



PERSONAL KEYBOARD MONITOR MOUSE SWITCH

VISTA KVM-SERIES

INSTALLATION AND OPERATIONS MANUAL



10707 Stancliff Road
Houston, Texas 77099

Phone: (281) 933-7673
WWW.ROSE.COM

LIMITED WARRANTY

Rose Electronics warrants the Vista™ to be in good working order for one year from the date of purchase from Rose Electronics or an authorized dealer. Should this product fail to be in good working order at any time during this one-year warranty period, Rose Electronics will, at its option, repair or replace the Unit as set forth below. Repair parts and replacement units will be either reconditioned or new. All replaced parts become the property of Rose Electronics. This limited warranty is valid only if repairs are performed by Rose Electronics or a Rose qualified service technician. This limited warranty is void if repairs are not performed by Rose Electronics or a Rose qualified service technician. This limited warranty does not include service to repair damage to the Unit resulting from accident, disaster, abuse, or unauthorized modification of the Unit, including static discharge and power surges.

Limited Warranty service may be obtained by delivering this unit during the one-year warranty period to Rose Electronics or an authorized repair center providing a proof of purchase date. If this Unit is delivered by mail, you agree to insure the Unit or assume the risk of loss or damage in transit, to prepay shipping charges to the warranty service location, and to use the original shipping container or its equivalent. You must call for a return authorization number first. Under no circumstances will a unit be accepted without a return authorization number. Contact an authorized repair center or Rose Electronics for further information.

ALL EXPRESS AND IMPLIED WARRANTIES FOR THIS PRODUCT INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO A PERIOD OF ONE YEAR FROM THE DATE OF PURCHASE, AND NO WARRANTIES, WHETHER EXPRESS OR IMPLIED, WILL APPLY AFTER THIS PERIOD. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

IF THIS PRODUCT IS NOT IN GOOD WORKING ORDER AS WARRANTIED ABOVE, YOUR SOLE REMEDY SHALL BE REPLACEMENT OR REPAIR AS PROVIDED ABOVE. IN NO EVENT WILL ROSE ELECTRONICS BE LIABLE TO YOU FOR ANY DAMAGES INCLUDING ANY LOST PROFITS, LOST SAVINGS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF OR THE INABILITY TO USE SUCH PRODUCT, EVEN IF ROSE ELECTRONICS OR AN AUTHORIZED DEALER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, OR FOR ANY CLAIM BY ANY OTHER PARTY.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR CONSUMER PRODUCTS, SO THE ABOVE MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH MAY VARY FROM STATE TO STATE.

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.

IBM, AT, and PS/2 are trademarks of International Business Machines Corp. Microsoft and Microsoft Windows are registered trademarks of Microsoft Corp. Any other trademarks mentioned in this manual are acknowledged to be the property of the trademark owner.

Copyright © Rose Electronics 1990-2001. All rights reserved.

No part of this manual may be reproduced, stored in a retrieval system, or transcribed in any form or any means, electronic or mechanical, including photocopying and recording, without the prior written permission of Rose Electronics.

Rose Electronics Part # MAN-V8

Printed In the United States of America - Revision 2.0

FCC/IC STATEMENTS, EU DECLARATION OF CONFORMITY

FEDERAL COMMUNICATIONS COMMISSION AND INDUSTRY CANADA RADIO-FREQUENCY INTERFERENCE STATEMENTS

This equipment generates, uses and can radiate radio frequency energy and if not installed and used properly, that is in strict accordance with the manufacturer's instructions may cause interference to radio communication. It has been tested and found to comply with the limits for a Class B digital device in accordance with the specifications of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of Industry Canada.

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 publié par Industrie Canada.

EUROPEAN UNION DECLARATION OF CONFORMITY

This equipment complies with the requirements of the European EMC directive 89/336/EEC in respect of EN55022 (Class B), EN50082-1 and EN60555-2 standards and the Low Voltage Directive.

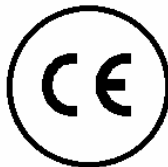


TABLE OF CONTENTS

Contents

Disclaimer.....	1
Introduction.....	1
Product Registration	2
Features	2
Compatibility	3
System overview.....	4
KVM station	4
CPU connections	4
Rose Electronics web site	5
Vista KVM-Series models.....	6
Installation	9
Step 1 - Connecting the KVM station.....	9
Step 2 - Connect the CPUs	10
Step 3 - Applying power	10
Step 4 – Verify keyboard, mouse and CPU operation.....	10
Operating instructions	12
Keyboard command.....	12
Keyboard command description	14
KVM Flash Upgrade Utility	17
TroubleShooting	20
Maintenance and repair	22
Technical support.....	22
Safety	23

Tables

Table 1. Compatibility.....	3
Table 2. Front panel description	6
Table 3. Vista 2UPH/4UPH description	7
Table 4. Vista 2PCA/4PCA description.....	8
Table 5. Keyboard commands.....	13

Figures

Figure 1. Typical installation.....	5
Figure 2. Vista 2 port.....	6
Figure 3. Vista 4 port.....	6
Figure 4. Vista to KVM station.....	9
Figure 5. Vista to CPU's.....	10
Figure 6. Vista to CrystalView	11

Appendix

Appendix A. Initial factory settings.....	26
Appendix B. Parts and cables	27
Appendix C. General specifications.....	28
Appendix D. Rack mount instructions.....	29
Appendix E. Rack mount illustration.....	29
Appendix F. Typematic rate	30

INTRODUCTION

Disclaimer

While every precaution has been taken in the preparation of this manual, the manufacturer assumes no responsibility for errors or omissions. Neither does the manufacturer assume any liability for damages resulting from the use of the information contained herein. The manufacturer reserves the right to change the specifications, functions, or circuitry of the product without notice.

The manufacturer cannot accept liability for damages due to misuse of the product or other circumstances outside the manufacturer's control. The manufacturer will not be responsible for any loss, damage, or injury arising directly or indirectly from the use of this product.

Introduction

Thank you for choosing the Rose Electronics® Vista™ Personal KVM switch. The Vista switch is the result of Rose Electronics commitment to providing state-of-the-art switching solutions for today's demanding work place. The Vista switch has proven to be a valuable investment for users that have a need to access multiple CPUs from a single KVM station.

A **K**eyboard, **V**ideo monitor and **M**ouse are referred to throughout this manual as a **KVM** station.

Please refer to the safety section first before proceeding with any installation or configuration of the Vista switch.

The Vista KVM-series switch is available in four models. The 2-port and 4-port models are available with DB25 connectors or PC connectors.

For the Vista models with DB25 connectors, it is recommended that Rose Electronics cable part number CAB-ZX0606C*nnn* or CAB-CX0606C*nnn* (DB25 to HD15/PS2/PS2) CPU Cable be used.

For the models with PC connectors, it is recommended that Rose Electronics cable part number CAB-CXV66MM*nnn* or CAB-ZX66MM*nnn* (VGA/PS/2 keyboard/PS/2 mouse cable) be used.

The Vista switch can simplify your job by helping you organize your multiple computer applications. Because the Vista switch lets you use a single keyboard, video monitor, and mouse to access several computers, you can significantly reduce your equipment overhead and end keyboard and monitor clutter.

Product Registration

Take advantage of the following when you register your Rose Electronics products online at www.rose.com/htm/warranty.htm:

- Rose Standard Warranty *Plus...*
- Free Lifetime Firmware Updates
- Free Lifetime Technical Support
- 30 Day Money Back Guarantee
- Priority "First-in-Line" Status for Tech Support

Features

- Available with DB25 or PC (keyboard, video monitor, mouse) CPU connectors
- Access up to 2 or 4 computers from one KVM station
- Select a computer from the front panel or simple keyboard commands
- Power is obtained from the attached CPUs, eliminating the need for an external power source. An external power adapter can be used if using a wireless keyboard and mouse
- Front panel LEDs show status and selected CPU port
- Keyboard, video monitor, and mouse plug directly into the unit
- Scan mode automatically sequences through CPUs at adjustable rate
- Non-volatile memory stores configuration settings
- Full emulation of keyboard and mouse, allowing computers to be booted at any time
- Supports PS/2 mouse, wheel mouse, and serial mouse
- Keyboard Num Lock, Caps Lock, and Scroll Lock states automatically saved and restored when switching among CPUs
- Keyboard mode is automatically detected for simultaneous support of PCs, Unix computers, and IBM mode 1 computers
- Reset button reinitializes all ports
- Keyboard lockout function <Ctrl L>
- Low cost and easy to use
- Heavy-duty steel, fully shielded chassis
- Rackmount option for 19", 23", or 24" racks (1 rack unit high, 1.75")
- Saves space, reduces equipment and power costs, and eliminates clutter
- Unlimited technical support
- Made in USA

Compatibility

CPUs	
Computers	Industry standard PCs, Unix computers such as RS-6000, HP 9000, SGI, DEC Alpha, MAC and others
Monitors	SVGA
Keyboards	PC PS/2, AT, PC and Apple USB
Mouse	Standard PS/2 Mouse (2 or 3 button) PC and Apple USB Serial Mouse (2 or 3 button)
KVM Station	
Monitors	SVGA
Keyboards	US, Korean, Japanese, keyboards with or without Windows keys (101, 102, 104, 105, 106, 109 keys) (Some older XT/AT auto-sensing keyboards may not be compatible)
Mouse	Standard PS/2 Mouse (2 or 3 button) PS/2 Wheel Mouse (2 button + wheel) PC and Apple USB Serial Mouse (2 or 3 button)

Table 1. Compatibility

Package contents

The package contents consist of the following:

- The Vista Unit
- Power adapter (Optional)
- Installation and operations manual

CPU cables are usually ordered separately. If the package contents are not correct, contact Rose Electronics or your reseller so the problem can be quickly resolved.

System overview

The Vista KVM-series switch is designed to provide seamless, trouble-free switching from a single KVM station to any connected CPU. You can switch to the connected computers by simple keyboard commands or using the front panel buttons.

Figure 1 shows a typical configuration using the Vista 4 port switch with DB25 connectors. Up to 4 CPUs can be connected to the Vista 4 port switch and accessed from a single KVM station.

KVM station

A KVM station, consisting of a keyboard, video monitor and mouse, connects directly to the Vista switches' KVM connectors. The KVM station can switch its keyboard, video monitor and mouse to any of the connected CPUs and fully control that CPU if authorized. Files and folders can be managed, applications can be executed, upgrades can be performed and general maintenance done from the KVM station.

The keyboard, video monitor and mouse used for the KVM station should be compatible with all of the CPU that will be connected. The KVM stations mouse must be a PS/2 mouse. The Vista switch will translate PS/2 mouse movements and present it in serial form to computers that use a serial mouse. The KVM connectors on the Vista switch are HD15F for the video monitor and MiniDin-6F for the keyboard and mouse.

CPU connections

The CPU connectors on the Vista switch depend on the model ordered. The "U" model connectors are DB25F for each CPU. The "PC" model connectors are HD15F (video) and MiniDin-6F (keyboard and mouse) for each CPU. Attached CPUs that use a serial mouse, use adapter ACC-KVM6F9F to connect to the CPUs serial port (do not substitute).

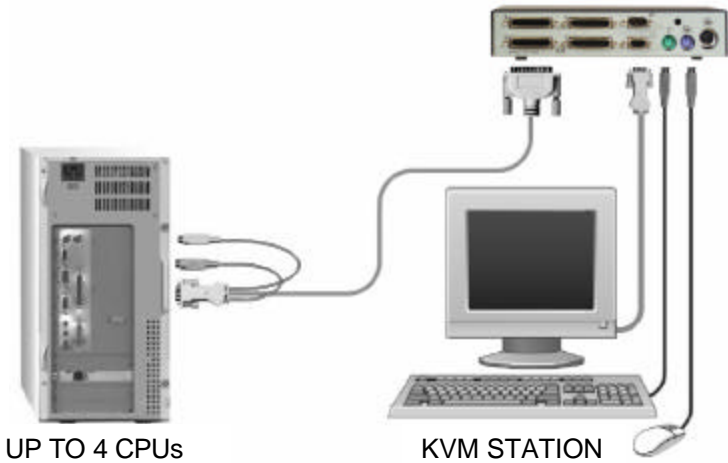


Figure 1. Typical installation

Power connectors

The optional power connector on the Vista switch is for a supplemental power adapter. Supplemental power may be needed if the cable length from the computers to the Vista switch is long or you are using a wireless keyboard and mouse. If your system only switches video, the power adapter must be used. (Part # ACC-KBPWR-5)

Rose Electronics web site

Visit our web site at www.rose.com for additional information on the Vista and other products offered by Rose Electronics that are designed for server room and data center applications, classroom environments and many other switching applications.

MODELS

Vista KVM-Series models



Figure 2. Vista 2 port



Figure 3. Vista 4 port

Status LED	Lit when selected CPU has power. Flashes when Keyboard and mouse data is sent to the unit
Select LEDs	Indicates which computer is selected
Reset button	Resets the unit and initializes the keyboard and mouse
CPU Select buttons (1 – 2 or 1 – 4)	Selects the computer to be accessed

Table 2. Front panel description



KVM-2UPH rear connectors



KVM-4UPH rear connectors




Label	Connector type	Description
(2UPH) 1,2	DB25F	Computer connectors
(4UPH) 1,2,3,4	DB25F	Computer connectors
 Monitor	HD15F	KVM monitor connector
 Mouse	MiniDin-6F or DB9F	KVM PS/2 or Serial mouse connector*
 Keyboard	MiniDin-6F or Din5F	KVM PS/2 or A/T keyboard connector

Table 3. Vista 2UPH/4UPH description

* KVM-2/4UPMH models do not have a serial mouse connector



KVM-2PCA rear connectors



KVM-4PCA rear connectors

Label		Connector Type	Description
		Keyboard (MiniDin-6F) Mouse (MiniDin-6F) Video (HD15F)	CPU connectors 1-2 on 2PC model 1-4 on 4PC model
	Monitor	HD15F	KVM monitor connector
	Mouse	MiniDin-6F or DB9F	KVM PS/2 or Serial mouse connector*
	Keyboard	MiniDin-6F or Din5F	KVM PS/2 or A/T keyboard connector

Table 4. Vista 2PCA/4PCA description

* KVM-2/4UPMH models do not have a serial mouse connector

INSTALLATION

Installation

Installation of the Vista switch consists of the following steps:

1. Connect the KVM station to the Vista switch
2. Connect the CPUs to the Vista switch
3. Sequentially apply power, boot the CPUs
4. Verify keyboard, mouse and CPU operation

It is recommended that the CPUs be powered off.

Step 1 - Connecting the KVM station

Connect your KVM station's keyboard, video monitor and mouse cables to the corresponding Vista switches' keyboard, video monitor and mouse connectors as shown in Figure 4.



Figure 4. Vista to KVM station

Step 2 - Connect the CPUs

Connect the CPU keyboard, video monitor and mouse ports to the corresponding Vista switches keyboard, video monitor and mouse ports using the appropriate CPU cables as shown in Figure 5.

For attached CPUs that use a serial mouse, use adapter ACC-KVM6F9F to connect to the CPUs serial port (do not substitute).

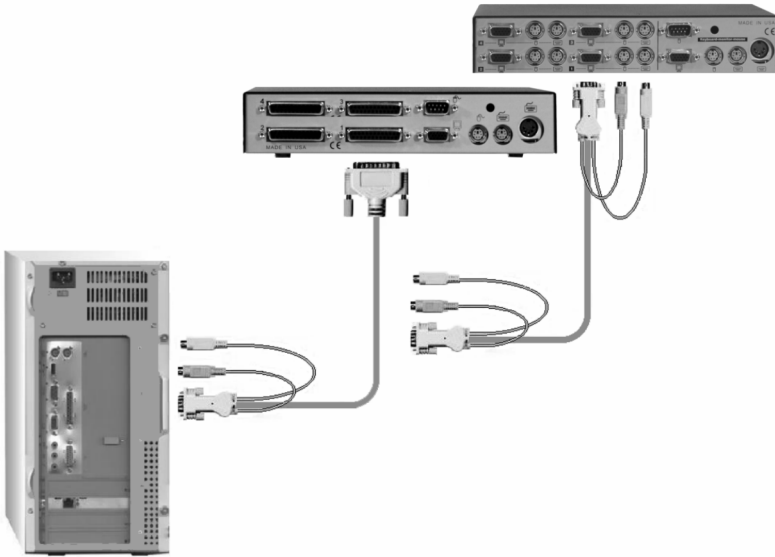


Figure 5. Vista to CPU's

Step 3 - Applying power

It is recommended that each connected CPU be booted up starting with the CPU connected to Port #1. Switch the Vista to the CPU port by pressing the appropriate numbered button on the front panel (1-2 or 1-4). Boot that CPU. Verify that the mouse and keyboard function properly. If the keyboard or mouse does not respond, see the troubleshooting section. Verify that the CPU functions and applications perform properly before booting up the next CPU. Perform this procedure for all connected CPU.

Step 4 – Verify keyboard, mouse and CPU operation

Verify the keyboard and mouse function properly for each CPU that is connected to the Vista switch. Refer to the troubleshooting section if needed.

Rack mounting

The Vista switch is designed to mount in a CPU rack or under a desktop. Rackmount kits are available in three different sizes, 19", 23", and 24". Each is 1 rack unit high (1.75").

(See Appendix D and Appendix E for rack mounting instructions.)

Your Vista switch is now ready for operation using the initial factory settings. Pressing the numbered buttons (1-2 or 1-4) on the front panel will switch to that port. To take full advantage of the Vista features, refer to the operating instructions for detailed information about each of the Vista commands. The keyboard commands are summarized in Table 5.

To begin switching immediately from the keyboard, press and release the left control <Ctrl> key, then type in the computer number (1-2 or 1-4). The video from the connected computer will display on the KVM's video monitor and you will have full control of that computer.

The keyboard, video monitor, and mouse signals can be driven up to 1,000 feet using our CrystalView™ KVM extenders. This arrangement is ideal for use in hazardous areas where the computers need to be located away from the users.

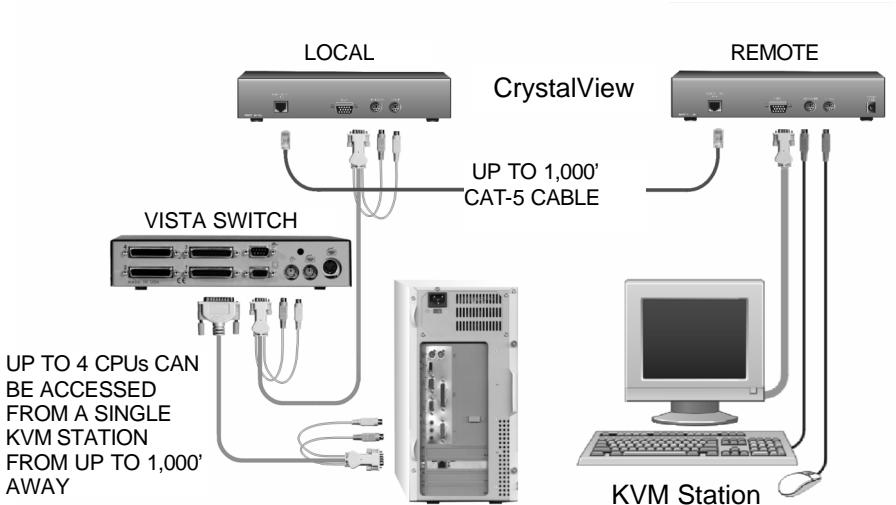


Figure 6. Vista to CrystalView

OPERATIONS

Operating instructions

The Vista switch is very easy to operate. Computer selection and set-up functions are entered from the keyboard. You can also select computers manually from the Vista's front panel by using buttons 1-2 or buttons 1-4 depending on your model.

Keyboard command

Following is a description of the Vista keyboard command functions.

The <Ctrl> input key sequence is a press and release of the left control key. Within 2 seconds of pressing and releasing the left <Ctrl> key, enter the next command.

Command	Key Sequence	Description
Reset command	<Ctrl> R	Resets and enables mouse and keyboard, enables PS/2 mouse on currently selected port.
Reset mouse command	<Ctrl> O	Sends reset mouse command to currently selected CPU. Will recover stuck NT mouse.
Send null byte	<Ctrl> N	Used to re-synchronize PS/2 mouse.
Identify ROM version	<Ctrl> I	Identifies ROM version, CPU must be at a command prompt, word processor, or text editor to receive value.
Keep	<Ctrl> K	Saves current scan state and custom settings.
Scan time interval	<Ctrl> Txx <Enter> (xx = 1 – 16 sec.)	Sets the pause time for each port when scanning.
Mode command	<Ctrl> M x <Enter> Where: x = 1 for mode 1 x = 2 for mode 2 x = 3 for mode 3 x = 7 for mode 7 x = 8 for mode 8 x = 9 for mode 9	First select the CPU port to configure, and then enter the mode command. Mode 1, 2, 3 for keyboard: Mode 7, 8, 9 for mouse

Keyboard commands (continued)

Command	Key Sequence	Description
Maximum computers	<Ctrl> P x <Enter> (x = 1 – 2 or 1 – 4)	Limits scanning to maximum port number
Typematic value	<Ctrl> Ax <Enter> See Attachment F.	Factory setting = 43 Rate = 10.9 chars/sec Delay = 500 millisec.
Mouse type	<Ctrl> Q x <Enter> Where: x = 0 for PS/2 x = 1 for Serial x = 2 for Wheel x = 3 for MAC ADB	First select the CPU port, and then enter the type command
Computer Select	<Ctrl> x (x = 1, 2 or 3, 4)	Connects your keyboard, video monitor, and mouse to the selected computer.
Connect to next computer	<Ctrl> + (Plus)	Selects the next sequential computer.
Connect to previous computer	<Ctrl> - (Minus)	Selects the previous sequential computer.
Computer disconnect.	<Ctrl> L	Disconnects from computer.
Scan (On)	<Ctrl> S	Turns scan mode on, causing the Vista to start scanning sequentially from the current port through the remaining ports and start again at Port 1.
Scan (Off)	<Ctrl> X	Turns scan mode off.
Reset mouse command	<Ctrl> O	Sends reset mouse command to the currently selected computer. Will recover stuck NT mouse

Table 5. Keyboard commands

Follow each set-up command with the “Keep” command to save the changes.
“Keep” command = press and release the left <Ctrl> key, then the “K” key.

Use only the numeric keys above the keyboard. The keypad will not work. All keyboard commands must be entered within 2 seconds of pressing and releasing the left <Ctrl> key.

Keyboard command description

Computer select

To select a computer from your keyboard, press and release the left <Ctrl> key and then type in the computer number (1-2 or 1-4).

Next computer

To switch to the “Next computer”, press and release the left <Ctrl> key, then press the plus/equal key.

Previous computer

To switch to the “Previous computer”, press and release the left <Ctrl> key then press the minus/underscore key.

Scan mode (On)

To enable the “Scan mode”, press and release the left <Ctrl> key, then type S. The Vista switch will begin scanning sequentially from its current computer through the remaining computers (as set by the maximum computers command), and then begin again at computer 1.

Scan mode (Off)

To stop the “Scan mode”, press and release the left <Ctrl> key and then type “X”. Issuing a computer select command also turns off scanning.

Scan time interval

The “Scan Time interval” command sets the time, in seconds that the Vista switch will pause at each of the computers when scanning. The default setting is 5 seconds. To change the Scan Time to another interval press and release the left <Ctrl> key, type “T” then enter the new scan time interval (1-16 seconds), and press <Enter>.

Reset

To “Reset” the mouse and keyboard, press and release the left <Ctrl> key, then type “R”. This command is used to reset the mouse and keyboard on the currently selected Vista port without removing power from the Vista switch. This is most useful to reset a PS/2 mouse that has been unplugged and plugged back in. Upon issuing this command, all keyboard LEDs will go on and then return to their previous state.

Reset computer mouse type (NT and WIN 2K systems only)

DO NOT issue this command on non-NT or Win 2K based computers. Press and release the left <Ctrl> key, then type “O”. This command sends a reset mouse command to the currently selected NT or Win 2K computer. The command is used to recover a stuck mouse on an NT or Win 2K system.

Send null byte

Press and release the left <Ctrl> key, then type “N”. This command is used to re-synchronize an out-of-sync PS/2 mouse. The command may need to be entered once or twice, depending if the mouse is out-of-sync by one or two bytes.

Identify ROM version

Press and release the left <Ctrl> key, then type “I”. This command is used to identify the revision level of the Vista firmware currently installed. Before entering this command, the selected CPU must be at a command prompt, word processor, or text editor, so when the Vista switch sends the ROM revision level the result can be displayed.

Keep command

Press and release the left <Ctrl> key, then type “K”. The Keep command saves all settings.

Mode command

The Vista switch supports keyboard modes 1, 2 and 3 and mouse modes 7,8, and 9. To issue the “Mode” command, press and release the left <Ctrl> key, type “M”, then enter the mode number (1,2,3,7,8,9) followed by <Enter>.

Mode 1 - CPU Keyboard = PC Mode 1 (Some IBM's & PS/1's)

Mode 2 - CPU Keyboard = PC Mode 2 (Most PCs)

Mode 3 - CPU Keyboard = PC Mode 3 (Most (RISC) Unix Workstations)

Mode 7 - CPU Mouse = 2 Button Serial (Microsoft) (7 Bt)

Mode 8 - CPU Mouse = 2 Button Serial (Not Used) (8 Bt)

Mode 9 - CPU Mouse = 3 Button Serial (Mouse Systems)

Maximum computers

Press and release the left <Ctrl> key, type "P", enter the total number of computers, and press <Enter>. This command limits the number of computers to scan. For example on an four-port unit, if no computers were connected to ports 3 and 4, setting maximum computers to 2 would bypass scanning computers 3 and 4.

Typematic command

Initial factory setting = 43. Rate = 10.9 chars/sec, Delay = 500 millisc.
See Attachment F for typematic value calculations.

Mouse type

To issue the "Mouse type" command press and release the left <Ctrl> key, type "Q", enter mouse type (0,1,2), and press <Enter>.

Mouse type 0 = PS/2 mouse

Mouse type 1 = Serial mouse

Mouse type 2 = Wheel mouse

Reset to initial factory settings

The settings that have been previously set and saved in non-volatile memory can be returned to their initial factory settings by holding in buttons "1" and "2" on the front panel and press and release the "Reset" button. At least one CPU must be connected to the unit, so that the unit can be powered. The activity LED will flash three times to signify that the non-volatile memory has been returned to the original factory settings. Only those settings listed in Appendix A are reset, all other settings remain unchanged from their set values.

KVM Flash Upgrade Utility

Installation of KVM Utility

The installer for the KVM Utility may be distributed in one of two formats: a ZIP file or an EXE.

If the installer is distributed as a ZIP file, open it in WinZip and unzip the contents to a known location. The ZIP file contains the EXE format.

Double-click on the EXE file and follow the on-screen instructions to install the KVM Utility. Installation is a standard Windows type installation. After installation, the KVM Utility can be launched from the Desktop, the Start Menu and/or the Quick Launch bar to the right of the Start button on the Taskbar.

Hookup of Device

The KVM flash upgrade utility is a universal program used to flash several models. In order for the KVM Utility to detect the correct device to flash, it must be connected directly to a PC and the PC must be connected to port 1 on the switch.

Running the KVM Utility

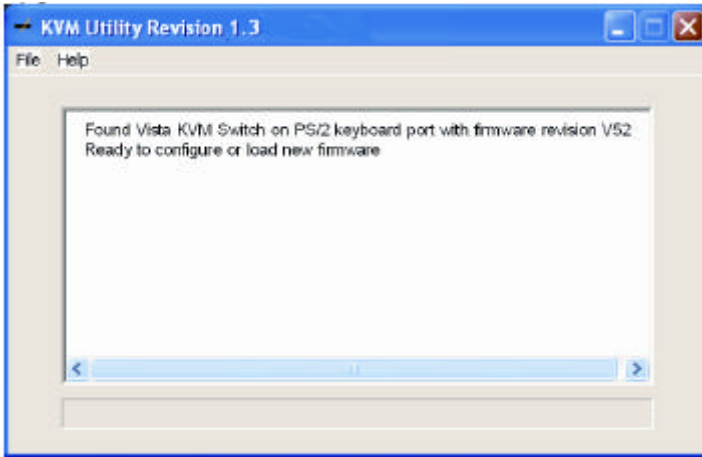
When the KVM Utility has been successfully installed, it can now be run. If the device has been hooked up as described above, the KVM Utility will auto-detect the device when it is launched and display the connected device. Otherwise, it will display a message that an incorrect device has been connected.

Once the KVM Utility has detected the device correctly, the device may be flashed or configured from the File Menu. The following page summarizes the installation procedure.

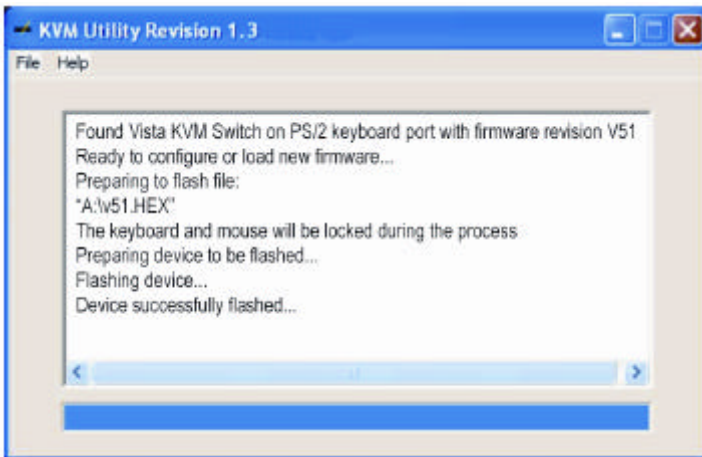
More Information

The Quick Start Guide that follows provides a step by step procedure for installing the firmware upgrade. This upgrade procedure can only be performed on firmware versions KVM-V5x or greater. Older model chips are not flash upgradeable. You must upgrade firmware chips on these models.

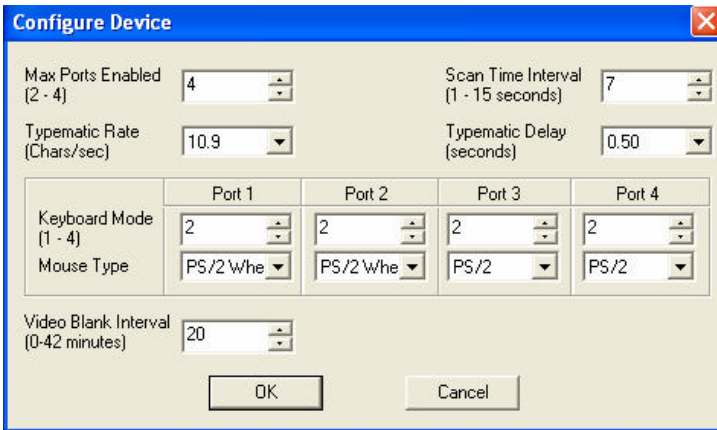
1. Download the flash upgrade firmware and unzip it to an .EXE file
2. Download to a computer connected to port #1.
3. Run the unzipped "EXE" file. Program will auto-detect the unit



4. Click on "File", then "Load New Firmware"
5. Locate the downloaded unzipped file (xxxx.hex) to run
6. The updated firmware file (xxxx.hex) will be installed on the unit



7. The Flash Upgrade utility can also be used to configure the KVM switch. Click on "File", then "Configure Device". The configuration screen will display, allowing you to configure the "MaxPorts", keyboard and mouse type for each port and other items shown in the below display.



8. When the firmware has been successfully installed the unit is now operational with the firmware upgrade. A more comprehensive explanation of the firmware upgrade process can be viewed by clicking on "Help". The on-line help walks you through each step in detail

TroubleShooting

CPU does not boot, keyboard or mouse error received

- Cable is loose, reseal cable and hit F1 to continue or reboot computer.
- Wrong cable plugged in, keyboard and mouse cables reversed.
- Cable is defective; try using a cable from another CPU. If the problem goes away cable is defective.
- Port on the Vista switch is defective; try using another port. If the problem goes away port is defective.
- Port on CPU is defective, try plugging in keyboard or mouse directly. If the problem remains, the CPU port is defective. If the activity LED is not lit when switched to computer, which is powered on, the fuse on the computer's motherboard may be blown.

Mouse driver does not load

- If using a PS/2 type mouse, the CPU must be connected to the Vista or mouse at boot-up time in order for mouse to be recognized by CPU. Reboot the computer with the Vista powered on and cable attached.
- If using a serial type mouse make sure the right COM port is being used and the syntax of mouse driver is correct.
- Incompatible or old mouse driver being used, update the driver.
- Mouse translation is set incorrectly.

Can't switch ports from keyboard

- You must press and release the left control key before you press the key that specifies the port number. You must also use the numeric keys above the alphabetic keys, not those on the numeric keypad.

Wrong or missing characters from those typed

- The mode of the keyboard does not match that of the CPU. Issue the mode command, usually 1 for IBM PS/1, 2 for most other PS/2 PCs, and 3 for Unix computers. The default setting of the Vista is mode 2. An incorrect mode can confuse the CPU or keyboard and require re-booting the CPU or resetting the keyboard by unplugging and plugging it back in.

PS/2 mouse gets out of sync

- Cabling was disturbed during mouse movement. Issue the null command once or twice to re-sync the mouse. Update to the latest mouse driver.

Video fuzzy

- Cable too long or wrong type. Use coax cable for high resolution.

Mouse does not move

- The Vista is turned off after or not connected when CPU was booted or the application using the mouse was run. Exit and re-enter application or operating system using mouse or issue reset command.
- PS/2 mouse was not connected when the Vista was powered up or the mouse was disconnected and reconnected. Issue the reset command.
- Mouse translation set incorrectly.

Video not synchronized or wrong color

- The cable may be loose, reseal cable.
- Wrong CPU cable used. If you have a 9515, 9517, 9518, XGA mono or similar monitor you must use special cables or adapters.
- Cable is defective; try using cable from another CPU if problem goes away cable is defective.
- Port on the Vista is defective; try using another port on the Vista. If problem goes away port is defective.

Cannot remember the configuration or access password.

- Call Rose Electronics Technical Support for instructions.

Maintenance and repair

This unit does not contain any internal user-serviceable parts. In the event a unit needs repair or maintenance, you must first obtain a Return Authorization (RA) number from Rose Electronics or an authorized repair center. This Return Authorization number must appear on the outside of the shipping container. See Limited Warranty for more information.

When returning a Unit, it should be double-packed in the original container or equivalent, insured and shipped to:

Rose Electronics
Attn: RA _____
10707 Stancliff Road
Houston, Texas 77099 USA

Technical support

If you are experiencing problems, or need assistance in setting up, configuring or operating your switch, consult the appropriate sections of this manual. If, however, you require additional information or assistance, please contact the Rose Electronics Technical Support Department at:

Phone: (281) 933-7673
E-Mail: TechSupport@rose.com
Web: www.rose.com

Technical Support hours are from: 8:00 am to 6:00 pm CST (USA), Monday through Friday.

Please report any malfunctions in the operation of this unit or any discrepancies in this manual to the Rose Electronics Technical Support Department.

Safety

This Vista switch has been tested for conformance to safety regulations and requirements, and has been certified for international use. Like all electronic equipment, the Vista switch should be used with care. To protect yourself from possible injury and to minimize the risk of damage to this Unit, read and follow these safety instructions.

- Follow all instructions and warnings marked on this Unit.
- Do not attempt to service this Unit yourself.
- Do not use this Unit near water.
- Assure that the placement of this Unit is on a stable surface or rack mounted.
- Provide proper ventilation and air circulation.
- Keep the power cord and the connection cables clear of obstructions that might cause damage to them.
- Use only the power cords, power transformer and connection cables designed for this Unit.
- Use only a grounded (three-wire) electrical outlet.
- Use only the power adapter designed for the Vista Switch.
- Keep objects that might damage this Unit and liquids that may spill, clear from this Unit. Liquids and foreign objects might come in contact with voltage points that could create a risk of fire or electrical shock.
- Operate this unit only when the cover is in place.
- Do not use liquid or aerosol cleaners to clean this Unit. Always unplug this Unit from its electrical outlet before cleaning.
- Unplug this Unit from the electrical outlet and refer servicing to a qualified service center if any of the following conditions occur:
 - The power cord or connection cables is damaged or frayed.
 - The Unit has been exposed to any liquids.
 - The Unit does not operate normally when all operating instructions have been followed.
 - The Unit has been dropped or the case has been damaged.
 - The Unit exhibits a distinct change in performance, indicating a need for service.

Safety and EMC regulatory statements

Safety Information



Documentation reference symbol. If the product is marked with this symbol, refer to the product documentation to get more information about the product.

WARNING

A WARNING in the manual denotes a hazard that can cause injury or death.

CAUTION

A CAUTION in the manual denotes a hazard that can damage equipment.

Do not proceed beyond a WARNING or CAUTION notice until you have understood the hazardous conditions and have taken appropriate steps.

Grounding

These are Safety Class I products and have protective earthing terminals. There must be an un-interruptible safety earth ground from the main power source to the product's input wiring terminals, power cord, or supplied power cord set. Whenever it is likely that the protection has been impaired, disconnect the power cord until the ground has been restored.

Servicing

There are no user-serviceable parts inside these products. Only service-trained personnel may perform any servicing, maintenance, or repair. The user may adjust only items mentioned in this manual.

Safety and EMC regulatory statements

Informations concernant la sécurité



Symbole de référence à la documentation. Si le produit est marqué de ce symbole, reportez-vous à la documentation du produit afin d'obtenir des informations plus détaillées.

WARNING

Dans la documentation, un WARNING indique un danger susceptible d'entraîner des dommages corporels ou la mort.

CAUTION

Un texte de mise en garde intitulé indique un danger susceptible de causer des dommages à l'équipement.

Ne continuez pas au-delà d'une rubrique WARNING ou CAUTION avant d'avoir bien compris les conditions présentant un danger et pris les mesures appropriées.

Cet appareil est un produit de classe I et possède une borne de mise à la terre. La source d'alimentation principale doit être munie d'une prise de terre de sécurité installée aux bornes du câblage d'entrée, sur le cordon d'alimentation ou le cordon de raccordement fourni avec le produit. Lorsque cette protection semble avoir été endommagée, débrancher le cordon d'alimentation jusqu'à ce que la mise à la terre ait été réparée. Aucune pièce contenue à l'intérieur de ce produit ne peut être réparée par l'utilisateur.

Tout dépannage, réglage, entretien ou réparation devra être confié exclusivement à un personnel qualifié.

Appendix A. Initial factory settings

Setting	Default Value
Foreground Color	White
Background Color	Blue
X-position	45
Y-position	90
Fadeout Time	20 seconds
Font	8 x 16 modern
Screen Saver	Fireflies
Screen Saver Time	10 minutes
Maximum Ports	2 or 4
Scan enable	Off
Scan Time Interval	5 seconds
Caps/Num lock/Scroll lock	On
PC keyboard Mode	2
Typematic Value	43 Rate=10.9 chars/sec Delay = 500 millisc.)
Mouse translation	0 (PS/2 mouse output)

Press and hold computer select buttons 1 and 2 and press the reset button to reset the Vista switch to the factory settings listed. All other settings remain unchanged.

Appendix B. Parts and cables

Vista Part Numbers	Description
KVM-2/4PCA	2/4-port w/PC connectors
KVM-2/4UPH	2/4-port w/DB25 connectors
KVM-2UPMH	2-port (1-PC, 1-MAC) DB25 connectors
KVM-4UPMH	4-port (2-PC, 2-MAC) DB25 connectors
Note: KVM2UPMH has CPU port 2 pre-configured for MAC KVM-4UPMH has CPU ports 3 & 4 pre-configured for MAC	
CPU Adapter Cables for Models with DB25 Connectors	
Part Number	Description
CAB-CX0606C <i>nnn</i>	COAX SVGA HD15 - PS/2 MD6 Kbd/Ms
CAB-ZX0606C <i>nnn</i>	VGA HD15 - PS/2 MD6 Kbd/Ms
CAB-CXUSBC <i>nnn</i>	COAX SVGA HD15 - USB Kbd/Ms to DB25 **
CAB-C1Y0509C <i>nnn</i>	COAX SVGA HD15 - AT DIN5 Kbd / DB9 Serial Ms
CAB-VX0509C <i>nnn</i>	VGA HD15 - AT DIN5 Kbd / DB9 Serial Ms
CAB-C1V0400C <i>nnn</i>	COAX Apple VGA HD15 - ADB MD4 Kbd/Ms *
CAB-CXAV0400C <i>nnn</i>	COAX Apple DB15 - ADB MD4 Kbd/Ms *
CAB-AV0400C <i>nnn</i>	Apple DB15 - ADB MD4 Kbd/Ms *
CPU Adapter Cables for Models with PC Connectors	
CAB-CXV66MM <i>nnn</i>	COAX SVGA HD15 - PS/2 MD6 Kbd/Ms
CAB-ZXV66MM <i>nnn</i>	VGA HD15 - PS/2 MD6 Kbd/Ms
CAB-CXUSB66MM <i>nnn</i>	COAX SVGA HD15 - USB to PS/2 MD6 Kbd/Ms
CAB-CXV66MM <i>nnn</i> /AT	COAX SVGA HD15 - w/ AT Kbd / Serial
KIT-KBPWR-5	Supplemental Power Kit for 2/4PCA models

Replace *nnn* with desired length.

*Available in standard lengths of 5, 10, and 20 feet

**Available in lengths of 5, 10, 20, 35, 50, 75, and 100 feet.

Rackmount Kits	
RM-UM19	Black anodized, for installation in 19" racks.
RM-UM23	Black anodized, for installation in 23" racks.
RM-UM24	Black anodized, for installation in 24" racks.
Rm-UD-1U	Under desk mounting kit

Appendix C. General specifications

Size	13.2" W x 1.75" H x 4.5" D
Weight	3 lb.
Environment	0 to 55°C., 0% to 80% non-condensing relative humidity
Input Power	Supplied by computers
CPU Connectors	KVM-2UPH DB25 Female KVM-4UPH DB25 Female KVM-2PCA HD15F/MD6F/MD6F/DB9M KVM-4PCA HD15F/MD6F/MD6F
Video Connector	HD15F VGA video
Keyboard Connector	MD6F / DIN5
Mouse Connector	MD6F / DB9M
Chassis	Fully shielded, black power coated steel cover with polyester graphic overlay panel
Controls	Reset button Computer select buttons: 2 port models - buttons 1-2 4 port models - buttons 1-4
Indicators	Activity LED Power LEDs: 2 port models LEDs 1-2 4 port models LEDs 1-4 Computer select LEDs: 4 port models LEDs 1-2 4 port models LEDs 1-4

Appendix D. Rack mount instructions

The optional rack mount kit includes the following items:

- Two black anodized mounting brackets.
- Four 6 - 32 x 3/8" flat head mounting screws.

To rack mount your Vista switch, attach the two rack mounting brackets to your unit with the short flange against the unit using the four screws provided. Using hardware other than that provided could cause damage to the electronics and/or result in loss of mounting integrity. Do not over tighten the screws used to mount the unit to the mounting brackets. Secure the mounting brackets to the rack using the appropriate size bolts, nuts and lock washers.

The following general guidelines should be observed when installing your unit into a rack.

1. The Vista switch is designed to work in an ambient temperature of 0° C to 55° C (32° F – 131° F).
2. Do not block power supply vents or otherwise restrict airflow when rack-mounting this unit.
3. Mechanical loading of the rack should be considered to prevent instability.
4. Tighten all connectors securely and provide adequate strain relief for all cables.
5. Provide a grounded power source to all units. Pay special attention to overall branch circuit load ratings before connecting equipment to this source. Overloaded circuits are potential fire hazards and can cause equipment failures or poor performance.

Appendix E. Rack mount illustration



Appendix F. Typematic rate

Typematic Command

Press the left <Ctrl> key, type "A", enter the typematic value (1-3 digit) followed by <Enter>.

The typematic value is determined from the following tables using the equation: Typematic Value = Rate value + Delay Value. Pick the desired rate in keys/sec. and the delay in milliseconds from tables below. Add the Rate Value and the Delay Value. The sum of these values is the typematic value to enter.

For example to use a Rate of 16.0 keys/sec. and a 500 millisecond delay, the Rate value = 7 and the Delay value = 32. Add $7 + 32 = 39$. To set a typematic value of 16, press the left <Ctrl> key, type "A", enter 39, and then press Enter.

Typematic Rate							
Rate Keys/sec	Rate Value	Rate keys/sec	Rate Value	Rate Keys/sec	Rate Value	Rate Keys/sec	Rate Value
30.0	0	15.0	8	7.5	16	3.7	24
26.7	1	13.3	9	6.7	17	3.3	25
24.0	2	12.0	10	6.0	18	3.0	26
21.8	3	10.9	11	5.5	19	2.7	27
20.0	4	10.0	12	5.0	20	2.5	29
18.5	5	9.2	13	4.6	21	2.3	28
17.1	6	8.6	14	4.3	22	2.1	30
16.0	7	8.0	15	4.0	23	2.0	31

Typematic Delay							
Delay*	Delay Value	Delay*	Delay Value	Delay*	Delay Value	Delay*	Delay Value
250	0	500	32	750	64	1000	96

* Delay in milliseconds



Server Management



Solutions

10707 Stancliff Road
Houston, Texas 77099

Phone: (281) 933-7673
WWW.ROSE.COM