line.
 - or-
 - To move through the list, press the following keyboard commands in the Name, Port or Time column to move through the list of servers available to scan.
 - a. Press **Alt+Down Arrow** to move the cursor down through the list of servers.
 - b. Press **Alt+Up Arrow** to move the cursor up through the list of servers.
 - c. Press **Alt+Home** to move the cursor to the first server in the list.
 - d. Press **Alt+End** to move the cursor to the last server in the list.

5. In the **Time** column, type the number of seconds (from 3 to 255) of desired time before the scan moves to the next server in the sequence.
6. Move the cursor to the next line or press the **Down Arrow** and repeat steps 2-5 for each of the remaining servers to be included in the scan pattern.
7. Click *OK*.

To remove a server from the scan list:

1. In the Scan dialog box, click the server to be removed.
2. Press **Delete**.
-or-
Press **Shift+Delete** to remove the selected server and all entries below it.
3. Click *OK*.

To start the scan mode:

1. Press **Print Screen**. The Main dialog box will appear.
2. Click *Commands*. The Commands dialog box appears.



Figure 3.15: Commands Dialog Box

3. Select *Scan Enable* in the Commands dialog box.
4. Click *X* to close the Commands dialog box.

NOTE: Scanning will begin when the Main dialog box or flag is displayed. Scanning is inhibited in any other OSCAR dialog box.

To cancel scan mode:

1. Select a server if OSCAR is open.
-or-
Move the mouse or press any key on the keyboard if OSCAR is not open.

Scanning will stop at the currently selected server.

-or-

Press **Print Screen**. The Main dialog box will appear.

2. Click *Commands*. The Commands dialog box appears.
3. Clear *Scan Enable*.

Broadcasting to Servers

The analog user can simultaneously control more than one server in a system, to ensure that all selected servers receive identical input. You can choose to broadcast keystrokes and/or mouse movements independently.

NOTE: You can broadcast to up to 16 servers at a time, one server per ARI port.

To access the Broadcast dialog box:

1. Press **Print Screen**. The Main dialog box will appear.
2. Click *Setup - Broadcast*. The Broadcast dialog box appears.



Figure 3.16: Broadcast Dialog Box

NOTE: Broadcasting Keystrokes - The keyboard state must be identical for all servers receiving a broadcast to interpret keystrokes identically. Specifically, the **Caps Lock** and **Num Lock** modes must be the same on all keyboards. While the appliance attempts to send keystrokes to the selected servers simultaneously, some servers may inhibit and thereby delay the transmission.

NOTE: Broadcasting Mouse Movements - For the mouse to work accurately, all systems must have identical mouse drivers, desktops (such as identically placed icons) and video resolutions. In addition, the mouse must be in exactly the same place on all screens. Because these conditions are extremely difficult to achieve, broadcasting mouse movements to multiple systems may have unpredictable results.

To broadcast to selected servers:

1. From the Broadcast dialog box, select the mouse and/or keyboard checkboxes for the servers that are to receive the broadcast commands.
-or-
Press the **Up** or **Down Arrow** keys to move the cursor to the target server. Then press **Alt+K** to select the keyboard checkbox and/or **Alt+M** to select the mouse checkbox. Repeat for additional servers.
2. Click **OK** to save the settings and return to the Setup dialog box. Click **X** or press **Escape** to return to the Main dialog box.
3. Click **Commands**. The Commands dialog box appears.
4. Click the **Broadcast Enable** checkbox to activate broadcasting. The Broadcast Enable Confirm/Deny dialog box appears.



Figure 3.17: Broadcast Enable Confirm/Deny Dialog Box

5. Click **OK** to enable the broadcast. Click **X** or press **Escape** to cancel and return to the Commands dialog box.
6. If broadcasting is enabled, type the information and/or perform the mouse movements you want to broadcast from the user station. Only servers in the list are accessible.

NOTE: The other user is disabled when broadcast mode is enabled.

To turn broadcasting off:

From the Commands dialog box, clear the **Broadcast Enable** checkbox.

Changing Your Switch Mode

Your AutoView 2000 allows you to connect to attached servers using two methods: Preemptive and Cooperative.

Select *Preemptive* (default setting) to allow any user to select any server at any time; a request from another user disconnects the current user without warning.

-or-

Select *Cooperative* to maintain the current user connection; the current user won't be disconnected if another user requests connection.

If the Share Enable box is checked, users may share access to a single server. Only one may be in control at any given time.

To access the Switch dialog box:

1. Press Print Screen. The Main dialog box will appear.
2. Click *Setup - Switch*. The Switch dialog box appears.
3. Select either *Preemptive* or *Cooperative* as your switch mode.



Figure 3.18: Switch Dialog Box

To enable sharing:

1. Click *Share Enable*. This allows two users to share a video connection.
2. Type the number of seconds for a sharing time-out (from 10 to 600) to designate the amount of time that another user has control of the connected port.



Appendices

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Appendices

Appendix A: FLASH Upgrades

Upgrading the AutoView 2000

You can upgrade the firmware of your AutoView switch by using a special update utility provided by Avocent. This utility automatically configures the port communications settings to allow direct downloading from the connected server.

Items needed for the upgrade

- Server running Windows NT, Windows 95, Windows 98 or Windows 2000
- Available serial port (COM port) on the server
- Null modem serial cable (DB-male) that connects the switch and the server
- Firmware update

To upgrade firmware:

1. Connect the standard serial cable to a COM port on the server and to the serial connector on the back panel of the switch. Make a note of which COM port you have chosen, then turn on the switch.
2. Go to <http://www.avocent.com/support> and click on *Downloads* to access the firmware upgrade file. Once the download is complete, navigate to the drive where you have saved the firmware update and unzip the file.
3. Double-click to run the file WUpDateAvct.exe.
4. In the dialog box that displays, select the desired language and COM port.
5. Click *Load*.
6. Once the firmware is updated, the following message displays *Download complete*. Click *Done* to exit the dialog box.
7. The switch automatically reboots after the upgrade is completed.

Possible error conditions

If the download does not execute properly, verify the following:

- Verify that the COM port is correct.
- Verify that no other program is currently using the COM port, or that a previous DOS window/shell is open that had used the desired COM port.
- Verify that no other copies of the WUpDate utility are currently running.
- Verify that a null modem serial cable is used.
- Verify in the selected COM port's Advanced Port settings that the FIFO buffers are selected and that the receive buffer is set to High.



WARNING: While upgrading, do not use your computer for anything else or switch between windows. Close all other windows if necessary. If the upgrade was unsuccessful (such as during a power outage), repeat the procedure.

Upgrading the AVRIQ firmware

The AVRIQs can be upgraded individually or simultaneously.

To simultaneously upgrade multiple AVRIQs:

1. Press Print Screen. The Main dialog box will appear.
2. Click *Commands - AVRIQ Status*. The AVRIQ Status dialog box appears.



Figure A.1: AVRIQ Status Dialog Box

3. Click one or more types of modules to upgrade. Click *Upgrade*.
4. The AVRIQ Upgrade dialog box appears. Click *OK* to initiate the upgrade and return to the AVRIQ Status dialog box.

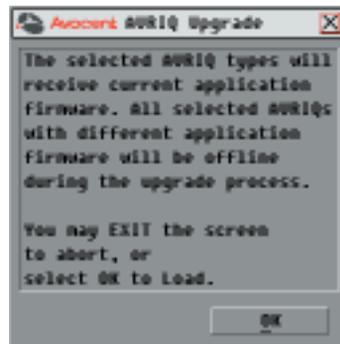


Figure A.2: AVRIQ Upgrade Dialog Box

To upgrade AVRIQ firmware individually:

1. Press Print Screen. The Main dialog box will appear.
2. Click *Commands - Display Versions*. The Version dialog box appears.



Figure A.3: Version Dialog Box

3. Click *AVRIQ* to view individual cable version information. The AVRIQ Selection dialog box appears.



Figure A.4: AVRIQ Selection Dialog Box

4. Select an AVRIQ to upgrade and click the *Version* button. The AVRIQ Version dialog box appears.



Figure A.5: AVRIQ Version Dialog Box

5. Click the *Load Firmware* button. The AVRIQ Load dialog box appears.



Figure A.6: AVRIQ Load Dialog Box

6. Click *OK* to initiate the upgrade and return to the Status dialog box.

NOTE: During an upgrade, the AVRIQ status indicator in the Main dialog box will be yellow. The AVRIQ is unavailable while an upgrade is in progress. When an upgrade is initiated, any current connection to the server via the AVRIQ will be terminated.

Appendix B: Technical Specifications

AutoView 2000 Product Specifications

Server Ports

Number	16
Types	PS/2, Sun and USB AVRIO modules
Connectors	RJ45
Sync Types	Separate horizontal and vertical
Plug and Play	DDC2B
Video Resolution	Analog Port Maximum 1600 x 1280 @ 75 Hz

Update Port

Number	1
Type	Serial RS232
Connector	DB9 Male

Analog Port Sets

Number	2
Type	PS/2 and VGA
Connectors	PS/2 MiniDIN and 15 pin D

Dimensions

Dimensions (H x W x D)	4.45 x 43.18 x 27.94 cm 1U form factor (1.75 x 17.00 x 11.00 in)
Weight	3.6 kg (8 lb) without cables
Heat Dissipation	92 BTU/Hr
Airflow	8 cfm
Power Consumption	12.5 W
AC-input power	40 W maximum
AC-input voltage rating	100 to 240 VAC Autosensing
AC-input current rating	0.5 A
AC-input cable	18 AWG three-wire cable, with a three-lead IEC-320 receptacle on the power supply end and a country or region dependent plug on the power resource end
AC-frequency	50/60 Hz
Temperature	10° to 50° Celsius (50° to 122° Fahrenheit) operating -20° to 60° Celsius (-4° to 140° Fahrenheit) nonoperating
Humidity	20 to 80% noncondensing operating 5 to 95% noncondensing nonoperating

Agency Approvals

EN55022 Class A, EN55024, EN61000-3-3, FCC15 Class A, VCCI Class A, IEC950, EN60950, UL 1950/60950 third edition, CSA C22.2 No. 950



Appendix C: Technical Support

Our Technical Support staff is ready to assist you with any installation or operating issues you encounter with your Avocent product. If an issue should develop, follow the steps below for the fastest possible service:

1. Check the pertinent section of this manual to see if the issue can be resolved by following the procedures outlined.
2. Check our web site at www.avocent.com/support to search the knowledge base or use the on-line service request.
3. Call Avocent Technical Support for assistance at (888) 793-8763. Visit the Avocent web site at <http://www.avocent.com/support> and click on *Getting Support* for current phone support hours.

LIMITED WARRANTY

Avocent Corporation warrants to the original retail purchaser that this product is and will be free from defects in materials and workmanship for a period of 24 months from the date of purchase.

Additionally, all Avocent products carry an unconditional thirty-day satisfaction guarantee. If, for any reason, you are dissatisfied with the performance of this product, you may return it to the point of purchase for a refund of the purchase price (excluding shipping charges). This guarantee does not apply to special order products, and may not be available through all resellers. During the warranty period, purchaser must promptly call Avocent for a RETURN MATERIALS AUTHORIZATION (RMA) number. Make sure that the RMA number appears on the packing slip, proof of purchase, AND ON THE OUTSIDE OF EACH SHIPPING CARTON. Unauthorized returns or collect shipments will be refused.

Ship prepaid to: Avocent Corporation
 4991 Corporate Drive
 Huntsville, AL 35805 U.S.A.
 Telephone: (256) 430-4000

The above limited warranty is voided by occurrence of any of the following events, upon which the product is provided as is, with all faults, and with all disclaimers of warranty identified below:

1. If non-Avocent approved cabling is attached to the unit. Poorly constructed and miswired cabling can diminish video quality and damage equipment. Avocent manufactured cabling is built to high quality standards utilizing overall braided shield to comply with FCC emission standards, and each cable is individually tested under load.
2. If defect or malfunction was caused by abuse, mishandling, unauthorized repair, or use other than intended.
3. If unauthorized modifications were made to product.
4. If unreported damages occurred in any shipment of the product.
5. If damages were due to or caused by equipment or software not provided by Avocent.
6. If the unit is used with non-grounded or incorrectly polarized AC power.
7. If the product is used in contradiction to any instruction provided by any User Guide or Instruction Sheet provided to you or with the product.
8. If the product is damaged due to power surges, water exposure or act of God including lightning.

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