

QuadraVista QF

Multiviewer • 4 HDMI/DVI/VGA Inputs + Digital Audio

Installation and Operation Manual



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Equipment: Video, Keyboard, Mouse Switching System

Type: QuadraVista QF

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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

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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)

System 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 QF over conventional KVM switches is that it allows you to simultaneously display and manage four computers on a single console. It combines key features of a high-end KVM switch and a digital Quad viewer, 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 window. Each of these windows can be freely positioned and their height and width can be adjusted.

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)
 - Configuration software running on an external computer
 - Serial port control using DCP XML protocol
 - Touch screen

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	Audio input from the connected computer. 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
- Manual

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

OVERVIEW

System Overview

This section describes the QuadraVista QF unit, its front panel buttons and LEDs, and rear panel connectors. A brief description of the functions of the front panel buttons is also given here.

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

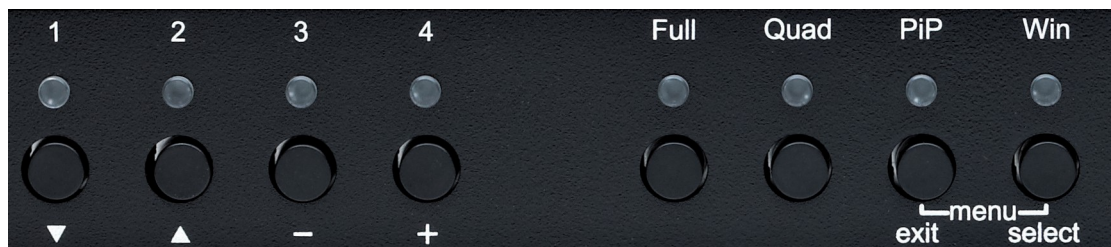


Figure 2. Close-up of LED Indicators and Buttons

Status LEDs:

- 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.

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.

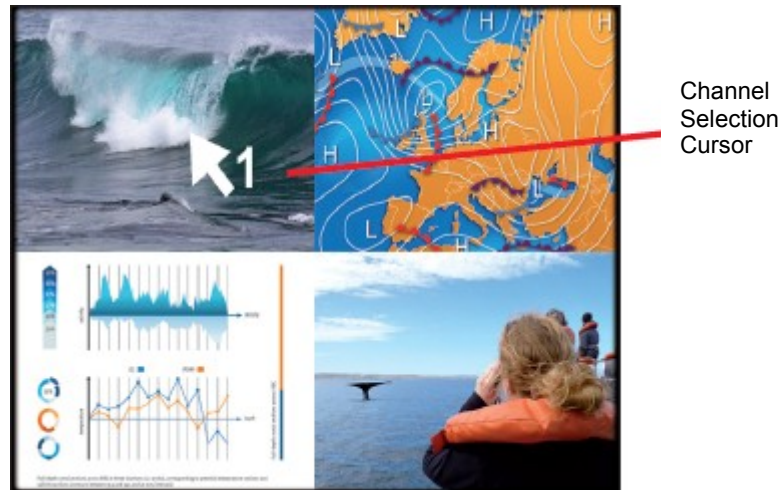


Figure 3. Hot Key Channel Selection Window

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.

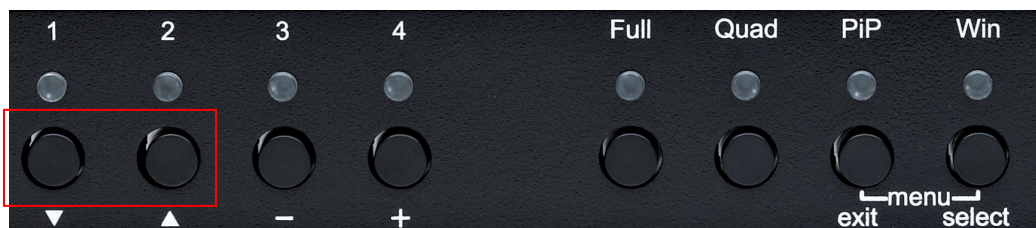


Figure 4. Buttons for Resetting Output Resolution

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 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).

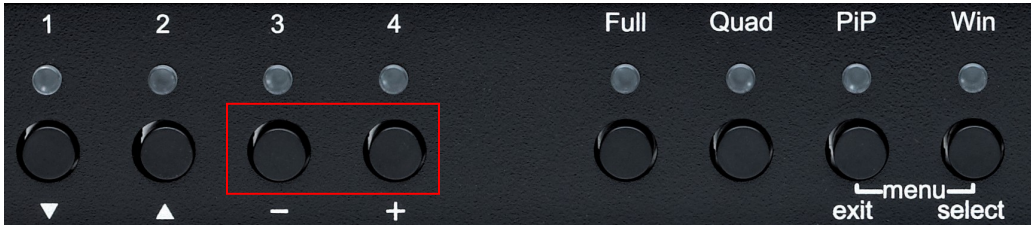


Figure 5. Buttons for Resetting Hardware

Displaying the OSD

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

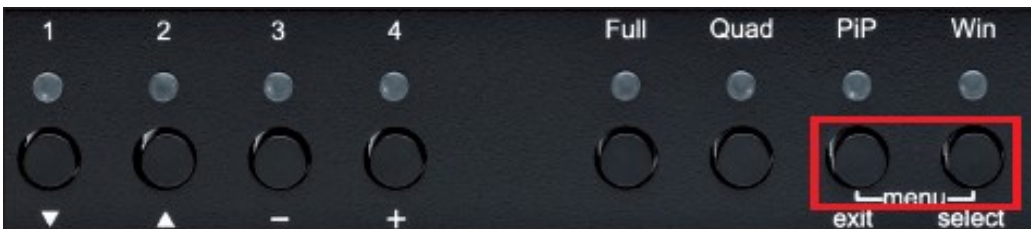


Figure 6. Buttons for Displaying the OSD

Note:

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

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.

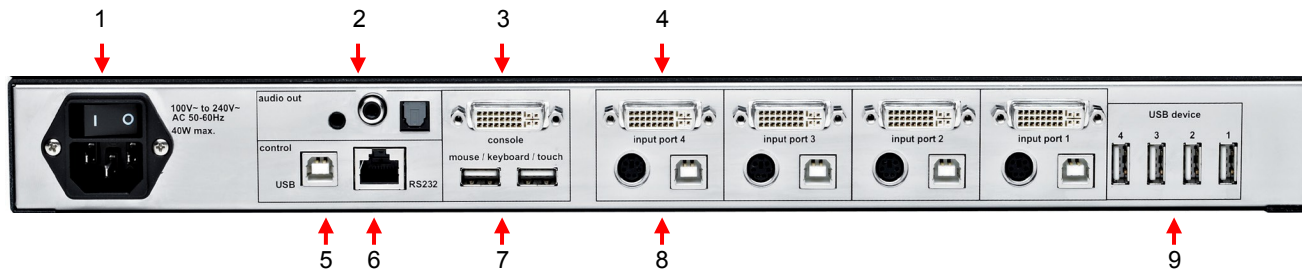


Figure 7. Rear Panel Connectors

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

Table 1. Connectors on Rear Panel of the QuadraVista QF Unit

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 analog or digital displays to this port.

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.

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 Appendix F).

7. USB ports for Console Keyboard, Mouse, Touch screen, or Trackball

Console USB keyboard and mouse, touch screen or trackball can be connected to these two ports. Multiple 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 and Operation

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

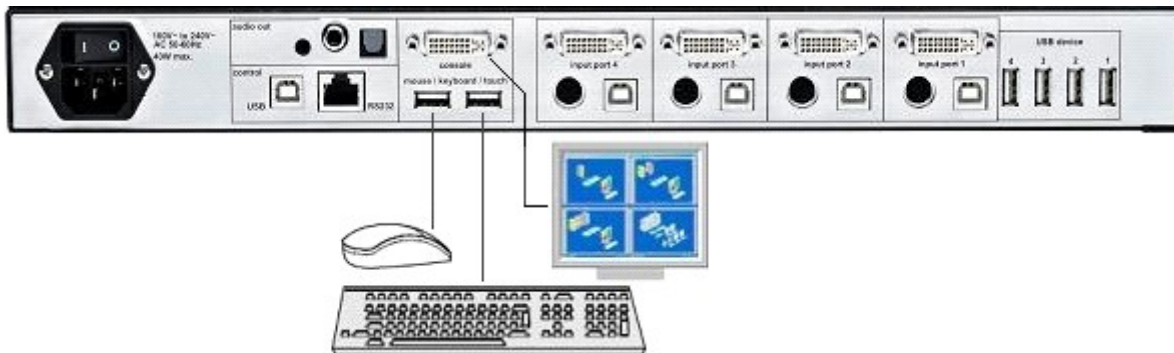


Figure 8. Console Keyboard, Mouse, and Monitor Connections

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 both 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.

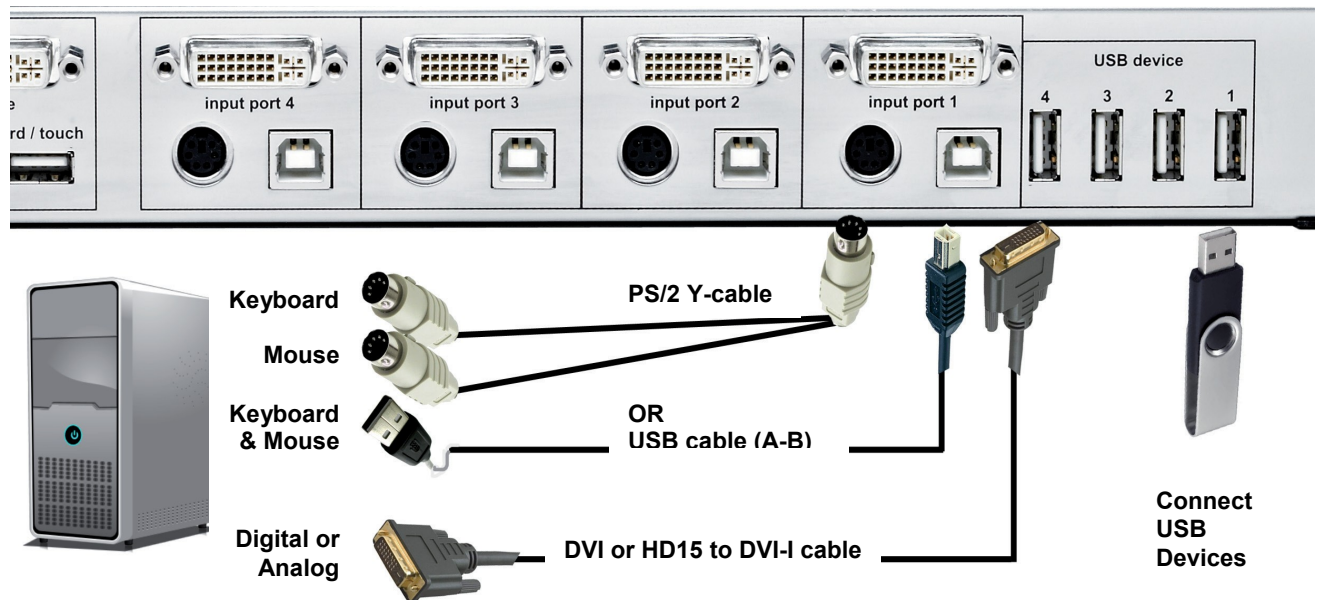


Figure 9. Computer Video, Keyboard, Mouse, and USB Connections

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

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

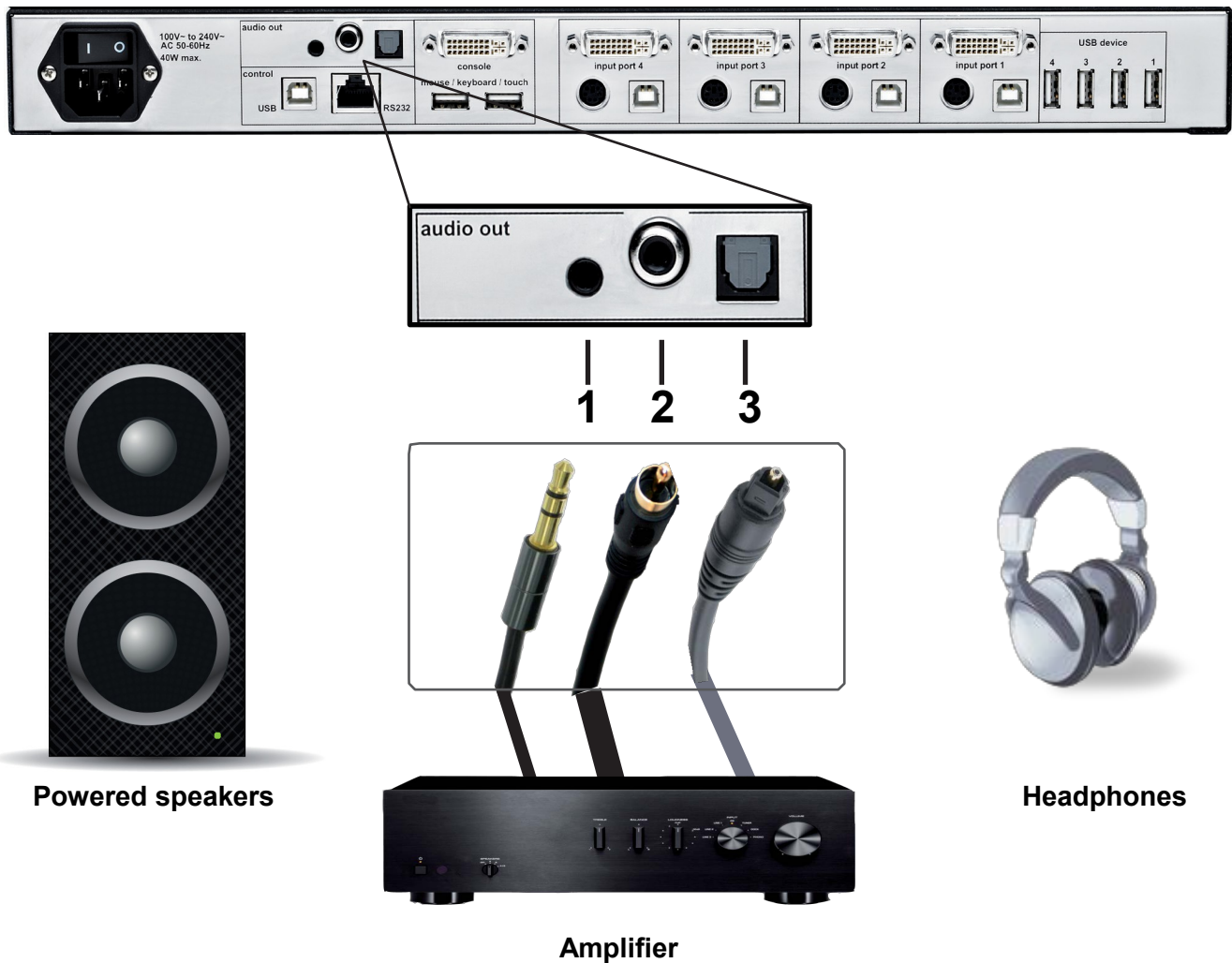


Figure 10. Audio Output Connections

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

Operating the unit with the On Screen Menu System

The QuadraVista has an easy to use menu system that enables you to customize the unit's operation. The components that can be customized are 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 or OSD (On Screen Display) structure is shown below.

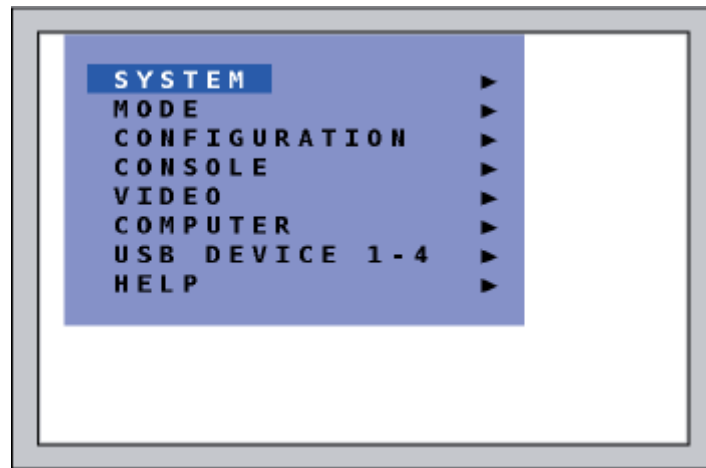


Figure 11. OSD Main Menu

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 English / German / 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 MOUSE FADE MULTI MONITOR BACKGROUND EDID	Video resolution and frequency Keyboard layout Calibration / Mouse key emulation / Enlarge on touch Enable Cross Channel Switching Indicate use of smooth transitions Assign mouse/keyboard to video Select background type Display of EDID monitor data

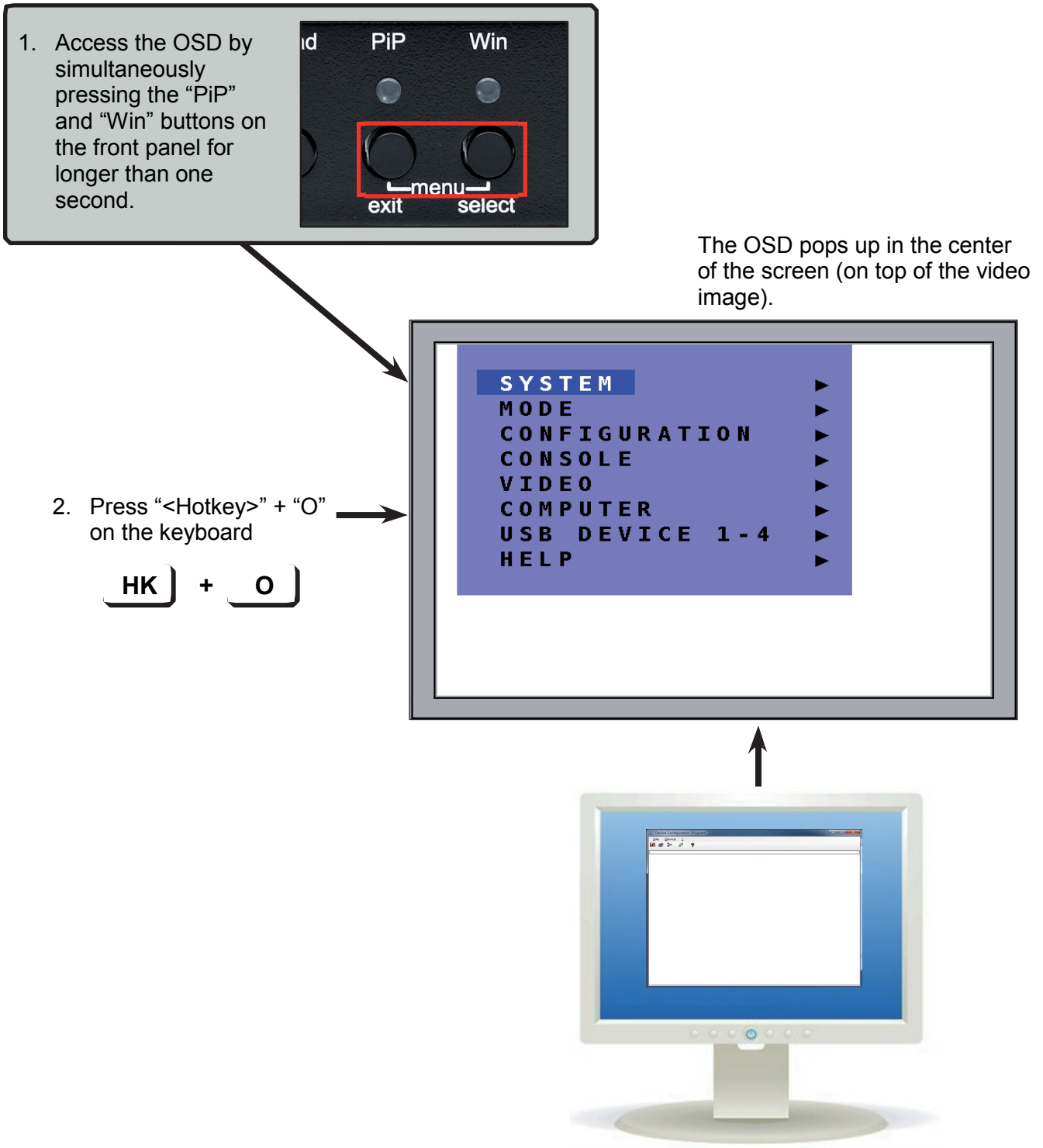
VIDEO	INPUT STATUS	Display computers' video input resolutions
	DVI / VGA	Choose input signal: DVI/VGA - DVI - VGA
	ROTATION	Rotate the screen display at different degrees
	CROPPING	Crop the display of video sources
	BRIGHTNESS	Set brightness of analog input signal
	CONTRAST	Set contrast of analog input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

Table 2. QuadraVista QF Menu System

Accessing the OSD

There are two ways to access the OSD as outlined below:

- simultaneously press the “PiP” and “Win” buttons on front panel for longer than one second;
- use the keyboard command “<Hotkey>” + “O”; or



Navigating the OSD

Use the keyboard or the buttons on the front panel to navigate the OSD.

Navigation using the keyboard

Use the **↑** and **↓** arrow keys, or the **Tab** and **Shift+Tab** keys to navigate from one field to the next in the OSD. The **←** and **→** arrow keys, or the **+** and **-** keys are used to change the value in the current field. Press **Enter** to select a menu item.

Press **Esc** to return to the previous menu (next higher menu level) or exit the OSD. Changed settings are saved automatically.

Navigation using the Front Panel

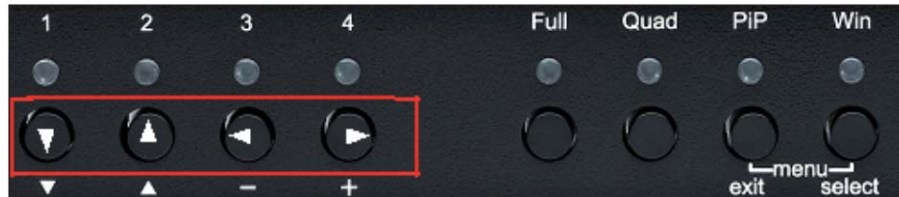


Figure 12. Navigating the OSD through the Front Panel

Navigation using the buttons on the QuadraVista QF front panel mirrors the use of the keyboard. Buttons **1** and **2** correspond to the **↑** and **↓** arrow keys, and buttons **3** and **4** correspond to the **←** and **→** arrow keys, or the **+** and **-** keys. Confirm your entry by pressing the **Win/Select** button.

Press the **PiP/Exit** button to return to the previous menu (next higher menu level) or to exit the OSD. Changed settings are saved automatically.

Note: Hotkey commands are possible while the OSD is being displayed.

SYSTEM Menu

This section covers the *SYSTEM* menu of the OSD. The individual menu options are described below.

SYSTEM / HDCP Menu Item

Use the arrow keys to navigate in the *SYSTEM* menu to the *HDCP* option and press the **Enter** key / **SELECT** button to open the HDCP window.

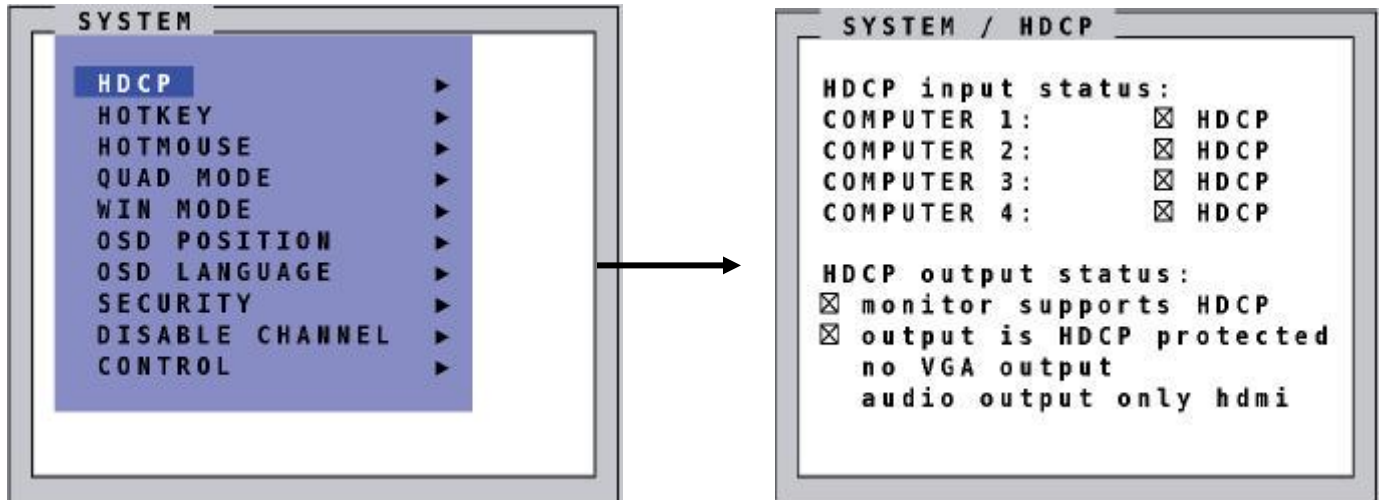


Figure 13. *SYSTEM / HDCP* Window

The *SYSTEM / HDCP* window displays the status of HDCP input and output encoding. HDCP (High-bandwidth Digital Content Protection) is an encoding system used to prevent copying of digital audio and video content.

In the upper part of the window, the HDCP status of the four input signals is displayed. When a checkbox is marked, the video source is transmitting a signal with HDCP encoding.

QuadraVista QF displays this signal only when HDCP encoding is supported by the output device.

The lower portion of the window displays the HDCP status of the output. The first line shows whether the connected monitor supports HDCP.

When checked, the next line indicates whether the QuadraVista output signal is HDCP protected. If the output signal is HDCP encoded, the QuadraVista will not output a VGA/analog signal, or a separate audio signal.

Figure 14. *System / HDCP* menu item

SYSTEM / HOTKEY Menu Item

Navigate with the arrow keys in the *SYSTEM* menu to the *HOTKEY* menu item and press the **Enter** key / **SELECT** button to open the *HOTKEY* window.

Two different hotkey modes are available:

For multiple hotkey commands, one to four keys can be defined which are pressed simultaneously to enter the command mode. Selectable keys are the **Left CTRL**, **Shift**, **Alt** and the **WINDOWS** keys.

For double click hotkey commands, you can choose one key, which is double clicked to enter the command mode. Selectable keys are: **Ctrl**, **Shift**, **Alt** and **Scroll Lock**.

To change the hotkey mode or select another hotkey, navigate with the **Tab** key, or **↑** and **↓** arrow keys to the respective field and use the **←** and **→** arrow keys or the **+** and **-** keys to change the setting.

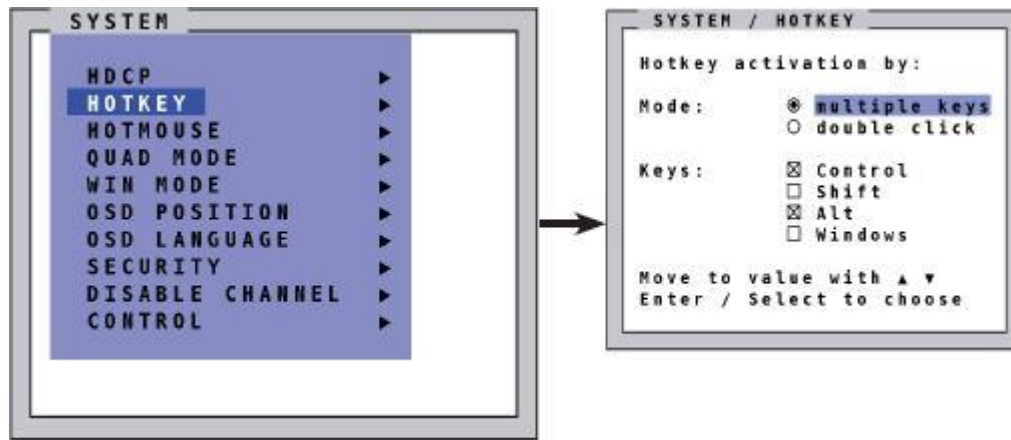


Figure 15. SYSTEM / HOTKEY menu item

Command Mode:

The command mode is indicated by a flashing LED on the console keyboard.

Default setting: Multiple hotkey – **Ctrl + Alt**

Note:

For a list of hotkeys to operate QuadraVista QF, see Appendix C.

SYSTEM / HOTMOUSE Menu Item

Navigate with the arrow keys in the *SYSTEM* menu to the *HOTMOUSE* menu item and press the **Enter** key / **SELECT** button to open the *HOTMOUSE* window.

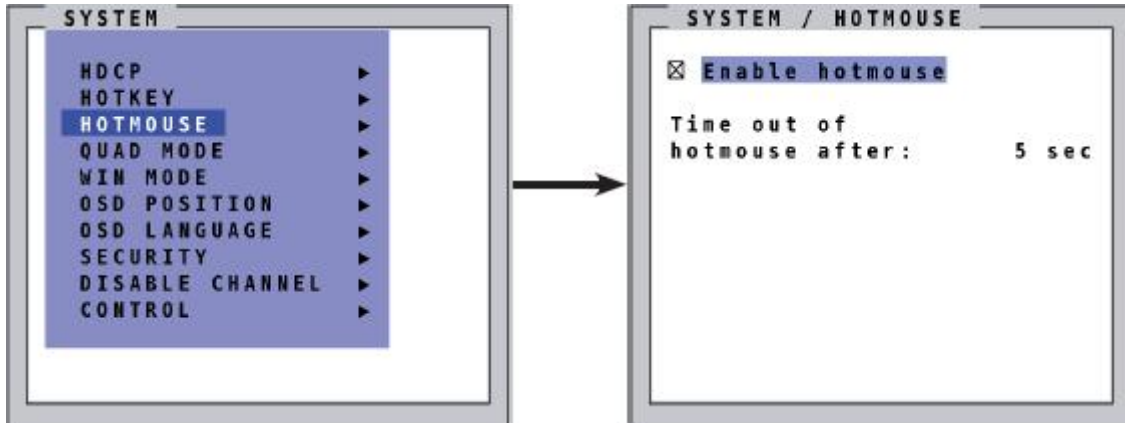


Figure 16. SYSTEM / HOTMOUSE Window

Hotmouse is an exclusive function that comes with QuadraVista QF. It works with a standard mouse or trackball, turning the mouse cursor into a numbered arrow for quick and easy navigation.

To activate Hotmouse operation:

- Navigate in the *SYSTEM* Menu to *HOTMOUSE* and press the **Enter** key / **SELECT** button to *Enable Hotmouse*.

There are two modes of Hotmouse operation: **Hotmouse Cursor** and **Hotmouse Menu**.

While **Hotmouse Cursor** supports only a limited set of operations, **Hotmouse Menu** allows execution of all switch operations and display mode settings.

While the Hotmouse function is activated, the active computer can still be operated by keyboard.

For a detailed description of Hotmouse, Hotmouse functions, and the Hotmouse Menu please see the QuadraVista QF Hotmouse Feature section found on [page 66](#).

SYSTEM / QUAD MODE Menu Item

Use the arrow keys to navigate in the *SYSTEM* menu to the *QUAD MODE* menu item and press the **Enter** key / **SELECT** button to open the *QUAD MODE* window.

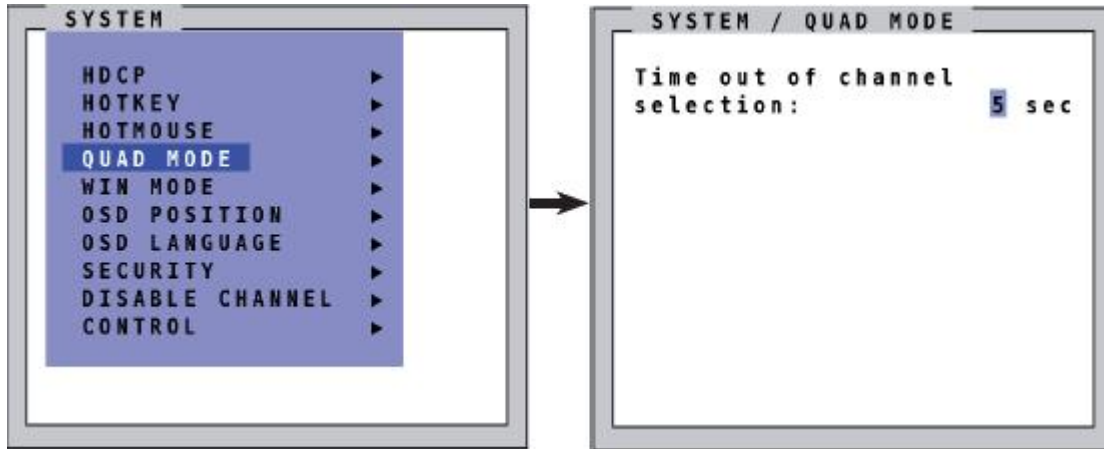


Figure 17. SYSTEM / QUAD MODE Window

Channel selection timeout defines the period (1 to 30 seconds) after which the selector arrow will close automatically. The default setting is 5 seconds.

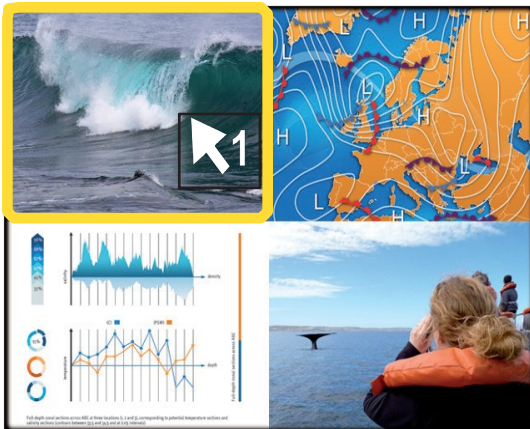


Figure 18. Quad Mode Active Channel

To open the active channel in Quad mode:

Press **Hotkey 'Q'**

The yellow border indicates the active channel (mouse and keyboard enabled). Alternatively, press front panel button *Quad*.

To switch the selector from an active channel to another channel:
Press **Hotkey** + arrow key. After the selector timeout has expired, the selector closes.

SYSTEM / WIN MODE Menu Item

Navigate with the arrow keys in the *SYSTEM* menu to the *WIN MODE* menu item and press the **Enter** key / **SELECT** button to open the *Win mode* window.

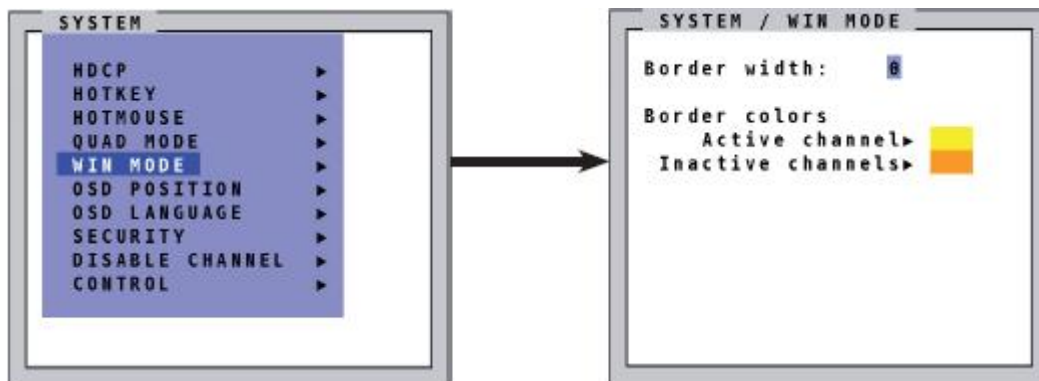


Figure 19. SYSTEM / WIN MODE Window

Border width: Set the width of the borders around the windows containing the video signals in Win mode. When the border width is zero, no borders are shown.

Border colors:

- Active channel: Press the **Enter** key / **SELECT** button to open the *SELECT COLOR* menu and set the color of the border for the active channel.
- Inactive channels: Press the **Enter** key / **SELECT** button to open the *SELECT COLOR* menu and set the color of the border for the inactive channels.



Channel Selector

Use *Hotkey 1-4* to select a channel or window. Alternatively, the hotmouse function or front panel buttons labeled *1* through *4* can be used to select a channel or window. When a channel has been selected, a colored border will appear around the window of the active channel. The channel selection cursor will also be visible. The *Win* front panel button can also be used to select a preset.

When the selector times out, the selector closes.

Figure 20. Channel Selection in Win Mode

Win Mode Floating Buttons

The following function buttons will appear when the hotmouse cursor is moved to the top right corner of the signal window.

- **O**: Open OSD hotmouse context menu.
- **S**: Swap signal windows. When the button is clicked, the other window is selected.
- **R**: Toggle aspect ratio locking for current window.

SYSTEM / OSD POSITION Menu Item

Navigate to the *OSD POSITION* menu item in the *SYSTEM* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *OSD Position* window.

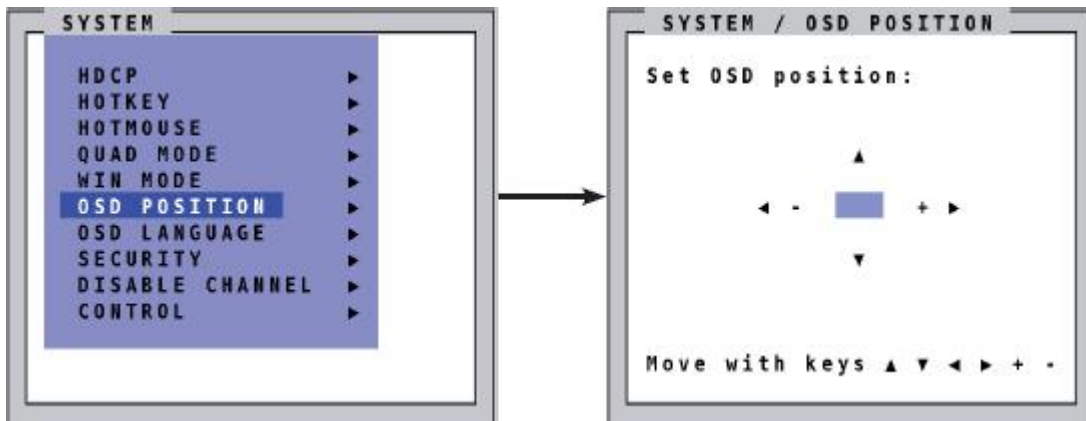


Figure 21. SYSTEM / OSD POSITION Window

Use this function to move and reposition the OSD anywhere on the screen.

SYSTEM / OSD LANGUAGE Menu Item

Navigate to the *OSD LANGUAGE* menu item in the *SYSTEM* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *OSD Language* window.

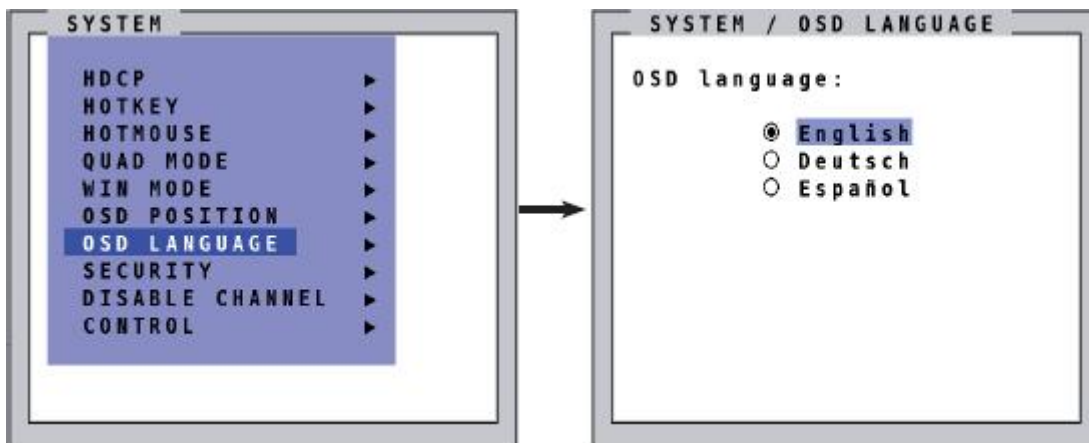


Figure 22. SYSTEM / OSD LANGUAGE Menu Item

Set *OSD language* to either English (default), Deutsch (German) or Español (Spanish).

SYSTEM / SECURITY Menu Item

Navigate to the *SECURITY* menu item in the *SYSTEM* menu using the arrow keys, and press the **Enter** key / **SELECT** button to access the Security functions.

The Security feature allows fine-tuning of access to the functional range of the QuadraVista QF. Eight security levels are available for this purpose.

By default, all functions are enabled (Security Level 0). To change the security level, a pre-defined password must first be entered.

Note: This six-digit password is enclosed separately with the QuadraVista QF package. It should only be accessible to authorized personnel, like administrators.

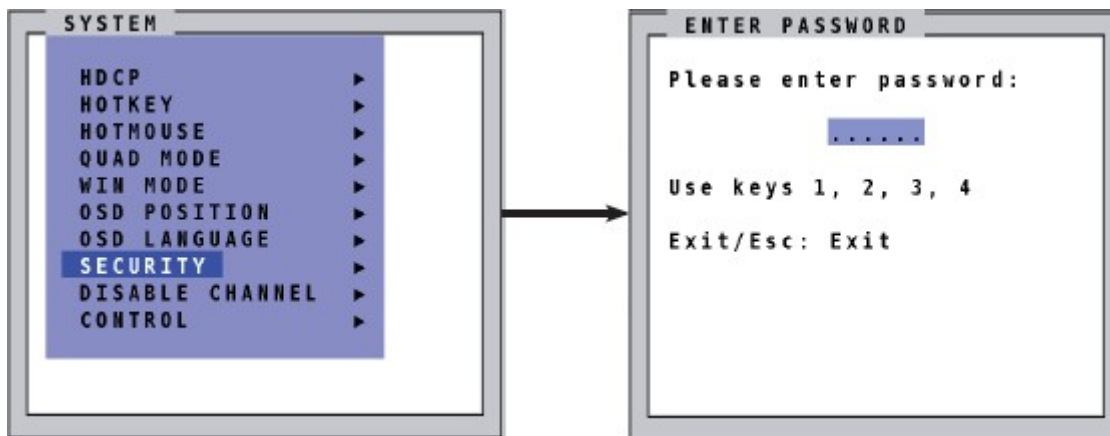


Figure 23. SYSTEM / SECURITY and SECURITY / ENTER PASSWORD Windows

After entering the password on the keyboard or front panel (password is not displayed in *Password* field), the *SECURITY* window opens.

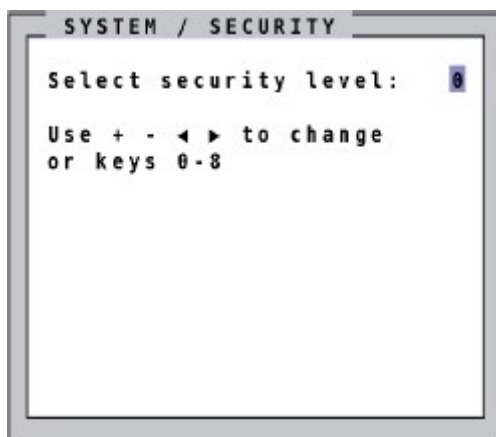


Figure 24. SYSTEM / SECURITY LEVEL Window

Enter the desired security level (0 to 8) under *Select security level*.

Note:

Before changing the security level, please set the configuration you wish to work with to the higher security level, under *MODE > START*. This configuration will be maintained when QuadraVista QF is reset, in case of power failure, or when power is turned off and on again.

The settings at each security level are given below.

Security Level 0:

This is the default setting of QuadraVista QF. All settings are allowed and all functions are enabled.

Security Level 8:

Security Level 8 allows access to only one channel (computer) in a predefined display mode (Quad, Fullscreen or PiP mode). No settings can be changed, apart from the *SECURITY* menu item, where you can change the security level.

Allowed options:

SYSTEM→SECURITY

Security Level 7:

Security Level 7 allows access to OSD windows that only show display modes and device settings.

Allowed Options:

SYSTEM→HDCP

CONSOLE→VIDEO OUTPUT/EDID

VIDEO→INPUT STATUS

COMPUTER→NAME 1-4/ KEYBOARD / MOUSE / EDID/DDC

HELP→HOTKEY / ABOUT / CONTACT

Security Level 6:

Security Level 6 gives the same access as Security Level 7, along with the following additional permissions:

- Ability to set active channel using the front panel buttons, Hotkeys or Hotmouse
- Ability to select a channel with the PiP button in Quad mode
- Ability to change the directly selectable PiP channel in PiP mode single direct

Allowed Options:

Security Level 7 Permissions

SYSTEM→CONTROL

CONSOLE→FADE

Security Level 5:

Security Level 5 gives the same access as Security Level 6, along with the following additional permissions:

- Ability to set the display mode (Quad / Fullscreen / PiP) using front panel buttons, Hotkeys or Hotmouse

Allowed Options:

Security Level 6 Permissions

MODE→CURRENT / START→TEST PATTERN

CONSOLE→BACKGROUND

Security Level 4:

Security Level 4 gives the same access as Security Level 5, along with the following additional permissions:

- Modify the display mode settings in Hotmouse Menu
- Changing both channels in Dual mode
- Changing the fixed PiP channel in PiP mode single fixed

Allowed Options:

Security Level 5 Permissions

SYSTEM→OSD POSITION / WIN MODE

MODE→PIP / START

CONFIGURATION→RECALL

COMPUTER→AUDIO

VIDEO→FORMAT

Security Level 3:

Security Level 3 gives the same access as Security Level 4, along with the following additional permissions.

Allowed Options:

Security Level 4 Permissions

SYSTEM→OSD LANGUAGE

VIDEO→BRIGHTNESS / CONTRAST / HORIZ POSITION / VERT POSITION / SCREEN
WIDTH / PHASE

USB DEVICE 1-4

Security Level 2:

Security Level 2 gives the same access as Security Level 3, along with the following additional permissions.

Allowed Options:

Security Level 3 Permissions

SYSTEM→HOTKEY / HOTMOUSE / QUAD MODE

CONSOLE→KEYBOARD / TOUCH SCREEN

Security Level 1:

Security Level 1 gives the same access as Security Level 2, along with the following additional permissions:

- Switch video output to VGA (using hotkey 'V' or front panel buttons 1+2)

Allowed Options:

Security Level 2 Permissions

SYSTEM→DISABLE CHANNEL

CONSOLE→MULTIMONITOR / VIDEO OUTPUT

VIDEO→DVI/VGA / ROTATION / CROPPING

COMPUTER→CHANNEL MAPPING / MOUSE / RESET PS/2

SYSTEM / DISABLE CHANNEL Menu Item

Navigate to the *DISABLE CHANNEL* menu item in the *SYSTEM* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *DISABLE CHANNEL* window.

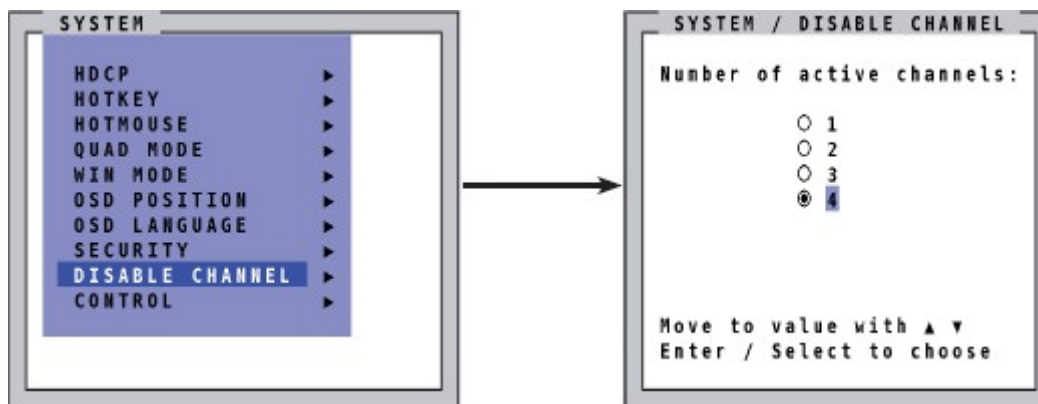


Figure 25. SYSTEM / DISABLE CHANNEL Window

If less than four computers or video sources are connected to QuadraVista QF, use the *DISABLE CHANNEL* feature to ensure that for any unused channels:

- The "No Signal Input X" message is not shown in Quad mode
- Blank PiP images are not displayed on screen
- Unused channels are not selectable in Fullscreen mode

For example, if three computers (channel 1 to 3) are connected to the QuadraVista QF, use the arrow keys to navigate to the number 3 and confirm by pressing the **Enter** key / **SELECT** button.

Note:

For the *DISABLE CHANNEL* feature to work correctly, computers/video sources should be connected to the QuadraVista QF channels 1 to 4 in ascending order.

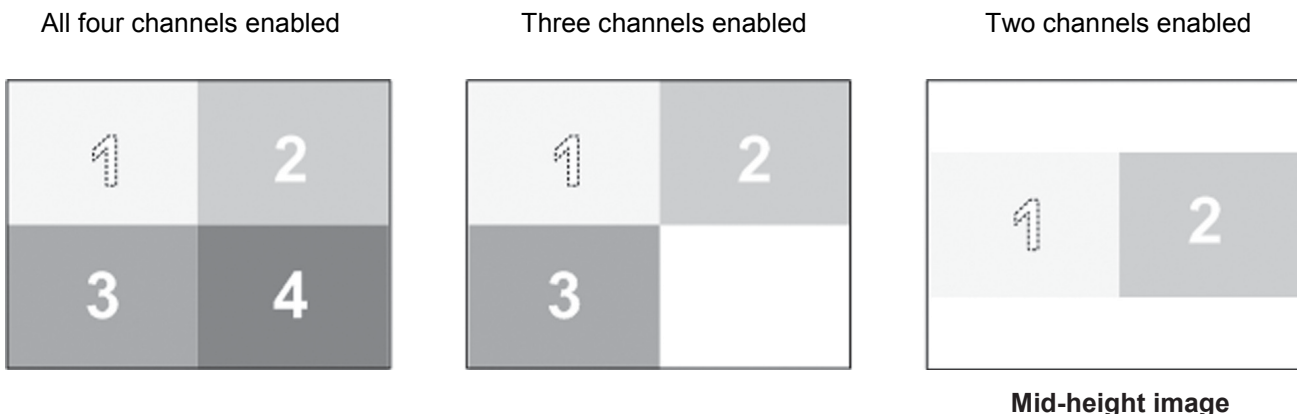


Figure 26. Examples of Disabled Channels in Quad Mode

SYSTEM / CONTROL Menu Item

Navigate to the *CONTROL* menu item in the *SYSTEM* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *CONTROL* window.

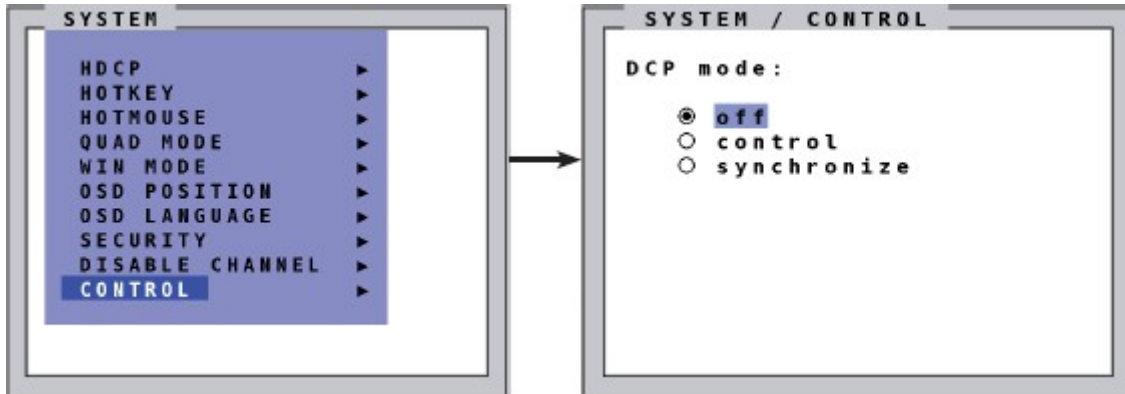


Figure 27. SYSTEM / CONTROL Menu Item

The device can be controlled via DCP (Device Control Protocol), an XML-based protocol. A detailed description can be found in Appendix E.

There are two DCP modes:

- DCP *control*, which allows external control of the display mode; and
- DCP *synchronize*, which keeps several QuadraVista QF devices in the same display mode.

The default setting is *off*, which prevents any external control.

Use a serial or a USB cable to connect a control unit to the RS-232 port (RJ 45) on the QuadraVista QF's rear panel. To synchronize several devices, special "Y" cables are required.

Settings for the connection are:

- transfer rate 57600 baud
- 8 data bits
- No parity
- 1 stop bit
- No flow control

The two control modes operate as follows.

DCP Control

This mode allows direct control of a single QuadraVista QF by means of a control device, e.g. a computer. The control device can query and change the mode of the QuadraVista QF.

QuadraVista QF responds to each DCP message sent by the control device with a DCP reply. This reply includes the values of all settings queried or set by means of the last message. If the message sent by the control unit contains errors, the QuadraVista QF will reply by sending an error message.

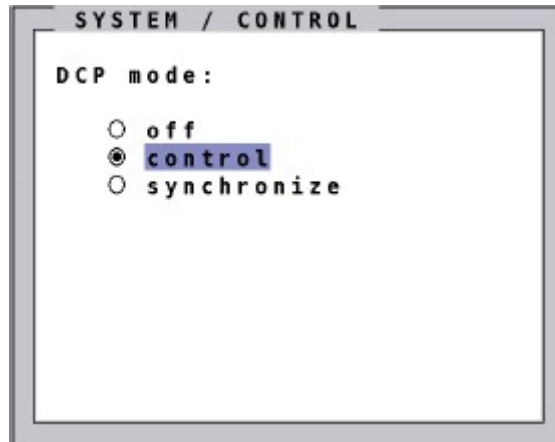


Figure 28. SYSTEM / CONTROL Window - DCP control

As seen in the figure below, the QuadraVista QF is controlled with DCP-XML from a computer connected to it through the serial or USB port.

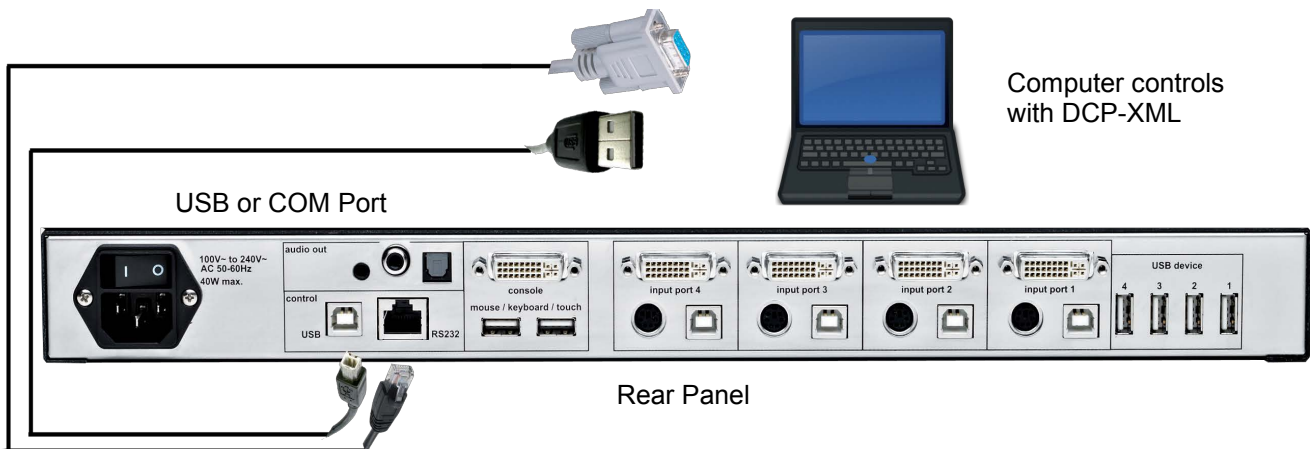


Figure 29. Making connections for DCP Control

DCP Synchronize

Use this mode to keep several QuadraVista QF units in the same state.

Every change in settings initiated in the first unit through hotkeys, hotmouse, front panel buttons or a controlling device synchronizes the states of all connected devices through DCP messages.

Special Y-cables are needed for synchronization.

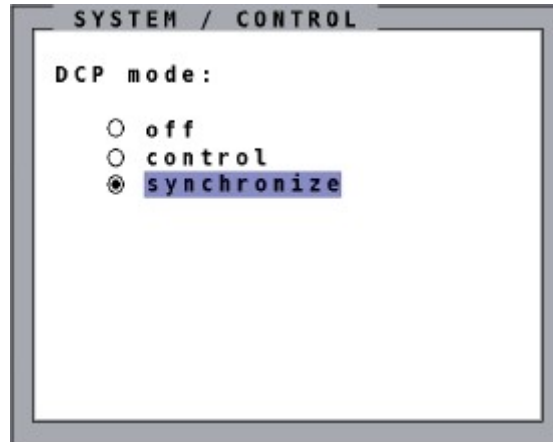


Figure 30, SYSTEM / CONTROL Window - DCP synchronize

Important Note:

Every time a QuadraVista QF that has been set to *synchronize* is restarted, it will send all its settings to the next connected device. This also happens when *DCP mode* is set to *synchronize* in the OSD.

When powering up a chain of units, always start with the unit at the end of the chain. When the unit has completed its startup phase and sent its DCP messages, power up the next unit in the chain. Proceed in this manner, moving up the chain until the first unit in the chain, which will synchronize the settings of all the other units in the chain with its own settings when it starts up.

This is seen in the example setup shown. In this setup, QuadraVista QF units 2 and 3 are synchronized with unit 1.

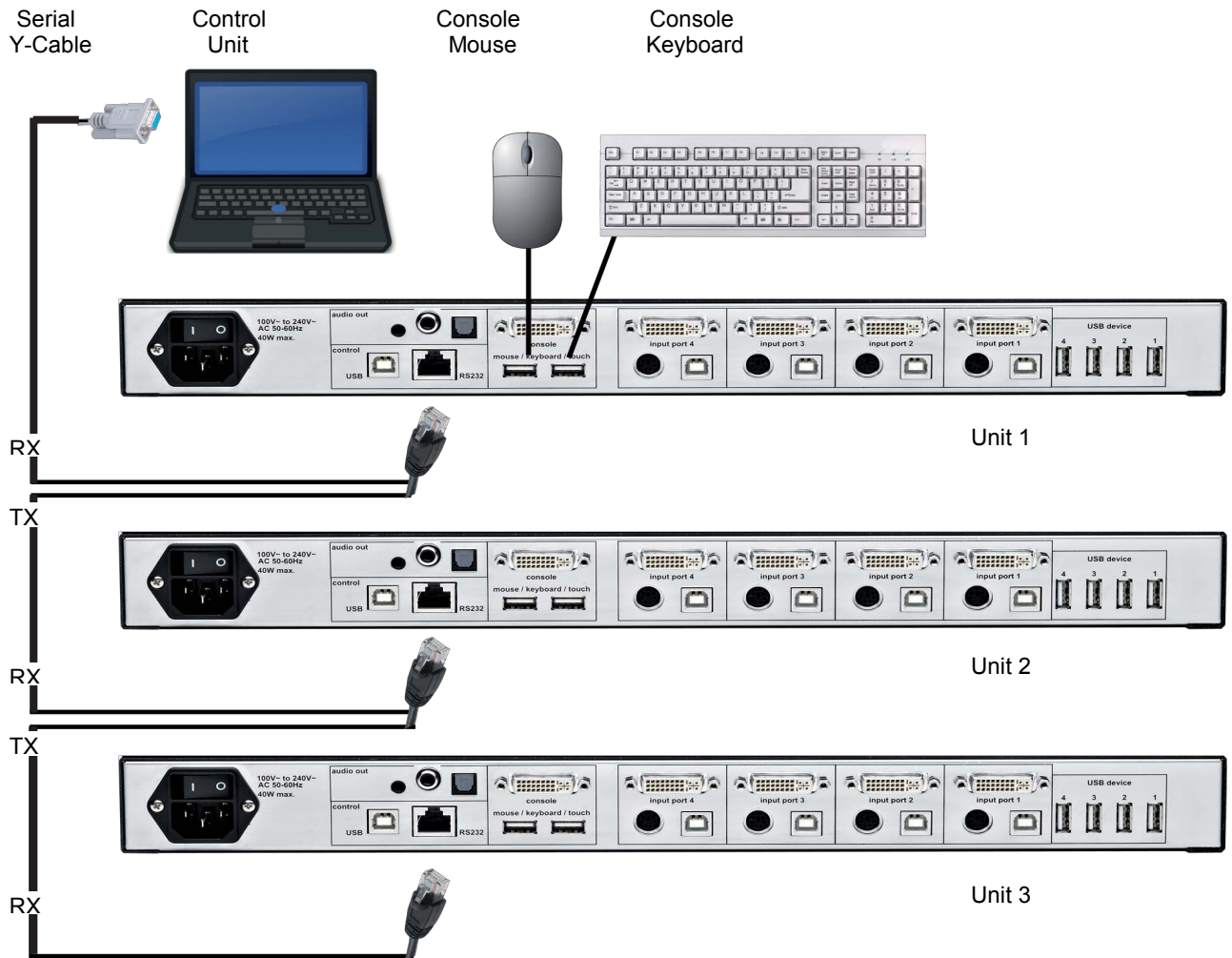


Figure 31. Making connections for DCP Synchronize

When synchronizing, Unit 1 sends every change in settings to the RX input of Unit 2 as a DCP message through the Serial Y-cable between them. Unit 2 then adopts the settings, and then in turn sends a DCP message from its TX output to the RX input of Unit 3 through the Y-cable that links them.

The synchronization chain can be of any length. However, the first and last units in the chain must not be connected, thereby creating a loop.

Security Levels for DCP

The security levels described earlier also apply to control via DCP messages. Queries are possible up to security level 7.

The maximum security levels for simple element settings are shown below. These settings may be changed through DCP to the desired security level.

<i>CONSOLE CHANNEL</i>	6
<i>VIDEO CHANNEL</i>	6
<i>VIDEO LAYOUT</i>	5
<i>PIP LAYOUT</i>	4
<i>PIP HEIGHT</i>	4
<i>PIP OFFSET</i>	4
<i>PIP ZOOM</i>	4
<i>PIP CHANNEL</i>	4
<i>DUAL CHANNELS (L/R)</i>	6
<i>PIP SCAN TIME</i>	4

Table 3. DCP Security Levels

MODE Menu

This section covers the *MODE* menu of the OSD. It is used to define the video modes in which the QuadraVista QF should run, either currently or at start up.

MODE / CURRENT Menu Item

Select the video mode, which the unit should currently use.

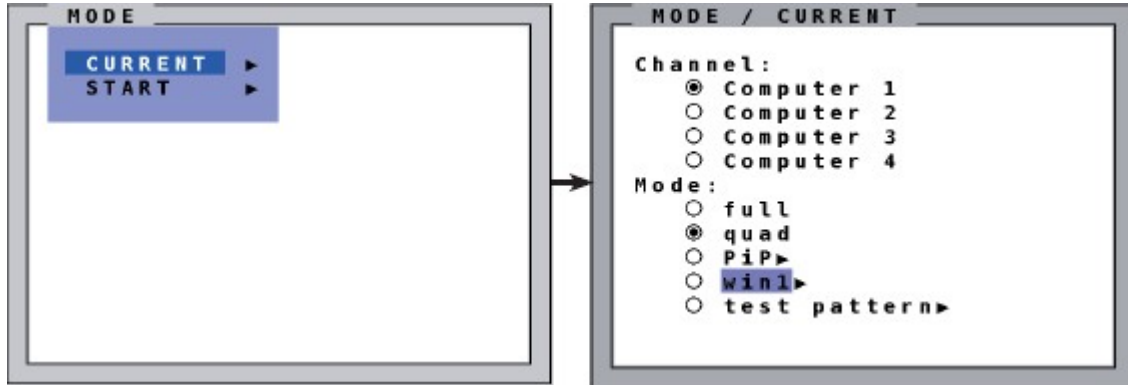


Figure 32, MODE / CURRENT Window

Choose from *Fullscreen*, *Quad Mode*, *PiP*, *Win Mode* or *Test Pattern*.

MODE / START Menu Item

Select the video mode the device should use when starting up.

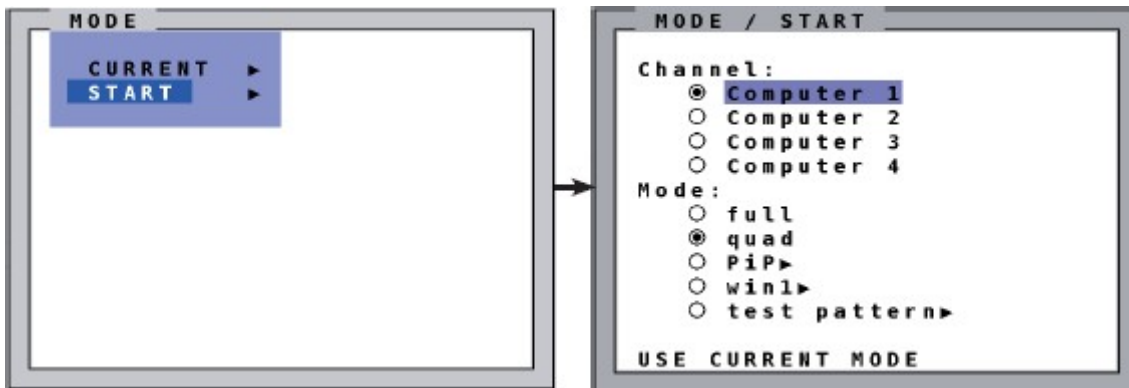


Figure 33. MODE / START Window

This menu item provides the means to define the video mode when the unit is started up (*Fullscreen*, *Quad Mode*, *PiP*, *Win Mode* or *Test Pattern*), the active channel and PiP settings.

When the *MODE / START* menu item is selected, the current start configuration is displayed. Modify this configuration by changing the *Channel*, *Mode* and *PiP* fields. Press **Esc** to save the modifications and exit the *START* menu.

Choose *USE CURRENT MODE* to adopt the current settings as the Start mode. Use the arrow keys to navigate to the field and press **Enter**. The factory default Start mode is Quad Mode with Channel 1 active.

Video Modes

The PiP, Win and Test Pattern Video Modes are described in detail in this section. A description of the different video modes can be found in the *Selectable Display Modes* section in the *Introduction* to this manual.

PiP Video Mode

This section describes the PiP Video Mode.

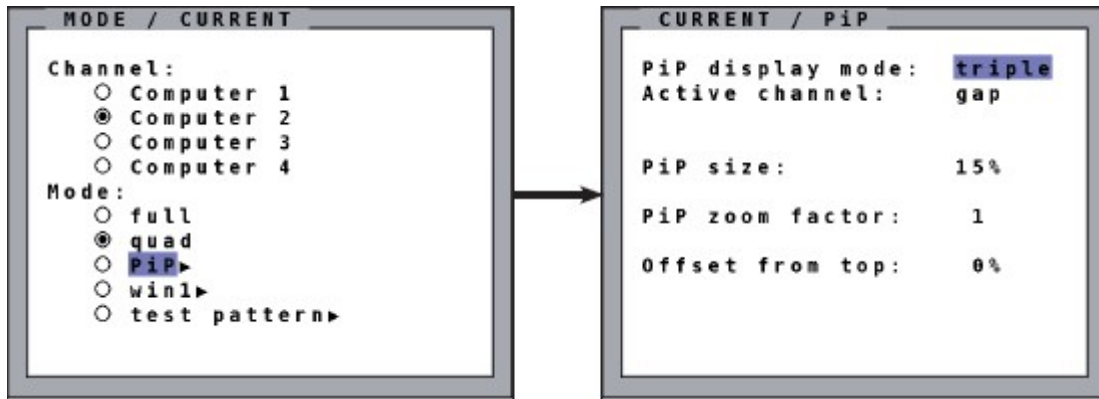


Figure 34. PiP Video Mode Settings

The PiP size, zoom factor, position and display mode can be set in the *PiP* window.

PiP display mode

The *triple* option shows 3 additional screens in PiP mode, while *single* shows only one other screen. When *single* is chosen, use the *PiP channel* option to define which channel is to be displayed in the window.

PiP size

This field gives the option to specify the size of the PiP window as a percentage of half the overall screen size. Twelve sizes are available for *single PiP display mode*, and nine sizes are available for the *triple PiP display mode*, as shown below.

Single PiP display mode: 3%, 5%, 7%, 10%, 15%, 20%, 25%, 28%, 33%, 38%, 44%, 50%

Triple PiP display mode: 3%, 5%, 7%, 10%, 15%, 20%, 25%, 28%, 33%

Note:

The size of one quad screen is 50% (one quarter of a full screen).

PiP zoom factor

Use this option to zoom the center of the PiP images by a factor of two.

Offset from top

Use this option to change the position of the PiP images. PiP images can be moved vertically along the screen's right hand border.

Note:

All PiP settings are also accessible from the Hotmouse menu.

PIP Display Modes

The *triple* and *single* PiP display modes are described in detail here, with the effect of the display mode options on them.

Triple PiP Display Mode

In the *triple* PiP display mode, all four video sources are displayed. The active channel will be displayed as the main image, and the other three channels will be PiP images. The effect of the *Active Channel* setting is displayed below.

```
MODE / PiP
PiP display mode: triple
Active channel: gap

PiP size: 25%
PiP zoom factor: 1
Offset from top: 0%
```

triple gap:
PiP images are displayed with a gap in place of the active channel.

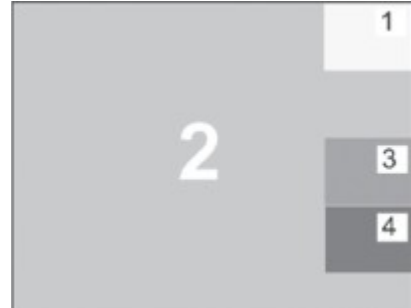


Figure 35. PiP triple Display Mode with Gap for Active Channel

```
MODE / PiP
PiP display mode: triple
Active channel: no gap

PiP size: 25%
PiP zoom factor: 1
Offset from top: 0%
```

triple no gap:
images are displayed without a gap.

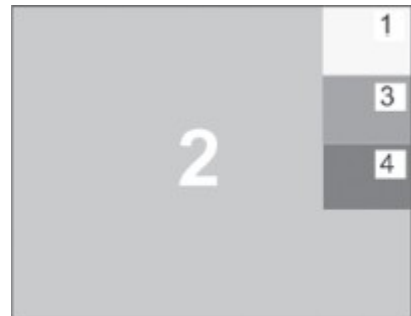


Figure 36. PiP triple Display Mode with No Gap for Active Channel

```
MODE / PiP
PiP display mode: triple
Active channel: tile

PiP size: -
PiP zoom factor: 1
Offset from top: -
```

triple tile:
The size of the main and PiP images are optimized so that the main image and PiP images are shown as large as possible without overlapping.

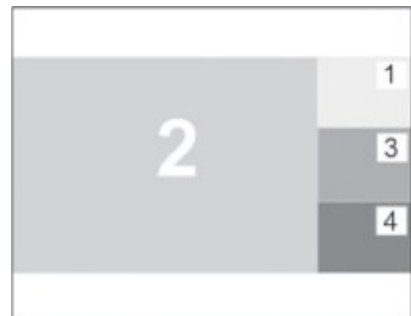


Figure 37. PiP triple Display Mode with Tiled Active Channel

Single PiP Display Mode

In *single* PiP display mode, only one PiP image is displayed inside the Active Channel image. The effect of the *Channel selection* option is described below.

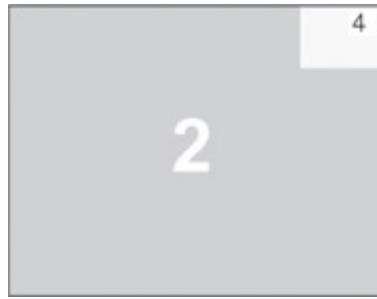


Figure 38. Single PiP Display Mode

Single fixed PiP display mode

In *single fixed* PiP display mode, one channel is selected as a permanent PiP image. Only the active channel can be switched. Use the front panel buttons numbered 1 to 4 to change the active channel.

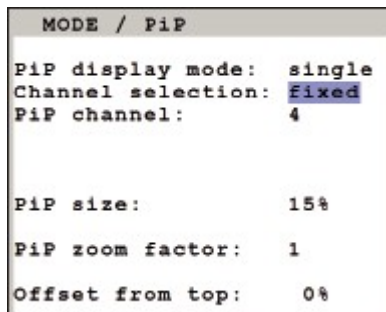


Figure 39. Single PiP Display Mode with fixed Channel Selection

Single direct PiP display mode

In *single direct* PiP display mode, one channel is selected as permanent active channel. Only the PiP channel can be changed. Use the front panel buttons numbered 1 to 4 to change the PiP channel.

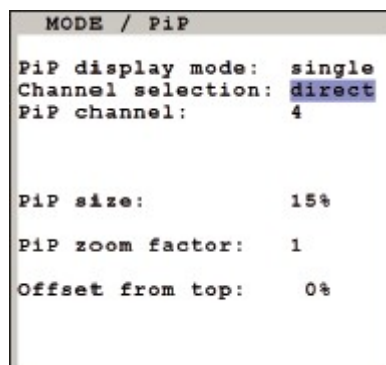


Figure 40. Single PiP display mode with direct Channel Selection

Single scan PiP display mode

In *single scan* PiP display mode, one channel is selected as the active channel, with the other three channels being displayed in turn in the PiP channel. The QuadraVista QF will scan PiP channels, switching between them. The period a channel is displayed before it is switched is controlled by the *Scan time* option. This value can be between 1 and 9 seconds.

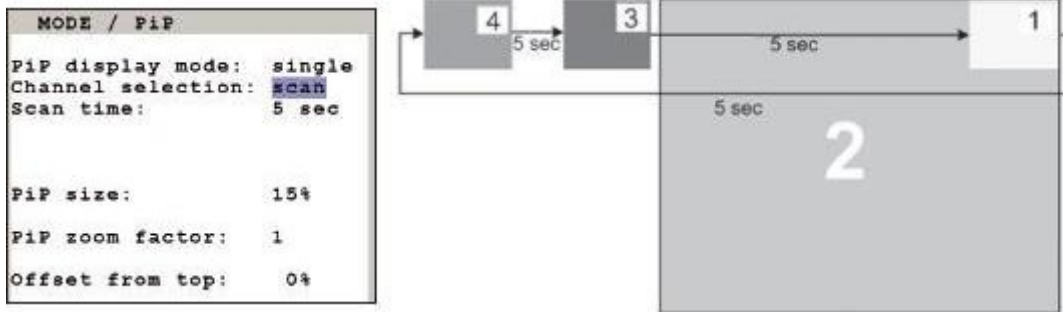


Figure 41. Single PiP Display Mode with scan Channel Selection

Win Video Mode

In Win Video Mode, each channel has its own window. The Win video mode for the Current and Start video mode configurations is described below.

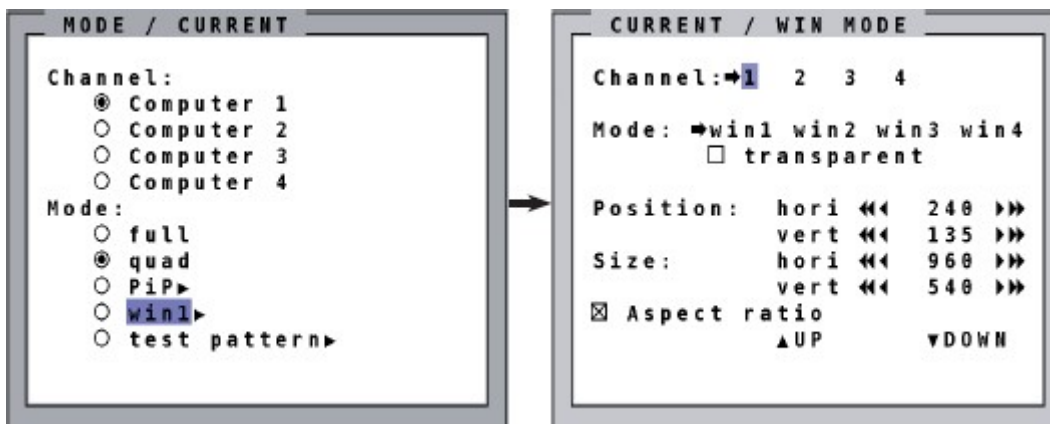


Figure 42. Win Video Mode Settings

Specify the *Channel*, window *Mode*, *Position* and window *Size* in the *WIN MODE* window. The arrow keys can be used to modify horizontal and vertical positions and sizes of the windows.

Check the *Aspect ratio* check box to retain the same aspect ration as the source image.

Test Pattern Video Mode

Test Pattern video mode is used to check monitor quality (pixel errors, contrast, changes etc) or the functionality of the video output of the QuadraVista QF.

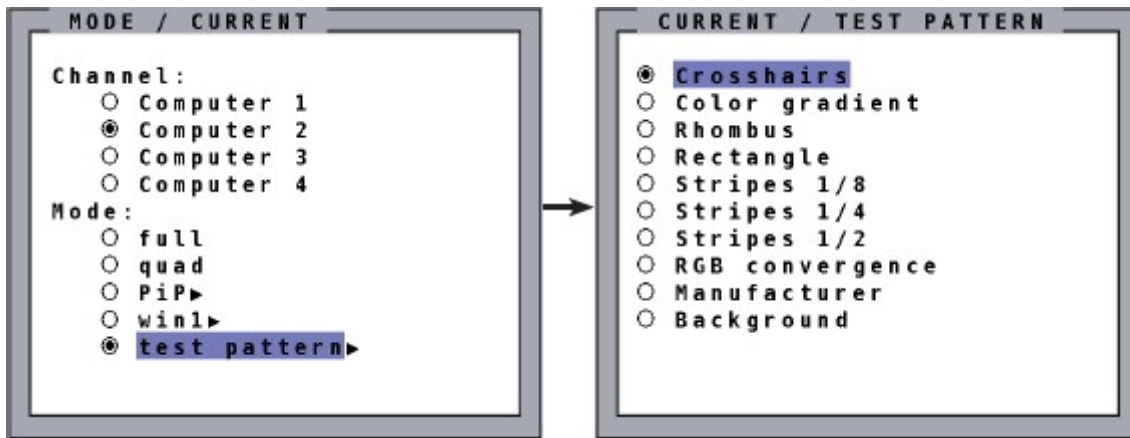


Figure 43. Test Pattern Video Mode Settings

When running test patterns, it is recommended that all available test patterns be used for the test procedure.

The available test patterns are displayed below.

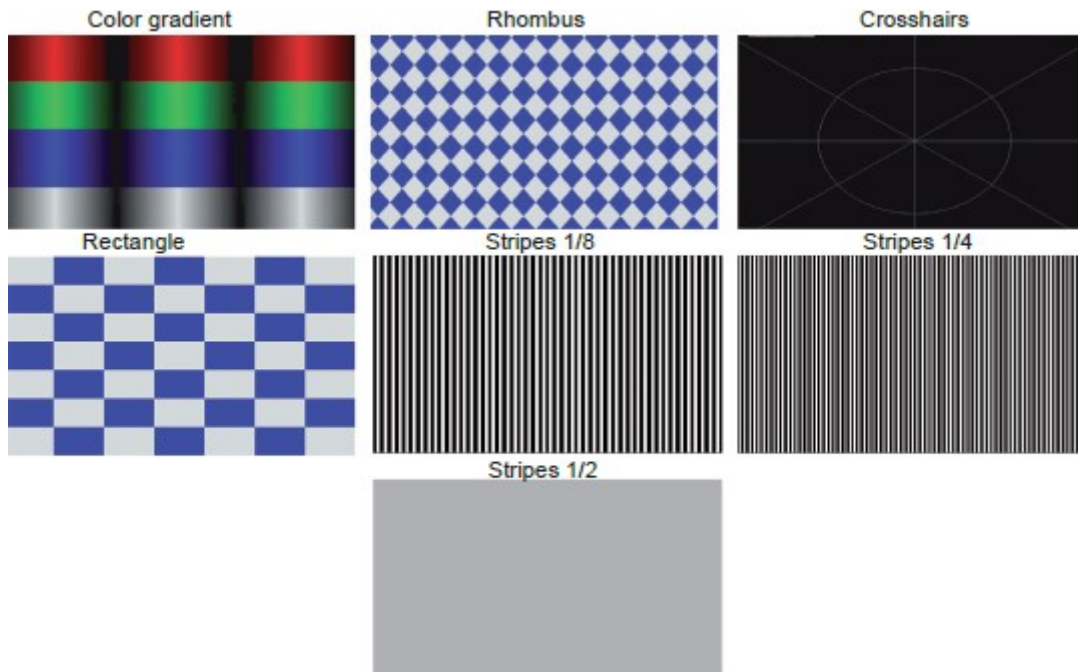


Figure 44. QuadraVista QF Test Patterns

Hotkey commands, the OSD and the *Full*, *Quad*, *PiP* and *Win* front panel buttons can be used to exit the *TEST PATTERN* mode.

CONFIGURATION Menu

This section covers the *CONFIGURATION* menu of the OSD. The individual menu options are described below.

CONFIGURATION / BACKUP Menu Item

Navigate to the *BACKUP* menu item in the *CONFIGURATION* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *BACKUP* window.

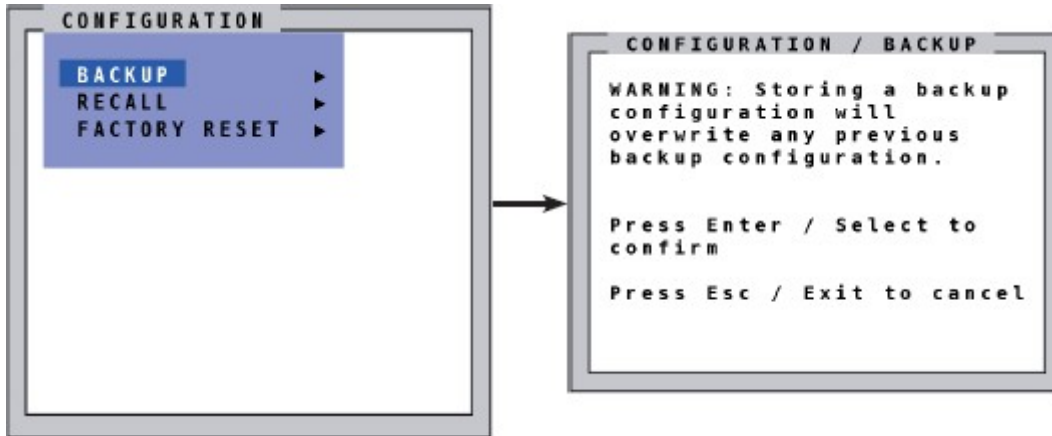


Figure 45. CONFIGURATION / BACKUP Window

Use this menu item to store the current device settings. This includes the start mode set with the *MODE / START* menu item, and the EDID data from the four inputs.

For details on creating an external backup to a file, see Appendix E.

CONFIGURATION / RECALL Menu Item

Navigate to the *RECALL* menu item in the *CONFIGURATION* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *RECALL* window.

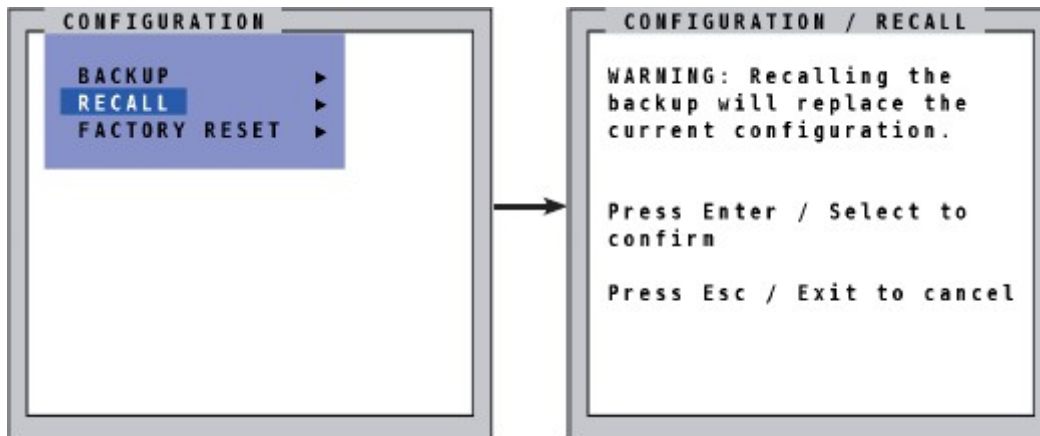


Figure 46. CONFIGURATION / RECALL Window

This menu option is used to reload the configuration that was last saved using the *BACKUP* menu item.

CONFIGURATION / FACTORY RESET Menu Item

Navigate to the *FACTORY RESET* menu item in the *CONFIGURATION* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *FACTORY RESET* window.

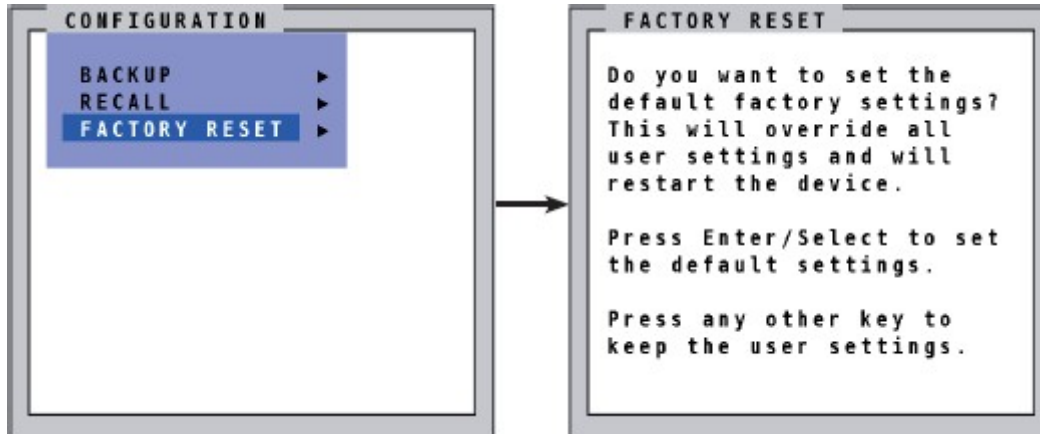


Figure 47. CONFIGURATION / FACTORY RESET Window

This menu item is used to reset the unit to its factory default settings. All four input EDID tables are also reset to their default values

As a safety precaution, save the current settings using the *BACKUP* menu item before using this option. Execution of this option completely resets the QuadraVista QF to factory defaults and reboots it.

Factory Default Settings

SYSTEM

HOTKEY→ Mode = multiple keys, Keys: Ctrl = Checked and Alt = Checked
HOTMOUSE→ Enable hotmouse = Checked, Time out of hotmouse = 5 sec
QUAD MODE→ Time out of channel selection = 5 sec
WIN MODE→ Border Width = 0
Border Colors→Active Channel = 255,255,0
Border Colors→Inactive Channel = 255,136,0
OSD POSITION→ Centered
OSD LANGUAGE→ English
SECURITY→ Security level = 0 (No Security)
DISABLE CHANNEL→ Number of active channels = 4
CONTROL→ DCP mode = off

MODE

CURRENT→ Channel = Computer 1
Mode = quad
START→ Channel = Computer 1, Mode = quad
PiP→ PiP size = 15%, PiP zoom factor = 1
PiP display mode = triple, Active channel = gap
Offset from top = 0%
Win1→ Channel = 1, Mode=win1
Position = Settings depend on the source
Aspect ratio = Checked

Factory Default Settings (continued)

CONSOLE

VIDEO OUTPUT→	<i>mode = auto</i>
KEYBOARD→	<i>Console keyboard language = English</i>
TOUCHSCREEN→	<i>Mouse emulate right click = Checked</i>
FADE→	<i>Smooth transitions = off</i>
MUTLI MONITOR→	<i>Monitor 1 = Channel 1, Monitor 2 = Channel 2</i> <i>Monitor 3 = Channel 3, Monitor 4 = Channel 4</i>
BACKGROUND→	<i>Color: Red = 0, Green = 0, Blue = 0</i>

VIDEO

DVI/VGA→	<i>Select input signal = DVI/VGA (all channels)</i>
ROTATION→	<i>Rotation of monitor = 0</i>
CROPPING→	<i>Cropping input signals = all 0 (no cropping)</i>
BRIGHTNESS→	<i>+0 for all channels</i>
CONTRAST→	<i>56% all channels</i>
HORIZ POSITION→	<i>AUTO/MAN = auto</i>
VERT POSITION→	<i>AUTO/MAN = auto</i>
SCREEN WIDTH→	<i>+0 (all channels)</i>
PHASE→	<i>+0 (all channels)</i>
FORMAT→	<i>Fit to screen = Unchecked for all channels</i>

COMPUTER

CHANNEL MAPPING→	<i>Position of ports = relative all channels</i>
AUDIO→	<i>Enable audio output = Checked, Select audio from = active channel</i> <i>Switch channel on audio activity = Unchecked</i> <i>“Computer 1” to “Computer4” respectively</i>
NAME 1 – 4→	
KEYBOARD→	<i>USB (all channels)</i>
MOUSE→	<i>USB (all channels), Mouse positioning = relative (all channels)</i>
RESET PS/2→	<i>Channel 1 selected</i>
EDID/DDC→	<i>1600 x 1200 @ 60Hz and 1920 x 1200 @ 60 Hz, digital (all channels)</i>

USB DEVICE 1-4:

Status of transparent USB 2.0 switch = off (all devices)
Switching mode = manual switching with warning (all devices)
USB Device name “Device 1” to “Device 4” respectively

CONSOLE Menu

This section covers the *CONSOLE* menu of the OSD. The individual menu options are described below.

CONSOLE / VIDEO OUTPUT Menu Item

The *VIDEO OUTPUT* menu item is used to choose an output resolution suitable for the user's monitor. Navigate to the *VIDEO OUTPUT* menu item in the *CONSOLE* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *VIDEO OUTPUT* window.

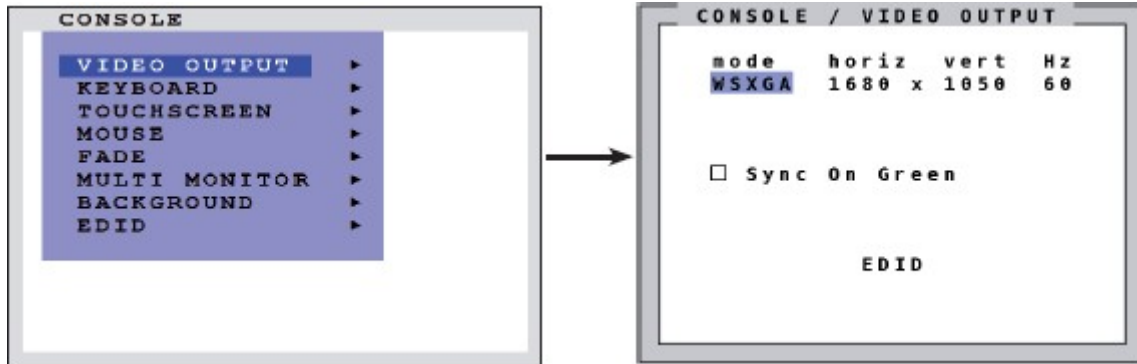


Figure 48. CONSULE / VIDEO OUTPUT Window

The *VIDEO OUTPUT* window displays the list current video mode. To change the video mode or to see a list of all available video modes, press the **Enter** key / **SELECT** button when the *VIDEO OUTPUT* window is displayed. This opens the *MODE* window, which displays a list of available video modes.

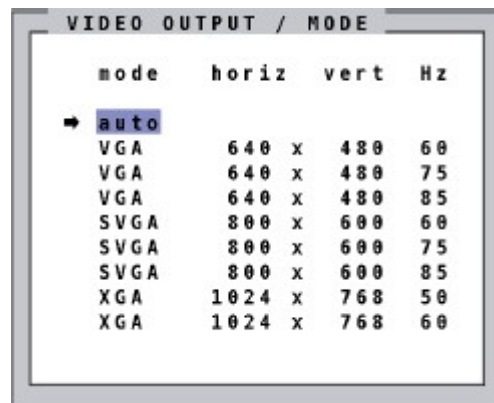


Figure 49. CONSULE / VIDEO OUTPUT / MODE Window

Use the arrow keys to select the desired video mode. Press the **Enter** key / **SELECT** button to apply the new video format. The selected output mode is displayed for 10 seconds, along with the Mode / Test video screen. The new setting can be accepted within this period by pressing the **Enter** key / **SELECT** button; or the unit can be returned to the previous setting by pressing the **Esc** key / **EXIT** button.

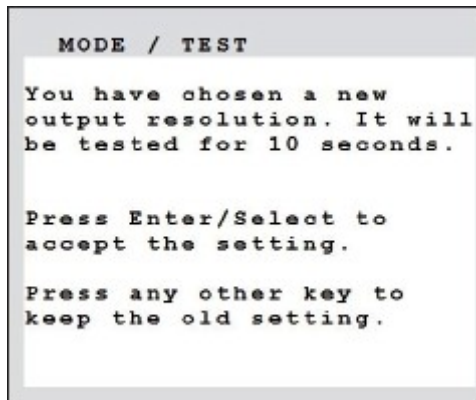


Figure 50. MODE / TEST Video Output Window

When the *auto* output mode is selected in the *MODE* window, the QuadraVista QF attempts to choose a resolution by reading the connected monitor's EDID data. The *EDID* menu item (described below) can be used to determine whether the connected monitor provides this data. If the monitor does not provide an EDID, the QuadraVista QF sets the video mode to VGA (640x480@60Hz) by default and activates Sync on Green. Sync on Green can be deactivated on the QuadraVista QF.

CONSOLE / KEYBOARD Menu Item

The *KEYBOARD* menu item allows the user to select the keyboard language. Navigate to the *KEYBOARD* menu item in the *CONSOLE* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *KEYBOARD* window.

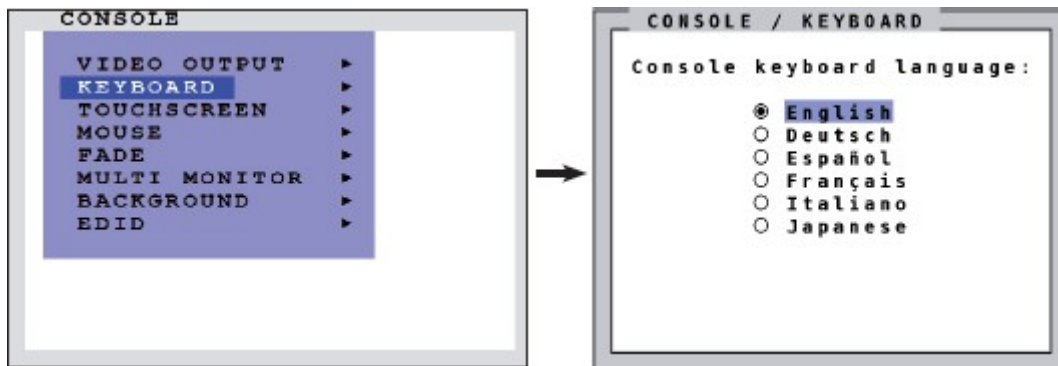


Figure 51. CONSOLE / KEYBOARD Window

Select the desired keyboard language from the list. The options are English, Deutsch (German), Español (Spanish), Français (French), Italiano (Italian) or Japanese. Press the **Enter** key / **SELECT** button to make the desired selection.

CONSOLE / TOUCHSCREEN Menu Item

The QuadraVista QF enables the user to use a touch screen to change display modes and to control and switch between four computers. The QuadraVista QF supports many USB touch screens with commonly integrated touch controllers. A list of supported Touch Screens can be found in Appendix G on page 90

To control the QuadraVista QF from a touch screen, connect the VGA or DVI cable from the QuadraVista QF's Monitor / DVI-I output to the touch screen input. Connect the touch screen's USB to the QuadraVista QF's console USB. See Rear Panel section on page 5 for a description of the QuadraVista-QF ports.

Navigate to the *TOUCH SCREEN* menu item in the *CONSOLE* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *TOUCHSCREEN* window. Here, the touch screen can be set up to work with the QuadraVista QF.

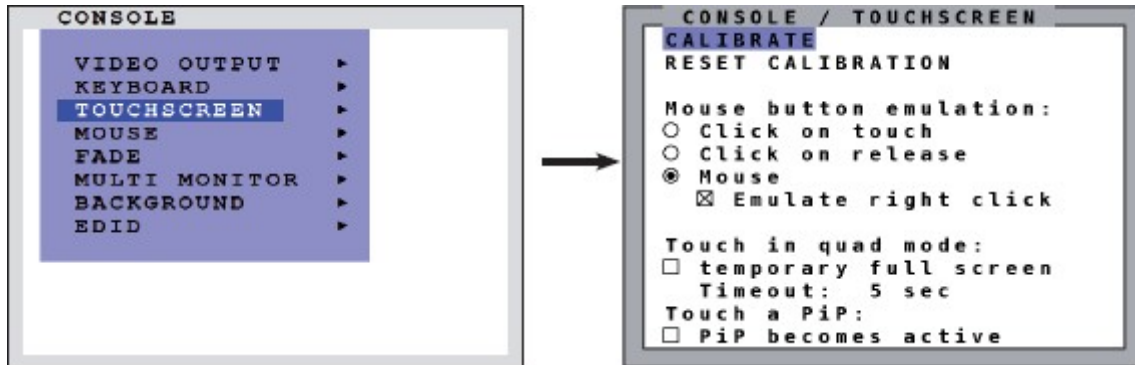


Figure 52. CONSOLE / TOUCHSCREEN Window

Calibrate

When a touch screen is connected to QuadraVista QF for the first time, the touch screen should be calibrated manually, if it has not been factory calibrated. Manual calibration is necessary when the coordinates of the area touched on the screen are not sufficiently close to the coordinates on the display.

It is not recommended that factory calibrated touch screens be calibrated manually, as factory calibration is usually more precise. To reset stored data from a manual calibration, use the *RESET CALIBRATION* menu item.

In the *TOUCHSCREEN* window, navigate to the *CALIBRATE* window, and press the **Enter** key / **SELECT** button. Four markers will be displayed, one after the other, in the corners of the touch screen. Touch the center of each marker in turn. The best calibration results are obtained by touching the center of the markers as accurately as possible.

Mouse Button Emulation

Mouse button emulation is only performed for computers for which the digitizer touch screen interface is not activated, as described in the *COMPUTER / MOUSE/TOUCHSCREEN* Menu Item section found on page 57.

The QuadraVista QF provides three modes to interpret user input on the touch screen as mouse clicks.

1. *Mouse*: A mouse button press is generated when the user's finger touches the touch screen. Subsequently, when the user lifts the finger from the touch screen, a mouse button release is generated. This mode is useful for drag and drop operations. If *Emulate Right Click* is enabled, a right click is generated by a prolonged touch.
2. *Click on touch*: When a user's finger touches the touch screen, a mouse click is immediately generated at the position of the touch.
3. *Click on release*: When the user's finger is lifted from the touch screen, a mouse click is generated at the last position of the finger.

The default *Mouse Button Emulation* mode is *Mouse*. With this, the motion of user's finger on the touch screen mimics using the mouse. *Click on touch* and *Click on release* are suitable for kiosk applications, or environments where touch screens are used instead of keyboards and mice, such as in medical industries for hygienic reasons, in industrial production and automation for operation with gloves, or in vehicles and aircraft where robust components are required.

Touch in Quad Mode

Check this box to switch a quadrant from Quad mode to full screen temporarily, when the quadrant is touched. This activates keyboard and mouse for that quadrant, and provides access to that computer in full screen. The other sources are not visible during this time. After a timeout of 5 seconds without any keyboard or mouse activity, QuadraVista-QF automatically switches from full screen to Quad mode. The timeout can be set to values between 1 and 10 seconds.

Touch a PiP

Check this box to activate the keyboard and mouse on a computer shown as PiP. When touching a PiP, the keyboard and mouse become active in this PiP. This activated channel remains a small PiP image and does not switch to full image. In this PiP, the computer can be operated with the keyboard and mouse.

The default state of the Touch a PiP field is unchecked. In this case, a PiP is switched to full image as soon as it is touched. The other sources remain visible as PiPs.

Right Mouse Button

Touching and holding the finger on the touch screen emulates the right mouse button. This only works in *Mouse* emulation mode, and not in *Click on touch* or *Click on release* modes. By default, the *Emulate right click* field is checked to facilitate this operation. Some touch controller models do not support right mouse click. Using touch screens with such controllers requires unchecking the *Emulate right click* field.

Hotmouse and Hotmouse Menu

The *Hotmouse Menu* (described on page 16), can be opened by tapping the screen twice, and leaving the finger on the touch screen after the second tap (tap, tap – hold, like a double click without lifting the finger on the second click). Lift the finger when the *Hotmouse Menu* opens.

By clicking outside the *Hotmouse Menu*, the *Hotmouse Cursor* can be opened to enlarge and reposition PiPs (in PiP mode), resize and move windows (in Win mode), and switch channels.

Mouse Position

Absolute Mouse

The QuadraVista QF works best with touch screens when using absolute mouse mode on the connected computers. To enable absolute mouse mode, use the *COMPUTER→MOUSE/TOUCHSCREEN* menu in the OSD. This mode works best when a computer is connected through the USB port on most modern operating systems.

Relative Mouse

When relative mouse mode is used, the connected computers must be configured to have mouse acceleration switched off and mouse scaling set to 1:1.

Resetting the mouse position:

When using relative mouse mode, there may be occurrences when the actual position of the mouse cursor and the position of the finger on the touch screen do not match. This may happen when the screen resolution is changed or the computer changes the mouse position (for example, when the system is configured to place the mouse pointer over the 'OK' button of a window). In these cases, to reset the mouse position, switch to a different channel, and back again. Alternatively, tap the touch screen three times, and then leave the finger pressed on the touch screen after the third tap (tap – tap – tap - hold), until the mouse cursor moves to the top left corner of the screen.

CONSOLE / MOUSE Menu Item

The *cross channel switching* feature can be enabled here. With this feature, the active mouse can be moved past the borders of the active channel. When this is done, a device mouse cursor is displayed, and an inactive channel can be activated by a left mouse click in its window.

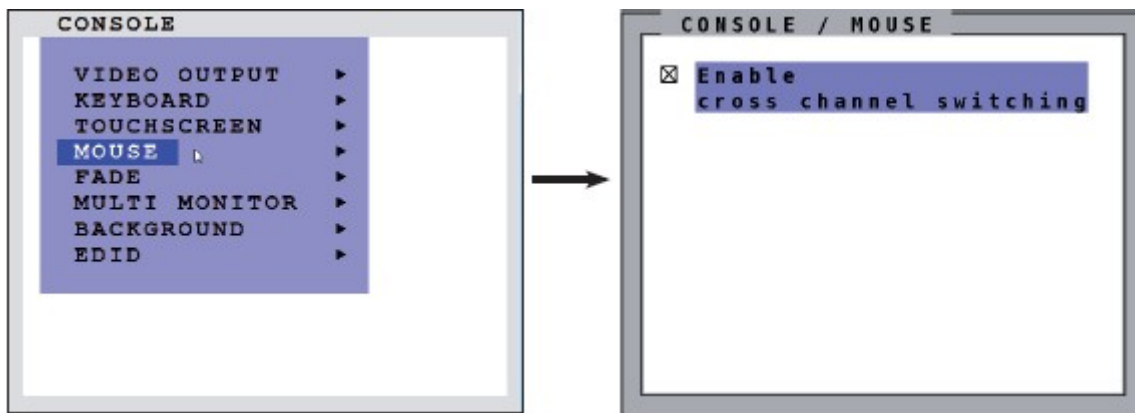


Figure 53. CONSOLE / MOUSE Window

Certain features behave differently based on whether *cross channel switching* is enabled. These are summarized in the table below.

Features	Cross Channel Switching	
	Disabled	Enabled
Standard Features	<ul style="list-style-type: none"> ■ The mouse always stays inside the active channel window. ■ Changing the active channel using the mouse is only possible with the Hotmouse feature. 	<ul style="list-style-type: none"> ■ When the mouse leaves an active channel window, a yellow device cursor is displayed. ■ When the device cursor is positioned over an inactive channel window, the channel can be activated with a left mouse click.
Used USB Interfaces	Relative mouse positioning	If available, absolute mouse positioning; otherwise, relative mouse positioning
Multiple monitors connected to a computer	Every monitor is reachable by mouse	<ul style="list-style-type: none"> ■ Only the monitor connected to the QuadraVista QF is reachable by mouse ■ Recommended only for hosts that support absolute mouse positioning

CONSOLE / FADE Menu Item

The *FADE* menu item controls the “Fade Through Black” feature of the QuadraVista QF. With this feature, when switching channels or display modes, the previous image fades to black, and the next image is faded in smoothly.

Navigate to the *FADE* menu item in the *CONSOLE* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *FADE* window.

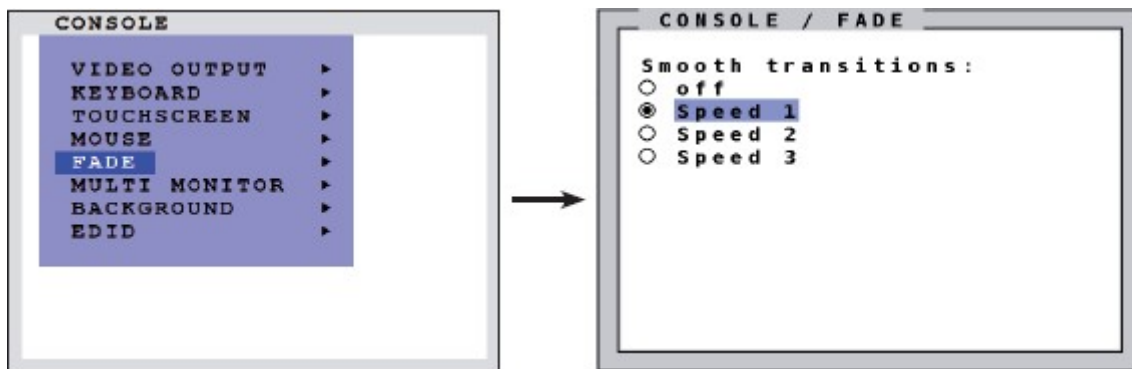


Figure 54. CONSOLE / FADE Window

To enable “Fade Through Black”, select a transition speed under *Smooth transitions*. The *Speed* setting controls the speed of the transition, with *Speed 1* being the slowest, and *Speed 3* the fastest transition.

CONSOLE / MULTI MONITOR Menu Item

The *MULTI MONITOR* menu item is used when computers with multiple video-head outputs are connected to QuadraVista-QF with just one keyboard and mouse being used to operate the computer. Navigate to the *MULTI MONITOR* menu item in the *CONSOLE* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *MULTI MONITOR* window.

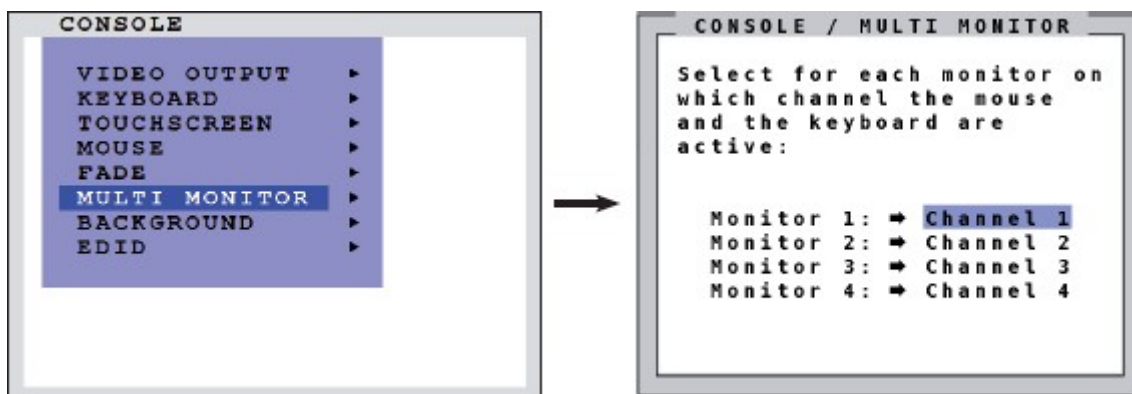


Figure 55. CONSOLE / MULTI MONITOR Window

When using graphics cards with multiple video outputs, the computer’s keyboard and mouse must be assigned to the corresponding video output (channels 1-4). For example, if a computer with a quad-head graphics card is connected to QuadraVista-QF, and the keyboard and mouse are connected to Channel 1, assign console *Channel 1* to all video channels (*Monitor 1 - 4*).

CONSOLE / BACKGROUND Menu Item

The *BACKGROUND* menu item is used to select either a solid color or an image for the background area of the screen on which windows are displayed. Navigate to the *BACKGROUND* menu item in the *CONSOLE* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *BACKGROUND* window.

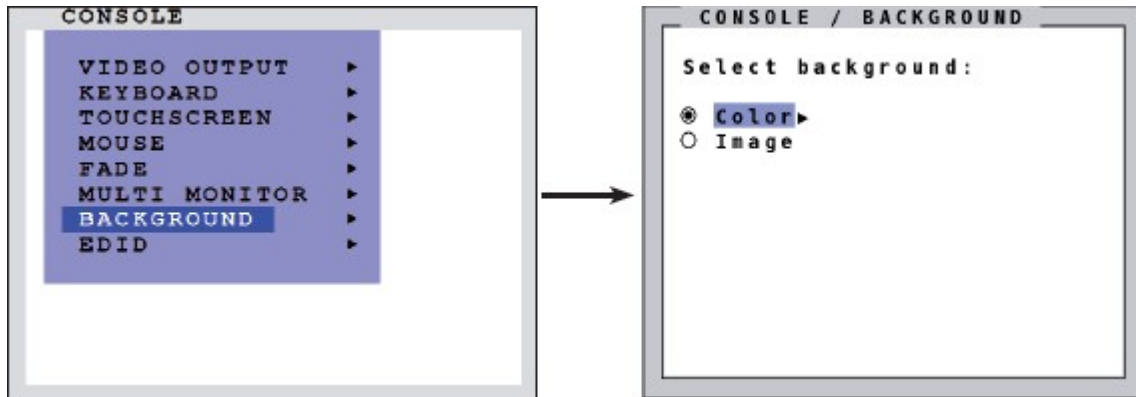


Figure 56. CONSOLE / BACKGROUND Window

In the *BACKGROUND* window, select *Color* to set a solid color for the background or *Image* to select an image to set an image for the background, and press the **Enter** key / **SELECT** button.

When *BACKGROUND*→*Color* is selected, the *SELECT COLOR* window is opened.

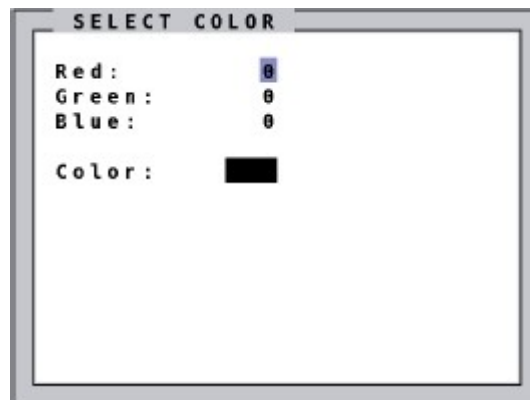


Figure 57. BACKGROUND / SELECT COLOR Window

Enter the desired color in 24-bit color *Red*, *Green* and *Blue* values. The *Color* field will show a preview of the color corresponding to the entered *Red*, *Green* and *Blue* values.

When *BACKGROUND*→*Image* is selected, the background area of the screen will be filled with the image that was previously selected in the ConfDev utility with *DEVICE*→*LOAD BACKGROUND IMAGE*. If no image has been pre-loaded, this option will not appear.

Note:

The background is shown only in Win mode. Default color for the other modes is black.

EDID Menu Item

The *EDID* menu item is used to read and display monitor data (manufacturer, monitor name, serial number etc.) from the monitor's EDID memory. If the mode is set to *auto* in the *VIDEO OUTPUT*→*MODE* window, the QuadraVista-QF uses the optimum output resolution offered by the EDID. Navigate to the *EDID* menu item in the *CONSOLE* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *EID* window.

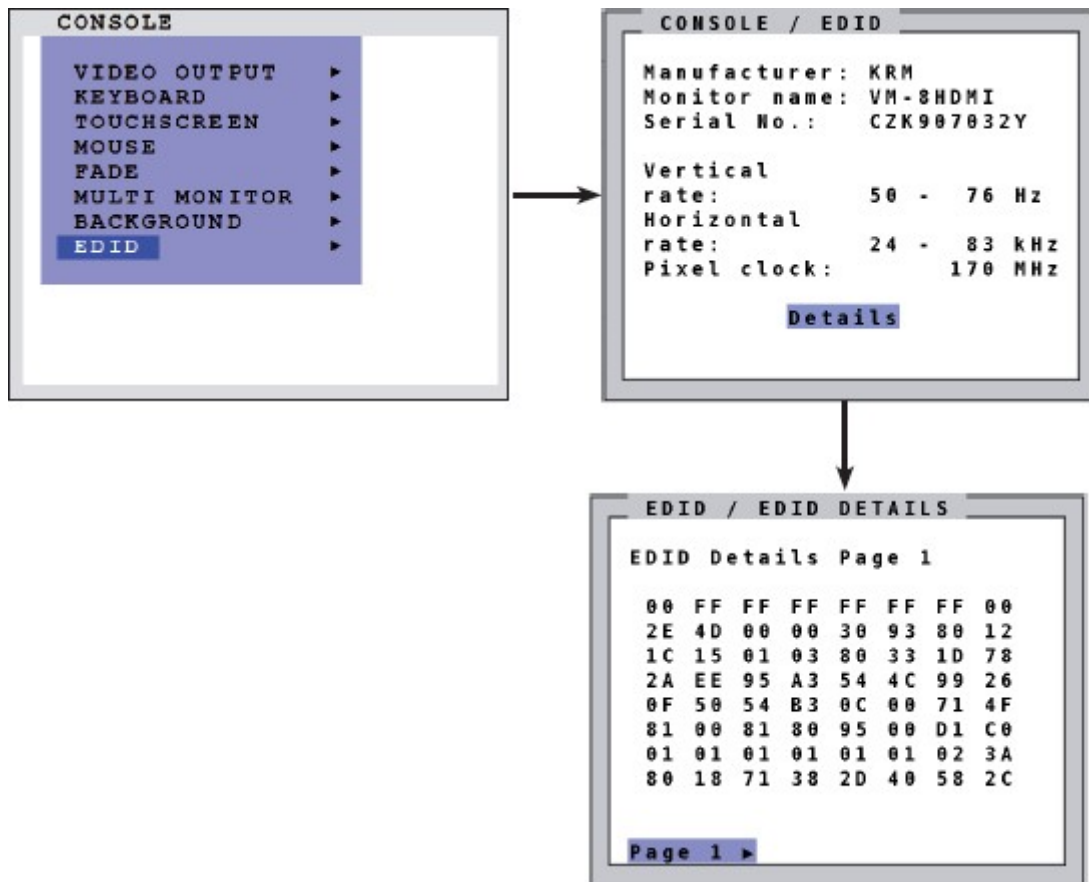


Figure 58. CONSOLE / EDID and EDID / EDID DETAILS Windows

By navigating to the *Details* button in the *CONSOLE*→*EDID* window and pressing the **Enter** key / **SELECT** button, the *EDID DETAILS* window can be opened where more information from the EDID table is displayed.

Note:

EDID information can be copied to all four inputs and then made available to the connected sources. This is described in further detail in the *COMPUTER*→*EDID/DDC* section.

VIDEO Menu

This section covers the *VIDEO* menu of the OSD. The individual menu options are described below.

VIDEO / INPUT STATUS Menu Item

The *INPUT STATUS* menu item is used to display the video resolutions and formats of the video inputs. Navigate to the *INPUT STATUS* menu item in the *VIDEO* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *INPUT STATUS* window.

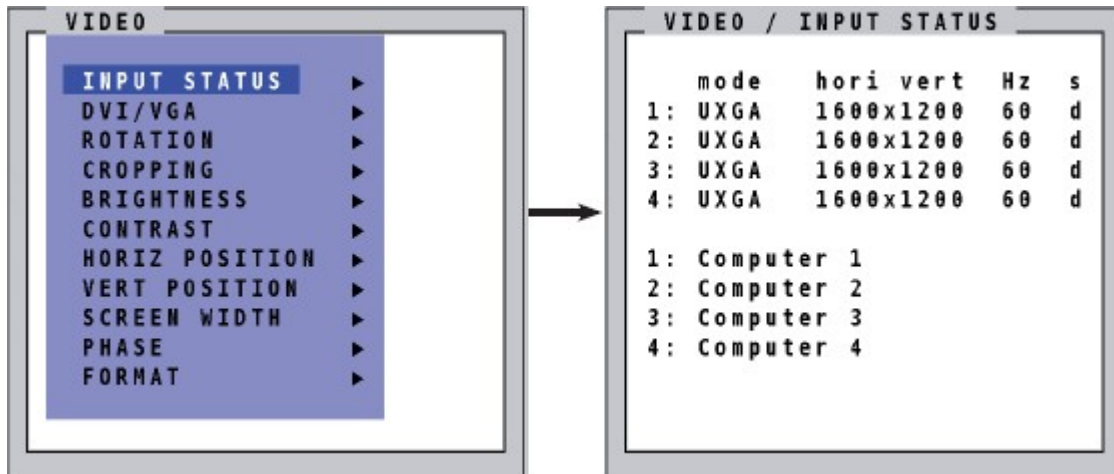


Figure 59. VIDEO / INPUT STATUS Window

Video resolutions and signal types of the four video inputs are shown in the *INPUT STATUS* window. The resolutions of the four video inputs are automatically recognized. Some analog input resolutions may not be correctly detected. A list of supported input and output video formats can be found in Appendix H.

Signal Type key:

- s = Signal
- a = analog
- d = digital
- g = sync on green
- c = composite sync

VIDEO / DVI/VGA Menu Item

The DVI-I connectors on the QuadraVista QF can handle both DVI and VGA signals. By using Y-cables, up to eight video sources (four VGA and four DVI) can be connected to the QuadraVista QF. The *DVI/VGA* menu item is used to specify whether the QuadraVista QF will display a DVI or VGA video signal.

Navigate to the *DVI/VGA* menu item in the *VIDEO* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *DVI/VGA* window.

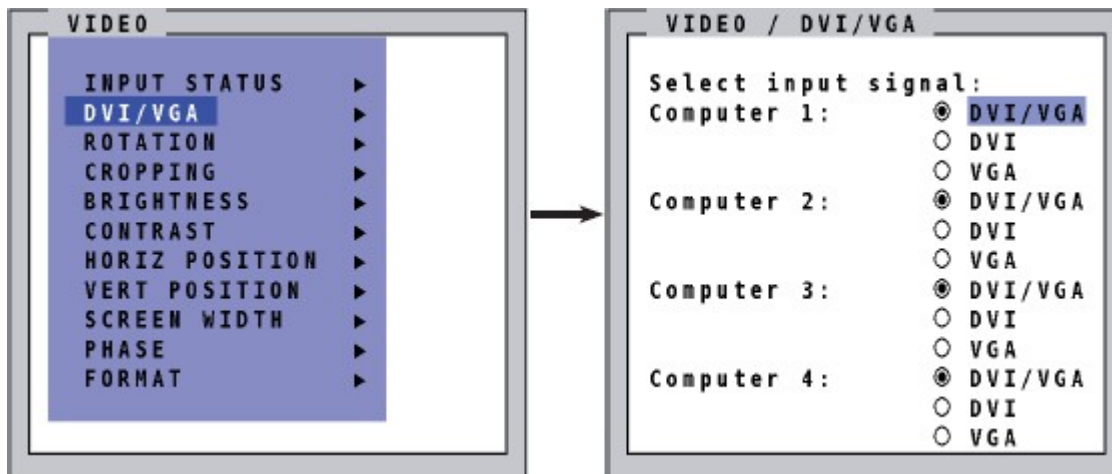


Figure 60. VIDEO / DVI/VGA Window

The *Select Input Signal* field defines whether the DVI or VGA video signal is to be displayed. If the *DVI/VGA* setting is selected, QuadraVista-QF will check for digital input first. If there is no signal at this input, the analog signal input will then be checked.

VIDEO / ROTATION Menu Item

The *ROTATION* menu item provides a means to rotate the image on the connected monitor in 90° increments. Navigate to the *ROTATION* menu item in the *VIDEO* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *ROTATION* window.

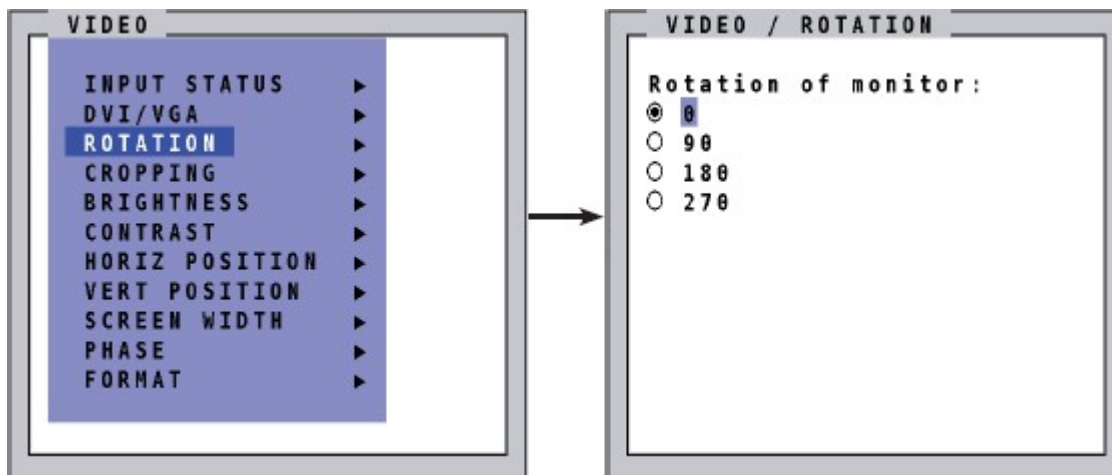


Figure 61. VIDEO / ROTATION Window

Select the amount by which to rotate the image in the *Rotation of monitor:* field. All channels will be rotated by the same degree. It may take a few seconds for the rotation to occur.

Rotation limitation at 90° and 270°:

A monitor display with more than 2048 lines cannot be used with rotations of 90° and 270° if there are overlapping channels. When the aspect ratio is not locked in Win mode, channels cannot be simultaneously reduced and enlarged in size. There may be further restrictions not known at this point.

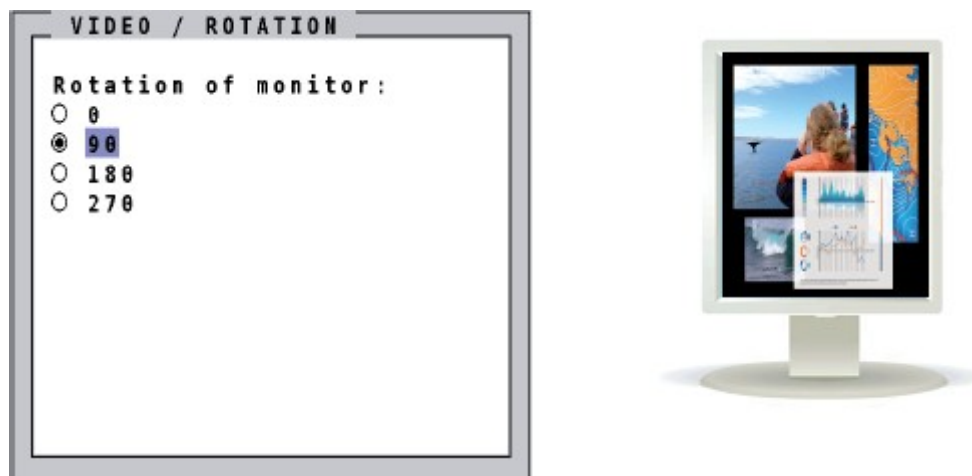


Figure 62. Sample Rotation by 90°

VIDEO / CROPPING Menu Item

The *CROPPING* menu item can be used to crop the images on the individual channels. Navigate to the *CROPPING* menu item in the *VIDEO* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *CROPPING* window.

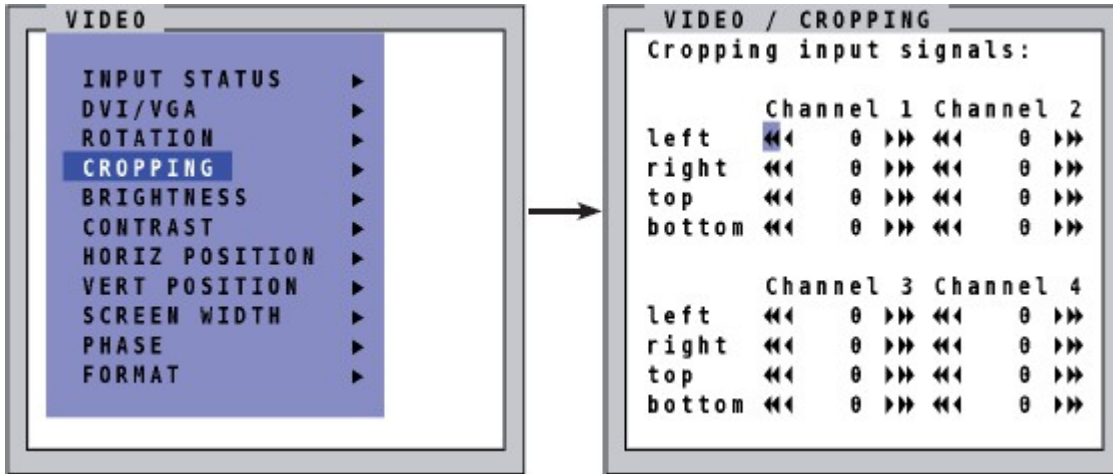


Figure 63. VIDEO / CROPPING Window

Enter a value between 0 and 999 for the *left*, *right*, *top* or *bottom* for each channel to be cropped. Use the arrows to increase or decrease the value either by single digits or in increments of 30. Alternatively, the right and left arrows on the keyboard may be used to adjust these values.

Notes:

- The cropping setting is only used for display within Win Mode.
- The smallest possible size of each area is 10% of the input signal.

VIDEO / BRIGHTNESS and VIDEO / CONTRAST Menu Items (With Analog Input Only)

The *BRIGHTNESS* and *CONTRAST* menu items are used to adjust the brightness and contrast of analog video input signals. Navigate to the *BRIGHTNESS* or *CONTRAST* menu item in the *VIDEO* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the appropriate window.

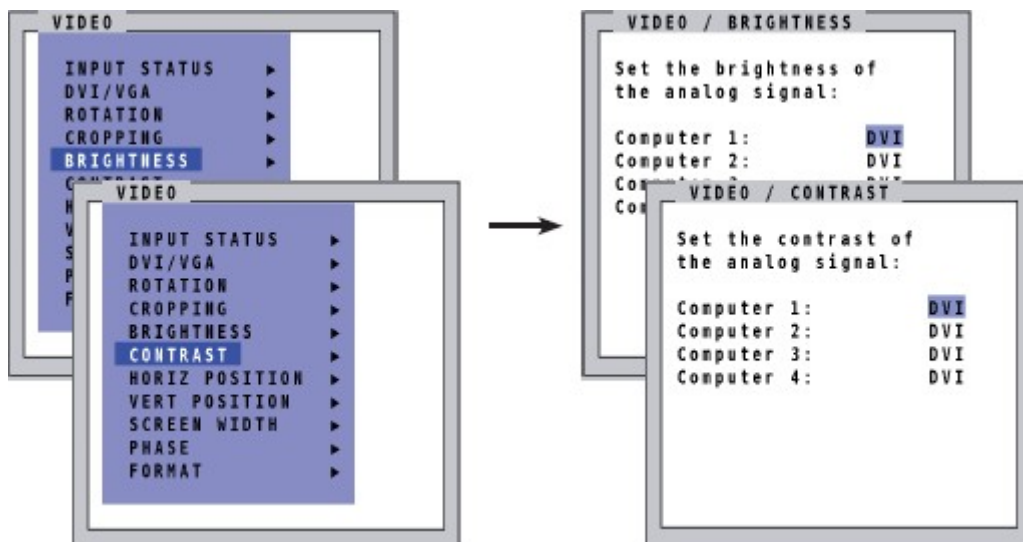


Figure 64. VIDEO / BRIGHTNESS and VIDEO / CONTRAST Windows

VIDEO / HORIZ POSITION and VERT VIDEO / POSITION Menu Items (With Analog Input Only)

The *HORIZ POSITION* and *VERT POSITION* menu items are used to adjust the horizontal and vertical positions of the images in their channels in case they are positioned incorrectly. Navigate to the *HORIZ POSITION* or *VERT POSITION* menu item in the *VIDEO* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the appropriate window.

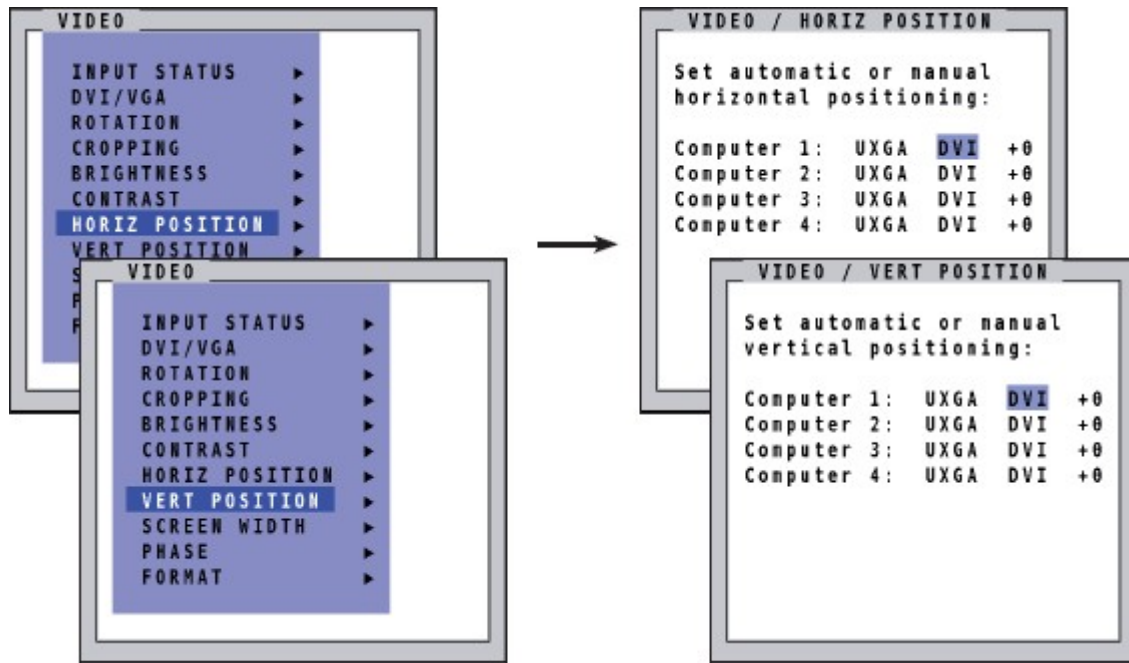


Figure 65. VIDEO / HORIZ POSITION and VIDEO / VERT POSITION Windows

Use the arrow keys to navigate to the *Set automatic or manual horizontal / vertical positioning* field for the required channel and set *MAN* for manual. Use the “+” or “-” keys in the value field to adjust the vertical position between -20 and +20, and the horizontal position between -63 and +63.

VIDEO / SCREEN WIDTH Menu Item (With Analog Input Only)

Normally, screen width (number of horizontal pixels) is defined by the VESA standard. If the screen appears blurred, use the *SCREEN WIDTH* menu item to improve screen quality. Navigate to the *SCREEN WIDTH* menu item in the *VIDEO* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *SCREEN WIDTH* window.

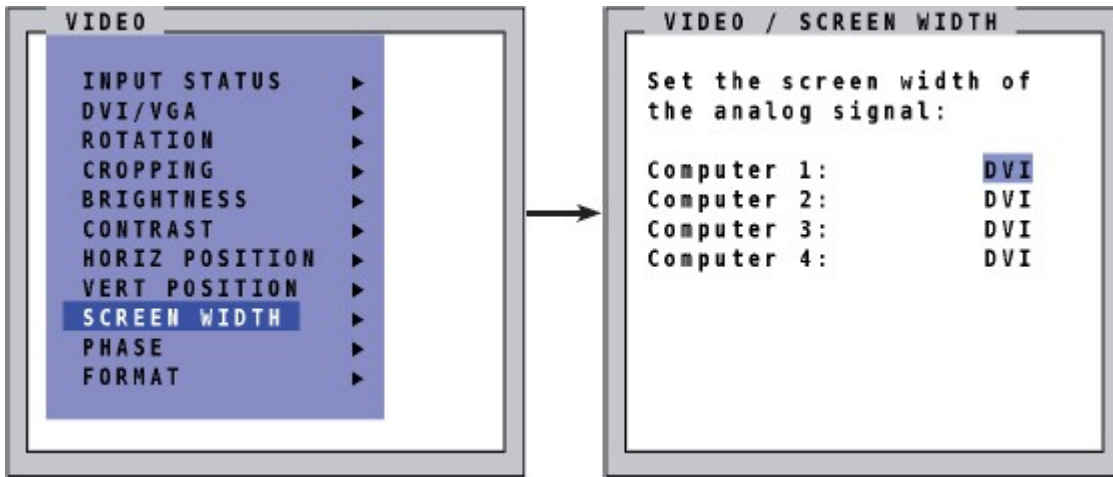


Figure 66. VIDEO / SCREEN WIDTH Window

VIDEO / PHASE Menu Item (With Analog Input Only)

Incorrect phase (sampling time of pixel color value) may result in blurring, bad contrast, or poor legibility. The *PHASE* menu item is used to adjust phase. Navigate to the *PHASE* menu item in the *VIDEO* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *PHASE* window.

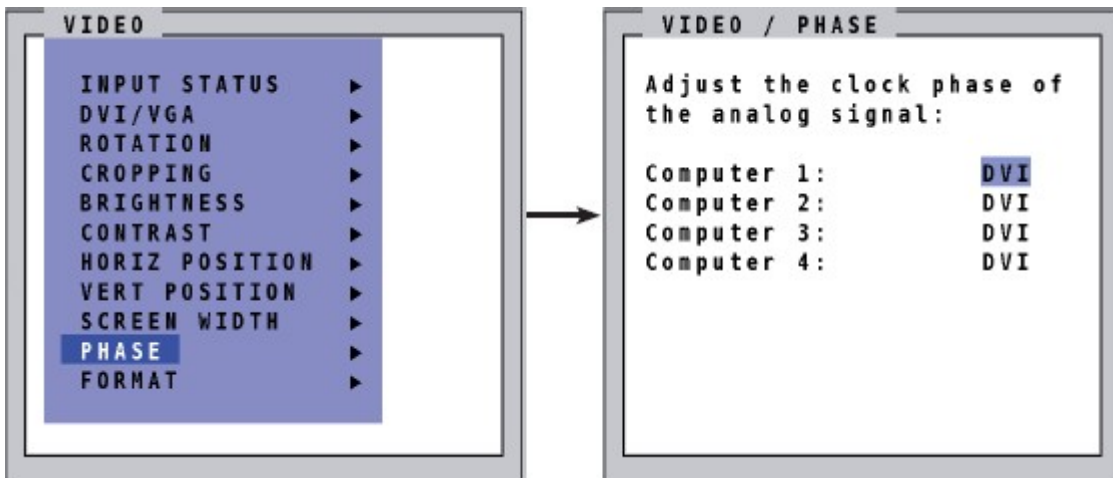


Figure 67. VIDEO / PHASE Window

VIDEO / Format Menu Item

Navigate to the *FORMAT* menu item in the *VIDEO* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *FORMAT* window.

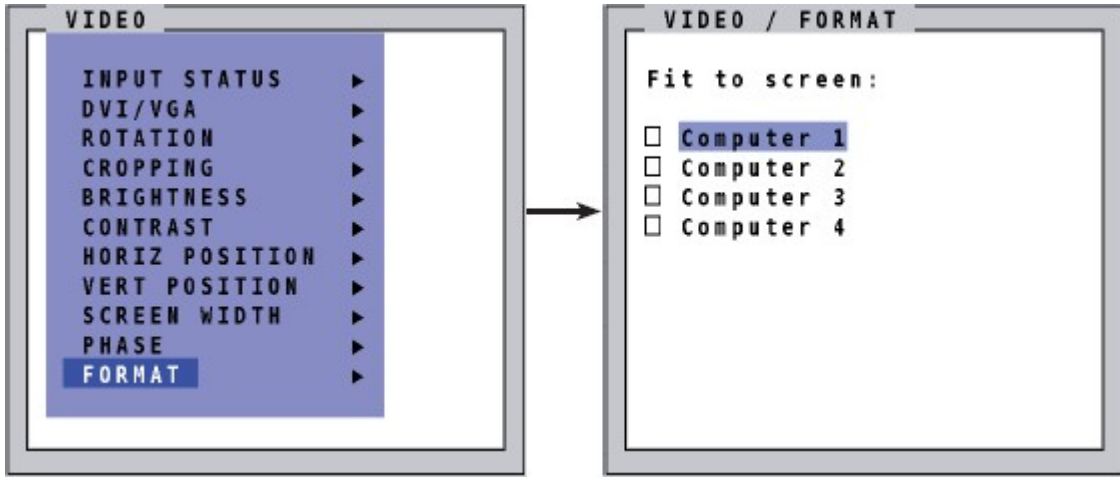


Figure 68. VIDEO / FORMAT Window

When a widescreen monitor, which has an aspect ratio 16:10 is used to view Quad Mode, a video input with a different aspect ratio is normally displayed with black borders to the left and right. If *Fit to screen* is enabled for the channel, the image is resized to fill the entire quadrant in Quad Mode.

By default, *Fit to screen* is disabled to display each source in its native aspect ratio in all display modes other than Win Mode (Quad, PiP, Full) of the QuadraVista-QF.

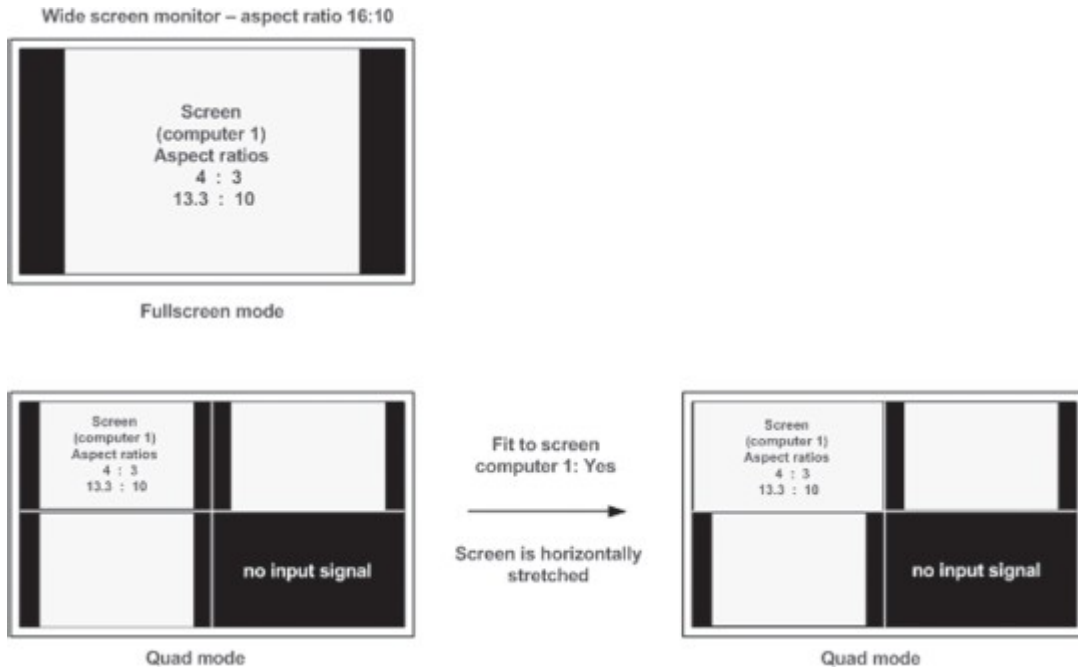


Figure 69. Example of Fit To Screen in Quad Mode

Note about PiP mode for widescreen monitors:

When a widescreen monitor with aspect ratio of 16:10 is used, and the active channel does not have widescreen aspect ratio (usually 4:3), the active channel is placed on the left edge, with the PiPs being placed to the right of the active channel. If an appropriate PiP size like 20% is used, PiP images are thus placed entirely outside the full screen channel. No screen content is overlapped, and the complete content of all the video sources are visible.

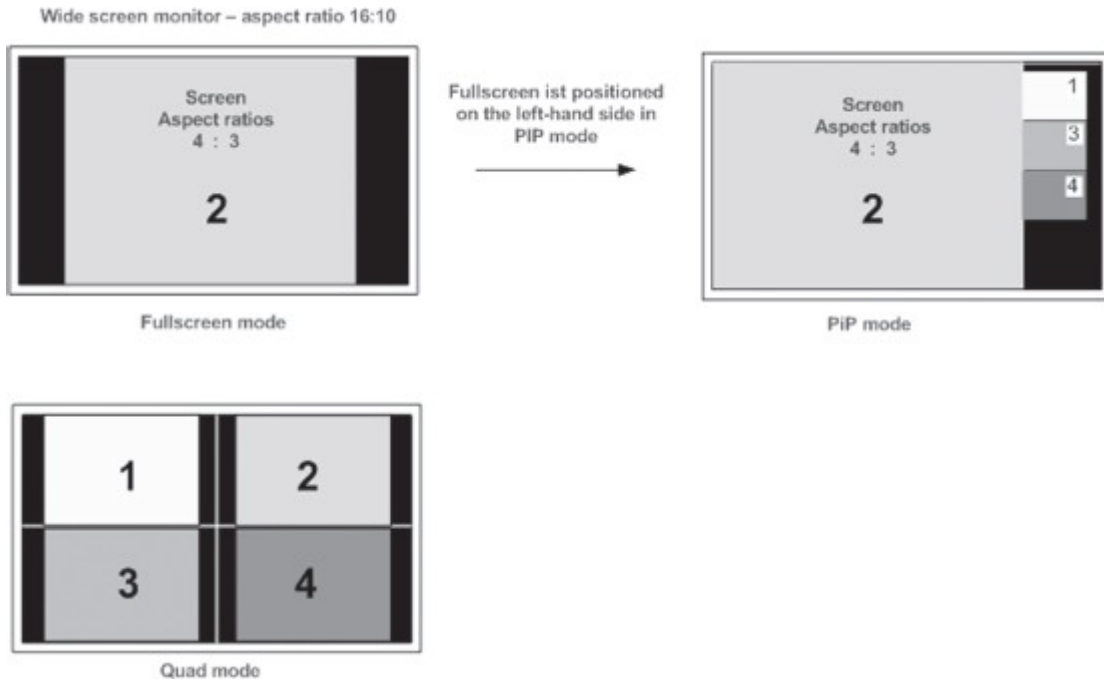


Figure 70. Example of PiP Mode on Wide Screen Monitors

COMPUTER Menu

This section covers the *COMPUTER* menu of the OSD. The individual menu options are described below.

COMPUTER / CHANNEL MAPPING Menu Item

The *CHANNEL MAPPING* menu item provides a means to change the assignment between physical input ports and logical channels. This can be useful, for instance, if a computer needs to be shown in another position on the quad screen without having to swap the connectors at the inputs.

Navigate to the *CHANNEL MAPPING* menu item in the *COMPUTER* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *CHANNEL MAPPING* window.

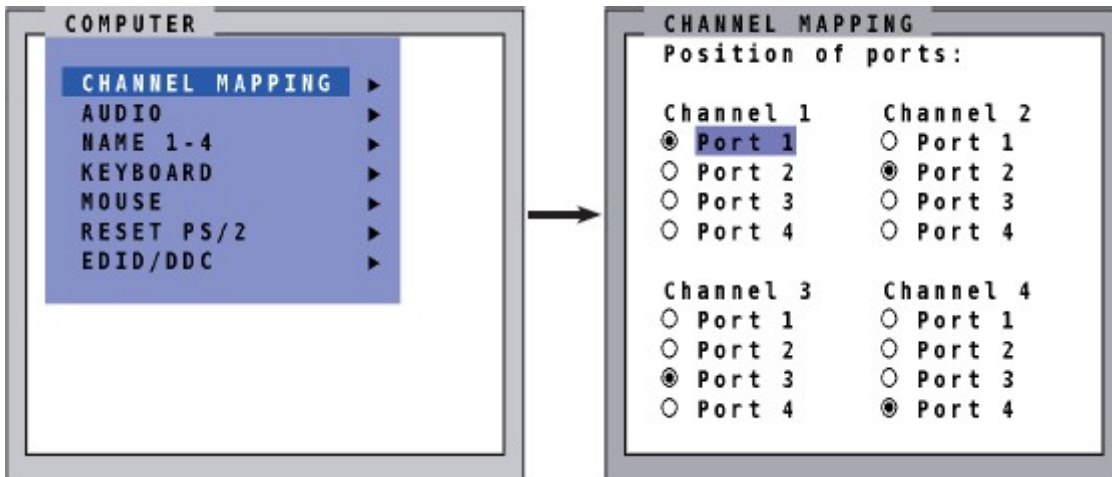


Figure 71. *COMPUTER / CHANNEL MAPPING* Window

Use the **▲/▼** and **+/-** buttons to navigate to the physical port to be connected to the desired channel. Press the **Enter** key / **SELECT** button to change the connection.

COMPUTER / AUDIO Menu Item

The *AUDIO* menu item is used to control the audio output from the QuadraVista QF. Navigate to the *AUDIO* menu item in the *COMPUTER* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *AUDIO* window.

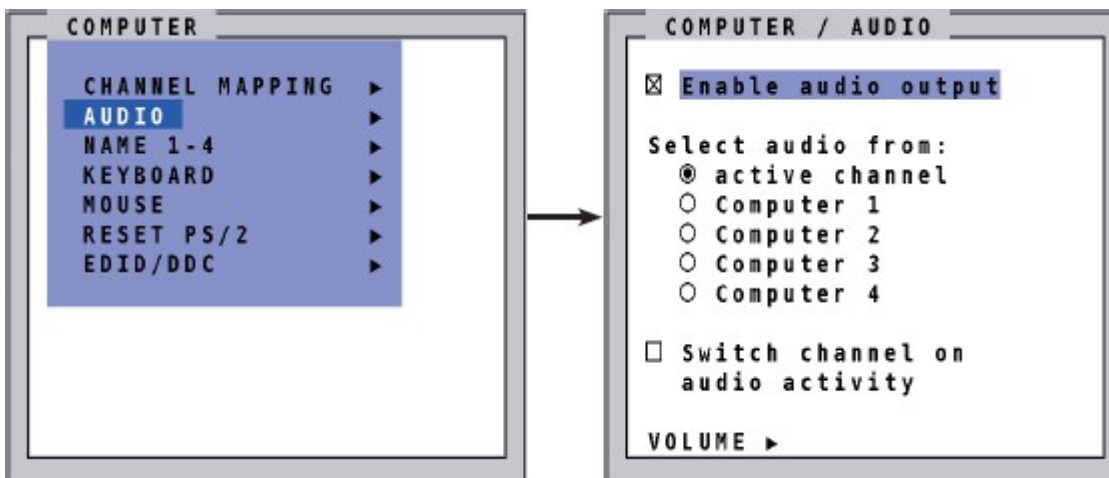


Figure 72. *COMPUTER / AUDIO* Window

The *Enable Audio Output* field is used to control whether audio output is activated on the QuadraVista QF.

When audio output is active, the *Select audio from* selection determines which channel will provide the audio output.

To ensure that the audio is always sourced from the computer currently being operated, select the *active channel* option from the list. Alternatively, to specify a fixed audio source, select one of the channels from the list.

When the *Switch channel on audio activity* field is checked, the QuadraVista QF automatically switches to a channel on which an audio signal is detected.

By navigating to the *Volume* button in the *COMPUTER→AUDIO* window and pressing the **Enter** key / **SELECT** button, the *VOLUME* window can be opened where the audio output level for each channel can be set.

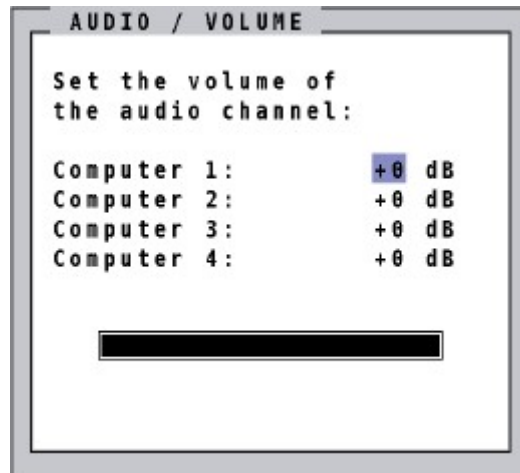


Figure 73. AUDIO / VOLUME Window

The audio volume can be adjusted in 2 dB increments. Use the **+** and **-** keys on the keyboard to change the volume for each channel.

Note:

The *AUDIO→VOLUME* window can also be opened with the hotkey combination "<Hotkey>" + "+/-".

COMPUTER / NAME 1-4 Menu Item

The *NAME 1-4* menu item is used to assign a name to each of the four windows displayed when the QuadraVista QF is in HOTMOUSE mode. The assigned name will be displayed in the lower right corner of each window or quadrant for a specified time. The default timeout is 5 seconds, with a maximum timeout of 30 seconds

Navigate to the *NAME 1-4* menu item in the *COMPUTER* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *NAME 1-4* window. Select the computer to which a name is to be assigned or whose name is to be changed, and press the **Enter** key / **SELECT** button to open the *CHANGE NAME* window.

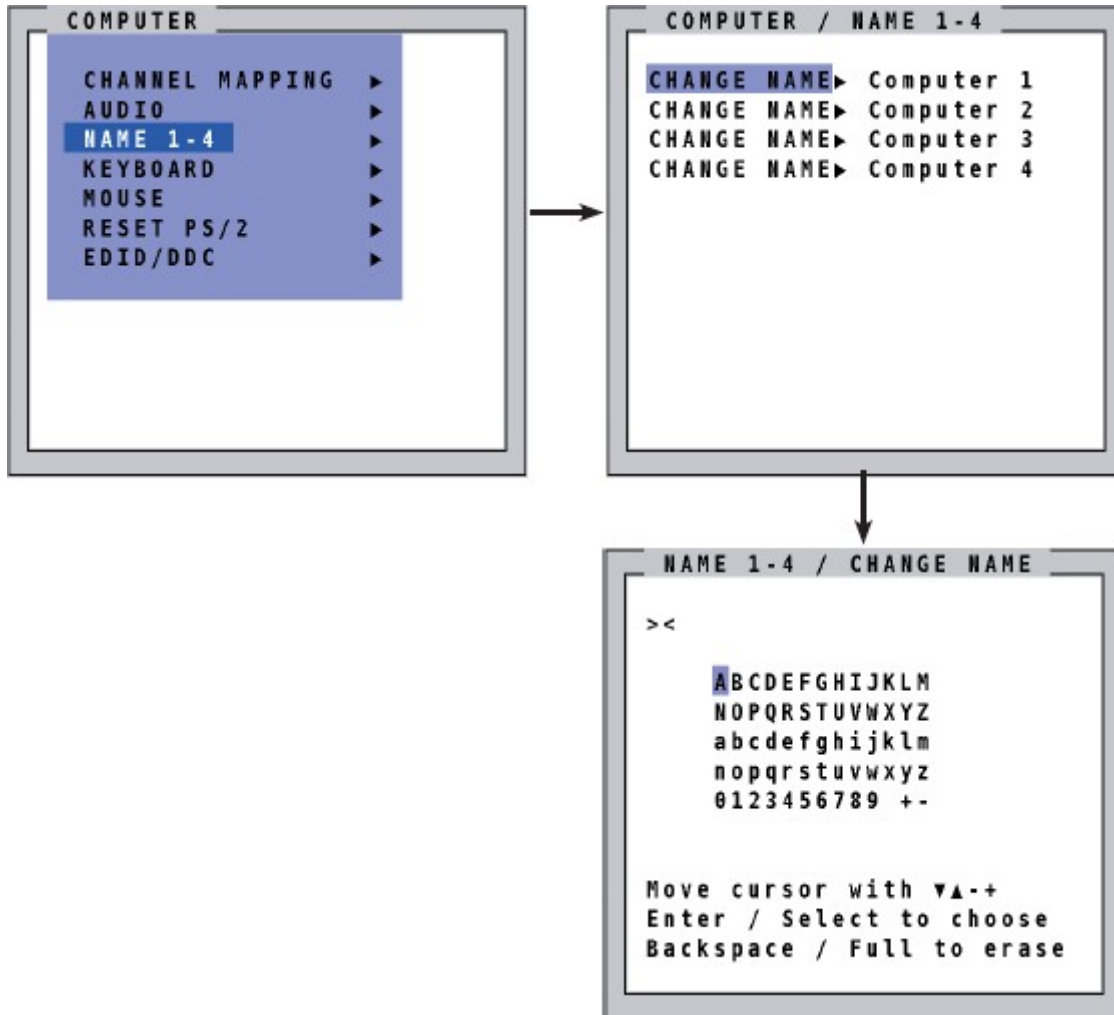


Figure 74. COMPUTER / NAME 1-4 and NAME 1-4 / CHANGE NAME Windows

Move the cursor in the edit window using the ▲/▼ and +/- buttons. Press the **Enter** key / **SELECT** button to choose a character to add to the name, and the **Backspace** key / **FULL** button to erase the last character.

COMPUTER / KEYBOARD Menu Item

The *KEYBOARD* menu item is used to view what keyboard type the QuadraVista QF has recognized for each connected computer. The possible keyboard types are *USB*, *PC1*, *PC2* and *PC3*.

Navigate to the *KEYBOARD* menu item in the *COMPUTER* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *KEYBOARD* window.

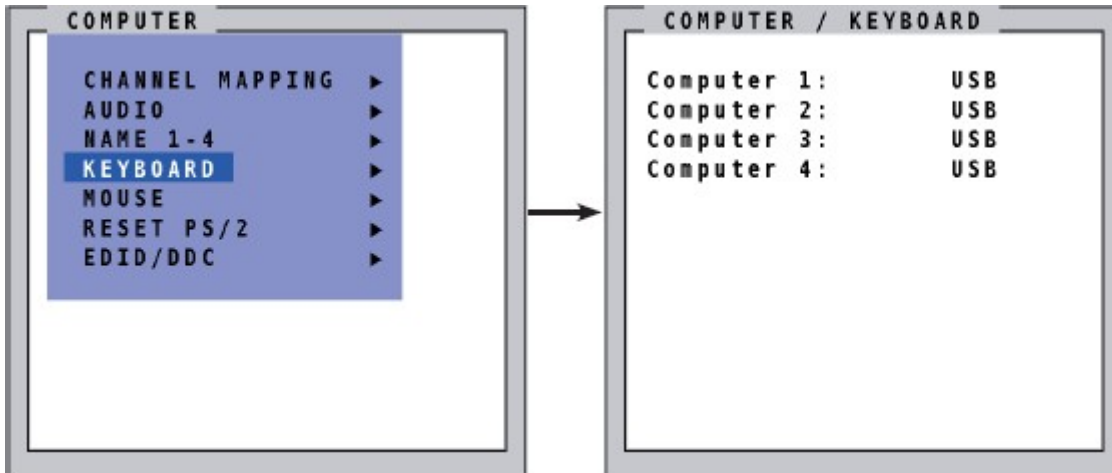


Figure 75. COMPUTER / KEYBOARD Window

The *KEYBOARD* window has is a display-only window, and has no user-editable fields.

COMPUTER / MOUSE/TOUCHSCREEN Menu Item

The *MOUSE/TOUCHSCREEN* menu item is used to view what mouse type the QuadraVista QF has recognized for each connected computer. The interfaces over which data can be transmitted to the positioning devices can also be set.

Navigate to the *MOUSE/TOUCHSCREEN* menu item in the *COMPUTER* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *COMPUTER / MOUSE* window.

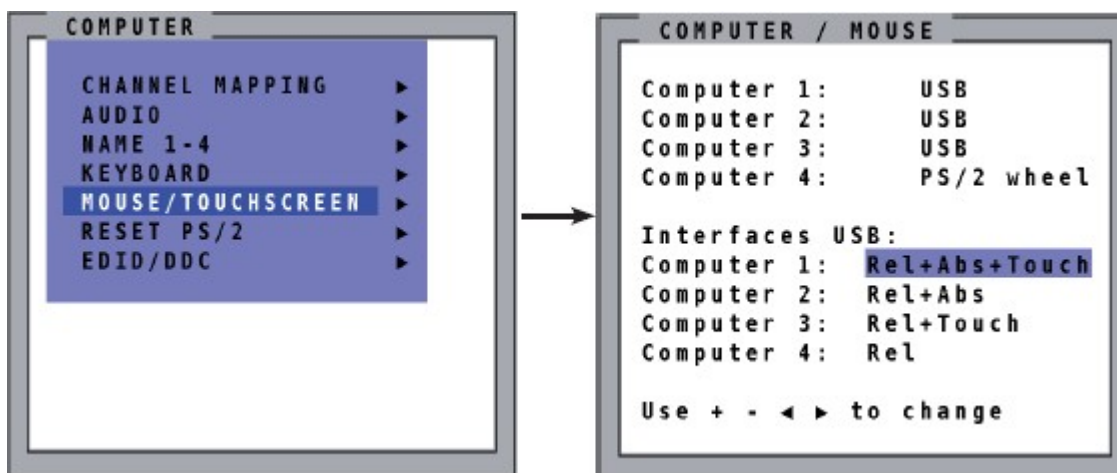


Figure 76, COMPUTER / MOUSE/TOUCHSCREEN Window

The upper half of the *COMPUTER / MOUSE* window shows the mouse type that has been recognized fir each connected computer. The possible mouse types are *USB*, *PS/2* and *PS/2 wheel*.

The *Interfaces USB* fields in the lower half of the window specifies the interfaces over which data can be transmitted to the positioning devices. The interface best suited for the connected device is automatically chosen.

For example, this interface should be relative mouse positioning (*Rel*) for mice. However, if the *Cross Channel Switching* feature described in CONSOLE / MOUSE Menu Item the section on page 42 is enabled, and the interface absolute mouse positioning (*Abs*) is enabled, then absolute mouse positioning will be used as an exception.

All interfaces supported by the operating system should be enabled, whereas interfaces not supported by the operating system should not be enabled. The following settings are recommended for various versions of Microsoft Windows™.

Windows Version	OSD Setting	Used Interfaces
Pre Windows 2000/XP	<i>Rel</i>	Relative Mouse
Windows 2000/XP to Vista	<i>Rel+Abs</i>	Relative Mouse, Absolute Mouse
	<i>Rel+Touch</i>	Relative Mouse, Digitizer Touch screen
Windows 7 and newer	<i>Rel+Abs+Touch</i>	Relative Mouse, Absolute Mouse, Digitizer touch screen

Table 4. Recommended USB Interfaces for Versions of Microsoft Windows

Touch screen Support

The enabled interface with the highest priority is used. The following table gives an overview of the features for touch screen interfaces.

Features	Interfaces <i>USB</i>		
	Relative Mouse	Absolute Mouse	Digitizer Touch Screen
Setting in OSD	<i>Rel</i>	<i>Abs</i>	<i>Touch</i>
Characterization for touch screens	Mouse emulation	Mouse emulation	Direct support by OS
Priority (1 – highest)	3	2	1
MS Windows™ Support	Windows 98 and newer	Windows 2000/XP and newer	Windows 7 and newer
Multi-touch	No	No	Yes when supported by the touch screen
Required settings in the operating system	<ul style="list-style-type: none"> ▪ 1:1 mouse scaling ▪ Mouse acceleration disabled 	None	None
Limitations	<ul style="list-style-type: none"> ▪ Internal and displayed position of the mouse may differ, therefore the position of the mouse cursor is always reset when the channel is channel ▪ Multi Monitor not possible for the computer 	Only possible for the main display with windows	None

Table 5. Feature Set for Available USB interfaces

COMPUTER / RESET PS/2 Menu Item

Navigate to the *RESET PS/2* menu item in the *COMPUTER* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *RESET PS/2* window.

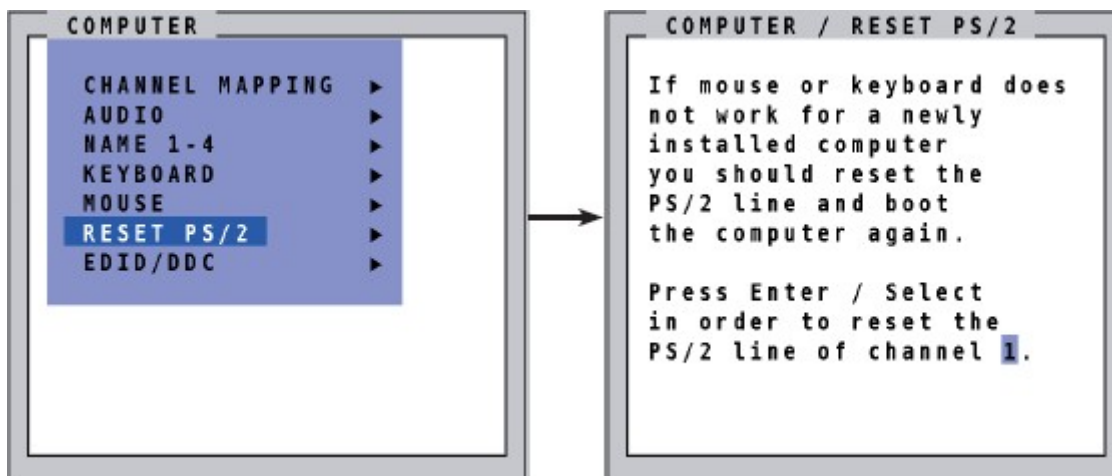


Figure 77. COMPUTER / RESET PS/2 Window

Use the left and right arrow keys or the + and - keys to select the channel (1 to 4) for which PS/2 is to be reset, and confirm by pressing the **Enter** key / **SELECT** button key.

COMPUTER / EDID/DDC Menu Item

The *EDID/DDC* menu item is used to provide an overview of the EDIDs of the input channels and that of the display monitor. There is also a provision to edit these EDID tables.

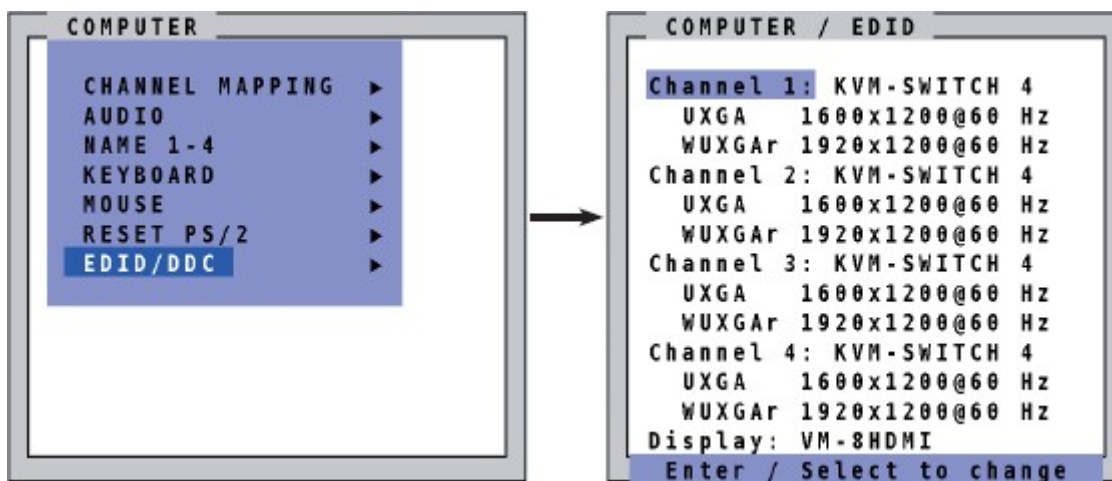


Figure 78. COMPUTER / EDID Window

The *EDID/DDC* window can be invoked from the *EDID* window where the EDID for the channel can be programmed with two video modes. The video modes can be selected from the *MODE* window, which is invoked from the *EDID/DDC* window.

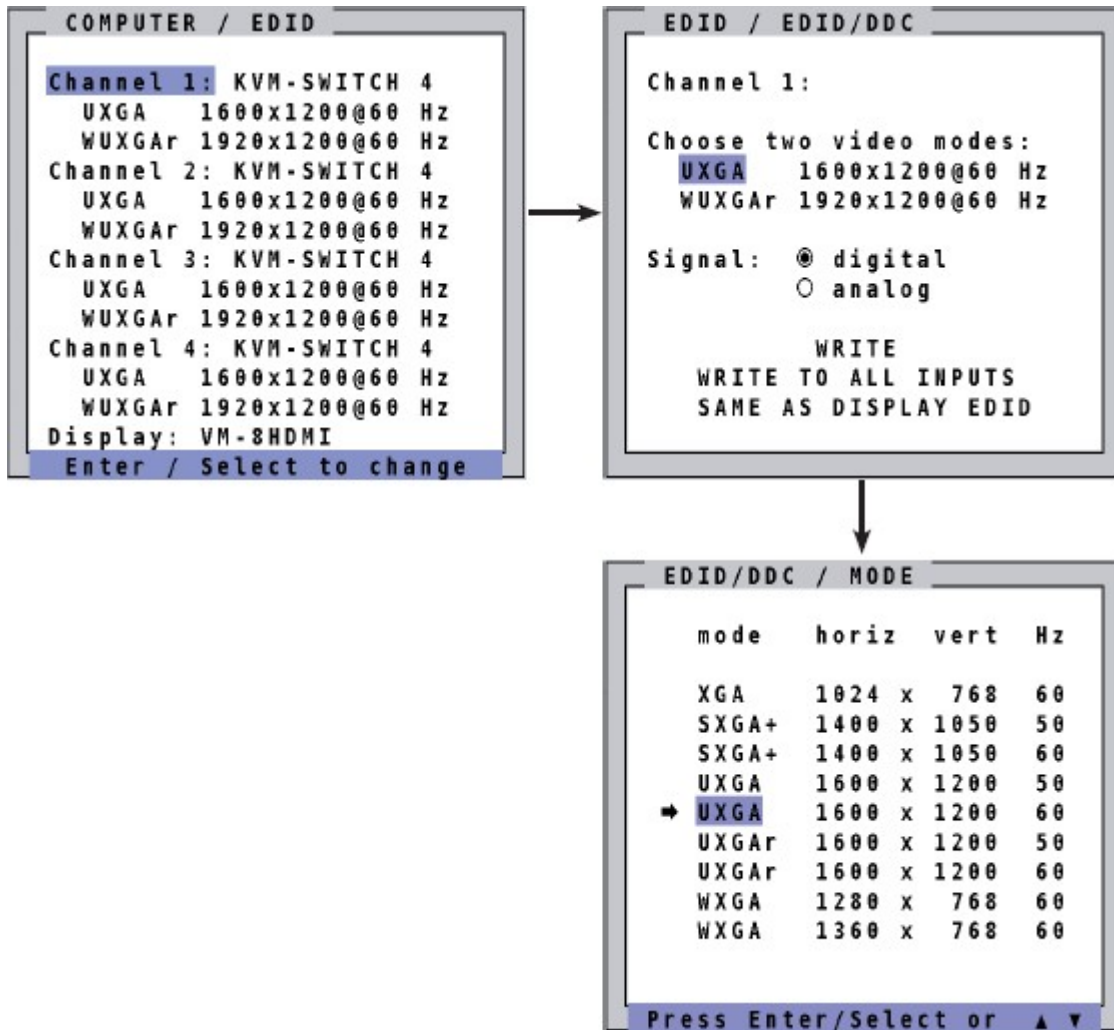


Figure 79. COMPUTER / EDID, EDID / EDID/DDC and EDID/DDC / MODE Windows

Two video modes can be selected for each channel, and programmed in the input EDID visible to the computer connected there. It is recommended to program the preferred video modes for the connected signal source.

The QuadraVista QF also uses these entries to distinguish between certain analog input video signals that are difficult to distinguish between automatically: The following groups of analog input signals present this problem for the unit.

- WUXGA: 1920x1200@60Hz, UXGA: 1600x1200@60Hz and UXGA: 1600x1200@60Hz with reduced blanking
- WUXGA: 1920x1200@50Hz, UXGA: 1600x1200@50Hz and UXGA: 1600x1200@50Hz with reduced blanking
- SXGA+: 1400x1050@60Hz and WSXGA: 1680x1050@60Hz
- XGA: 1024x768@60Hz, WXGA: 1280x768@60Hz and WXGA: 1360x768@60Hz

If problems are experienced with automatic input detection of an analog input signal within these groups, it can be overridden by programming the expected video signal into the input EDID.

Use the ▲/▼ buttons to select the channel for which the EDID information is to be edited, and press the **Enter** key / **SELECT** button key to open the *EDID/DDC* window. Select one of the video modes for the channel ▲/▼ buttons, and press the **Enter** key / **SELECT** button again to open the *MODE* window, which displays a list of video modes. To change the video mode, select a new video mode for the channel using the ▲/▼ buttons, and press the **Enter** key / **SELECT** button to confirm the selection. This can be repeated for each channel, and both video modes in the channel.

In the *EDID/DDC* window, use the ▲/▼ buttons to navigate to the *Signal* field, and press the **Enter** key / **SELECT** button to switch between *analog* and *digital*. This setting specifies whether the EDID should identify the QuadraVista QF as an analog or digital device. It is usually safe to leave this setting at *digital*.

The *EDID/DDC* window has the following options to write to the EDD table.

- **WRITE**: Save the changes in the current input EDID.
- **WRITE TO ALL INPUTS**: Save the changes to all four input EDIDs.
- **SAME AS DISPLAY EDID**: Write the contents of the display EDID to the current input EDID.

Press the **Enter** key / **SELECT** button to start the selected write option and wait until *successful* is displayed in the status line at the bottom. At this point, the EDID data can be written to one or all of the four channels.

Notes:

- If the EDID data of the connected video source is used, the unit behaves as if the display is connected directly to the source.
- Please keep in mind that this setting will overwrite the automatic analog input mode detection. If a different video source is connected, the video mode is changed from the PC, it may be necessary to change this setting again to get correct results. For the detection of digital input signals, this setting has no effect.

Alternatively, the display EDID data can be copied individually to a single input, or simultaneously to all inputs.

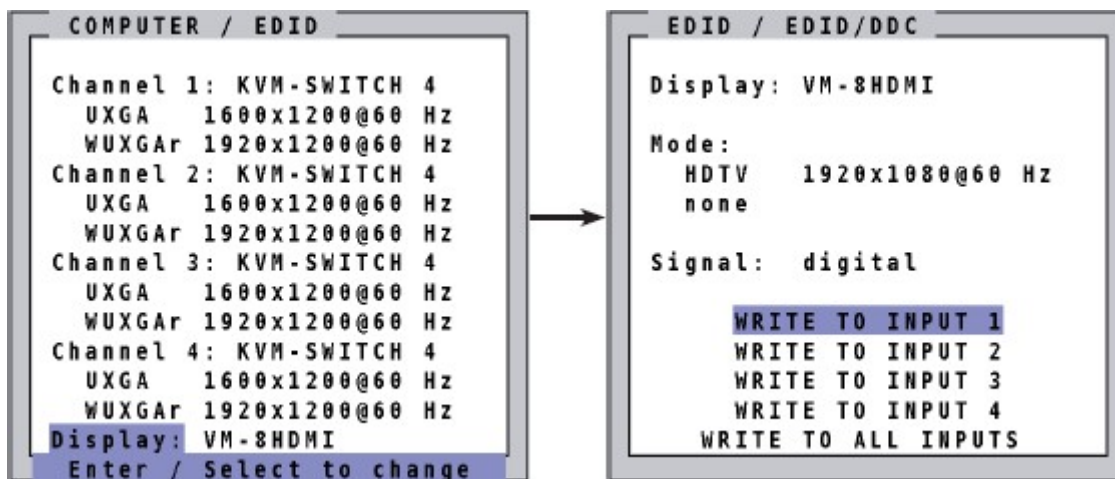


Figure 80. Copying Display EDID to Inputs

The content of the input EDID can be reset to default through the *CONFIGURATION / FACTORY RESET* OSD function.

USB DEVICE 1-4 Menu

The QuadraVista QF supports and switches transparent USB 2.0 devices such as printers, cameras, 3D mice, fingerprint readers, and external memory. A sample application for this feature can be as follows. Connect a memory stick to unit, copy data from a connected computer to the stick and from the stick to another connected computer. This allows data to be copied between computers without being networked.

Navigate to the *USB DEVICE 1-4* menu item in the *COMPUTER* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the *USB DEVICE 1-4* window.

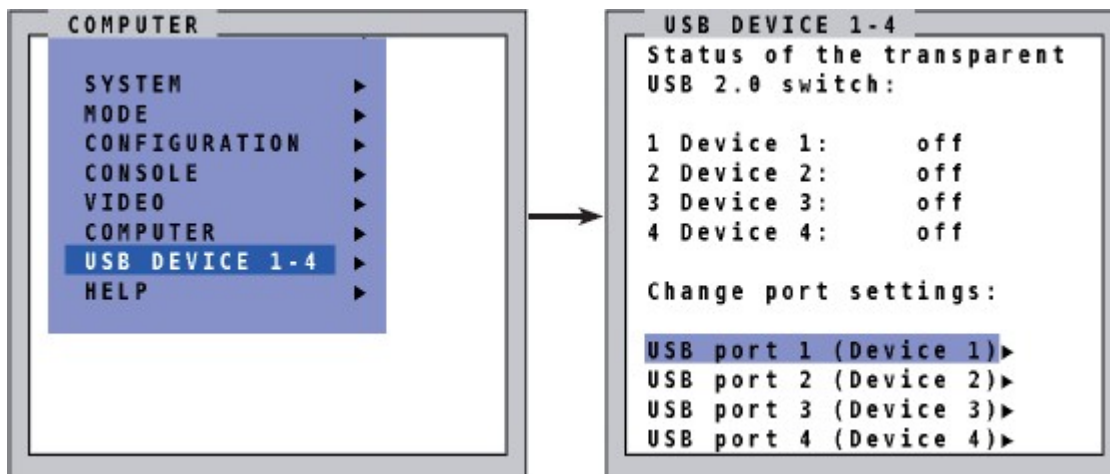


Figure 81. COMPUTER / USB DEVICE 1-4 Window

The *Status of the transparent USB 2.0 switch* field displays the status of the connections from the USB ports to the computers. This field has two settings for each USB 2.0 port.

- **off**: The USB 2.0 port is not switched to a computer. A USB device may be connected, but it has not been switched to a computer.
- **Computer (1-4)**: The USB 2.0 port is switched to one of the named computers.

The *Change port settings* field is used to reassign the USB 2.0 ports between the computers. Use the ▲/▼ buttons to select one of the four USB ports and open its submenu by pressing the **Enter** key / **SELECT** button. This will open the *USB DEVICE* window.



Figure 82. COMPUTER / USB DEVICE 1-4 / USB DEVICE Window

The *USB DEVICE* window can be used to manually switch the USB 2.0 port to one of the four connected computers, change the switching mode or the USB device name. Each of these options is described in detail below.

The *Device # switch to* field is used to switch this USB 2.0 port manually to one of the four connected computers. It is *off* by default. To switch the USB 2.0 port, select one of the four computers and press the **Enter** key / **SELECT** button.

The *Switching mode is* field controls how the currently selected USB 2.0 device is switched to one of the connected computers. The default switching mode is *manual switching with warning*. To change the switching mode, use the arrow keys to navigate to the *CHANGE SWITCHING MODE* field and press the **Enter** key / **SELECT** button to open the *SWITCHING MODE* window.

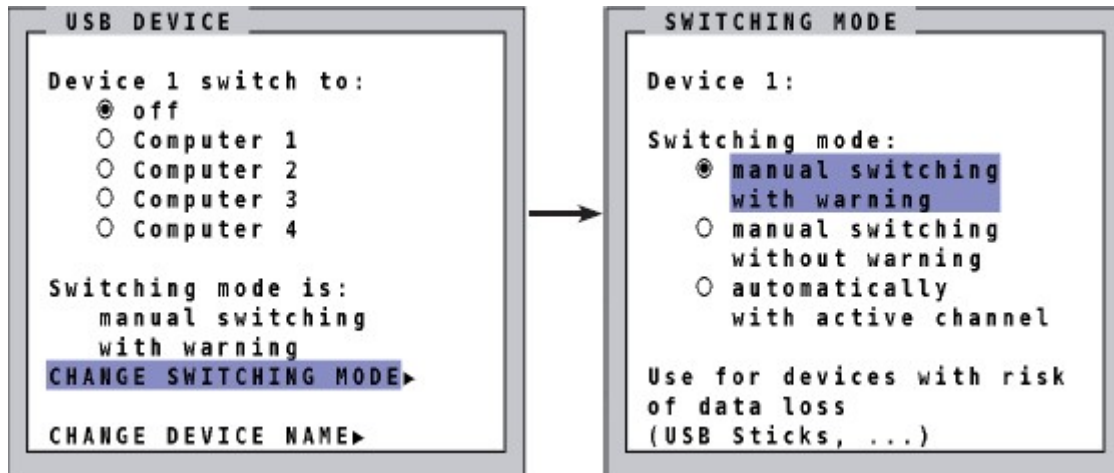


Figure 83. COMPUTER / USB DEVICE 1-4 / USB DEVICE / SWITCHING MODE Window

Three switching modes are available as outlined below.

1. *manual switching with warning*: This mode allows switching the USB port manually as described earlier. However, before the switch is executed, the following warning message is displayed: “*In order to prevent data loss, stop the USB device before switching!*” To continue switching, press the **Enter** key / **SELECT** button. This switching mode is recommended for USB devices with risk of data loss like USB sticks, printers or external memory.
2. *manual switching without warning*: This mode also allows switching the USB port manually. The difference from the previous switching mode is that the switching is executed immediately. This switching mode is recommended for USB devices without risk of data loss.
3. *automatically with active channel*: In this mode, the USB device/port is always switched automatically with the active channel. When the channel/computer is switched, this USB device/port will automatically be switched to the activated channel/computer.

Note: When the unit is powered on, all USB devices are disconnected from computers except for the devices which have been set to the *automatically with active channel* switching mode.

The *CHANGE DEVICE NAME* field in the *USB DEVICE* window is used to assign or change a name to the USB device. Navigate to the field and press the **Enter** key / **SELECT** button to open the *CHANGE NAME* window.

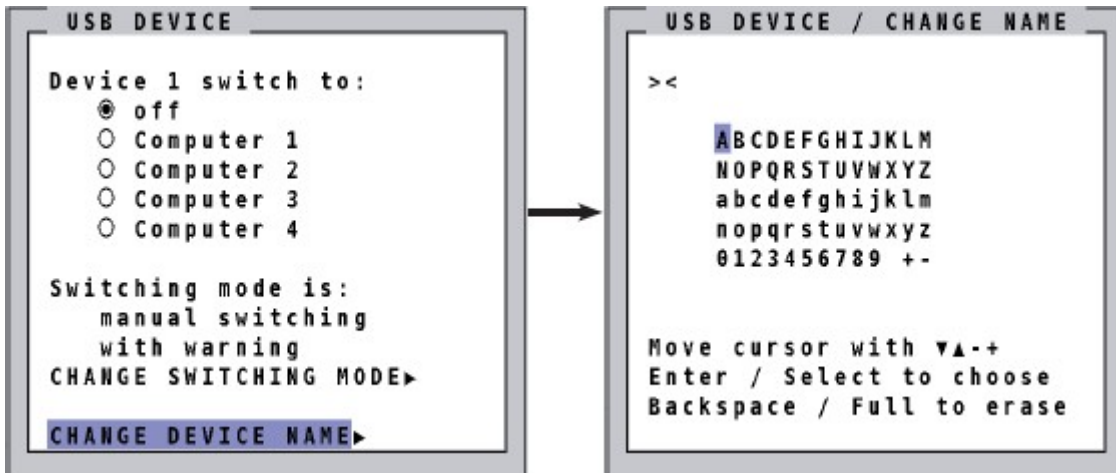


Figure 84. COMPUTER / USB DEVICE 1-4 / USB DEVICE / CHANGE NAME Window

Use the keyboard or move the cursor in the edit window using the ▲/▼ and +/- buttons. Press the **Enter** key / **SELECT** button to choose a character to add to the name, and the **Backspace** key / **FULL** button to erase the last character. On exiting the window, the new name will automatically be saved and displayed in the other windows.

Note:

Use *Hotkey* + "u" (default Hotkey is Ctrl + Alt) to quickly access the USB DEVICE 1-4 window. This allows quick access to this window when switching manually. For example, to directly open the switching window of USB device/port 1 use *Hotkey* + **F1**.

HELP Menu

The *HELP* menu of the OSD gives more information about the QuadraVista QF unit.

Navigate to the desired menu item in the *HELP* menu using the arrow keys, and press the **Enter** key / **SELECT** button to open the corresponding window.

HELP / ABOUT Menu Item

The *HELP*→*ABOUT* and *ABOUT*→*DETAILS* windows display the current revision levels hardware and firmware.

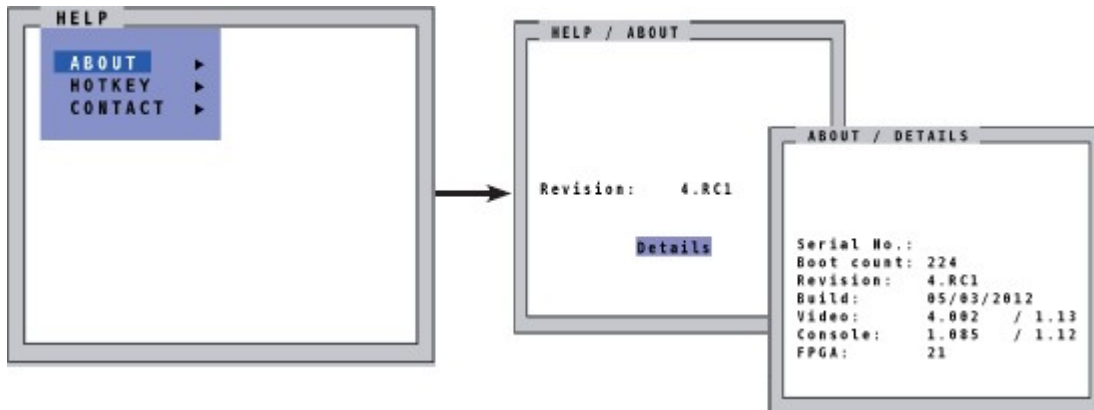


Figure 85. *HELP / ABOUT* and *ABOUT / DETAILS* Windows

HELP / HOTKEY Menu Item

The *HELP*→*HOTKEY* window provides a guide to hotkey shortcuts.

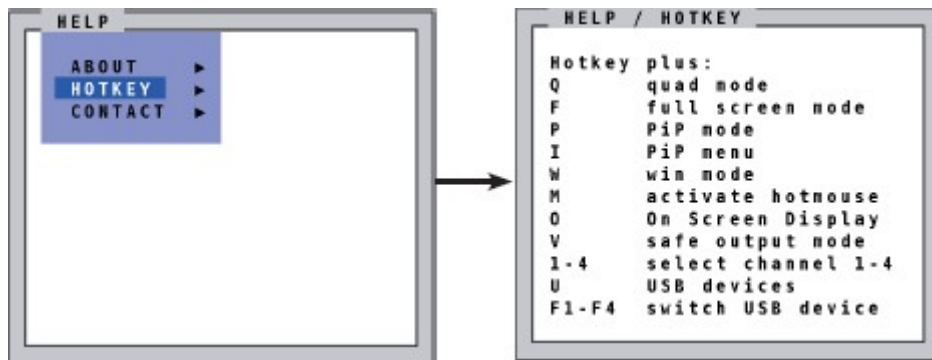


Figure 86. *HELP / HOTKEY* Window

QuadraVista QF Hotmouse Feature

The Hotmouse function is a special feature of the QuadraVista QF wherein a pointing device like a mouse, trackball or touch screen can quickly perform specialized functions, much like hotkeys on a keyboard. No software or additional hardware is required to access this functionality.

Activating the Hotmouse Cursor

The hotmouse cursor is activated by moving the mouse on the console four times in a rapid horizontal shaking motion, or by pressing *Hotkey* + “M” on the keyboard.

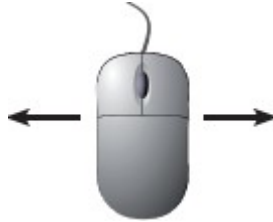


Figure 87. Activating the Hotmouse with the Mouse

When activated, the mouse cursor turns into the “hotmouse cursor” - a numbered arrow - that allows control of all hotmouse functions. The number that accompanies the arrow indicates the channel.

To activate the hotmouse cursor when using a touch screen, tap the screen twice, and then hold the finger down after the second tap (tap – tap - hold, like a double click without lifting the finger on the second click), until the hotmouse menu opens. Now click outside the hotmouse menu to open the hotmouse cursor.

Hotmouse mode can be exited by double clicking the mouse or by pressing *Hotkey* + “M” on the keyboard.

The hotmouse cursor changes depending on its position on the screen. The different aspects of the hotmouse cursor are displayed below.

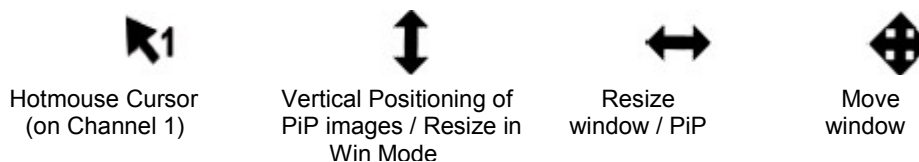


Figure 88. Aspects of Hotmouse Cursor

The function of the hotmouse cursor varies based on the display mode.

- In Fullscreen Mode, it can be used to switch to another Fullscreen channel.
- In Quad Mode, it can be used to select another active channel by transferring keyboard and mouse control to it.
- In PiP Mode, it can be used to change the position and size of the PiP images or to change the active channel.
- In Win Mode, it can be used to select the mode for resize, channel select and select options using the hotmouse menu. The hotmouse can also be used to modify the position and size of windows, as well as changing the active channel.

Hotmouse Cursor in Fullscreen Mode

When the hotmouse cursor is activated in Fullscreen Mode, PiP images of the other channels are temporarily displayed to allow switching to a different channel. To do so, move the hotmouse cursor over the PiP image of the channel to be activated, and click the left mouse button.

An example of switching from one Fullscreen channel to another using hotmouse is displayed below.

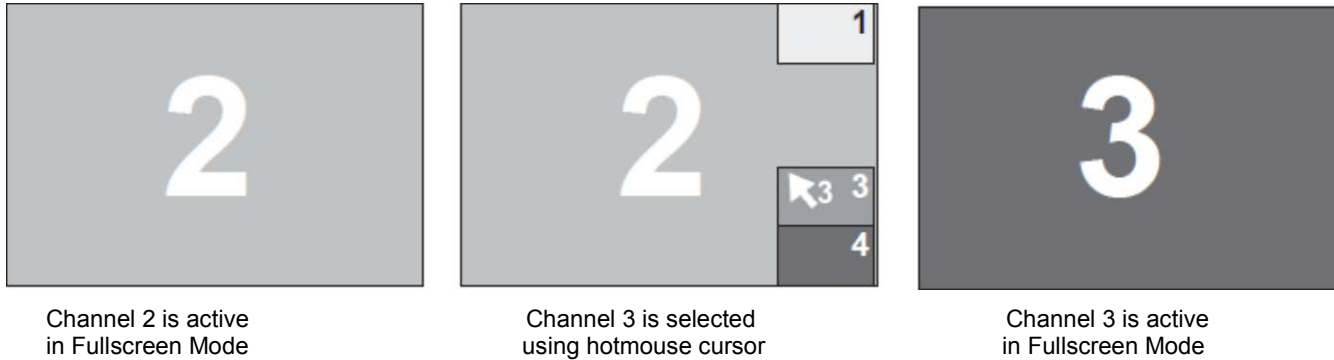


Figure 89. Using the Hotmouse to Change the Active Channel in Fullscreen Mode

Hotmouse Cursor in Quad Mode

Once the hotmouse cursor has been activated, the active channel (switching mouse and keyboard) can be changed by clicking in the desired quadrant.

Note:

As the hotmouse cursor moves across quadrants, the channel number on the hotmouse cursor changes to reflect the channel the cursor is hovering over.

An example of switching the active channel from channel 1 to channel 3 using hotmouse in Quad Mode is displayed below.

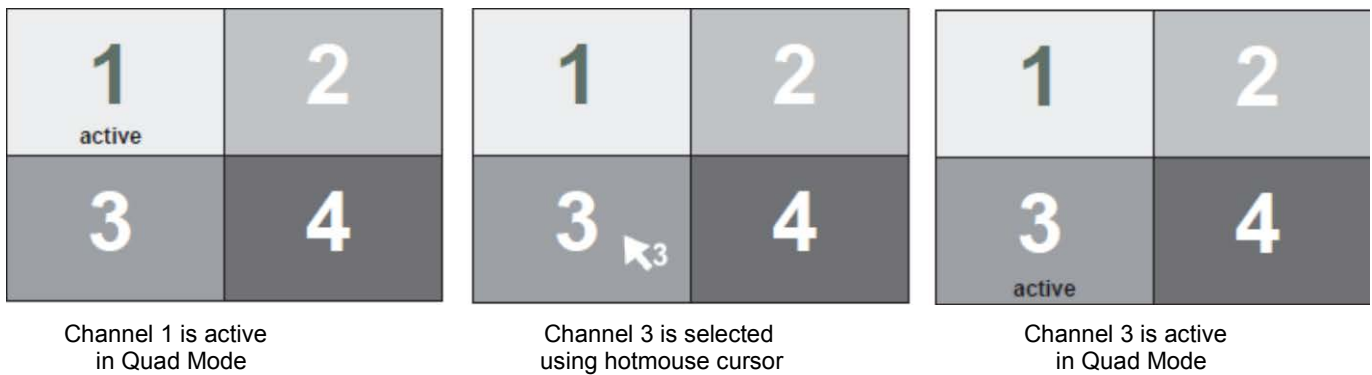


Figure 90. Using the Hotmouse to Change the Active Channel in Quad Mode

Hotmouse Cursor in PiP Mode

The hotmouse cursor can perform several functions in PiP Mode. In addition to changing the active channel, it can also be used to modify the vertical position and sizes of the PiP images. Each of these functions is described below.

Changing the Active Channel

Once the hotmouse cursor has been activated, the active channel can be changed by clicking in the desired PiP channel.

Note:

As the hotmouse cursor moves across PiP images, the channel number on the hotmouse cursor changes to reflect the channel the cursor is hovering over.

An example of switching the active channel from channel 2 to channel 3 using hotmouse in PiP Mode is displayed below.

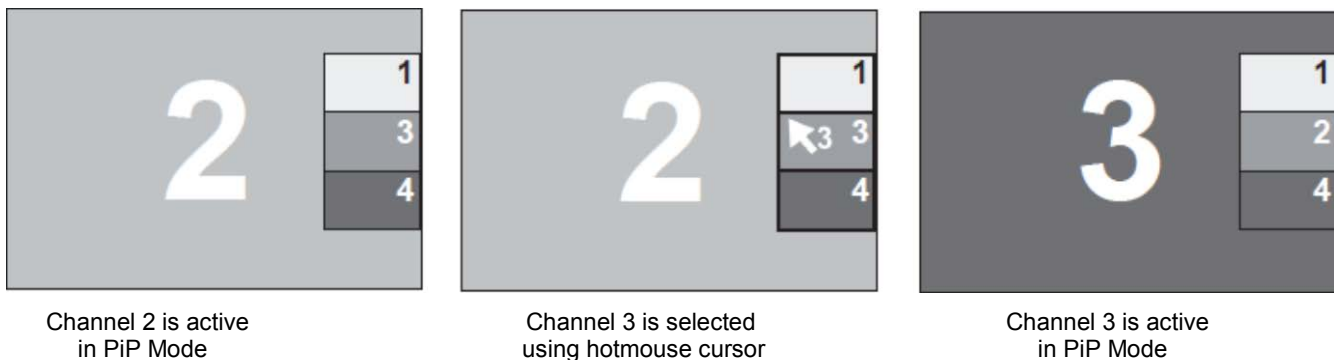


Figure 91. Using the Hotmouse to Change the Active Channel in PiP Mode

Vertical Positioning of PiP images

To change the vertical position of the PiP images using the hotmouse cursor, move the cursor to the PiP-image area, hold down the left mouse button and drag the PiPs to the desired vertical position.

Note:

When the mouse button is held down over the PiP images, the hotmouse cursor's appearance changes to a vertical double-headed arrow as shown in

Figure 88.

An example of using the hotmouse cursor to move the PiP images upward is shown below.

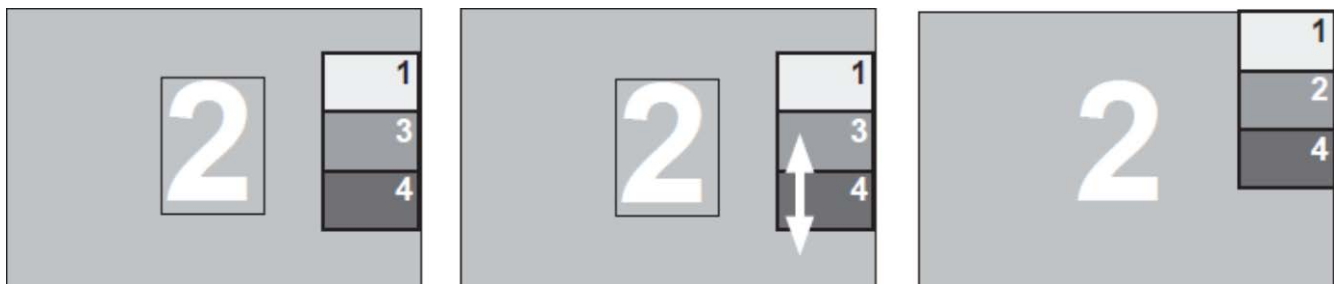


Figure 92. Using the Hotmouse to Move the PiP Images Upward

Modifying the Size of the PiP images

To change the size of the PiP images using the hotmouse cursor, move the cursor to the left edge of the PiP-image area until the hotmouse cursor changes to a horizontal double-headed arrow as shown in

Figure 88. Hold down the left mouse button and drag the hotmouse cursor to the left to increase PiP image size, or to the right to reduce PiP image size.

The examples below show the PiP images being scaled up and scaled down with the hotmouse cursor.

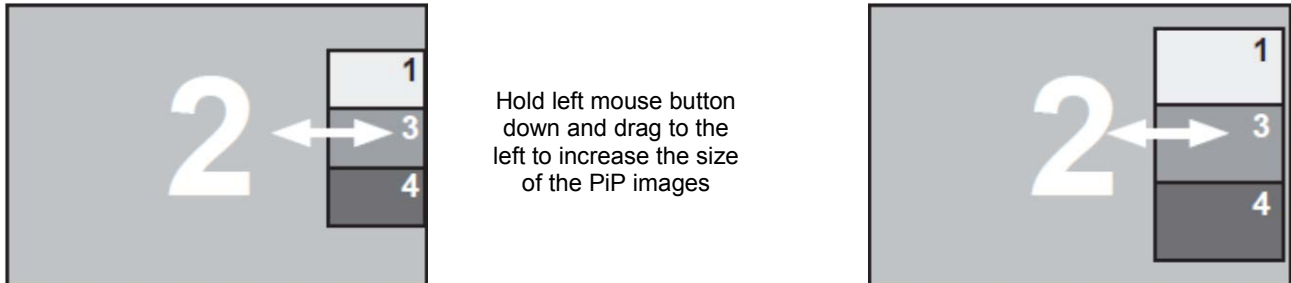


Figure 93. Scaling Up the PiP Images Using the Hotmouse Cursor

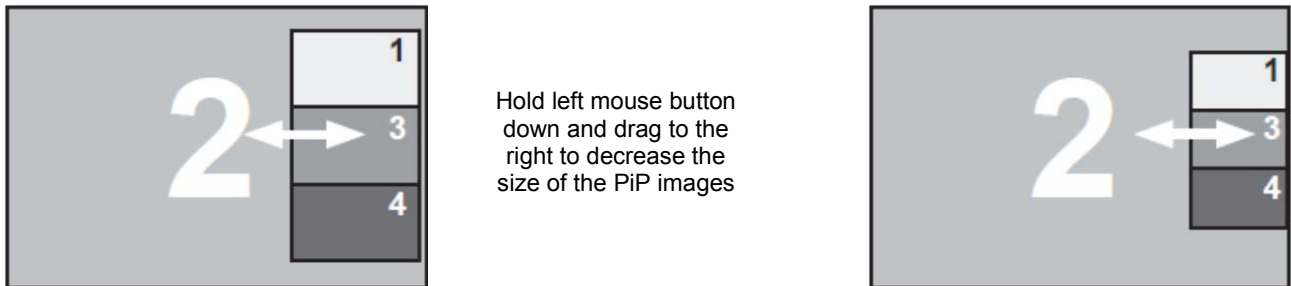


Figure 94. Scaling Down the PiP Images Using the Hotmouse Cursor

Hotmouse Cursor in Win Mode

The hotmouse cursor can perform several functions in Win Mode. In addition to changing the active channel, it can also be used to resize and reposition windows. Each of these functions is described below.

Changing the Active Channel

Once the hotmouse cursor has been activated, the active channel can be changed by clicking in the window of the desired channel.

An example of switching the active channel from channel 2 to channel 3 using hotmouse in Win Mode is displayed below.

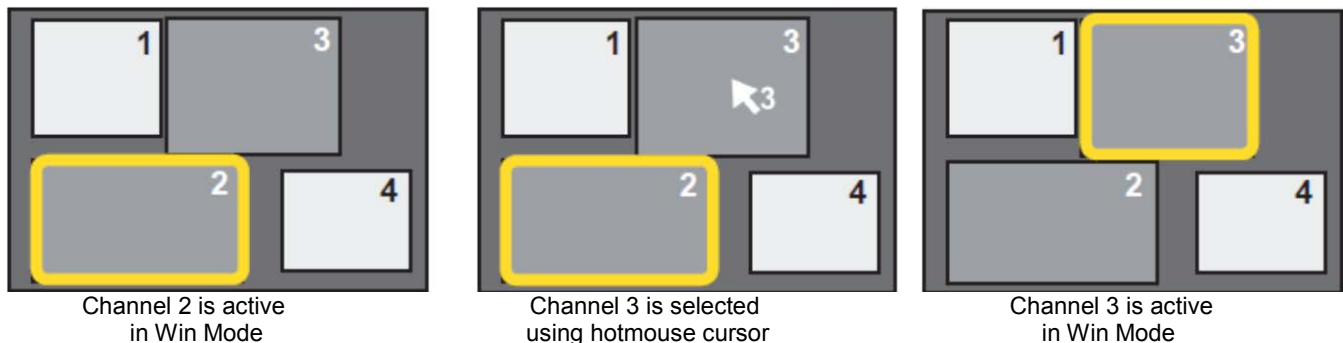


Figure 95. Using the Hotmouse to Change the Active Channel in Win Mode

Resizing Windows with the Hotmouse Cursor

To change the size of a window using the hotmouse cursor, move the cursor to an edge of the window so that the hotmouse cursor changes to a horizontal or vertical double-headed arrow as shown in

Figure 88. Hold down the left mouse button and drag the window edge until it is the desired size.

An example of resizing the window for channel 2 is shown below.

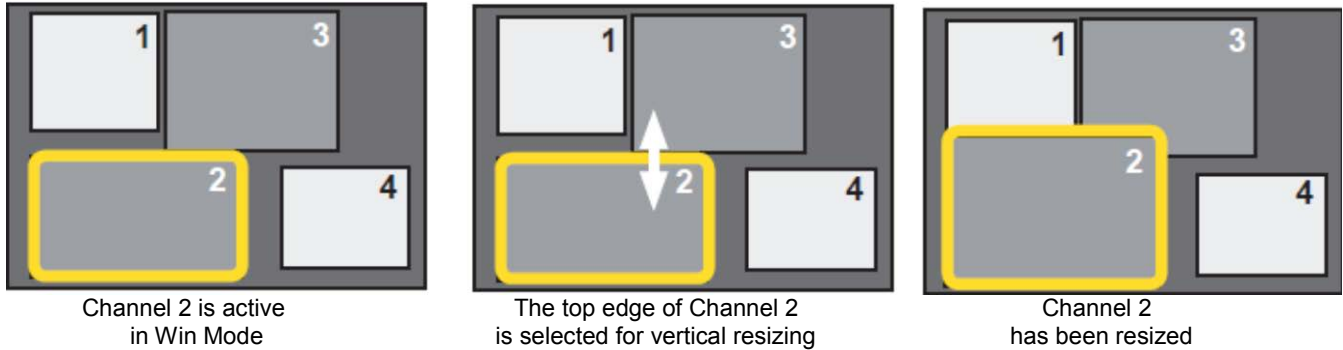


Figure 96. Resizing Windows Using the Hotmouse Cursor

Moving Windows with the Hotmouse Cursor

To move the currently active channel's window, press the left mouse button within the window. The hotmouse cursor changes to the four-headed arrow as shown in

Figure 88. Move the mouse cursor to move the window and release the left mouse button to drop it at that location.

An example for moving the window for channel 2 is shown below.



Figure 97. Moving Windows Using the Hotmouse Cursor

When the hotmouse cursor is moved over the top right corner of the signal window, a menu with the following buttons will be displayed.

- O: Open the OSD hotmouse context menu
- S: Swap signal windows. When this is clicked, the other window is selected.
- R: Toggle aspect ratio locking for the current window.

Activating and Operating the Hotmouse Menu

The hotmouse menu gives a means to carry out switching operations and change display mode settings. It varies based on the current display mode (Fullscreen, Quad, PiP, Win).

Activating and Deactivating the Hotmouse Menu

The hotmouse menu can be opened with a right mouse click once the hotmouse cursor has been activated. To activate the hotmouse cursor when using a touch screen, tap the screen twice, and then hold the finger down after the second tap (tap – tap - hold, like a double click without lifting the finger on the second click), until the hotmouse menu opens.

By clicking outside the hotmouse menu, the hotmouse cursor can be opened to perform the functions described in the previous section. On closing the hotmouse cursor, the hotmouse menu reopens.

Hotmouse Menu Operation

Using the hotmouse menu, the user can carry out switching operations and change display mode settings. The hotmouse menu changes based on the current display mode (Fullscreen, Quad, PiP, Win). The figure below shows the hotmouse menu displayed when the user is in PiP mode.



Figure 98. Sample HOTMOUSE Menu when in PiP Mode

Click on the ◀ and ▶ symbols with the left mouse button to increment or decrement the corresponding values in small steps. Click on the ◀◀ and ▶▶ symbols to increment or decrement the value in large steps. Once the values have been set to the desired values, click on *CLOSE* to close the Hotmouse Menu window and exit the Hotmouse Function. Click on *HELP* to open the *HOTMOUSE / HELP* window

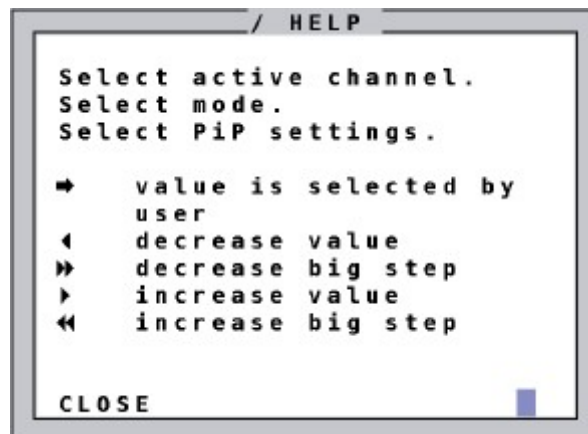


Figure 99. HOTMOUSE / HELP Window

Hotmouse Menu in Display Modes

The hotmouse menu works in the individual display modes as described below.

Hotmouse Menu in Quad Mode and Fullscreen Mode

Click the left mouse button on a channel to activate it, or on a display mode to change to that mode.



Figure 100. Hotmouse Menu in Quad Mode and Fullscreen Mode

Hotmouse Menu in PiP Mode

Click the left mouse button on a channel to activate it, or on a display mode to change to that mode. The PiP hotmouse menu also has options to change the position and size of the PiP images and perform PiP zoom.

Finally, the hotmouse menu can be used to change the PiP mode. There are two available PiP modes: *triple* and *single*. The *triple* PiP mode, as the name indicates, displays the three channels that are not active as PiPs. The *single* PiP mode displays only one PiP channel at a time. These are described in further detail below.

The *triple* PiP mode can be *triple gap*, *triple no gap* or *triple tile*.

In *triple gap* mode, the PiP images are displayed with a gap in place of the active channel.



Figure 101. Triple Gap PiP Mode

In *triple no gap* mode, PiP images are displayed with no gap in between.

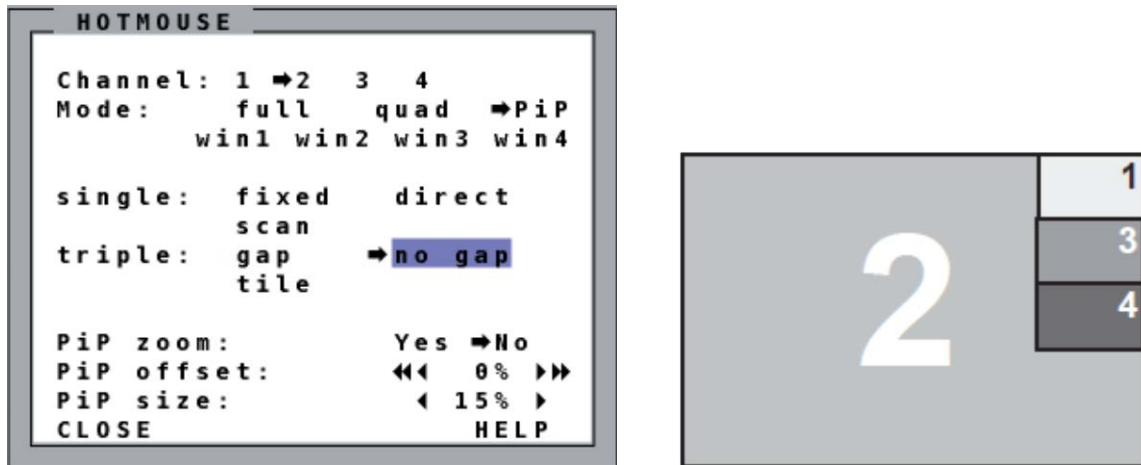


Figure 102. Triple No Gap PiP Mode

In *triple tile* mode, the size of the main image and the PiP images are optimized so that the main image and the PiP images are shown as large as possible without overlapping.

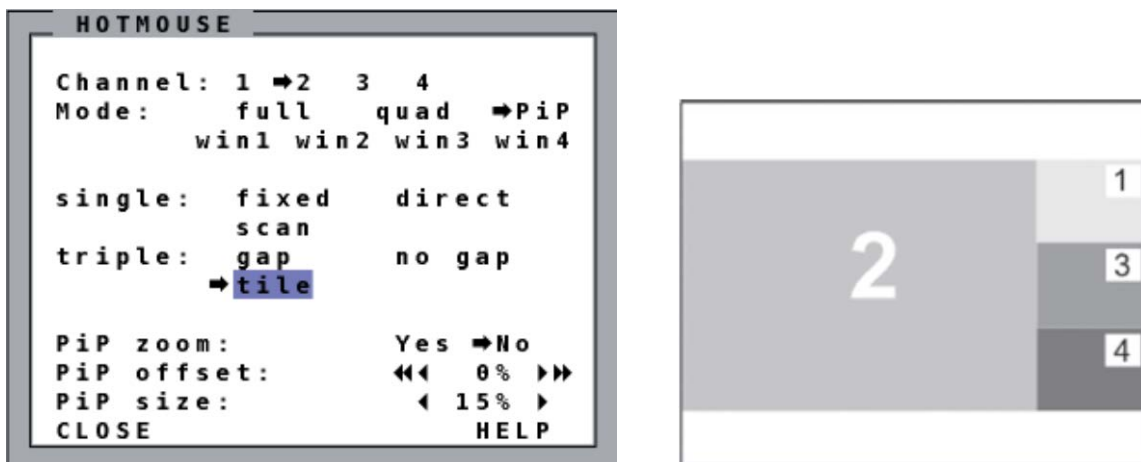


Figure 103. Triple Tile PiP Mode

The *single* PiP mode can be *fixed*, *direct* or *scan*.

In *single fixed* mode, one selected PiP image is permanently displayed. In *single direct* mode, the numbered front panel buttons are pressed to select the desired PiP channel directly.

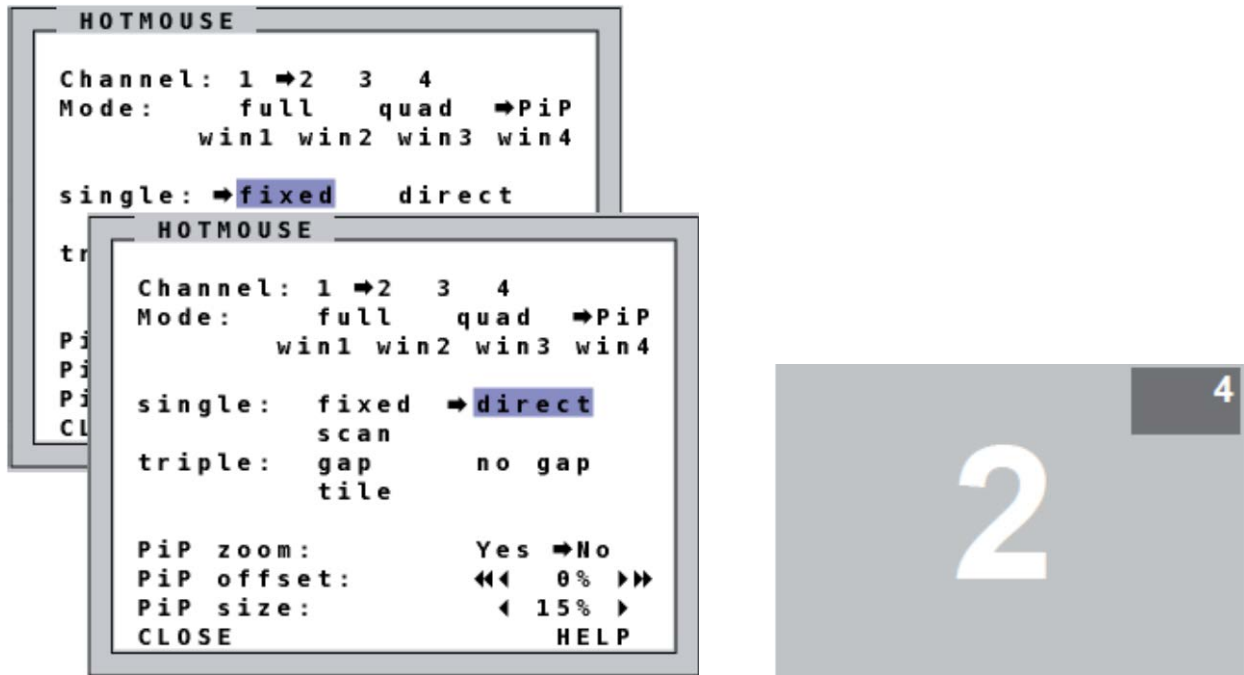


Figure 104. Single Fixed and Single Direct PiP Modes

In *single scan* mode, the units cycles the single PiP through the channels at a set interval.

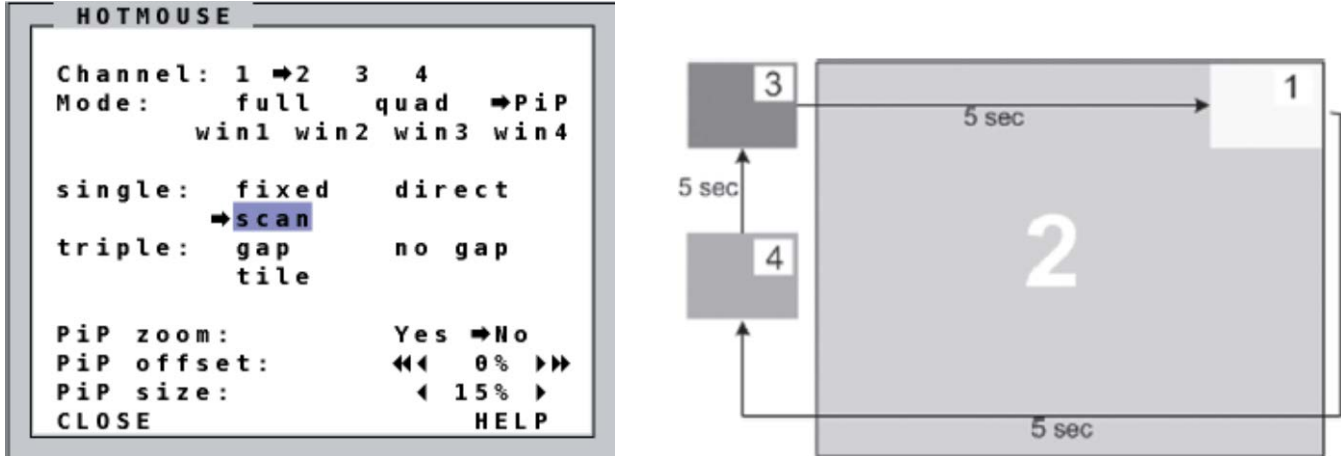


Figure 105. Single Scan PiP Mode

Hotmouse Menu in Win Mode

The hotmouse menu in Win Mode is used to save the position and sizes of the channel windows. Four different sets of window sizes and positions can be saved to locations *win1*, *win2*, *win3* or *win4*.

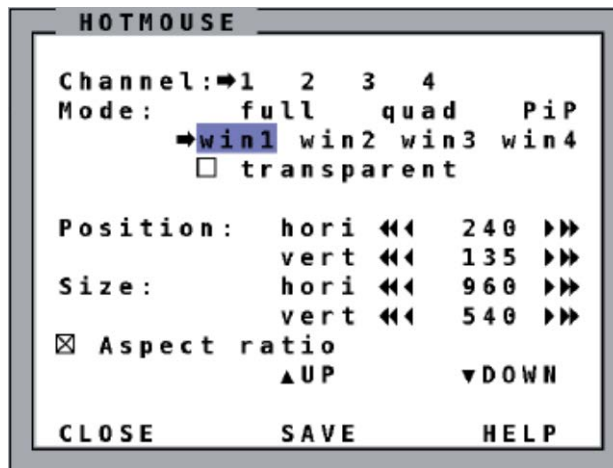


Figure 106. HOTMOUSE Menu in Win Mode

Once the channel windows have been positioned and/or resized as desired, enter Win Mode. Activate the hotmouse menu, select the desired location to save to and click on the Save field. The settings are then saved to the specified location.

SERVICE AND MAINTENANCE

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: 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.

PRODUCT 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.

EMC Regulatory Statements



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 must perform any servicing, maintenance, or repair. The user may adjust only items mentioned in this manual.

Appendix A. Specifications

Dimensions (W x D x H)	17.2 in x 9.2 in x 1.7 in / 43.6 cm x 23.4 cm x 4.4 cm
Weight	6.4 lbs / 2.9 kg
Resolution	DVI/VGA: 1920 x 1200 @60 Hz; HDTV: 1080p (non-interlaced)
Color Depth	30-bit ultra high color (DVI/VGA)
Serial Control	Through 1 x RJ45(RS232), 1 x USB
Audio	Input: HDMI through 4 x DVI-I ports Output: 1 x S/PDIF, 1 x analog stereo jack, or through HDMI at 1x DVI-I port (7.1 surround sound supported)
Input Ports	4 x DVI-I (analog & digital), 4 x PS/2, 4 x USB,
KVM Ports	1 x DVI-I, 2 x USB for keyboard, mouse, or touch screen
USB 2.0 Ports	4 x USB for transparent USB 2.0 devices (USB 1.1 compatible)
Touch screen	Various USB models supported (see Appendix G)
EDID	Customizable at each input port
Supported Keyboard Layouts	English, German, Spanish, French, Italian, Japanese
Power Supply	Internal. 100-240 VAC , 50/60Hz
Power Consumption	Max 25 watts
Maximum distance	Video (DVI / VGA) up to 20 meters; keyboard / mouse up to 5 meters
LED Indicators	4 x for Active Channel, 1 x for each Display Mode
Operating Temperature	41°F to 113°F / 5°C to 45°C
Storage Temperature	14°F to 140°F / -10°C to 60°C
Relative Humidity	5 to 65% non-condensing
Approvals	CE, FCC. RoHS

Table 6. QuadraVista QF Specifications

Appendix B. Parts and Cables

Part Number	Description
QV-4KVMDVI-QF	QuadraVista unit
CAB-DVIIMM005	DVI-I Cable, Male/Male, 5ft
CAB-DVIIMF005	DVI-I Cable, Male/Female, 5ft
CAB-DVIIMM010	DVI-I Cable, Male/Male, 10ft
CAB-DVIIMF010	DVI-I Cable, Male/Female, 10ft
CAB-DVIIMVM005	DVI-I Cable, VGA(M) to DVI-I(M), 5ft
CAB-DVIIMVF005	DVI-I Cable, VGA(F) to DVI-I(M), 5ft
CAB-DVIIMVM010	DVI-I Cable, VGA(M) to DVI-I(M), 10ft
CAB-DVIIMVF010	DVI-I Cable, VGA(F) to DVI-I(M), 10ft
CAB-DVIDMM005	DVI-D Cable, Male/Male, 5ft
CAB-DVIDMM010	DVI-D Cable, Male/Male, 10ft
CAB-USBAB005	USB-AB Cable, 5ft
CAB-USBAB010	USB-AB Cable, 10ft
CAB-MD6MMnnn	PS/2 to PS/2 (male/male)
CAB-MD6M2MD6M	PS/2 "Y" cable

Table 7. QuadraVista QF Part Numbers

Appendix C. Keyboard Commands

The QuadraVista QF supports two hotkey modes – Multiple Keys and Double Click. These hotkey modes are described further below. The hotkey mode can be selected in the OSD from the *SYSTEM / HOTKEY* menu item as shown on page 16.

In Multiple Keys mode, the hotkey and the command key are pressed simultaneously. This is the default hotkey mode.

Command = Hotkey  and  together

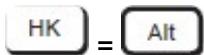
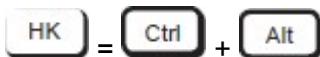
The following keys can be selected as hotkeys for Multiple Keys mode.



The default hotkey is



Other examples for Multiple Keys hotkeys are as follows.



In Double Click mode, the hotkey is double-clicked, and then the command key is pressed within two seconds.

Command =  and  in sequence


The following keys can be selected as hotkeys for Double Click mode.



Some examples of Double Click hotkeys are as follows.



Notes:

1. When the QuadraVista QF is in command mode (hotkeys are activated), the LEDs on the keyboard will flash to indicate this.
2. In Double Click hotkey mode, pressing an invalid key causes the unit to exit command mode.
3. Hotkey =  when the OSD is open.

Hotkeys for some of the frequently used functions of the QuadraVista QF are given below.

Selecting display mode

 +  Quad Mode

 +  Fullscreen Mode

 +  PiP Mode

 +  Win Mode

Selecting active channel

 +  Set Computer 1 as the active channel

 +  Set Computer 2 as the active channel

 +  Set Computer 3 as the active channel

 +  Set Computer 4 as the active channel

In Quad Mode, it is also possible to select a channel adjacent to the currently active channel by using

 + <Arrow keys>

In PiP mode, the active channel is automatically displayed as a full image.

Opening USB Device Switch Window (Figure 82)

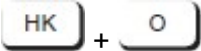
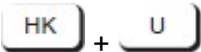
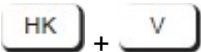
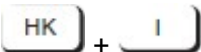
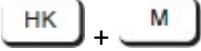
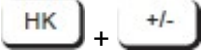
 +  Open USB Device / Port 1 Switch Window

 +  Open USB Device / Port 2 Switch Window





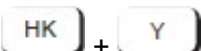

 +  Open USB Device / Port 3 Switch Window

 +  Open USB Device / Port 4 Switch Window

Other Command Hotkeys

	Open OSD
	Open USB Device 1-4 Window
	Safe Output Mode (page 4)
	Opens the PiP OSD window (display mode switches to PiP mode in the background as long as the window is open)
	Activate / deactivates hotmouse mode
	Opens the Adjust Volume window

Hotkeys for Win Mode

	Save current window settings to EEPROM
	Restore window settings from EEPROM and lose all changes
	Toggle <i>transparent</i> setting of current Win Mode (Figure 42)
	Undo up to 10 previous actions
	Redo up to 10 previous actions
	Select active channel in Win Mode

Appendix D. Serial Cable

Serial remote control of the QuadraVista QF requires a special adapter to connect a CAT5 cable the serial RJ45 port on the unit.

This adapter is connected to the external serial control device (e.g. computer). A standard CAT5 cable is connected to the adapter. The other end of the CAT5 cable is connected to the RJ45 port on the unit.

The adapter (including a standard CAT5 cable (in green)) is included in the QuadraVista QF package.

Serial Cable = QuadraVista QF adapter + standard CAT5 cable.

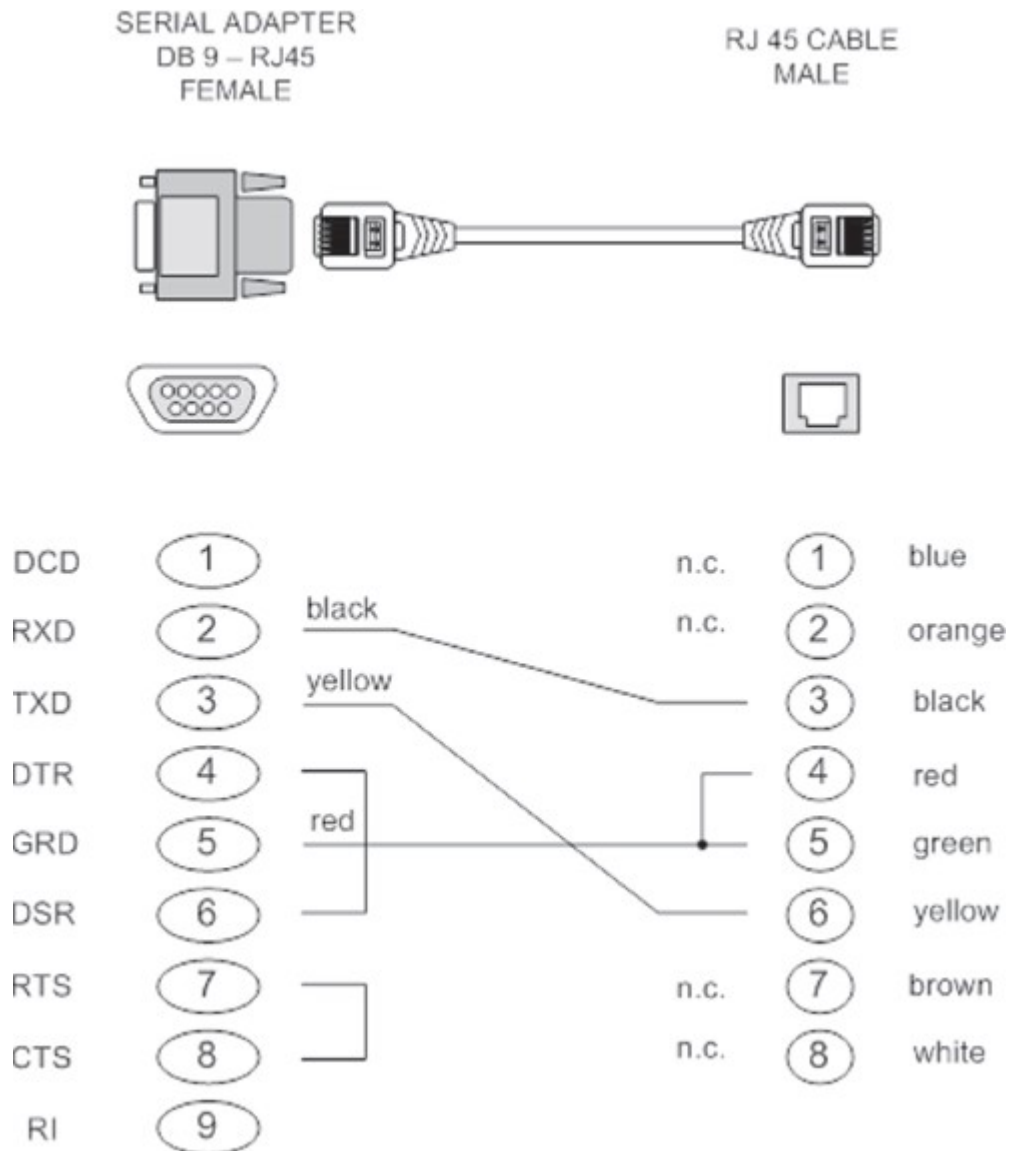


Figure 107. QuadraVista QF Serial Cable Pinouts

Appendix E. DCP-XML and the Device Configuration Program

DCP-XML provides a means to control the QuadraVista QF remotely through a computer using the RS-232 serial port on the computer.

DCP (Device Control Protocol) is an XML-based protocol. Using DCP, all the important settings of the QuadraVista QF can be queried and changed. A general description of XML can be found at <http://www.w3.org/XML/>.

The XML scheme for DCP can be found on the enclosed CD, under the name “dcp.xsd”. For a detailed description on how to use DCP-XML with the QuadraVista QF, please see the accompanying “DCP-XML Manual”.

DCP has two modes: *control* and *synchronize*. The *control* mode is used for direct control of the QuadraVista QF unit from a computer. This is accomplished using the ConfDev Device Configuration program, and is described in further detail below. The *synchronize* mode is used to synchronize multiple linked devices. This has been described in the DCP Synchronize section found on page 26.

Device Configuration Program

The Device Configuration Program *ConfDev* allows the user to operate the OSD of the QuadraVista QF remotely from an external Windows computer through a serial connection.

Other operations available through the *ConfDev* program include uploading a background image to the QuadraVista QF unit, and loading and saving configurations. Each of these operations is described further below.

Installing the ConfDev Program

In order to install the *ConfDev* device configuration software, the following are needed.

- A computer running Microsoft Windows with a free USB or RS 232 COM-port;
- the QuadraVista QF unit;
- the *confdevEn.exe* program found on the accompanying installation CD; and
- the included “serial cable” (RJ45-DB9 adaptor + RJ45 CAT5 cable) described in Appendix D

Use the serial cable to connect the COM port of the Windows computer to the serial port on the QuadraVista QF. Alternatively, connect a USB A-B cable between a USB Type A port on the computer and the *Control* USB Type B port on the unit.

Note: The virtual COM port USB driver can be downloaded from the Future Technology Devices International Ltd. website at www.ftdichip.com/Drivers/VCP.htm

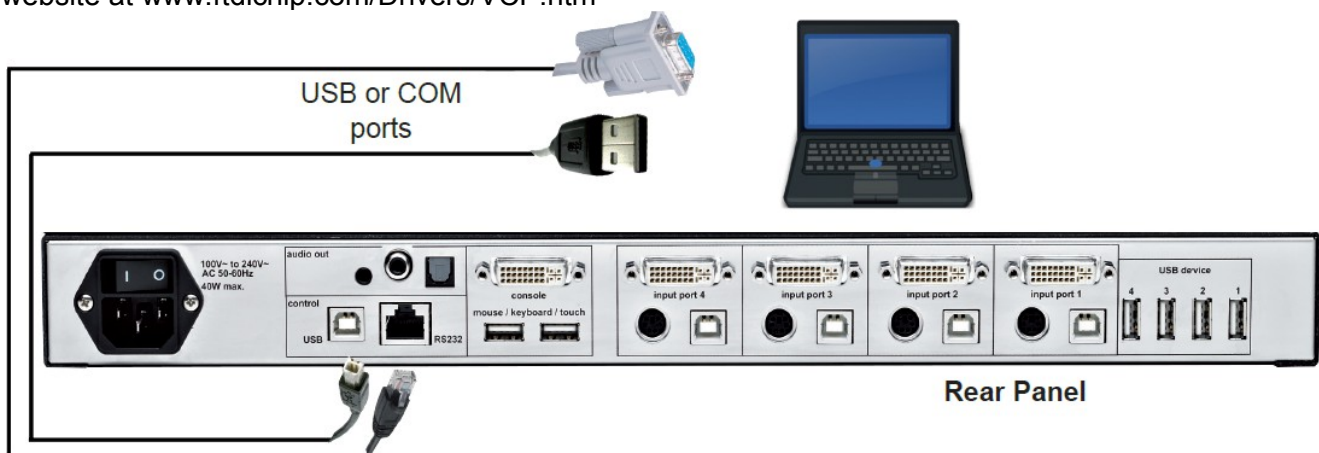


Figure 108. Connecting Computer to QuadraVista QF for Direct Control

Insert the installation CD and launch the *confdevEn.exe* program. This will open the *Device Configuration Program (ConfDev)* window.



Figure 109. Device Configuration Program (ConfDev) Window

ConfDev Settings

Clicking the *Change Settings* button  opens the *Settings* window. This window provides a means to set the font size for the OSD, set log parameters and the properties of the COM port to which the unit is connected.

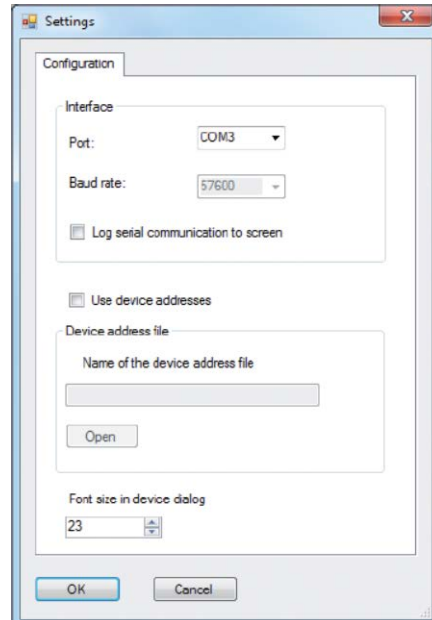



Figure 110. ConfDev Settings Window

Remote OSD Operation

Click the *Remote OSD* button  to open the On Screen Display (OSD) of the QuadraVista QF remotely on the external Windows computer. This will open the main OSD on the computer.

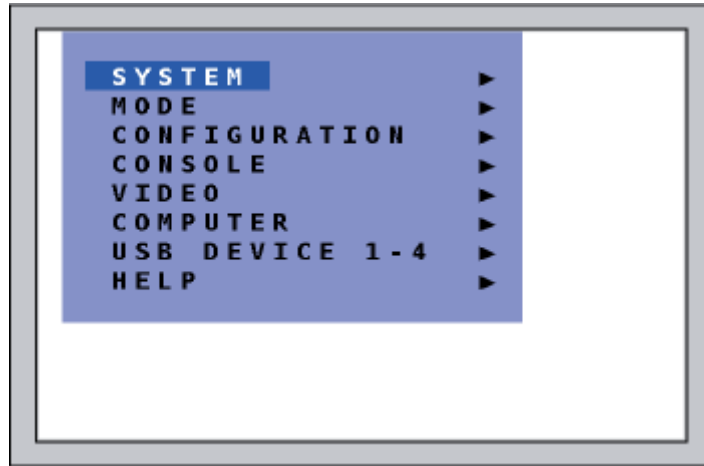


Figure 111. OSD Main Screen

Navigate through the OSD using the arrow keys on the keyboard of the remote Windows computer. Press **Enter** key to make a selection, or the **Esc** key to return to the previous menu.

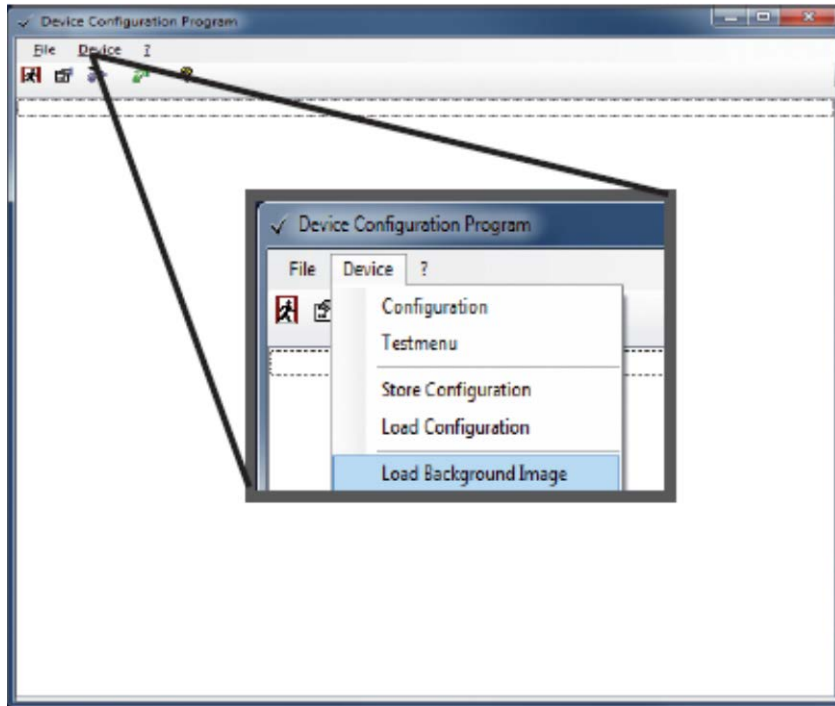
Uploading a Background Image

The *ConfDev* program can be used to upload a background image to the QuadraVista QF. This image is displayed behind the windows in Win Mode. To upload an image, use the *DEVICE* → *LOAD BACKGROUND IMAGE* menu item in *ConfDev*.

IMPORTANT: Only 256-color bitmaps are supported for background images. The file used should have a maximum size of 2 MB. The maximum resolution will be that of the connected monitor.

If an image of another format needs to be used, it must first be converted into a bitmap. Free tools like Gimp or Paint.NET are available to do this conversion. MS Paint available in Windows also supports this conversion. Due to the limited color count in the bitmap format, the quality of the image may be reduced.

A compression algorithm is used while downloading the image. If the image cannot be compressed well, the upload can take up to 30 minutes.



A 256-color bitmap is uploaded from the Windows computer to the QuadraVista QF using the *ConfDev* program.



Figure 112. Uploading a Background Image to the QuadraVista QF

Storing a Configuration

The *ConfDev* program can be used to store device configurations as a file on the Windows computer. To store a device configuration to PC, use the *DEVICE* → *STORE CONFIGURATION* menu item in *ConfDev*. The *Save As* window will be displayed and the configuration can be saved to the desired location.

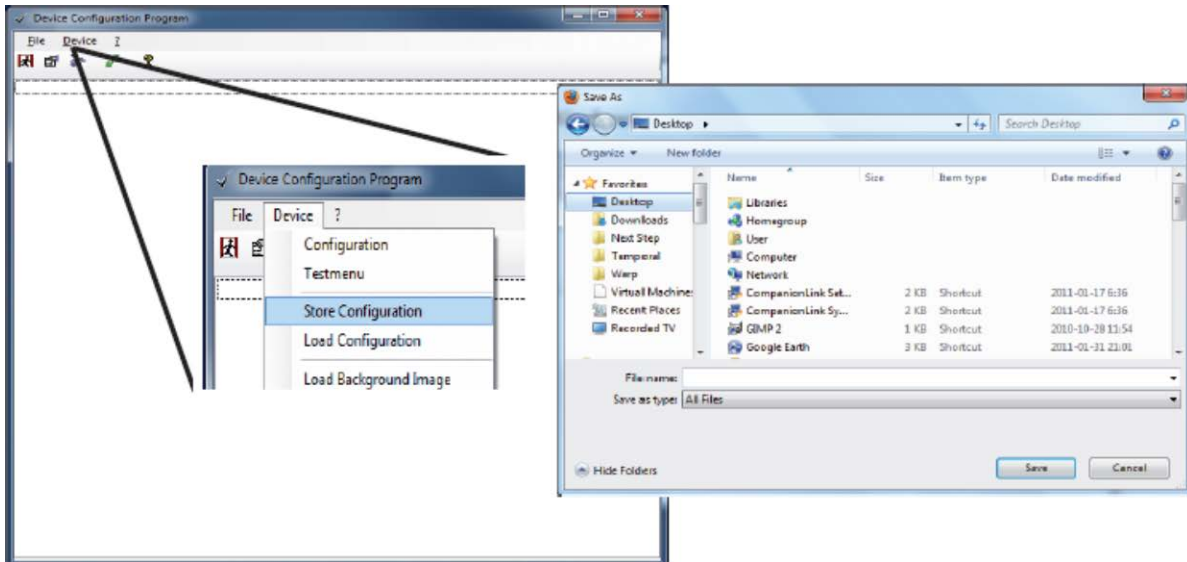


Figure 113. Saving Device Configuration to PC

Loading a Configuration

The *ConfDev* program can be used to load device configurations from a file on the Windows computer. To load a device configuration from the PC, use the *DEVICE* → *LOAD CONFIGURATION* menu item in *ConfDev*. The *Open* window will be displayed, and the desired configuration file can be loaded.

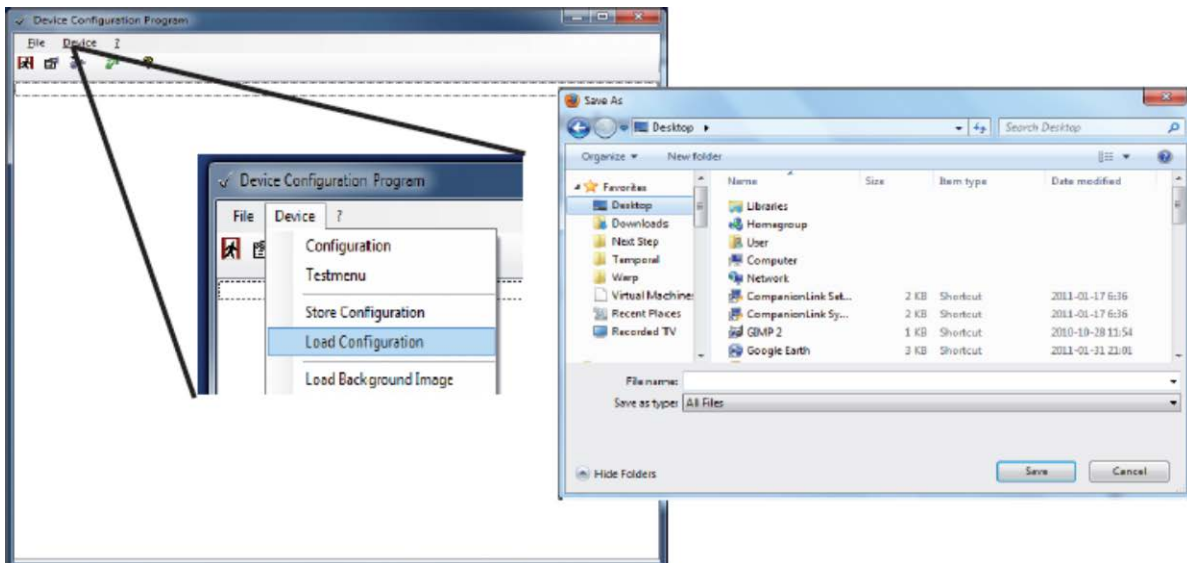


Figure 114. Loading Device Configuration to the QuadraVista QF

Appendix F. Firmware Update

The following are needed to perform a firmware update.

- A computer with a free USB or RS 232 COM-port;
- the included “serial cable” (RJ45-DB9 adaptor + RJ45 CAT5 cable) described in Appendix D,
- the QuadraVista QF unit; and
- the firmware executable file with the firmware to be uploaded; and

Set up connections between the computer and unit using the cable in the manner described in Installing the ConfDev Program found on page 84.

Launch the executable firmware file. This will open up the *Update* window. Select the COM port the unit is connected to, and press the *Update* button.

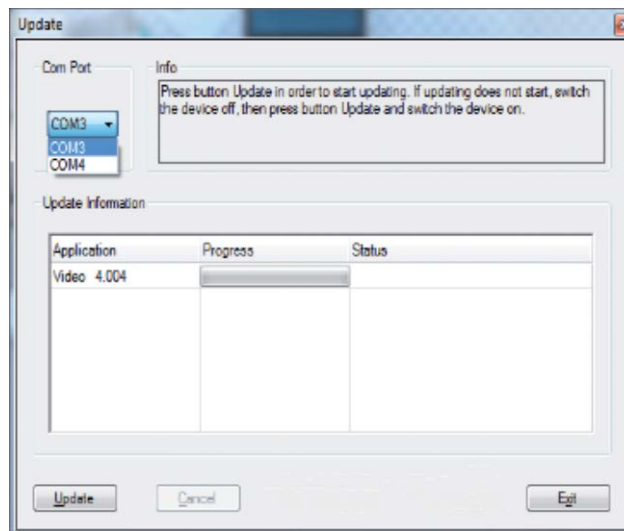


Figure 115. Firmware Update Program

LEDs 1-4 on the unit's front panel will flash blue during the update. Additionally, the *Update* window shows the progress of the firmware upgrade.

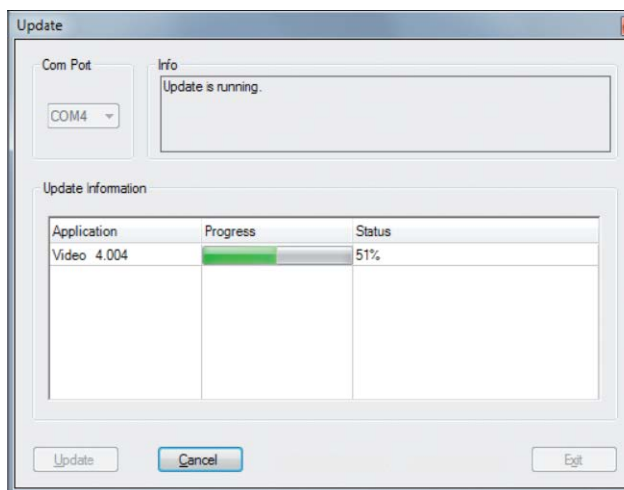


Figure 116. Firmware Update Progress

When the firmware has been updated successfully, the QuadraVista QF restarts without changing the configuration.

Appendix G. Supported Touch Screen Controllers

The QuadraVista QF supports **USB Touch Screens** that have one of the following controllers built in.

Tyco ELO Touch System:

- AccuTouch Five-Wire Resistive Touch Technology - includes models 1215L, 1229L, 1515L, 1522L, 1528L Medical, 1529L, 1537L, 1715L, 1729L, 1739L, 1915L, 1928L, 1928L Medical, 1939L, 2020L
- IntelliTouch Surface Wave Touch Technology - elo 2701 Controller Series (IntelliTouch, SecureTouch)
- CarrollTouch Infrared Touch Technology

(not supported: Acoustic Pulse Recognition (APR))

TSharc:

- TSharc Octopus Controller - widely used, including in touch screens manufactured by 3M, Microtouch, TrollTouch, The Bergquist Company

XanQ:

- USB-R5W-HT580-R by XanQ Technology Corporation

3M MicroTouch:

- MicroTouch™ EX II (new release delivered after 2009 with HID support)
- MicroTouch™ DST - only restrictions are that the touch screen must first be calibrated at a standalone computer, and that only left mouse clicks are recognized, not right mouse clicks. E.g. integrated at display NEC Multeos 32" and 40" LCD with touch option.

ET&T Technology:

- ETouch IR™ infra red touch screen, aluminum frame, 26" up to 65"

eGalaxy eMPIA Technology Inc. (EETI):

- S5000UEGG; 4/5-Wire Resistive Touch Technology; USB;

Notes:

- If a USB touch screen does not feature one of the controllers listed above or does not work with a digitizer touch screen interface, please contact Rose Electronics Tech Support to determine compatibility.
- New multi-touch screen systems are compatible with the newly defined digitizer touch screen interface. Generally, these can be used.

Appendix H. Supported Video Formats

VIDEO INPUT (Display Video Formats)

Mode	Resolution	Sync Polarity H/V	Refresh Rate		Set In EDID	VESA/CEA Standard
			Analog Hz	Digital* Hz		
CGA	640x350	+/-	85	85		DMT
CGA	640x400	-/+	85	85		DMT
EGA	720x400	+/+	70	70	x	CVT
EGA	720x400	-/+	85	85		DMT
VGA	640x480	-/-	60	22-60	x	DMT
VGA	640x480	-/-	72	72	x	DMT
VGA	640x480	-/-	75	75	x	DMT
VGA	640x480	-/-	85	85	x	DMT
SVGA	800x600	+/+	56	22-56	x	DMT
SVGA	800x600	+/+	60	60	x	DMT
SVGA	800x600	+/+	72	72	x	DMT
SVGA	800x600	+/+	75	75	x	DMT
SVGA	800x600	+/+	85	85-180	x	DMT
XGA	1024x768	-/+	50	22-50		CVT
XGA	1024x768	-/-	60	60	x	DMT
XGA	1024x768	-/-	70	70	x	DMT
XGA	1024x768	+/+	75	75	x	DMT
XGA	1024x768	+/+	85	85	x	DMT
XGA/B	1152x864	+/+	75	75	x	DMT
SUN	1152x900	+/+	66	66		CVT
HDTVp	1280x720	+/+	50	22-50		CEA-861-E
HDTVp	1280x720	+/+	60	60		CEA-861-E
WXGA	1280x768	-/+	60	60		DMT
UWXGA	1280x960	+/+	60	60		DMT
UWXGA	1280x960	+/+	85	85		DMT
SXGA	1280x1024	g	50	50		CVT
SXGA	1280x1024	+/+	60	60	x	DMT
SXGA	1280x1024	g	72	72		CVT
SXGA	1280x1024	+/+	75	75	x	DMT
SXGA	1280x1024	+/+	85	85	x	DMT
WXGA	1360x768	+/+	60	22-60		DMT
SXGA+	1400x1050	-/+	50	22-50		CVT
SXGA+	1400x1050	-/+	60	60		DMT
SGI	1600x1024	+/+	60	60		CVT
UXGA	1600x1200	+/+	50	50		CVT
UXGA	1600x1200	+/+	60	60	x	DMT

UXGAr	1600x1200	+/+	50	50		CVT
UXGAr	1600x1200	+/+	60	60		CVT
WSXGA	1680x1050	-/+	60	60		DMT
HDTVp	1920x1080	+/+	---	22-24		CEA-861-E
HDTVp	1920x1080	+/+	50	50		CEA-861-E
HDTVp	1920x1080	+/+	60	60	x	CEA-861-E
WUXGAr	1920x1200	+/+	50	22-50		CVT
WUXGAr	1920x1200	+/+	60	60	x	DMT

Table 8. Supported Input Video Formats

Note:

*Digital**: All video formats up to 162 MHz pixel clock following DMT, CVT or GTF standard timings are supported. Within this range, ANY digital resolution is supported. Analog input may not be detected correctly.

See

COMPUTER / EDID/DDC Menu Item section on page 59.

VIDEO OUTPUT (Display Video Formats)

The table lists all video formats supported by the QuadraVista QF at the output port.

Mode	Horizontal	Vertical	Hz
VGA	640	480	60
VGA	640	480	75
VGA	640	480	85
SVGA	800	600	60
SVGA	800	600	75
SVGA	800	600	85
XGA	1024	768	50
XGA	1024	768	60
XGA	1024	768	70
XGA	1024	768	75
XGA	1024	768	85
SXGA	1280	1024	50
SXGA	1280	1024	60
SXGA	1280	1024	75
SXGA+	1400	1050	50
SXGA+	1400	1050	60
UXGA	1600	1200	50
UXGA	1600	1200	60
UXGAr	1600	1200	50
UXGAr	1600	1200	60
XGA/B	1152	864	75
UWXGA	1280	960	60
UWXGA	1280	960	85
SUN	1152	900	66
WXGA	1280	768	60
WXGA	1366	768	60
WSXGA	1680	1050	60
WUXGAr	1920	1200	40
WUXGAr	1920	1200	50
WUXGAr	1920	1200	60
HDTVp	1280	720	50
HDTVp	1920	1080	24
HDTVp	1920	1080	50
HDTVp	1920	1080	60

Table 9. Supported Output Video Formats

Note:

When set to auto (by default), the QuadraVista QF reads the EDID of the monitor connected and automatically supports its resolution as described in the CONSOLE / VIDEO OUTPUT Menu Item section on page 38.

Appendix I. Cascading QuadraVista QF Units

The QuadraVista QF can be cascaded in order to display more than four video sources simultaneously on a single display. In this master-slave-system, any QuadraVista QF can be used as master or slave.

One unit acts as the master unit. The console that has a keyboard, mouse and display or touch screen is connected to the output of the master unit. A slave unit can be connected to each input of the master unit. In this way, each quadrant on the display can be split in four more quadrants.

Thus, in a maximum cascaded configuration, a total of 16 video sources can be displayed simultaneously on a single console.

All display modes:

Display modes (Fullscreen, Quad, PiP, Win) of the master and the slaves and can be set, combined and switched individually. For example, the master unit could be set to Quad mode, while the first slave is set to PiP, the second slave to Fullscreen, the third slave to Quad and the fourth slave to Win mode. Any combination is possible.

Keyboard and mouse operation:




Keyboard and mouse can be activated on any of the connected computers (up to 16) in order to operate on them.

Hotkeys for switching:

Use hotkeys to activate any of the channels quickly, or to switch the display mode of any of units in the master-slave system.

Different levels (master or slave) require different types of hotkeys.

For example, keep the hotkey default setting  =  +  for all slave units.





Just change the hotkey setting for the master unit. For example,  =  + 

See the SYSTEM / HOTKEY Menu Item section on page 15 on instructions on how to change hotkeys.





Examples:

The examples below use a cascaded setup with 1 master, 4 slaves and 16 connected computers.

- The keyboard and mouse of computer 16 can be activated by pressing the following hotkey combination:

 +  to activate channel 4 on the master level, then  +  to activate channel 4 on the slave unit connected to channel 4 of the master.

- To change the display mode of the slave unit XP connected to port 4 of the master unit, press the following hotkey combination:

 +  to activate channel 4 on the master level, then  +  to switch from default Quad Mode to PiP mode in quadrant 4. The result is a screen split into four equal quadrants. All quadrants are split again in four equal quadrants, except for the quadrant in the lower right corner (channel 4) is showing its four sources in PiP mode.

Note:

Use a programmable keyboard for easy switching of cascaded QuadraVista QF units. A single key can be programmed to a hotkey combination. By pressing a single key, the keyboard and mouse of one of up to 16 connected computers can be activated, or the display mode of the master or any of the four slaves can be changed.

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