# QuadraVista QF

QuadViewer | KVM Switch | Scaler | Video Converter





Phone (281) 933-7673 www.rose.com

10707 Stancliff Road Houston, Texas 77099

## LIMITED WARRANTY

Rose Electronics<sup>®</sup> warrants the QuadraVista<sup>™</sup> 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 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 B 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 2013. 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.

## **DECLARATION OF CONFORMITY**

## **Declaration of Conformity**

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 A 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.



#### Declaration of Conformity

This declaration is valid for the following product:

Equipment: Video, Keyboard, Mouse Switching System Type: QuadraVista

Hereby the equipment is confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility (89/336/EEC) and the Council Directive relating to Low Voltage (73/23/EEC).

For the evaluation of the above mentioned Council Directive for Electromagnetic Compatibility and for Low Voltage, the following standards were consulted:

EN 55022 class A:	1998 + Corrigendum: 2001 + A1:2000 (Emission)
EN 61000-3-2:	2000 (Harmonic current emissions)
EN 61000-3-3:	1995 + Corrigendum: 1997 + A1:2001 (Flicker)
EN 61000-6-2:	2001 (Immunity)
EN 61000-4-2:	1995 + A1:1998 + A2:2001
EN 61000-4-3:	2002
EN 61000-4-4:	1995 + A1:2001 + A2:2001
EN 61000-4-5:	1995 + A1:2001
DIN EN 61000-4-6:	1996 + A1:2001
DIN EN 61000-4-11:	1994 + A1:2001

## TABLE OF CONTENTS

#### Contents

Page #

System Introduction				
Features				
Compatibility				
Product Registration				
Package contents				
Rose Electronics web site				
About this manual				
Installation				
Installing the KVM station				
Installing the Computers	Error!	Bookmark	not	defined.
Front Panel LEDs / Push-Button Commands				
Keyboard Commands				
On Screen Menu System				
Main Menu				
System menu				
System / HotKey				
System / HotMouse				
Hotmouse Menu				
System Quad Mode				
System OSD Position				
System / OSD Language				
System / Security				
System / Test Pattern				
System / Disable Channel				
System / Control				
MODE				
Mode / PiP-Start				
Configure				
Configure / Backup, Recall, Factory Reset				
Console				
Video output / Keyboard / Multi-Monitor / EDID				
Console / Keyboard				
Console / Multi-Monitor				
Console / EDID				
Video				
Video / Video Input				
Video / Brightness / Contrast				
Video / Horizontal and Vertical position				
Video / Screen width				35
Video / Phase				35
Video / Format				
Computer				
Computer / Keyboard				
Computer / Mouse				
Computer / Reset PS/2				
Computer / Change EDID/DDC				
Help				
Serial Features				
Service Information				
Maintenance and Repair				
Technical Support				
Safety				
Safety and EMC Regulatory Statements				

Figure 1. Front Panel	4
Figure 2. LED Indicators	4
Figure 3. KVM Installation	
Figure 4. CPU Connect Error! Bo	okmark not defined.
Figure 5. Channel select window Error! Bo	okmark not defined.
Figure 6. HotKey menu	
Figure 7. System HotMouse	17
Figure 8. System Quad Mode	
Figure 9. System / OSD Position	20
Figure 10. System / OSD Language	21
Figure 11. System / security	
Figure 12. System / Test Pattern	24
Figure 13. System / Disable Channel	25
Figure 14. System / Control	25
Figure 15. Mode / PiP-Start	27
Figure 16. Backup	27
Figure 17. Recall	
Figure 18. Reset	
Figure 19. Console, Video output	
Figure 20. Keyboard layout	
Figure 21. Multi-Monitor setup	
Figure 22. EDID display	
Figure 23, Video input	
Figure 24. Video Brightness / Contrast	
Figure 25, Horizontal Position	
Figure 26. Screen width	
Figure 27. Clock phase	
Figure 28. Video format	
Figure 29. Computer	
Figure 30. Computer / Keyboard	
Figure 31. Computer / Mouse	
Figure 32. Computer / Reset PS/2	
Figure 33. Computer / Change EDID/DDC	
Figure 34. EDID Programming	
Figure 35. Help / Command	
Figure 36. Help / About	
Figure 37. Help / Contact	
Figure 38, Serial connections	
Annendiana	Dava #

A	ppendices

Page #

Appendix A. Specifications
Appendix C. Factory Defaults
Appendix D. Supported Video-In Formats

## 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, circuitry of the product, and manual content at any time 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. (See limited warranty)

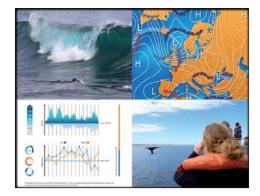
#### Introduction

Thank you for choosing Rose Electronics QuadraVista QF. This product is the result of Rose Electronics continuing commitment to provide state-of-the-art switching solutions for today's demanding workplace. The key advantage of the QuadraVista AF over conventional KVM switches is that it allows you to simultaneously display and manage 4 computers on a single console. It combines key features of a high-end KVM switch and a digital Quadviewer, scaling and converting video at both input and output.

#### **Selectable Display Modes**

#### Quad Mode 🕨

In this mode, the screen is split into four fields of equal size, each displaying the entire screen contents of one source.



#### ◀ Fullscreen Mode

In Fullscreen mode, one of the four sources is displayed in full screen size and maximum resolution.

#### PiP Mode (Picture in Picture) ►

Using this mode, the full screen display of one of the four video sources is accompanied by one to three small images (thumbnails of the other video sources which are displayed in the right hand side of the screen allowing simultaneous monitoring.





#### ◀ Win Mode

In Win mode, each video source is displayed in its own separate, detached widow. Each of these windows can be freely positioned and their height and width can be adjusted.

#### **QuadraVista QF Installation and Operations Manual**

## **About This Manual**

This manual covers the installation, configuration, and operation of the QuadraVista QF. The Installation section explains how to connect the unit to console and computers. The Operations section describes how to operate the system and the features available to make switching and maintenance simple and easy.

#### **Features**

- Supports resolutions up to 1920 x 1200 @ 60Hz for both DVI and VGA
- Any combination of VGA and DVI is possible at inputs and outputs
- Analog video is converted to digital at the input, guaranteeing superior digital image quality
- Digital video is converted to analog at the output, if an analog display is detected
- Either USB or PS/2 keyboard and mouse to computers
- Two USB-HID ports for console keyboard and mouse
- Four USB 2.0 ports for printers, memory sticks, and other high speed devices
- On Screen Display (OSD) for configuring and navigating
- Front panel LEDs for status indication
- Firmware updating through serial (RS232) or USB port
- Six operation alternatives:
  - Front panel buttons
    - Configurable keyboard hotkeys
    - Mouse functions (Hotmouse)
    - o Configuration software running on an external computer
    - Serial port control using DCP XML protocol
    - o Touchscreen

#### Compatibility

Video	DVI-I inputs and output support resolutions up to 1920 x 1200 @ 60 hz, both analog and digital.
Keyboard	Compatible with all standard USB keyboards. By using a USB hub, multiple keyboards can be connected in share mode, with an inactivity time of 3 seconds.
Mouse	Compatible with all standard USB mice. By using a USB hub, multiple mice can be connected in share mode, with an inactivity time of 3 seconds.
Audio	Analog or digital audio input via ????? Analog audio output via 3.5mm stereo jack, or digital audio output via S/PDIF digital cinch connector or TOSLINK optical audio connector.

#### Package contents

- QuadraVista QF unit
- Rack mount kit ?????
- 1 x Power cord
- DefCon Control software ?????
- Manual

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

#### **Product registration**

Register your product for future updates at: www.rose.com/htm/online-registrationform.htm

## MODELS

### Front Panel

The QuadraVista QF front panel has eight LED status indicators and eight buttons.

Buttons 1 through 4 switch between channels, and LEDs 1 through 4 indicate the status of the individual channels. Full, Quad, PiP, and Win buttons are used to switch display modes, and the corresponding LEDs indicate the current mode. The Pip and Win buttons are also used to display the OSD menus and make selections.



**Figure 1. Front Panel** 



#### Figure 2. LED Indicators

- LEDs 1 to 4: When these LEDs light up **green**, the corresponding channel (computer port) has been selected and is available for keyboard and mouse access. When a LED flashes green, there is no signal at the video input of the selected channel.

When the LED lights up **yellow**, there is a signal at the video input, but another channel has been selected.

When the LED is **dark**, there is no signal at the video input and another channel has been selected.

The LEDs light up **blue** when Win Mode preset window configuration is being selected.

- LED Full: This LED lights up green when the unit is in Fullscreen mode.
- LED Quad: This LED lights up green when the unit is in Quad mode.
- LED PiP: This LED lights up green when the unit is in PiP mode.
- LED Win: This LED lights up green when the unit is in Win mode.

Note:

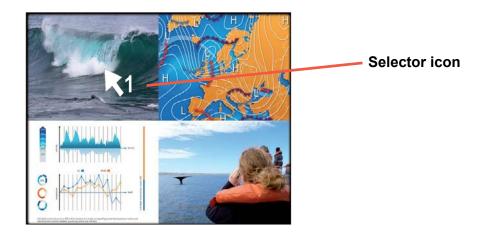
While the OSD menu is open, the active computer can still be operated by mouse or touch screen.

#### FRONT PANEL (continued)



#### Figure 3. Buttons

- Buttons 1 to 4: These buttons activate the corresponding CPU channel (computer port).
- **Full** button: Press to switch to Fullscreen mode.
- Quad button: Press to switch to Quad mode.
- **PiP** button: Press to switch to picture in picture mode (PiP).
- Win button: Press to switch to Win mode.



#### Figure 4. Hot Key Channel Selection Window

You can also switch the active channel using the hotkey and arrow keys. The selection window closes once the channel selection timeout period has elapsed. The timeout value for channel selection can be changed in the OSD System menu by selecting Quad mode. Then use the "Time out of Channel Selection" menu item to indicate how long the selector icon should be displayed on the screen.

#### **Additional Button Functions**

Setting output resolution to safe output modes

To set the output resolution to 640 x 480 @ 60 Hz, press and hold buttons 1 and 2 simultaneously for 2 seconds.

## MODELS



Figure 5. Buttons for Resetting Output Resolution

Using this feature is recommended when you cannot use the OSD, because the on screen display is dark or illegible due to an output resolution setting which is not supported by the monitor. Once the widely supported 640x480@60 Hz output is set, you can then use the OSD to choose a resolutions that the monitor in use supports. Alternatively, hold buttons 1 and 2 for 2 seconds at a time to cycle through the following standard video modes: VGA 640x480@60Hz, SVGA 800x600@60 HZ, XGA 1024x768@60 Hz, UXGA 1600x1200@60 Hz.

#### **Hardware Reset**

Press and hold buttons 3 and 4 simultaneously for 5 seconds to reset the Unit completely (video, keyboard, and mouse).



Figure 6. Buttons for Resetting Hardware

#### **Displaying the OSD**

Press and hold the **Pip** and **Win** buttons simultanously to cause the OSD menu to be displayed.



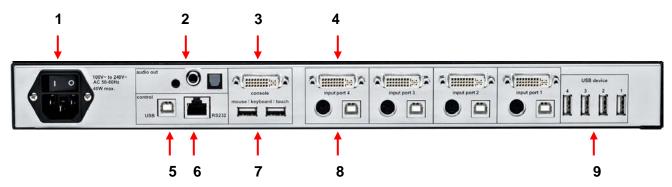
Figure 7. Buttons for Displaying the OSD

Note:

While the OSD menu is displayed, the active computer can still be operated by mouse or touchscreen.

#### **Rear Panel**

The rear panel of QuadraVista QF features three audio output ports, four computer input ports, the Console (KVM) ports, a USB control port, an RS232 control port, four USB 2.0 device ports, and the a/c power connector and switch.



**Figure 8. Rear Panel Connectors** 

1	IEC Power Connector
2	Audio ports
3	Monitor / DVI-I output
4	Four DVI-I inputs
5	USB control port
6	RS232 / RJ45 control port
7	USB for keyboard, mouse, touch or trackball (console)
8	USB or PS2 keyboard and mouse (computer)
9	Four transparent high-speed USB 2.0 ports

#### 1. Power

Plug for supplied power cable.

#### 2. Audio Output ports

Connect external speakers or headphones to the 3.5 mm analog stereo jack or digital cinch connector. ????? The TOSLINK optical audio connector allows digital audio output to an optical receiver.

#### 3. Monitor / DVI-I Output

Connect digital displays to this port with a DVI-D cable. VGA Analog monitors can be connected with a DVI-I to VGA cable.

#### 4. DVI-I Inputs

Connect the analog or digital video signal of CPU/Video sources to these four DVI-I ports. For HDMI video sources, use an HDMI to DVI adapter cable. For VGA video sources, use a VGA to DVI-I adapter cable. Cable lengths of up to 65 feet are supported.

#### 5. USB Control Port

External USB control devices connect to this port to operate QuadraVista remotely. Firmware updates can also be performed through the USB control port.

#### **Rear Panel (continued)**

#### 6. RS/232 Control Port

External serial control devices can be connected to this port to operate QuadraVista QF remotely. The port can also be used for firmware updates. (see page ????).

#### 7. USB ports for Console Keyboard, Mouse, Touchscreen, or Trackball

Console USB keyboard and mouse, touchscreen or trackball can be connected to these two ports. Multple keyboards and mice can be connected through a USB hub. The devices will work in share mode with an inactivity timeout of 3 seconds.

8. USB and PS/2 Ports for Computer keyboard and mouse connections Connect each computer's PS/2 or USB keyboard and mouse here.

#### 9. High Speed USB 2.0 Ports

Data intensive USB devices such as printers, memory sticks, and finger print readers can be connected to any of the four high speed ports.

### Installation

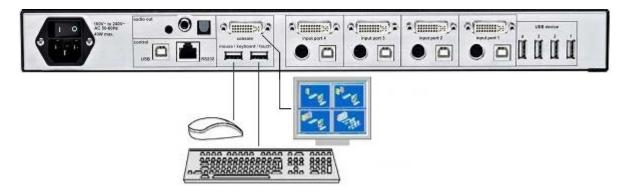
Please refer to the safety section first before proceeding with any installation or configuration of the QuadraVista QF. Installation of the QuadraVista QF consists of connecting the computers and KVM console to the unit. The following steps can be used as a guideline for installing your QuadraVista. It is recommended that you locate the QuadraVista as close as possible to the computers being connected.

Plug the power cable into the power plug located on the rear panel of QuadraVista QF with the power switch in the off position. Connect the power cord to a grounded power supply. Connect all cables before powering on the QuadraVista.

#### **KVM Console Connections**

Connect your digital monitor's DVI connector to the console monitor connector using a DVI-D cable. If the digital monitor has an HDMI connector, use an HDMI to DVI-D cable. Connect an analog monitor to the console monitor connector using a VGA to DVI-I cable.

Connect a USB mouse and keyboard to the console USB-A connectors. PS/2 keyboard and mouse requires a PS/2 to USB adapter.



#### Figure 9. Console Keyboard, Mouse, and Monitor Connections

Maximum recommended cable length for high quality video (DVI / VGA) is 65 feet (20 meters). Maximum cable length for USB / PS2 keyboard and mouse is 16 feet (5 meters). For greater distances QuadraVista-QF supports most KVM extenders, video (DVI / VGA) extenders, and USB extenders.

#### **Computer / Video Source Connections**

Switch off the computer and disconnect the keyboard, monitor and mouse.

Connect a USB port on the computer to a QuadraVista-QF USB input port using a single USB A-B cable. For computers with PS/2 keyboard and mouse, connect the 2 computer ports to a Quadravista QF PS/2 input port using a PS/2 Y cable. For distances greater than 16 feet (5 meters), use a USB or PS/2 extender.

Connect the computer's digital video output to the QuadraVista QF's DVI input using a DVI-D to DVI-D or HDMI to DVI-D cable. For computers with an analog video (VGA) output, use a VGA-DVI-I cable to QuadraVista-QF DVI input. For distances greater than 65 feet (20 meters), use a DVI or VGA video extender.

## MODELS

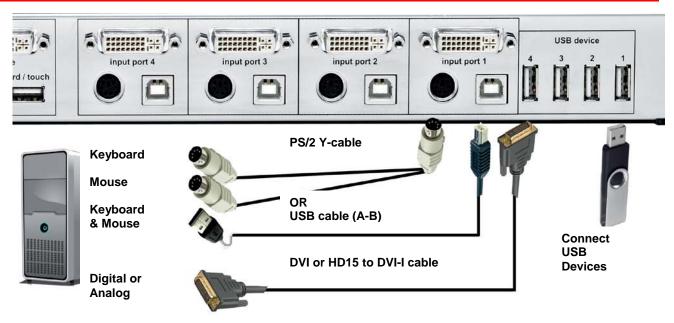


Figure 10. Computer Video, Keyboard, Mouse, and USB Connections

#### Powering up the System

Ensure that all installation work is complete before applying power to QuadraVista QF. Switch on QuadraVista-QF using the power switch on the rear panel. All front panel LEDs light up briefly indicating that QuadraVista-QF is ready for operation. QuadraVista-QF is now in Quad-Mode (default).

Power-up all the connected computers. QuadraVista-QF recognizes all input video sources automatically and displays them on your monitor screen.

To select another display mode, use the relevant keyboard commands or buttons on the front panel.

#### **Connecting Audio**

The QuadraVista-QF can be connected to external powered speakers or audio devices for audio playback from any of the connected computers or video/audio sources.

Three different output connection options are available (see Figure 11):

- 1) 3.5mm analog stereo jack
- 2) Digital cinch connector
- 3) TOSLINK optical audio jack

After the speakers have been physically connected to the QuadraVista-QF

- Open the OSD and navigate to COMPUTER > AUDIO
- Enable audio output
- Select the audio source and adjust the volume.

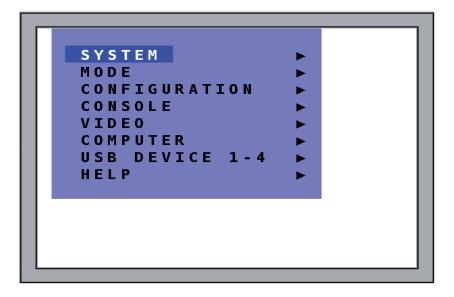


Figure 11. Audio Output Connections

**Note:** Powered speakers or headphones can also be connected directly to QuadraVista-QF,eliminating the need for an amplifier.

## On Screen Menu System

The QuadraVista has an easy to use menu system that enables you to customize the "System", "Mode", "Configuration", "Console", "Video", "Computers", and "USB Devices". Each section is described in detail on the following pages. The On screen Menu System structure is shown below.



#### Figure 12. OSD Main Menu

SYSTEM	HDCP HOTKEY HOTMOUSE QUAD MODE WIN MODE OSD POSITION OSD LANGUAGE SECURITY DISABLE CHANNEL CONTROL	HDCP status Multiple Hotkey / Double Click Hotkey Hotmouse Recognition, Hotmouse Timeout Channel Selection Timeout Appearance settings for windows Position of OSD window German / English / Spanish Set security level Deactivate unused channels Device control via DCP-XML protocol (RS232)
MODE	CURRENT START	Set the current channel and mode Set the channel and mode in which the device should boot
CONFIGURATION	BACKUP RECALL FACTORY RESET	Save configuration settings Restore last saved configuration Reset to factory default settings
CONSOLE	VIDEO OUTPUT KEYBOARD TOUCH SCREEN FADE MULTI MONITOR BACKGROUND EDID	Video resolution and frequency Keyboard layout Calibration / Mouse key emulation / Enlarge on touch Indicate use of smooth transitions Assign mouse/keyboard to video Select background type Display of EDID monitor data

VIDEO	INPUT STATUS DVI / VGA ROTATION CROPPING BRIGHTNESS CONTRAST HORIZ POSITION VERT POSITION SCREEN WIDTH PHASE FORMAT	Display computers' video input resolutions Choose input signal: DVI/VGA - DVI - VGA Rotate the screen display at different degrees Crop the display of video sources Set brightness of analog input signal Set contrast of analog input signal Horizontal screen position Vertical screen position Set screen width of analog input signal Adjust phase of analog input signal Fit input format to screen
COMPUTER	CHANNEL MAPPING AUDIO NAME 1-4 KEYBOARD MOUSE RESET PS/2 EDID / DDC	Assign an input port to a channel Enable audio output / Audio source selection / Volume Assign computer names Display type of keyboard (PC1, PC2, PC3 or USB) Display type of mouse (PS/2, PS/2 Wheel or USB) Set USB mouse positioning (absolute / relative) Reset PS/2 mouse and keyboard Program input EDID
USB DEVICE 1-4	USB PORT STATUS	Shows USB 2.0 matrix status and allows USB ports to be assigned to a device
HELP	ABOUT HOTKEY CONTACT	Firmware / hardware version, serial number, etc List of keyboard commands Contact information

#### Main Menu

Rose	QuadraVista		×
	SYSTEM MODE CONFIGURATION CONSOLE VIDEO COMPUTER HELP	>> >> >> >> >> >> >> >>	
	HELP	» »	

The Main Menu is called up by pressing the assigned HotKey + O (not zero) key. You can also simultaneously press the Quad and PiP front panel buttons. This is the starting point for the OSD menus. From the main menu you can set-up the system, select the start-up mode, and configure the system features. Each OSD menu feature is described in this section.

## **ON SCREEN DISPLAY**

×

### System menu

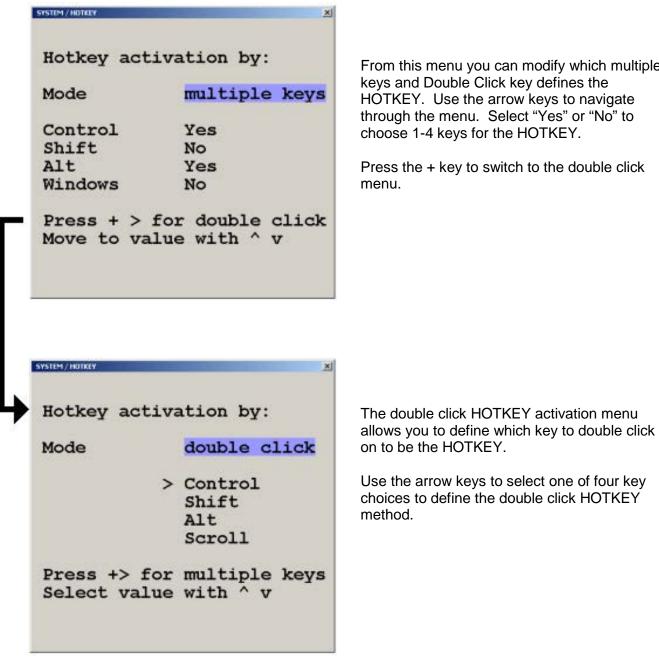
#### SYSTEM

#### HOTKEY

HOTMOUSE QUAD MODE OSD POSITION OSD LANGUAGE SECURITY TEST PATTERN DISABLE CHANNEL CONTROL The system Menu is called up by highlighting SYSTEM from the main menu and pressing enter. From the system menu you can set-up the Hotkey, Hotmouse, Quad Mode, OSD Position, change OSD languages, security, display nine different test patterns to fine tune the video, disable channels and setup remote control features.

#### System / HotKey

The system HOTKEY window is used to define the multiple keys HOTKEY and Double Click HOTKEY features. To modify the HOTKEY features, call up the Main menu (Default = left Ctrl + Alt + O key). From the Main menu, highlight "SYSTEM" and press enter. Highlight "HOTKEY" and press enter. The SYSTEM / HOTKEY window shown in Figure 4 will display.



From this menu you can modify which multiple keys and Double Click key defines the HOTKEY. Use the arrow keys to navigate through the menu. Select "Yes" or "No" to choose 1-4 keys for the HOTKEY.

Press the + key to switch to the double click

Figure 13. HotKey menu

When the multiple key and double click key assignment has been made, exit the menu system and these values will be saved.

If you assigned the Control, Alt, and Shift keys (menu value = "Yes") to be the multiple key HOTKEY, then you must press these three keys simultaneously plus the command key.

If the shift key was assigned to be the double click HOTKEY, then you must press the shift key twice then the command key.

#### System / HotMouse

The Hotmouse works similarly to the HOTKEY function where an operation is activated using only the mouse. To use the Hotmouse feature, it first must be enabled. Navigate to the SYSTEM / Hotmouse window and enable the Hotmouse (set to "Yes") and set the timeout value (1 to 30 sec.). This determines how long the selection window is displayed.

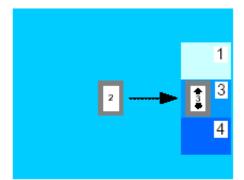
SYSTEM / HOTMOUSE	×	
Enable hotmouse:	Yes	
Time out of hotmouse after:	5 sec	Enabling the HOTMOUSE feature, you can perform several functions using only the mouse: (Switch channels, size PiP window, and other features)

#### Figure 14. System HotMouse

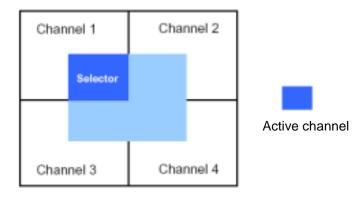
To activate the Hotmouse cursor feature, move the mouse rapidly in alternating horizontal directions four times (Note: the Hotmouse must be enabled for this feature to function).

 $\rightarrow \leftarrow \rightarrow \leftarrow \quad \text{or} \quad \leftarrow \rightarrow \leftarrow \rightarrow$ 

The Hotmouse cursor will change depending on the view mode. Activating the Hotmouse in the Full screen mode will temporarily display the PiP images of the non-selected channels (see below). Moving the cursor to a PiP image and clicking on the left mouse button will switch, full screen, to that channel.



Activating the Hotmouse in the Quad screen mode will display a box cursor with the active channel number in the box (see below). Moving the cursor to any quadrant and clicking on the left mouse button will switch control (keyboard / mouse) to that channel.



Activating the Hotmouse in the PiP mode has three features;

1- Switch active full screen channels



Channel 2 active



Activate Hotmouse, Move cursor to PiP 3 Press left mouse key



Channel 3 active (Keyboard/ mouse)

2- Move the PiP images vertically



Channel 2 active

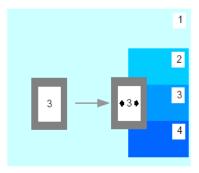


Activate Hotmouse, Move cursor to PiP windows Press/hold left mouse key, move PiP windows vertically

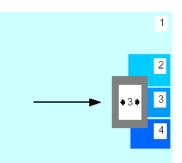


Release mouse key, PiP windows are in new vertical position

3- Modify the PiP image size



Activate the Hotmouse and move the cursor to the left edge of the PiP window.



Press and hold the left mouse button and drag the PiP window to the left or right to increase or decrease the PiP size.

#### Hotmouse Menu

A menu is associated with the Hotmouse that can be called up to perform various functions based on what screen mode the system is in. To activate the Hotmouse menu, first activate the Hotmouse by moving the cursor rapidly to the left and right 4 times. When the Hotmouse cursor appears, click the right mouse button and depending on the screen mode, the Hotmouse menu will display.

channel: 🐨 1 2 3 4 mode: cuad 🐼 full PiP	HOTMOUSE			
CLOSE HELP	mode:	G77 full	3 4 PiP	

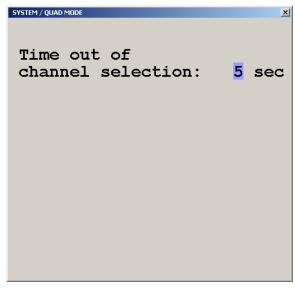
In the Full screen or Quad mode, the Hotmouse menu allows you to switch channels, change display modes (quad, full, PiP, Dual), or activate a channel.

Hotmouse menu in Quad or Fullscreen Mode

HOTMOL	ISE		
Channel:	1	<b>7</b> 2	3 4
Mode:	quad	full	C PiP
single:	fixed	dire	ct
	dual	sca	n
triple: 0	gap tile	no g	gap
PiP zoom:		Yes	s ⊊≇No
PiP offset:			• 0% • 🖪
PiP size:			+ 15 % + 🖪
CLOSE			HELP

In the PiP mode the Hotmouse menu allows you to Switch channels, change the display mode, change the position, size, and zoom of the PiP images, change PiP mode (Triple gap, no gap, tile), and set the scan time.

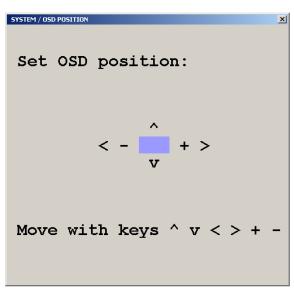
#### System Quad Mode



From the system / quad mode menu you can set the timeout of the quad selection window.

Figure 15. System Quad Mode

### **System OSD Position**



Selecting OSD position allows you to set the screen position of the OSD menus. Use the arrow keys to move the OSD screen position

#### Figure 16. System / OSD Position

#### System / OSD Language

SYSTEM / OSD LANGUAGE

Menu	Sub-Menu			S	ecurit	ty Lev	el		
		1	2	3	4	5	6	7	8
System	HotKey	•	٠						
	HotMouse	•	•						

OSD language:

> Engl Deut Espa

#### Figure 17. System / OSD Language

#### System / Security

The security features sets up and limits the functionality of the QuadraVista unit. The default security level = 0 which enables all functions. The QuadraVista security password is furnished separately and should be made available to only those persons authorized to modify the unit security features.

SECURI. / ENTER PASSWORD	×
Please enter password:	
Use keys 1 2 3 4	
Exit/Esc: Exit	

Selecting the Security feature displays the password screen. Enter the predefined password that is furnished separately and the security window will display. Select the security level (1 - 8). These levels are defined below. The predefined 6 digit password can be entered on this OSD screen or the front panel keys 1, 2, 3, and 4.

**Example:** Password = 123432 press front panel keys 1, 2, 3, 4. 3, and 2.

#### Figure 18. System / security

Following lists the security level and functions each security level allows. Level 0 is the factory security default setting which enables all functions.

For example, changing the security level to level 4 inhibits the "System" HotKey, HotMouse, Quad Mode, OSD Language, and Disable channel functions for the unit. Other features are also inhibited. See the below security level matrix.

QuadraVista OSD security matrix

	Quad Mode	•	•						
	OSD Position	•	•	٠	٠				
	OSD Language	•	•	٠					
	Security	•	•	٠	٠	•	٠	•	٠
	Test Pattern	•	•	٠	٠	•			
	Disable Channel	•							
	Control	•	•	٠	•	•	•	•	
			1	1	1	1	1	1	1
Mode	PiP	•	•	•	•				
	Start	•	•	•	•				
Configuration	Pookup				1				
Configuration	Backup Recall	•	•	•	•				
		•	•	•	•				
	Factory Reset								
Console	Video Output	•	•	•	•	•	•	•	
00110010	Keyboard	•	•						
	Multi-Monitor	•							
	EDID	•	•	•	•	•	•	•	
Video	Video Input	•	•	•	•	•	•	•	
	Brightness	•	•	•					
	Contrast	•	•	٠					
	Horiz. Position	•	•	•					
	Vert. Position	•	•	•					
	Screen Width	•	•	•					
	Phase	•	•	•					
	Format	•	•	٠	•				
Commutan	Keykeend								
Computer	Keyboard	•	•	•	•	•	•	•	
	Mouse	•	•	•	•	•	•	•	
	Reset PS/2	•				<u> </u>	<u> </u>		
	Change EDID/DDC	•	•	•	•	•	•	•	
Help	Command	•	•	•	•	•	•	•	
	About	•	•	•	•	•	•	•	
	Contact	•	•	•	•	•	•	•	

• = Authorization to this OSD function is permitted

Security level 0 is the factory default setting. All settings are allowed and all functions enabled Additional security features are listed below for each security level. These features are in addition to the OSD security levels listed above.

If the pre-assigned password is lost or forgotten, please contact Rose Electronics Tech Support for assistance. Please provide the QuadraVista serial number when requesting help.

**Security level 8** (most limited level) allows you to work only on pre-selected channel (computer) in a predefined display mode (Quad / Full / PiP). Except the security menu, where you can change the security level there are no other operations available.

**Security level 7** is the same as security level 8. All OSD windows are available that have information contents only (showing display modes, active channels and settings):

**Security level 6** is the same as security level 7 with the addition of: Active channel setting using front panel, keyboard, or mouse commands Channel selection in Quad Mode using front panel PiP button

Security level 5 is the same as security level 6 with the addition of:

- Display mode setting (Quad / Full / PiP) using front panel buttons,
- keyboard or mouse commands

Security level 4 is the same as security level 5 with the following OSD additions:

- Modify PiP settings using HotMouse menu
- System OSD Position
- Mode PiP / Start features
- Configuration Recall
- Video format

Security level 3 is the same as security level 4 with the following OSD additions:

- System OSD language
- Video All video OSD features

Security level 2 is the same as security level 3 with the following OSD additions:

- System Hotkey / Hotmouse / Quad Mode
- Console keyboard

Security level 1 is the same as security level 2 with the additions of:

- Set video output to VGA using keyboard command (Hotkey V) or front panel buttons 1+2
- System Disable channel
- Console Multi-Monitor / Video output
- Computer Mouse / Reset PS/2
- Video Video input

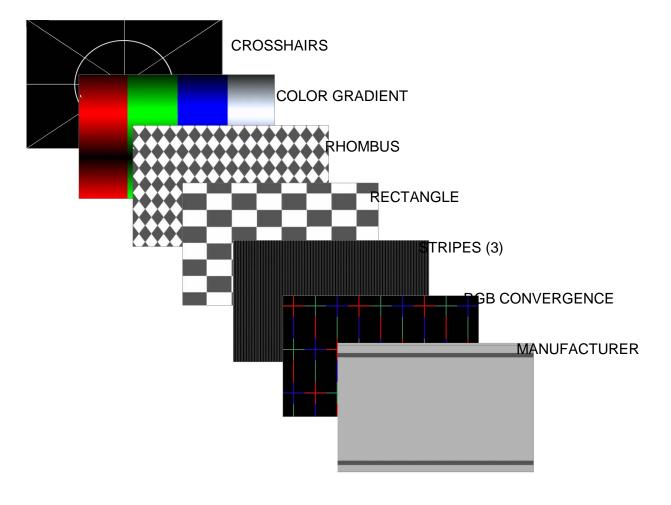
#### System / Test Pattern

SYSTEM / TEST PATTERN	×
Crosshairs	
Color gradient	
Rhombus	
Rectangle	
Stripes 1/8	
Stripes 1/4	
Stripes 1/2	
RGB convergence	
Manufacturer	

Use the Test Pattern to check the function of internal video circuits or to check the quality of the connected console monitor. It's recommended to use all the test patterns for the test procedure.

Figure 19. System / Test Pattern





### System / Disable Channel

Using this feature, the connected computers should be connected to the channel ports in ascending order. Connecting computers to channel 1, 2, and 4 and selecting the number of channels to be 3, channel 4 can not be displayed.

Number of active channels: 1 2 3 > 4 Move to value with ^ v Enter / Select to choose

Use the Disable Channel function to select the number of channels to display. If computers are connected to channel 1, 2, and 3, then select 3.

Figure 20. System / Disable Channel

#### System / Control



The system / control feature allows setting up of the QuadraVista from a computer or external device connected to the serial port.

Selecting control allows external control of the OSD.

Selecting synchronize will keep cascaded QuadraVista units in the same video mode.

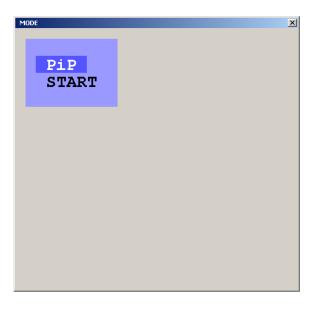
See the Serial Operations Section.

#### Figure 21. System / Control

The DCP (Device Control Protocol) offers three modes, off, control and synchronize. Set the DCP mode to "Control" if a single QuadraVista will be controlled from an external computer. Set the mode to "Synchronize" if you system features several linked QuadraVista's. When in this mode the QuadraVista status is transmitted to the external computer. For local unit operation, set the mode to off. See the **Serial Operations** section for detailed information on the DCP mode.

#### Mode / PiP-Start

Selecting "MODE" and pressing enter displays the mode screen. Two mode selections are available, PiP and Start. The PiP features and configuration can be set-up, and the channel and mode setting on start-up.

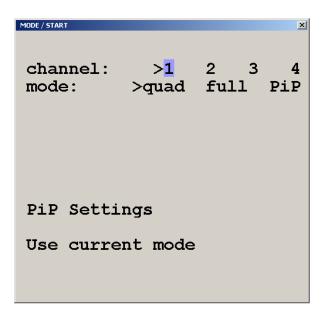


The PiP menu allows you to change from triple to single PiP. Triple display shows the three non-active windows on the right of the screen. Single display shows only one non-active window. PiP size, zoom, and offset from the top of the screen can be set.

MODE / PiP	×
PiP display mode: Active channel:	<mark>triple</mark> gap
PiP size:	158
PiP zoom factor:	1
Offset from top:	08

PiP display modes:	
--------------------	--

- Triple Displays the three non-active channels
- Single Displays one non-active channel Fixed – Permanently displays one nonactive channel
  - Scan Scans non-active channels in one PiP window (scan time 1-9 sec)
  - Direct Permanently displays one nonactive channel. Select the desired channel to display directly.



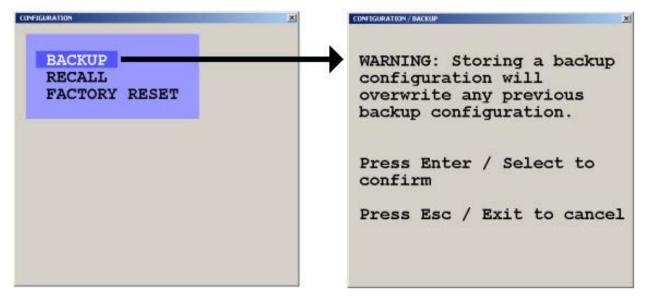
Selecting Start from the MODE menu defines which channel is active, the display mode, and the PiP settings when power is applied.

Figure 22. Mode / PiP-Start

### Configure

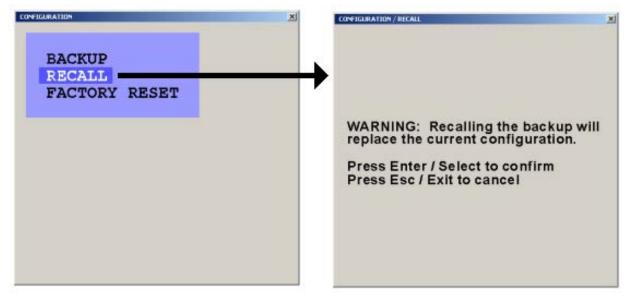
#### Configure / Backup, Recall, Factory Reset

The backup command saves the current device settings.



#### Figure 23. Backup

The recall command replaces the current settings with the latest backup.



#### Figure 24. Recall

The Factory Reset command resets the unit to the original factory settings See Appendix C. for factory reset values.

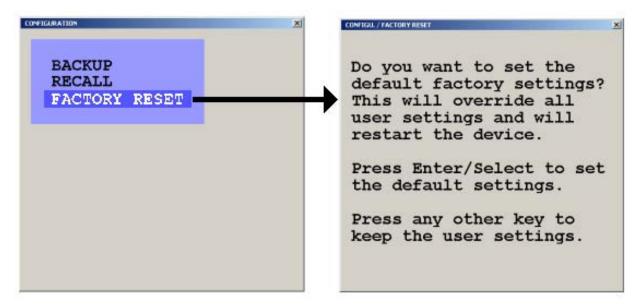
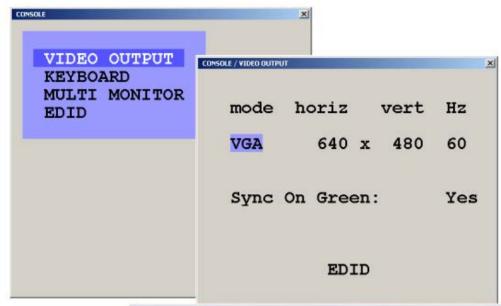


Figure 25. Reset

#### Video output / Keyboard / Multi-Monitor / EDID

Selecting "Console" from the main menu displays the options for the video output, keyboard, Multi-monitor, and EDID.



**CONSOLE / VIDEO OUTPUT** 

Setting the video output to "auto" the QuadraVista will read the connected monitor's configuration data and set the mode, resolution, and frequency based on the monitors DDC table. Use the up / down arrow keys to manually select a specific mode, resolution, and frequency. The new setting will display for 10 seconds. Within this time, press Enter / select to accept the new video output setting. No change is executed if enter is not pressed within the 10 second period. See Appendix D for a list of supported video modes

mode	horiz	Z	vert	Hz
auto				
VGA	640	X	480	60
VGA	640	X	480	75
VGA	640	X	480	85
SVGA	800	X	600	60
SVGA	800	х	600	75
SVGA	800	X	600	85
XGA	1024		768	60
XGA	1024	XX	768	70
XGA	1024	X	768	75
XGA	1024	Х	768	85
SXGA	1280		1024	60
SXGA	1280		1024	75
UXGA	1600		1200	60
WXGA	1152	Х	864	75
UWXGA	1280	х	960	60
UWSGA	1280	X	960	85
SUN	1152	X	900	66

## Press Enter / Select or ↑↓

Use Up / Down arrow keys to show additional modes

X



Figure 26. Console, Video output

Changing the video resolution will display the notification window shown to the right. Press Enter to accept the new setting or any other key for no change.

#### **Console / Keyboard**

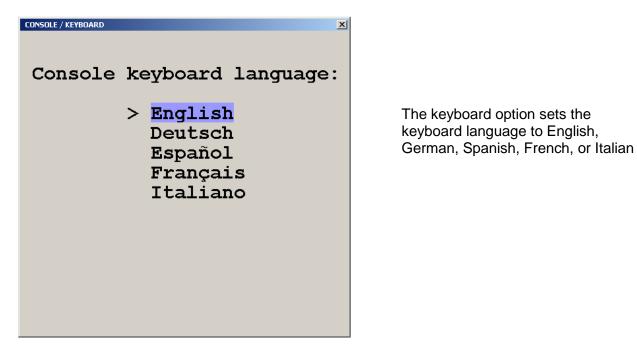
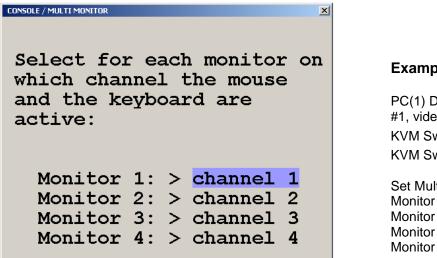


Figure 27. Keyboard layout

## **Console / Multi-Monitor**

The QuadraVista can be set-up to connect to computers with multiple video outputs. Selecting Multi monitor opens the Multi monitor window. If your computer uses a graphic card with two video outputs, assign the computers keyboard and mouse for Monitor 1 and 2 to channel 1.



#### Example – Multi-Monitor

PC(1) Dual Video keyboard/mouse/video1 to input #1, video2 to input #2. KVM Switch (3) to input #3

KVM Switch (4) to input #4

Set Multi-Monitor options to: Monitor 1: Channel 1 Monitor 2: Channel 1 Monitor 3: Channel 3 Monitor 4: Channel 4

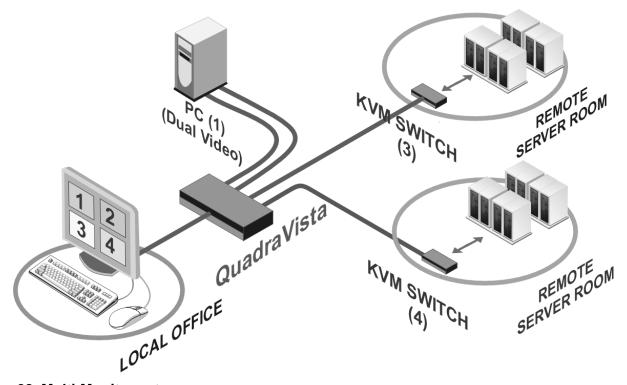


Figure 28. Multi-Monitor setup

### **Console / EDID**

Manufacturer: Monitor name: serial number:	NEC NED LCD 1860N 12345678
Vertical rate:	55 - 85 Hz
Horizontal rate:	31 -80 KHz
Pixel clock:	140 MHz

The EDID menu, when selected, will read and display the EDID data of your console monitor. Extended Display Identification Data is a VESA standard data format that contains basic information about a monitor and its capabilities, including vendor information, maximum image size, color characteristics, factory pre-set timings, frequency range limits, and character strings for the monitor name and serial number

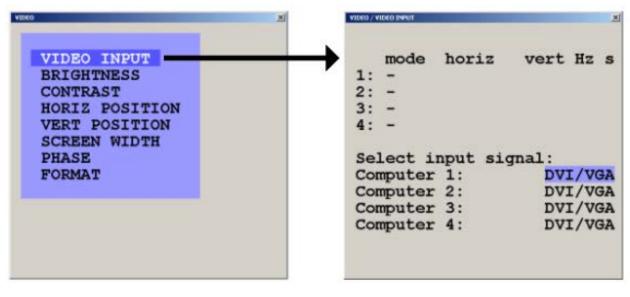
#### Figure 29. EDID display

### Video

From the main menu, selecting Video will display a menu that allows you to view or change the connected computers video information, set the brightness, contrast, horizontal position, vertical position, screen width, phase, and format. Selecting Video Input will display the video information QuadraVista has automatically detected from the four video inputs (Plug & Play).

### Video / Video Input

In the lower part of the Video Input window you define which video input is selected for display. If both signal inputs DVI/VGA or VGA/DVI are selected, the first one will be processed and displayed. If there is no signal present the other automatically will be selected and processed



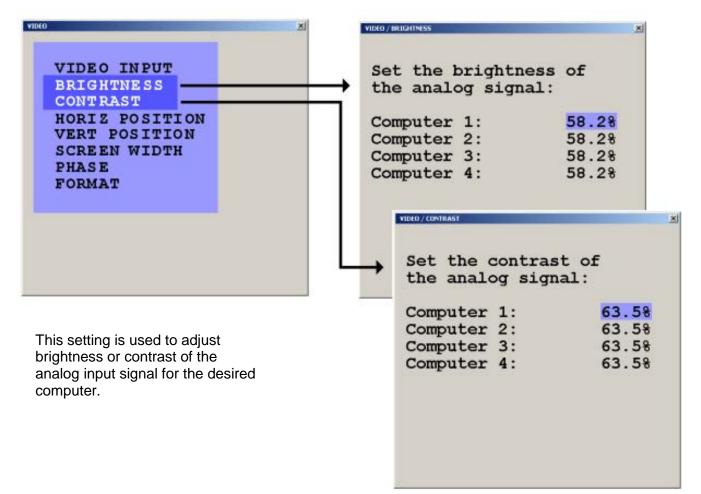
#### Figure 30, Video input

The "S" column shows the type of video detected, a = analog, d = digital, g = sync on green, c = composite sync

Appendix D shows the video formats QuadraVista can support

# Video / Brightness / Contrast

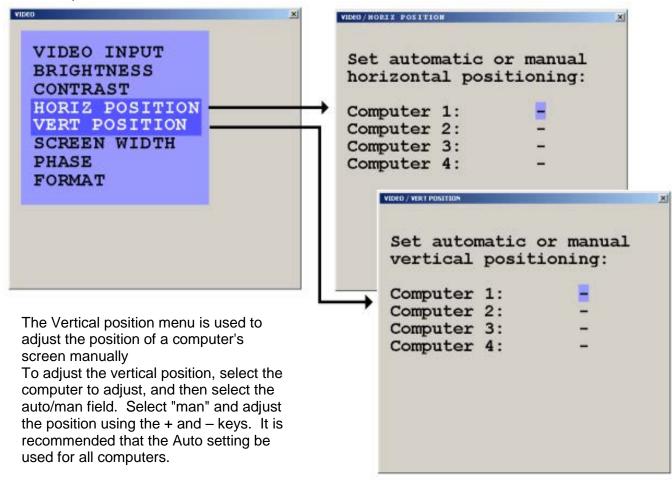
Using the brightness / contrast menu, you can adjust video brightness and contrast for each analog video input. Using he arrow keys, select the computer to adjust and increase or decrease the brightness or contrast.



#### Figure 31. Video Brightness / Contrast

# Video / Horizontal and Vertical position

The Horizontal position menu is used to adjust the position of a computer's screen manually To adjust the horizontal position, select the computer to adjust, and then select the auto/man field. Select "Man" and adjust the position using the + and – keys. It is recommended that the "Auto" setting be used for all computers.



#### Figure 32, Horizontal Position



The width of the screen can be adjusted to improve screen quality by selecting the screen width menu, the computer to modify, and adjusting the number of horizontal pixels

Figure 33. Screen width

### Video / Phase

VIDEO / PHASE	2
Adjust the clock p the analog signal:	
Computer 1: Computer 2: Computer 3: Computer 4:	+0 +0 +0

If a computer's phasing is incorrect (blurring screen, incorrect contrast) use the Phase menu to adjust the video phasing from the detected value.

Figure 34. Clock phase

VIDEO / FORMAT	
Fit to screen:	
Computer 1: No Computer 2: No Computer 3: No Computer 4: No	Wide screen monitors (aspect ratio 16:10) normally display black borders on the left and right side of the display. Setting "Fit to screen" to Yes so that computer will resize the image to fill the entire quadrant or PiP.

Figure 35. Video format

# Computer

Selecting Computer from the main menu will display the features that can be displayed or modified for each computer connection.

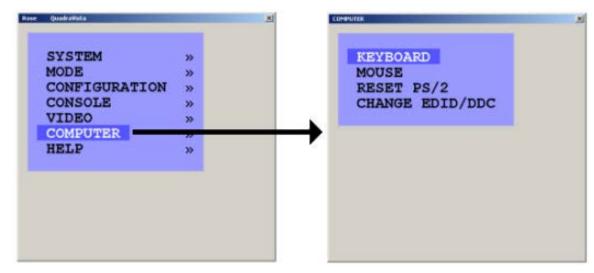
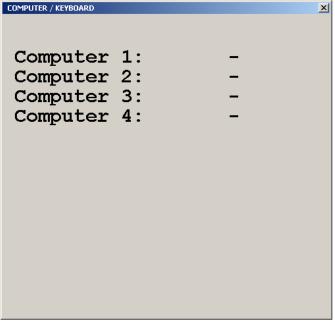


Figure 36. Computer



Selecting keyboard and pressing enter will display the type of keyboard the system has detected for each connected computer (USB, PC1, PC2, or PC3).

Figure 37. Computer / Keyboard

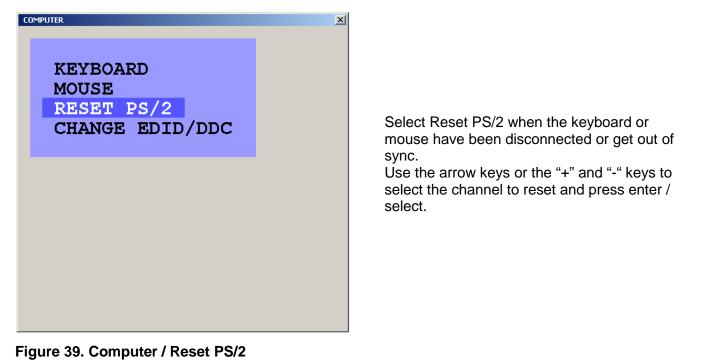
## **Computer / Mouse**

Computer / Mouse	_		×
Computer Computer Computer Computer	2: 3:		
Mouse pos Computer Computer Computer Computer	1: 2: 3:	ng USB: relative relative relative relative	

Selecting mouse and pressing enter will display the type of mouse the system has detected for each connected computer (USB, PS/2, or PS/2 wheel)

The Mouse positioning USB: lower section allows you to choose absolute mouse positioning when a device is connected to the console that supports absolute coordinates such as graphic trays, screen pads or KVM extenders.

Figure 38. Computer / Mouse



**Computer / Change EDID/DDC** 

Figure 40. Computer / Change EDID/DDC

**QuadraVista Installation and Operations Manual** 

LUMPU. / LHANGE EDID/DDL	E D I D / LHANGE EDID/DDL
Choose two video modes: UXGA 1600 x 1200 60Hz WUXGA 1920 x 1200 50Hz Signal: digital WRITE	EDID Programming: Connect video input you wish to program to video output and confirm by twice pressing ENTER / SELECT.

EDID / CHANGE EDID /DD

When the window to the above right displays and before pressing ENTER / SELECT twice, disconnect the console monitor cable and the computer monitor port to program. Connect a DVI male to male cable from the video output to the computer video input to program (1-4). The video will go blank and programming must be executed blindly. When the DVI cable has been connected, press ENTER / SELECT twice to program the additional video modes. Reconnect the console monitor and computer monitor cable and the display to the right will display. Repeat this procedure for the other three video input ports if necessary.

#### EDID / CHANGE EDID/DDC

**Program EDID** 

Successful

Figure 41. EDID Programming

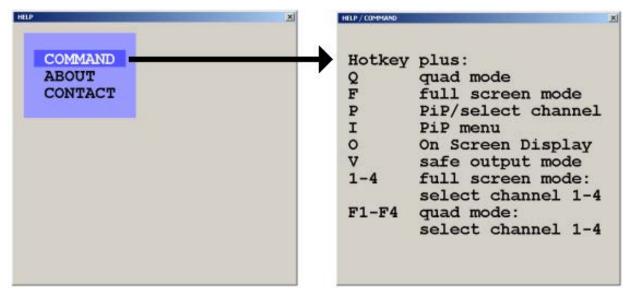
COMPLE / CHANGE EDID/DI

**VI** 

×

# Help

Selecting the help section will display the keyboard command list, about, and contact information. The Command List option will display the keyboard commands recognized by QuadraVista.





The About section informs you of information pertaining to the QuadraVista.

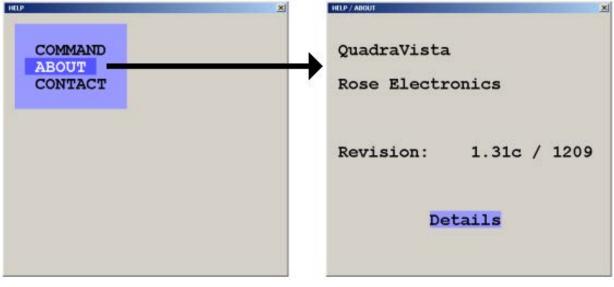


Figure 43. Help / About

The Contact section provides you with information on who to contact for technical assistance and other information.

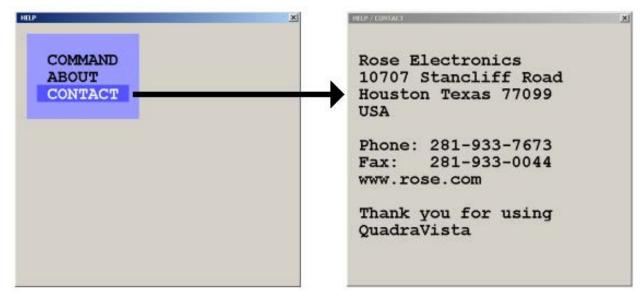


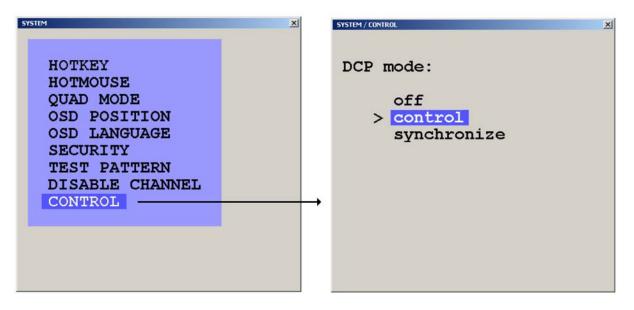
Figure 44. Help / Contact

# **SERIAL OPERATION**

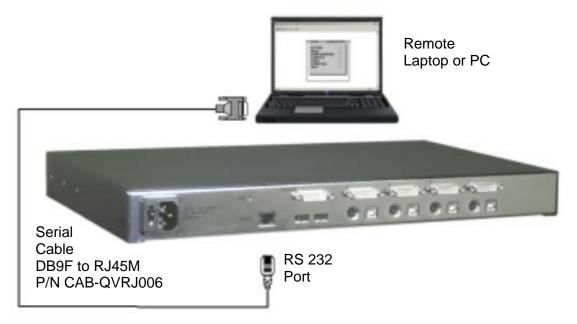
# **Serial Features**

QuadraVista can be configured or controlled from a remote computer by connecting a serial cable from the computer's COM port to the QuadraVista's serial input port.

To remotely configure the QuadraVista (Display / execute the OSD features only), download the communication software (QuadraVista.zip) from our web site at /www.rose.com/htm/download.htm in the tech support section and install it on a remote windows based computer. Next, call up the OSD from the local console and navigate to the "System, Control" section and change the DCP mode setting to "control".



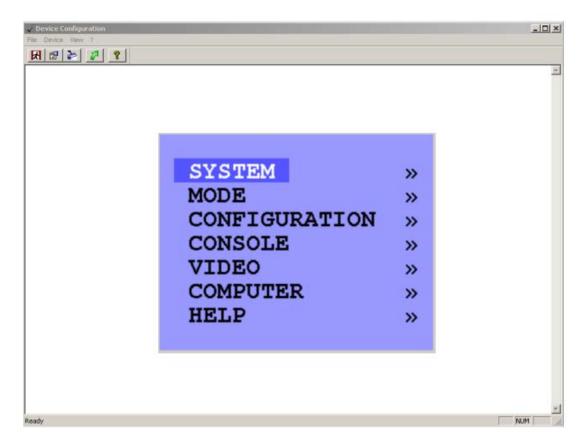
Connect a serial cable from COM1 or COM2 port on the remote Laptop or PC to the RS232 port on the rear panel of QuadraVista as shown below



#### Figure 45, Serial connections

Execute the Serial Communication software and the window shown below will display. Click on the ICON to connect and display the OSD on the remote computer

#### **QuadraVista Installation and Operations Manual**



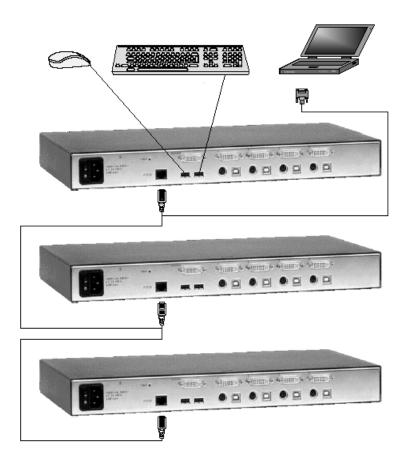
Remotely navigate within the OSD menu system from the remote computer the same way as you would using the local console. All OSD menus can be accessed using the arrow keys and the Enter / Select key.

# **DCP Synchronizing Multiple Units**

In systems that use multiple QuadraVista's, the display mode can be synchronized so all units are the same display mode. To accomplish this, first display the OSD and navigate to the "Control" section (System, Control). Use the up/down arrow keys to select "Synchronization", then exit the OSD.

Each time you restart a QuadraVista set to synchronization, it will send all its settings to the next connected device. This process also takes place after activating Synchronization in the OSD menu.

Connect the multiple unit system as shown below using a special "Y" serial cable.



When starting a chain of devices, always start by first switching on the device at the end of the chain. When the device has completed its startup phase and sent its DCP messages, switch on the next device in the chain. Finally, switch on the first device in the chain, which synchronizes the settings of all other devices in the chain with its own settings as it starts up. The synchronized chain can have any length. Do not connect the last unit to the first to create a loop.

## **DCP/XML** Feature

The QuadraVista can be controlled remotely from a PC or laptop connected to the RS232 port (serial) using the DCP/XML feature. This feature is different from the OSD serial features. The serial feature allows only the OSD functions to be performed. The DCP/XML feature sends a DCP/XML message

containing the defined elements like switching to a given port, changing the display mode, defining the PiP features, and other items.

To use the DCP/XML feature, connect the system in the serial configuration as shown in Figure 36. The PC or laptop must have a serial communication program installed like HyperTerminal. Configure the communication program for the following:

- Transfer rate 57600 Baud
- Data Bits 8
- No parity
- Stop Bit 1
- No flow control

Connect to QuadraVista and send the DCP/XML text message containing the controlling script. A simple example of sending a DCP/XML text message that will switch ports is shown below. Tabbed spacing in the below example is for readability only; the actual text file does not need the spacing.

```
<dcp-xml>
<device>
<mode>
<console>
<channel>0</channel>
</console>
<video>
<channel>0</channel>
</video>
</mode>
</device>
</device>
```

This example switches the console and video to channel 0

Note: DCP/XML channel 0 = QuadraVista channel 1 DCP/XML channel 1 = QuadraVista channel 2 DCP/XML channel 2 = QuadraVista channel 3 DCP/XML channel 3 = QuadraVista channel 4

An example of a DCP/XML message containing all defined elements is shown below:

<dcp-xml>

<device> <type>VSQ</type> <version> <dcp-protocol>1.0</dcp-protocol> <hardware>32</hardware> <software>1.30</software> </version>

```
<mode>
               <console>
                     <channel>0</channel>
               </console>
               <video>
                     <channel>0</cjannel>
                     <layout>full</layout>
                     <pip>
                          <layout>triple-gap</layout>
                          <size>15</size>
                          <offset>5</offset>
                          <direct>
                               <channel>0</channel>
                          </direct>
                          <fixed>
                               <channel>0</channel>
                          </fixed>
                          <scan-time>1</scan-time>
                     </pip>
               </video>
          </mode>
      </decide>
</dcp-xml>
```

# **DCP/XML System Querying**

Using the DCP/XML feature, the QuadraVista can be queried to request setting information. Queries are only replied to in the DCP control mode. Sending the below text script to QuadraVista using Hyper Terminal, queries for the entire device status:

<dcp-xml/>

Queries can be combined with changes in one text script. The following is an example of querying for the console information and setting the video to channel 1.

<dcp-xml>

<device> <mode> <console/> <video> <channel>0</channel> </video> </mode> </device> </dcp-xml>

#### The console and video are queried in the below script.

#### The response to the above query is:

```
<dcp-xml>
<device>
<mode>
<console>
<channel>0</channel>
</console>
<video>
<channel>0</channel>
</video>
</mode>
</device>
```

</dcp-xml>

The above response shows that the console and video are connected to channel 1.

#### DCP error messages:

malformed xml	Malformed XML.
tag mismatch	Opening and closing tags do not match.
tag not closed	Opening tag without matching closing tag. Only occurs with Simple Elements. In the case of Complex Elements, a timeout error is reported.
subtag in simple element	A simple element contains a subtag.
tag name too long	Tag name exceeding 16 characters.
wrong data type	Incorrect data type. For list types, such as Device Name, this error message also refers to values not included in the list.
content too long	Contents of a Simple Element exceeding 30 characters.

timeout	Receive timeout. This error message is displayed if a DCP message is not complete after expiry of the timeout, but no other error has occurred.
parser stack overflow	This error occurs when unknown elements are nested too deeply, or in the case of an internal error.
internal parser error	Internal error parser error.
unknown error	Unknown error.

#### **DCP** Communication

DCP/XML messages exceeding 38 characters must be divided into individual lines before being sent to a device.

Replies sent by a device are also divided into lines.

When sending a DCP message, the following constraints apply:

#### Linefeed: LF

Linefeed (0x0A) is used as terminating character of each line.

#### Whitespace: TAB, SPACE, CR

Whitespace characters are TAB (0x09), Space (0x20) and Carriage Return (0x0D).

Whitespace may occur anywhere between two tags, except at the start of a line and inside simple elements

Whitespace is ignored.

#### Line length: maximum 38 characters

The line length may not exceed 38 characters. (Not including the terminating LF.)

#### Timeout: 750 ms

Timeout for DCP messages is 750 milliseconds.

DCP messages containing errors are not regarded as completed until the timeout period has elapsed.

Therefore, it is recommended to wait for this time between DCP messages to allow the parser to handle possible errors.

Correct messages are processed immediately upon completion.

#### **Unknown elements**

Unknown tags in a DCP message are ignored for the sake of upwards compatibility of the protocol.

Messages containing unknown elements must still be syntactically correct.

Unknown tags may not be nested deeper than 5 levels.

## **Empty elements**

An empty element is an opening tag immediately followed by a closing tag.

((tag)) may be abbreviated as ((tag))

# **Service Information**

### **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 QuadraVista, 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: <u>TechSupport@rose.com</u> Web: <u>www.rose.com</u>

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

# Safety

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

Follow all instructions and warnings marked on this Unit.

Except where explained in this manual, 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.

Provide proper ventilation and air circulation.

Keep connection cables clear of obstructions that might cause damage to them.

Use only power cords, power adapter and connection cables designed for this Unit.

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. Do not use liquid or aerosol cleaners to clean this Unit. Always unplug this Unit from its electrical outlet before cleaning.

Unplug this Unit refer servicing to a qualified service center if any of the following conditions occur:

- The connection cables are 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 uninterruptible 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 must perform any servicing, maintenance, or repair.

The user may adjust only items mentioned in this manual.

# **Appendix A. Specifications**

Resolution	1900 x 1200
Video compatibility	VGA to UXGA / DVI
Keyboard	USB / PS/2 (Computers), USB (KVM)
Mouse	USB / PS/2 (Computers), USB (KVM)
Dimensions	W- 17.125" / D – 9.125" / H – 1.75"
Weight	6.3 lbs
Approval	Europe: CE

# Appendix B. Parts and cables

Part Number	Description
QV-4KVMDVI	QuadraVista unit
CAB-DVIIMMnnn	DVI-I to DVI-I (male/male)
CAB-DVIIMFnnn	DVI-I to DVI-I (male/female)
CAB-DVIIMVMnnn	VGA to DVI-I (male/male)
CAB-DVIIMVFnnn	DVI-I to VGA (male/female)
CAB-DVIDMMnnn	DVI-D to DVI-D (male/male)
CAB-USBABnnn	USB-A to USB-B (male/male)
CAB-CXUSBCnnn	DB25 to VGA/USB
CAB-CXV66MMnnn	VGA/PS2 to VGA/PS2 (male/male)
CAB-C1VS0600Cnnn	DB25 to VGA-PS/2
CAB-MD6MMnnn	PS/2 to PS/2 (male/male)
CAB-MD6M2MD6M	PS/2 "Y" cable
CAB-QVRJ006	Serial DB9 to RJ45 cable
ACC-DVIMVF	DVI-I to VGA adapter
RM-QV19	Rack Mount kit

# Appendix C. Factory Defaults

The Below table shows the factory default settings. When "Factory Reset" is executed, the unit configuration is changed from the user settings to the below default settings.

Section	Function	Default Setting
SYSTEM	Hotkey Hotmouse Quad Mode OSD Position OSD Language Security Test Pattern Disable Channel Control	Ctrl + Alt On / 5 Sec. Timeout = 5 Sec. Centered English None (Level 0) None None Off
MODE	Pip Start	Size = 15%; Zoom = 1; Mode = triple; gap, Offset = 0% Quad / active channel = 1
CONFIGURE	Backup Recall Factory Reset	User initiated User initiated User initiated
CONSOLE	Video Output Keyboard Multi-Monitor EDID	Auto English Monitor 1, 2, 3, 4 = channel 1, 2, 3, 4 Display information only
VIDEO	Video Input Brightness Contrast Horiz. Position Vert. Position Screen width Phase Format	DVI / VGA (all channels) 58.2% (all analog channels) 63.5% (all analog channels) auto (all channels) auto (all channels) +0 (all channels) +0 (all channels) No (all channels)
COMPUTER	Keyboard Mouse Reset PS/2 Change EDID / DDC	N/A N/A N/A No
HELP	Command About Contact	N/A (Lists available keyboard commands) N/A (Displays unit information, version) N/A (Displays contact information)

# Appendix D. Supported Video-In Formats

Mode	Resolution	Rate Analog	Rate Digital	Mode	Resolution	Rate Analog	Rate Digital
CGA	640 x 350	85	85	HDTVp	1280 x 720	-	60
CGA	640 x 400	85	85	WXGA	1280 X 768	60	60
EGA	720 x 400	70	70	WXGAp	1366 X 768	-	22-60
EGA	720 x 400	85	85	UWXGA	1280 x 960	60	60
VGA	640 x 480	60	22-60	UWXGA	1280 x 960	85	85
VGA	640 x 480	72	72	SXGA	1280 x 1024	50	50
VGA	640 x 480	75	75	SXGA	1280 x 1024	60	60
VGA	640 x 480	85	85	SXGA	1280 x 1024	72	72
SVGA	800 x 600	56	22-56	SXGA	1280 x 1024	75	75
SVGA	800 x 600	60	60	SXGA	1280 x 1024	85	85
SVGA	800 x 600	72	72	SXGA	1400 x 1050	60	60
SVGA	800 x 600	75	75	SGI	1600 x 1024	60	60
SVGA	800 x 600	85	85-180	UXGA	1600 x 1200	50	50
XGA	1024 x 768	60	22-60	UXGA	1600 x 1200	60	60
XGA	1024 x 768	70	70	UXGAr	1600 x 1200	50	50
XGA	1024 x 768	75	75	UXGAr	1600 x 1200	60	60
XGA	1024 x 768	85	85	WSXGA	1680 x 1050	60	60
WXGA	1152 x 864	75	75	HDTVp	1920 X 1080	-	22-24
SUN	1152 x 900	66	66	HDTVp	1920 X 1080	-	50
HDTVp	1280 x 720	-	22-50	HDTVp	1920 X 1080	-	60
HDTVp	1280 x 720	-	60	WUXGA	1920 X 1200	-	22-50
HDTVp	1280 x 720	-	22-50	WUXGA	1920 X 1200	-	60

# NOTES





Phone (281) 933-7673 www.rose.com

10707 Stancliff Road Houston, Texas 77099