ADDER®

ADDERView™
A V S 1 1 2 4

SECURE

1   2   3   4

CH: **1** ADDER_01
AUDIO: **1**   RC
TSECRET

ADDER®

Contents

Introduction

WELCOME

Thank you for choosing the ADDERView® AVS-1124 secure multi-viewer switch for working simultaneously with up to four computers. You can choose to view the output of any computer on either connected video display or view all four outputs on one display. Focus automatically changes between computers as the mouse pointer is moved into each related window.
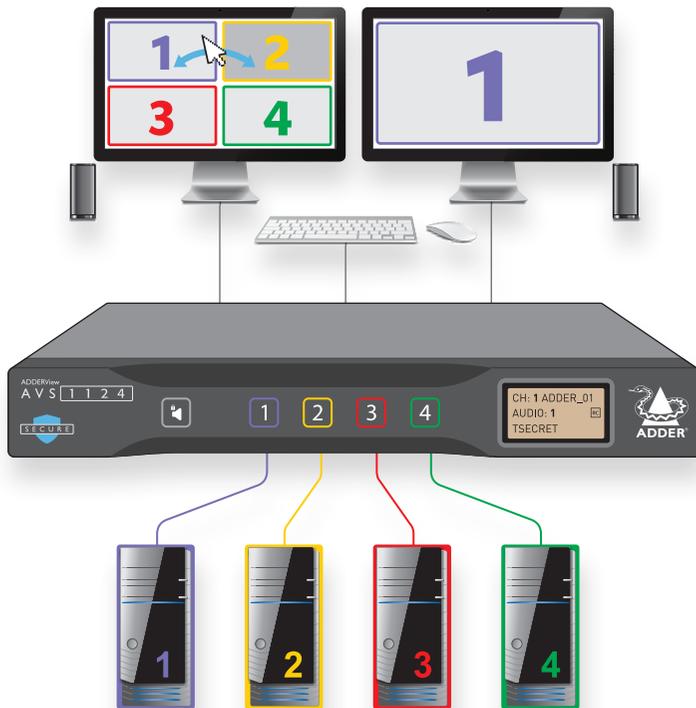
Switching between computers can also be controlled from the smart front panel or by using keyboard shortcuts. Multiple techniques are employed to ensure that no crosstalk can occur between the connected computer channels.

Features

• Uni-directional keyboard, video, mouse and audio data paths prevent any potential information leakage through shared peripherals.

• No shared memory between channels: The keyboard and mouse processor is powered down and reset at each switchover to thwart shared data leakages.

• Automatic switching between ports simply by moving the mouse between windows, whilst depressing the Ctrl key (a security feature).

• Clear channel identification to reduce the chances of operator error by displaying a user defined name and security classification for each channel on the status display. The color of the channel indicators may also be configured to reflect the security classification.

• Hardware anti-tampering: Holographic anti-tampering labels protect the product's enclosure, providing a clear visual indication if it has been opened or compromised.

• Restricted USB function: The USB ports will only accept HID (Human Interface Devices), such as keyboards and mice.

• There is no access to the product's firmware or memory through any port. Firmware is permanently stored in non-reprogrammable Read Only Memory (ROM) to prevent modification.

• High quality 4K video output resolution.

• Dual video outputs where the 2nd either duplicates the 1st or extends the desktop.

• Connect to either single or dual head computers.

• Analog audio with Hold feature.

Safety

Please refer to the safety booklet provided in the box before using this product.

TAMPER-EVIDENT LABELS

The secure switch models and also the smart card reader use holographic tamper evident labels to provide visual indications in case of an enclosure intrusion attempt. When opening product packaging inspect the tampering evident labels.

Example of a holographic tamper evident label

If for any reason one or more tamper-evident label is missing, appears disrupted, or looks different than the example shown here, please call Technical Support and avoid using that product.

TECHNICAL SPECIFICATIONS

Approvals / Compliance
CE, UKCA, FCC class A, TUV US & Canada

NIAP PP 4.0 Compliant Design for Peripheral Sharing Devices (PSD)

Video resolutions
Inputs: Up to 1920 x 1200 @ 60 Hz.

Outputs: Up to 3840 x 2160 @ 30 Hz.

Software compatibility
Windows®, Linux, Mac® host computer OS's USB HID, including touchscreens compliant with Microsoft® Digitizer.

Computer connections

4x DVI-D
4x USB type B
4x Audio (3.5mm)

Console connections
2x HDMI
2x USB type A
Audio (3.5mm)
RJ12 options port

Front panel
Audio hold button and status LED
4x Channel selection button and status LED
E-paper for status display (212 x 104)

Physical design
Robust metal construction

13.54"/344mm(w), 1.73"/44mm(h), 6.73"/171mm(d)   1.6kg/3.53lbs

Power supply
100 - 240V AC, 47/63Hz
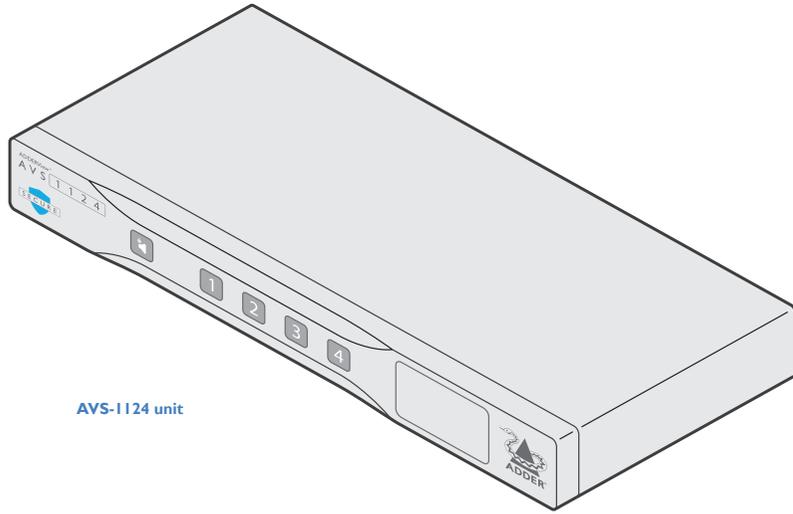
12VDC 18W output from power supply unit

Environmental
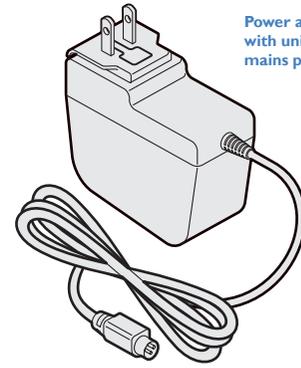Operating temp: 32°F to 104°F (0°C to 40°C)

Storage temp: -4°F to 140°F (-20°C to 60°C)

Humidity: 0-80% RH, non-condensing

SUPPLIED ITEMS

AVS-1124 unit

Power adapter with universal mains plug
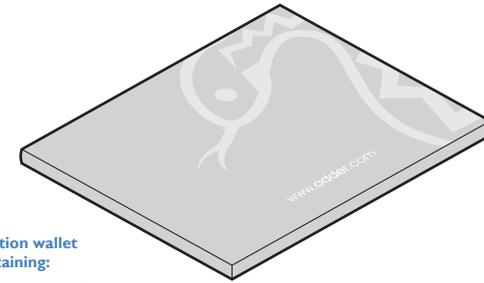
Information wallet containing:

Four self-adhesive rubber feet
Quick start guide
Safety document

OPTIONAL EXTRAS
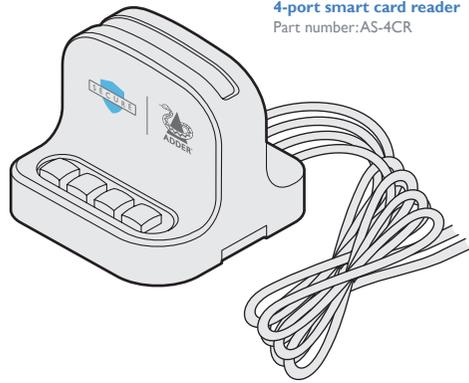
4-port smart card reader
Part number: AS-4CR
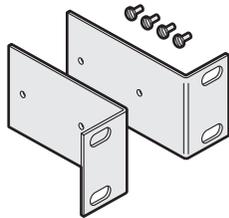
19" rack-mount kit
Part number: RMK13
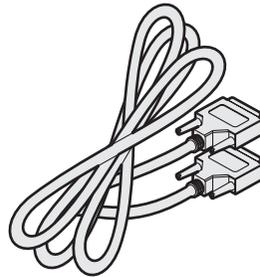
Single link DVI-D to DVI-D video cable 2m
Part number: VSCD1
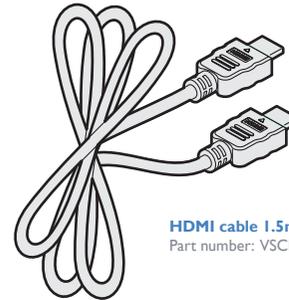
HDMI cable 1.5m
Part number: VSCD15
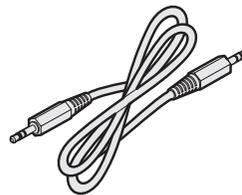
**Audio cable 2m
(3.5mm stereo jacks)**
Part number: VSC22
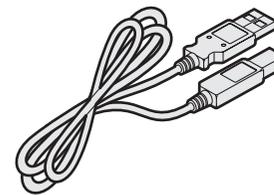
USB cable 2m (type A to B)
Part number: VSC24

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CONNECTIONS

All connections are made at the rear panel.
Use only approved shielded cables, particularly
for the video connections. Ensure that all
connections are made before applying power.

Console peripherals

**Remote
control
link**

Speakers

**Keyboard
and mouse**

Power in

Computer port 4

as per port 1

Computer port 3

as per port 1

Computer port 2

as per port 1

Computer port 1

**Computer
audio link**

**Computer
USB link**

12V 2.5A   RCU

CONSOLE

2   1

4   3   2   1

**Video port 'in-use'
indicators**

**USB port 'in-use'
indicators**

**Secondary
console HDMI
display**

**Primary
console HDMI
display**

**Computer DVI
video connection**

Console peripherals

7

Computer connections

The secure switch has four computer ports, each of which consists of: one DVI video link, a USB link and an audio connection. The unit supports single link DVI video input resolutions up to 1920 x 1200 @ 60Hz.

To make connections (to each computer port)

1 Attach a cable between the DVI video connector and the primary video output connector on the computer.

DVI video connection to computer
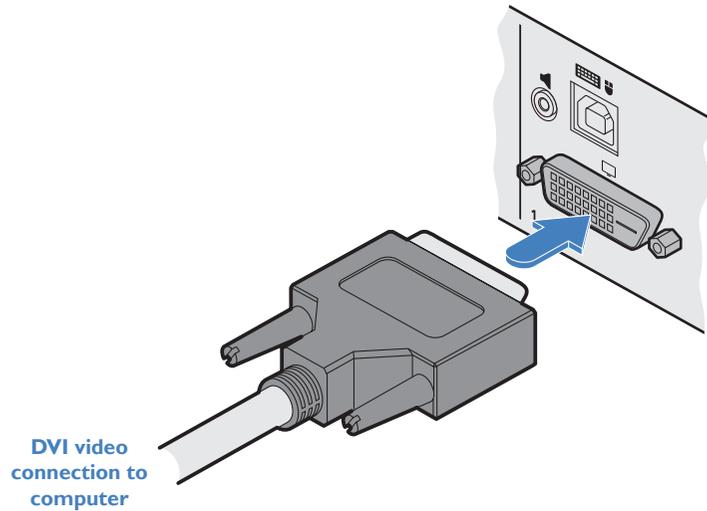
2 Insert one of the supplied USB (type A to type B) cables between the USB socket and a vacant USB port on the computer.

USB connection to computer
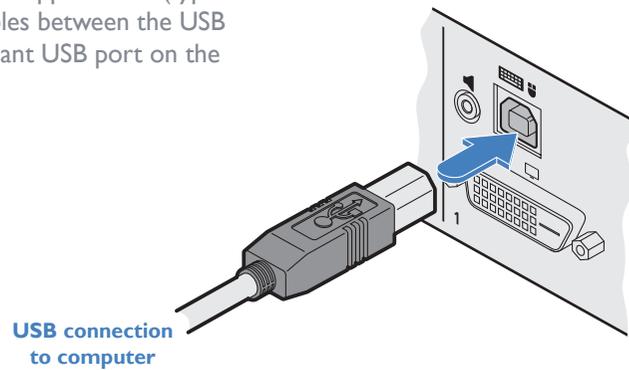
3 Insert one of the supplied 3.5mm audio cables between the audio input socket and the speaker output on the computer.

Audio connection to computer
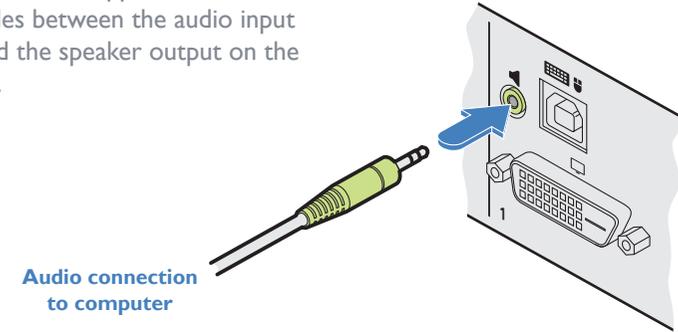
Console connections

The video display(s), keyboard, mouse and speakers are attached to the various connectors on the rear panel that constitute the console port. The unit supports video display resolutions up to 3840 x 2160.

To make console connections

1 Attach the primary video display to the HDMI connector marked '1'.

2 Where a secondary video display is also to be used, repeat step 1 for the HDMI connector marked '2'.

HDMI connection to secondary video display

HDMI connection to primary video display
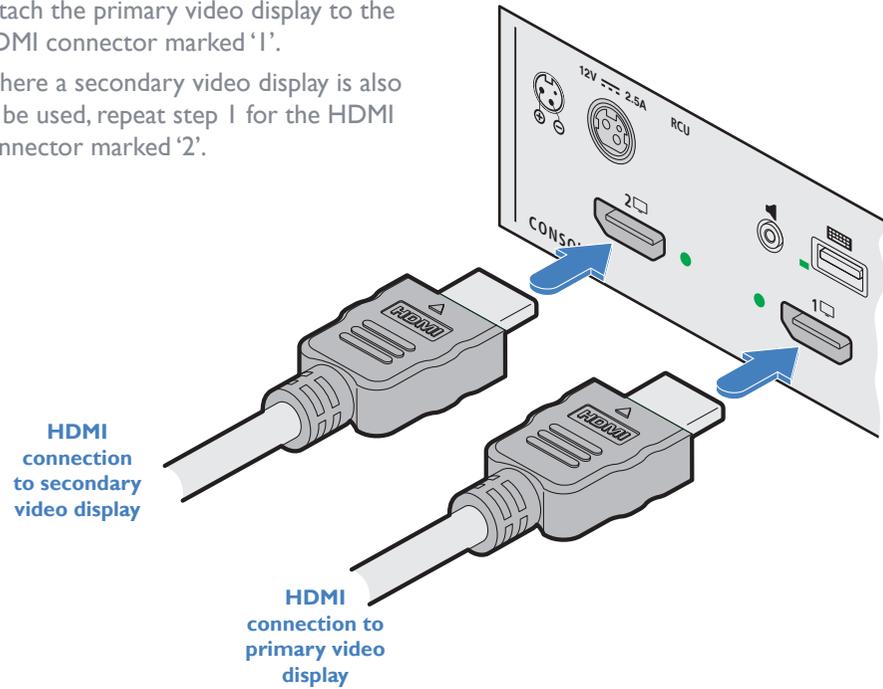
3 Connect the USB leads from the console mouse and keyboard to the two sockets on the rear panel.

USB connections to console keyboard and mouse
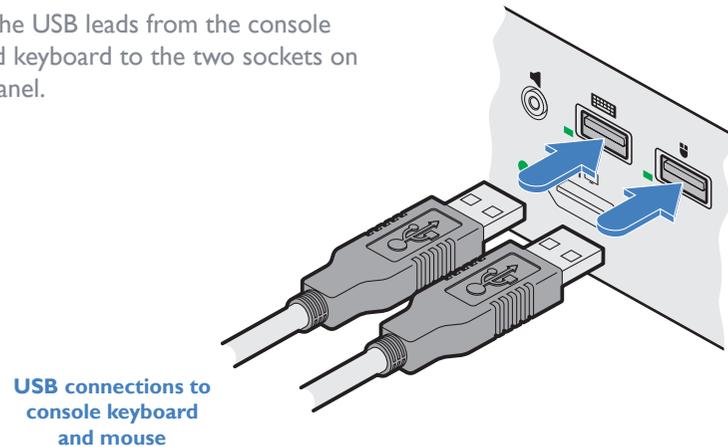
4 Insert the lead from the console speakers into the 3.5mm audio output socket on the rear panel.

Connection to console speakers
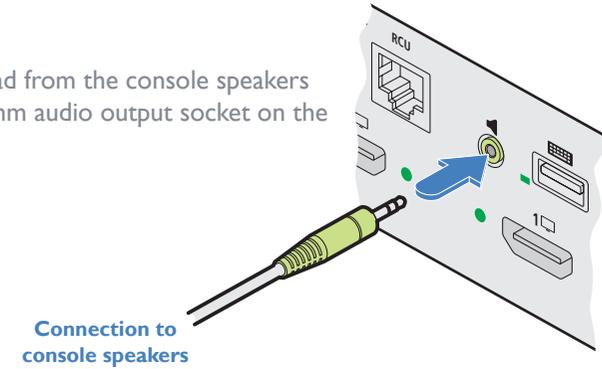
Remote control connection

The RCU port allows the switch unit to be connected to, and controlled by an external source. Refer to the *API Manual (MAN-000022)* for programming detail.

To connect a remote control source

1 Insert the plug from the remote control source cable into the RCU socket on left side of the rear panel.

From the remote control source
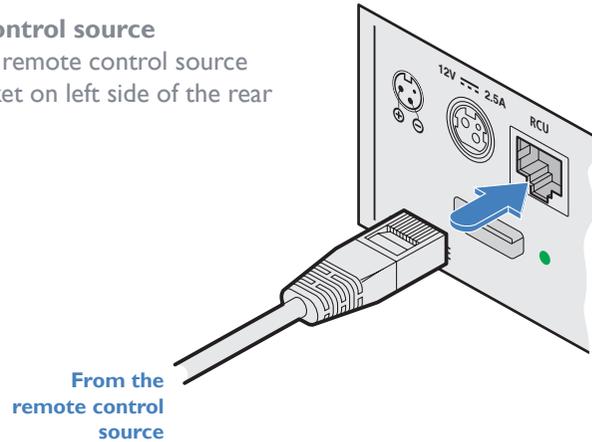
Note: When the switch is under remote control, the front panel indicators will continue to reflect the current selected channel, however, the buttons will have no effect.

A security feature means that once the switch is under remote control, it will remain so until the unit is power cycled, regardless of whether the remote control cable is disconnected.

Power connection

IMPORTANT: Ensure that the video displays connected to the secure switch are powered on before applying power to the secure switch itself.

The supplied power adapter uses a locking-type plug to help prevent accidental disconnection from the secure switch; please follow the instructions below when disconnecting the power adapter.

To connect the power adapter

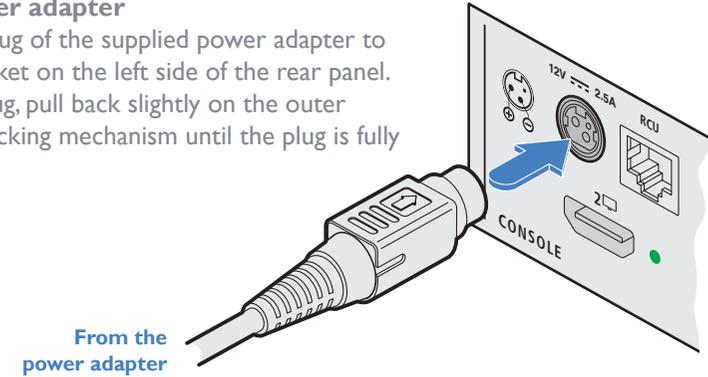1 Attach the output plug of the supplied power adapter to the power input socket on the left side of the rear panel. As you insert the plug, pull back slightly on the outer body to assist the locking mechanism until the plug is fully inserted.

From the power adapter

2 Attach the appropriate country-specific plug to the power adapter body and insert it into a nearby mains outlet.

To disconnect the power adapter

1 Isolate the power adapter from the mains supply.

2 Grasp the outer body of the power adapter plug where it connects with the node.

3 Gently pull the body of the outer plug away from the node. As the body of the plug slides back, it will release from the socket and you can fully withdraw the whole plug.
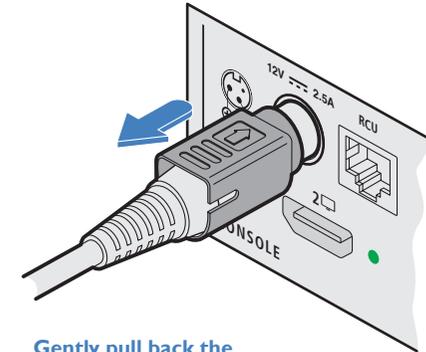
Gently pull back the plug outer body to release the lock

Once powered up, the Console 'in use' indicators will flash for a few seconds whilst the peripheral information is read. Once the peripheral has been accepted, the indicator will remain on. A security feature means that peripheral information will not be re-read unless the switch is power cycled. This is designed to prevent peripherals being replaced.

The power up sequence takes about 30 seconds for the switch to become operational.

IMPORTANT: Please read and adhere to the electrical safety information given within the supplied safety guide. In particular, do not use an unearthed power socket or extension cable.

Configuration

INITIAL DISPLAY SETUP

The secure multi-viewer switch defaults to an output resolution of 3840 x 2160. If you are using a display which only supports smaller resolutions, you will need to configure the output resolution to match.

This is performed using the hotkey combination: *L Ctrl | L Ctrl | F11 | d | #*

where # represents the desired resolution:

   1 = 2048 x 2048

   2 = 2560 x 1440

   3 = 2560 x 1600

   4 = 1920 x 1080

   5 = 1920 x 1200

   6 = 3840 x 1080

   7 = 3440 x 1440

   8 = 3840 x 2160

The above hotkey function is particularly useful if the output display is unable to display the default resolution and you cannot view the OSD menu.

GENERAL CONFIGURATION

The configuration of your secure multi-viewer switch is achieved through the OSD:

- *Video Settings*, including output resolution, scaling, borders, preset selection, etc.
- *Channel Settings*, including front panel display channel names and security levels, front panel button colors etc.
- *USB Settings*, including mouse configuration and hotkey choice.
- *Advanced Operation*, including factory reset.

To access the OSD menu, type: *L Ctrl | R Ctrl | o*

The menu will appear in the bottom left part of the primary screen and you use your mouse to click the required options, with all changes being actioned upon exiting the OSD. See page 12.

Using with dual head computers

Dual head computers may be connected to channels 1+2 or 3+4. A video connection is required to each input channel, together with a single USB and audio connection to the primary channel (ie 1 or 3) for use with Windows or Linux.

Windows Operation

In addition, a Windows 10 driver is required, which may be downloaded from www.adder.com.

On each multiple monitor computer, run the downloaded file. After accepting the licence agreement you will be prompted to choose a destination folder. Either accept the suggested location or change it, as necessary. No configuration is required.

Linux operation

Video, USB and audio connections are required to each channel: primary and secondary. No drivers are required.

USING THE OSD

The OSD deals with settings that may need to be occasionally changed after the initial commissioning process, such as video, channel and USB settings. The various options within the OSD are divided into four distinct pages.

To enter the OSD

1 On the console keyboard, enter the following in succession:

 • **Left Ctrl** *then* **Right Ctrl** *then* **o** *(upper or lower case is accepted)*

 The menu will appear in the bottom left part of the primary screen.

2 Use your mouse to click the required option(s). There is no Apply button, all changes are actioned as soon as you click an option.

To exit the OSD

1 Click the **X** in the top right corner or press the Esc key.

OSD pages

The OSD options are separated into four distinct pages:

• Video Settings

• Channel Settings

• USB Settings

• Advanced Operation

• System Information

Channel names and security levels

The front panel display screen clearly shows the currently selected channel number (and audio channel) source(s). In addition, you can optionally choose to show a channel name and/or standard security level tag:

CH: **1** ADDER_01 ○━━━ **Channel number and name plus audio source**
AUDIO: **2 HOLD** RC
TSECRET ○━━━ **Security level tag**
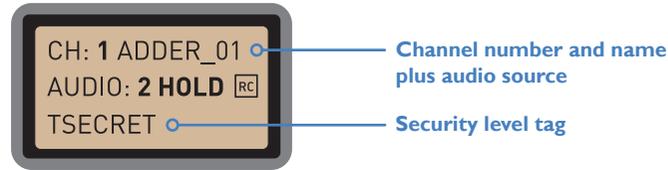
To change the channel names and security level tags

1 Access the OSD and change to the Channel Settings page (see page 14).

2 Use the Channel Name and/or Security Level options to choose your required settings.

OSD - Video Settings

ADDERView™
A V S 1 1 2 4

Video Settings   ⊗

Video Settings			

Video Settings

Channel Settings

USB Settings

Advanced Operation

System Information

Auto Scaling:
- ○ Maintain aspect ratio
- ○ Ignore aspect ratio
- ○ None

Window Border:
- ○ No Border
- ○ Full Border

Presentation Mode:
- ○ Full
- ○ Partial
- ○ Off

Set Output Resolution:
- ○ 3840x2160   ○ 2560x1600
- ○ 3440x1440   ○ 2560x1440
- ○ 1920x1200   ○ 3840x1080
- ○ 1920x1080   ○ 2048x2048

Dual Head (multi-select)
Channel:
- ○ None
- ○ 1+2
- ○ 3+4

PIP Switching mode:
- ○ Enable
- ○ Disable

Boot Layout:
- ○ Preset 1   ○ Preset 6
- ○ Preset 2   ○ Preset 7
- ○ Preset 3   ○ Preset 8
- ○ Preset 4   ○ Tile
- ○ Preset 5   ○ Focus

Boot Mode:
- ○ User Mode
- ○ System Mode

Display Mode:
- ○ Single - primary
- ○ Single - secondary
- ○ Duplicate
- ○ Extend
- ○ Crossed

Auto Scale of Preset Layouts:
- ○ Enable
- ○ Disable

Dual Display Layout:
- ○ Horizontal
- ○ Vertical

Auto Scaling

Maintain aspect ratio - The channel video aspect ratio will be maintained when the user resizes the window. This will result in a black bar being displayed where the window aspect ratio differs.

Ignore aspect ratio - The channel video will be resized to fit the window and thus may become distorted.

None - The channel video size and aspect ratio will remain the same regardless of the window size.

Window Border

Defines whether a border is displayed for each channel window, or not. If displayed then the color of the border is determined by the Channel Color (see Channel Settings).

Presentation Mode

Full - When switching to a new channel from the front panel, it will be displayed in full screen.

Partial - Tile Mode will be used when switching to a new channel.

Off - When switching to a new channel, the currently selected method of presentation will be retained.

Set Output Resolution

Choose the required output screen resolution. If two displays are connected, then the same resolution will be used for both.

IMPORTANT: Ensure that the display(s) support the desired output resolution. If not, the display will go blank. To resolve, change the output resolution using a hotkey: "L Ctrl | R Ctrl | D | # ", where # is 1 to 8.

Dual Head Channel

Allows you to specify connection to 1 or 2 dual head PCs, rather than the default single head PCs. The default 'None' setting means that the input channels are treated as single head, but the channels 1+2 and 3+4 may be designated as dual heads. Please refer to page 11 for dual head connections.

PIP Switching Mode

Picture in Picture mode. When enabled, the mouse will pass behind any smaller window displayed on top of the active one. Mouse switching will only occur when moving outside the active window boundary.

Boot Layout

Determines which preset layout should be loaded at each power on boot.

Boot Mode

In **User mode** you are interacting with the host computer, whereas in **System mode** you are interacting directly with the multi-viewer switch, for tasks such as moving or resizing windows.

Display Mode

Single - primary - Video is only output to video port #1. This option should be used if only connecting a single display.

Single - secondary - Video is only output on video port #2. This option would be used if, say sharing a second display between 2 multi-viewers.

Duplicate - The secondary display is a duplicate of the primary.

Extend - The display extends across both the primary and secondary displays. You can move windows between displays and define presets that utilize the extended desktop.

Crossed - Similar to Extend, except that the primary and secondary displays are reversed. To uncross, select Extend mode.

Auto Scale of Preset layouts

When enabled, the preset layouts will fill the screen; if necessary, overriding the aspect ratio. When disabled, the layout will respect the Auto Scaling setting.

Dual Display Layout

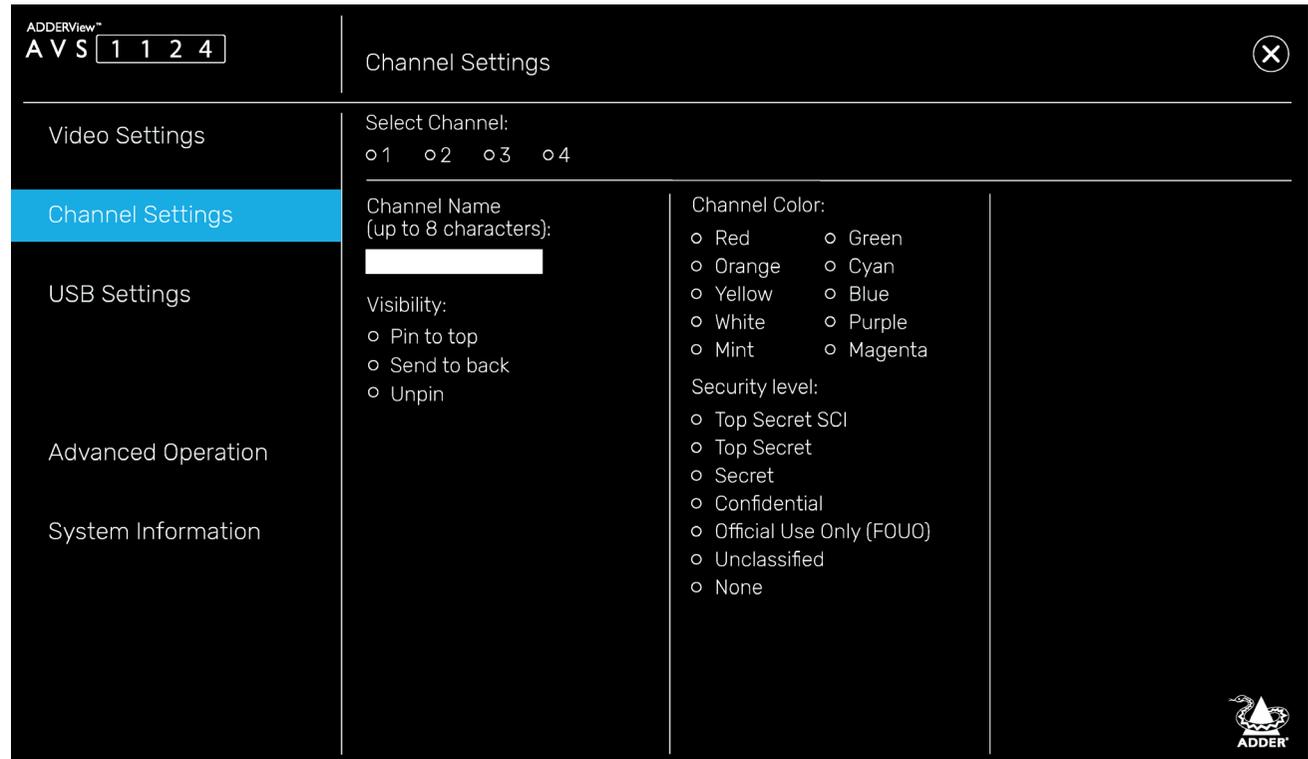Defines how your video displays are arranged:

Horizontal - The displays positioned side by side.

Vertical - The displays are arranged top and bottom.

OSD - Channel Settings

ADDERView™
A V S [1   1   2   4]

Channel Settings   ⊗

Video Settings

Channel Settings

USB Settings

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Select Channel:

○ 1   ○ 2   ○ 3   ○ 4

Channel Name
(up to 8 characters):

Visibility:
○ Pin to top
○ Send to back
○ Unpin

Channel Color:
○ Red   ○ Green
○ Orange   ○ Cyan
○ Yellow   ○ Blue
○ White   ○ Purple
○ Mint   ○ Magenta

Security level:
○ Top Secret SCI
○ Top Secret
○ Secret
○ Confidential
○ Official Use Only (FOUO)
○ Unclassified
○ None

Channel Name

Allows you to add a name for each channel. To do so: Select a channel number in the upper section, enter the name in the Channel Name field (up to 8 characters) and press Return.

Visibility

By default, a window is unpinned, which means it may be located on top or behind other windows, as they are moved across the display. Alternatively, the window may be pinned to the top or sent to the back.

Channel Color

On the front panel there is a numbered button for each channel. To assist with visual feedback for the operator you can change the highlight color for each button and window border color that will be shown as each channel is selected.

Security Level

The chosen security level tag will be displayed on the front panel display. They are abbreviated as follows:

- Top Secret SCI   TS SCI
- Top secret   TSECRET
- Secret   SECRET
- Confidential   CONF
- Official Use Only   FOUO
- Unclassified   UNCLASS
- None   [blank]

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OSD - USB Settings

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USB Settings   ⊗

Video Settings	Mouse Parking:	Keyboard Hotkeys:	Mouse Switching:
	○ Enable	○ Enable	○ Thumbwheel and side buttons
Channel Settings	○ Disable	○ Disable	○ Side buttons only
	CTRL Key (For Hotkeys):	Keypad Shortcuts:	○ Disable
USB Settings	○ Left CTRL	○ Enable	
	○ Right CTRL	○ Disable	
	Device Emulator Interfaces (multi-select):	Mouse Mode:	
	○ Relative Mouse	○ Absolute	
Advanced Operation	○ Absolute Mouse	○ Relative	
	○ Touch Interface	External API:	
	○ Consumer Report	○ Enable	
System Information	○ Keyboard	○ Disable	
	○ Copy & Paste		

ADDER

Mouse Parking
Refers to hiding the mouse when the user moves to the other monitor.

CTRL Key
Allows you to choose which Ctrl button on the keyboard that will be used as a hotkey.

Device Emulator Interfaces
Specifies the user interface peripheral capabilities that are communicated to the host PC.

Notes: Consumer Report is a type of keyboard. Mac host PCs aren't supported. Some versions of Linux don't support Absolute mouse.

Keyboard Hotkeys
Determines whether keyboard hotkeys can be used.

Keyboard Shortcuts
Reserved for future use.

Mouse Mode
Defines the behavior of the multi-viewer system. Absolute mode is recommended for most users. Relative mode will disable mouse-based switching; leaving the front panel or hotkeys as the available switching methods.

Note: This is independent of the Device Emulator settings.

External API
Determines whether external API routines can be used.

Mouse Switching
Determines which of the extra buttons of specially-equipped mouse devices can be used to switch channels.

OSD - Advanced Operation

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Advanced Operations

Video Settings

Channel Settings

USB Settings

Advanced Operation

System Information

Reset to Factory Defaults*

Reset Device*

* long press for reset

Reset to Factory Defaults

Removes all user entered configuration details. This operation cannot be undone.

Note: To avoid accidental resets, press and hold (for roughly 4 seconds).

Reset Device

Effectively reboots the multi-viewer.

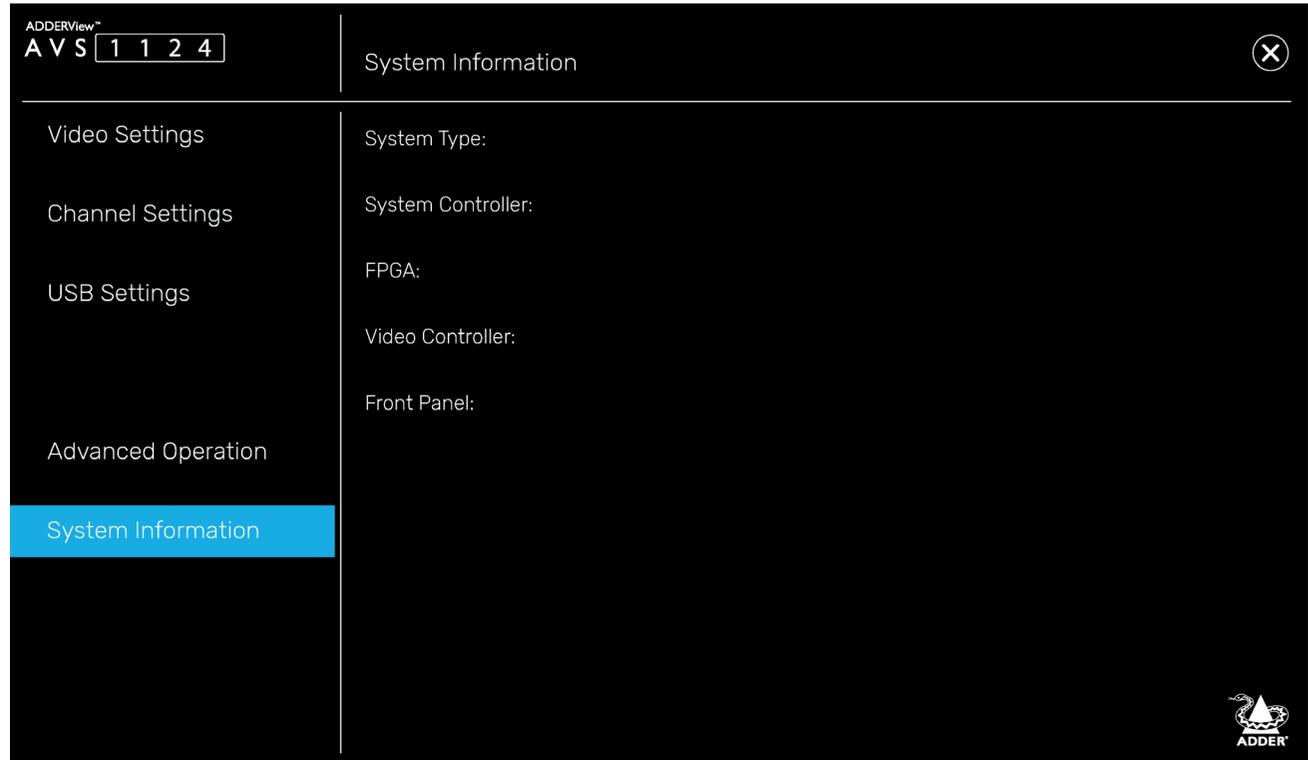*Note: To avoid accidental resets, press and hold (for roughly 4 seconds).*

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OSD - System Information

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System Information ⊗

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System Information

System Type:

System Controller:

FPGA:

Video Controller:

Front Panel:

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This page is intended to aid technical support. It displays the version number for the System and Video Controllers, plus Front Panel firmware. It also displays the FPGA version and System Type: (Secure or Commercial).

Note: The AVS-1124 will always be stated as Secure.

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Operation

The secure multi-viewer switch allows the user to view the video outputs of up to four host computers simultaneously, either on a single display or dual displays. Keyboard and mouse control is assigned to a single host computer at a time and is switchable using a number of methods (see page 19).

Hold audio   Channel buttons   Status display
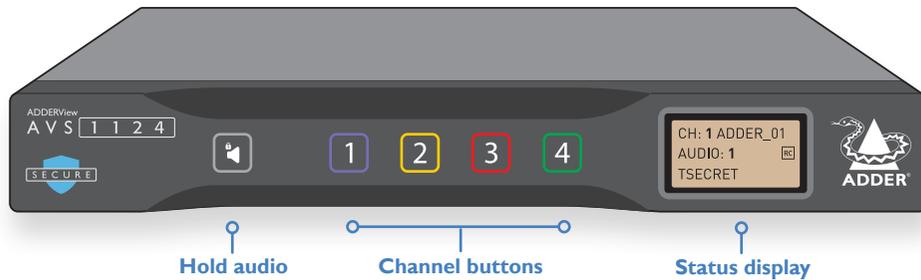
Audio Hold

The Audio Hold button prevents switching the audio port when changing the other console peripherals (keyboard, mouse, video) to another computer channel. This function is useful when you need to listen to the audio from one computer while working on another.

Using the front panel computer channel buttons, first connect the console peripherals to the computer from where the audio feed is required. Press the Audio Hold button on the front panel. Then press the channel button for the computer that is required for the other peripherals. The audio association will be signalled by the right indicator on each channel's front panel push button.

To release the audio from hold status, press the Audio Hold button again.

Status display

The secure nature of the switch entails that all USB communications are uni-directional. This means that the keyboard num, caps and scroll lock indicators will not work. Therefore, the secure switch provides such indications on the optional remote control unit.

CH: **1** ADDER_01
AUDIO: **2 HOLD** RC
TSECRET

The status display also shows the current channel number; the channel from which audio is being derived and also the remote control unit status.

Displaying windows

You can choose how to view the windows of the various host computers.

Full screen

Shows a single window on the whole screen.

• On the keyboard, press and release: *L Ctrl | L Ctrl | f*

  Note: This means press and release the following keys:
  Left Ctrl *then* **Left Ctrl** *then* **f**

  For dual displays, it applies to the screen with cursor focus.

Tile (quadrant) layout

Shows four windows on the display in a quadrant.

• On the keyboard, press and release: *L Ctrl | L Ctrl | q*

Focus layout

One window is shown at a larger size with the other windows scaled down and located on the right-hand side of the screen.

• Press: *L Ctrl | L Ctrl | s*

Rotate the mouse thumbwheel to move the focus between the windows. If thumbwheel switching is disabled (see USB Settings page 15), then either select focus channel from front panel or window within System mode.

Custom layouts

If custom layouts have been saved (see page 20), you can select one as follows:

• Press: *L Ctrl | L Ctrl | F#*   (*where F# is the required function key: F1 to F8*)

Dual displays

When dual displays are used in Extend Display Mode (page 13), the secondary display will remain blank until you drag a window on it or select a preset layout that uses it. The Focus layout is recommended for dual displays, as per the diagram to the right.


Primary   **Secondary**
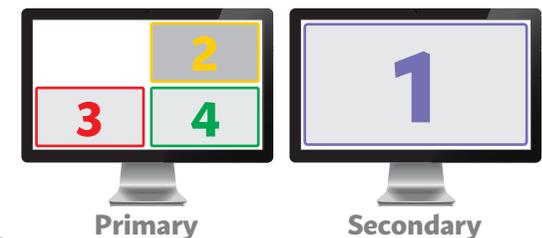
Switching between channels

- Press the required channel button on the front panel:

Hold audio   **Channel buttons**   **Status display**
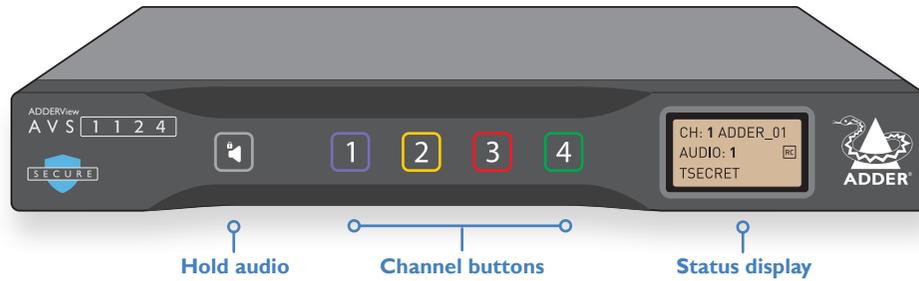
- In any of the multi-view layouts, hold the Left Ctrl button on the keyboard and move the mouse cursor across the boundaries of the display windows. Release Left Ctrl when to enable keyboard control of the selected computer.*

Left Ctrl
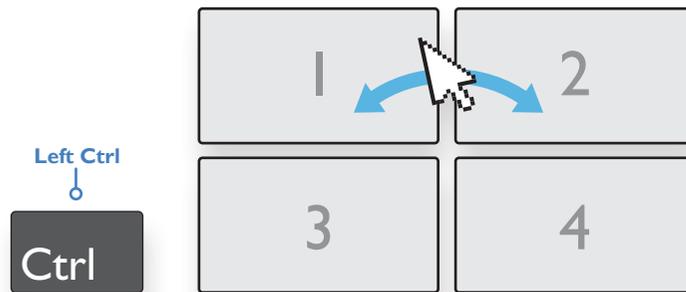
Requiring the user to hold the Ctrl key is a security feature designed to prevent accidental switching. This is known as Guard mode.

The mouse method relies on absolute mouse mode, which can be enabled and disabled by the user to match their own preferences and to ensure compatibility with their computers.

To use absolute mouse mode, press: L Ctrl | L Ctrl | F11 | c

To use relative mouse mode, press: L Ctrl | L Ctrl | F11 | b

In Relative mouse mode, channel switching is restricted to either the front panel buttons or the scrolling the mouse thumbwheel.

Managing windows

In everyday use, the secure switch has two main modes of operation:

- **User mode** - this is the normal mode of operation, where the switch is essentially transparent. This means that your commands pass straight through to interact with the host PC(s), as if you were directly connected to them.
- **System mode** - in this mode, your link with the PC(s) is temporarily suspended and instead you interact directly with the switch. This allows you to perform certain tasks, such as resizing windows and arranging preset layouts.

It is quick and easy to change between the two modes, as follows.

Entering and exiting system mode

To enter system mode
- On the keyboard, press and release the following: **Left Ctrl** *then* **Left Ctrl** *then* **o**
  Note: In the pages that follow, such sequences are shown in the form: L Ctrl | L Ctrl | o
  or
- On the mouse, either click the scroll wheel, or for a five-button mouse, select either of the side buttons. *Note: The mouse must be set to use Absolute Mode (see page 15).*

Within system mode you will see a large blue cursor; in this mode keyboard strokes and mouse movements are not transmitted to the computers, but instead are interpreted within the secure switch.

To return to user mode
- Press *L Ctrl | L Ctrl | u* to return to user mode.
  or
- On the mouse, either click the scroll wheel, or for a five-button mouse, select either of the side buttons.

Taking control of a window

1 In a multi-window layout, enter System Mode, as described above.

2 Move the large blue cursor to the window that you wish to take control.

3 Now, either:
   - Take control of the chosen window at the current size: Click the scroll wheel.
   or
   - Maximise and take control of the chosen window: Double click the left mouse button.
   In either case, you will revert to user mode with control of the selected computer.

Custom Preset Layouts

In system mode, the mouse cursor is also responsible for re-sizing and moving windows around within the display canvas. It is advisable to begin with one of the predefined layouts and adjust it to suit your requirements. These layouts can be selected before or after entering system mode:

- For **tile (quadrant) layout**, use the hotkey combination: *L Ctrl | L Ctrl | q*

- For **focus layout**, use the hotkey combination: *L Ctrl | L Ctrl | s*

- For a **custom layout**, use the hotkey combination: *L Ctrl | L Ctrl | F#*
  (*where F# is the required function key: F1 to F8*)

Manipulate the windows to the desired sizes and locations, then apply the new layout to a function key: *L Ctrl | L Ctrl | F11 | Ins | F#*
(*where F# is the required function key: F1 to F8*).

Once you have exited system mode, you will be able to switch between the predefined tile and focus layouts as well as recall your own custom presets.

Resizing and moving windows

There are a number of options available when resizing windows, including the options to retain the aspect ratio or select only a partial element of the computer's display.

To use autoscaling

The autoscaling feature allows selected windows to fill the screen, either respecting or overriding the aspect ratio, depending on the selected option. Autoscaling can be enabled either through the OSD menu or by using the following hotkey combinations:

- To enable autoscaling with aspect ratio maintained: *L Ctrl | L Ctrl | F11 | w | w*

- To enable autoscaling without aspect ratio being maintained: *L Ctrl | L Ctrl | F11| w | y*

- To disable autoscaling: *L Ctrl | L Ctrl | F11 | w | n*

With your preferred scaling option selected, windows can now be manipulated using the blue mouse cursor.

To move a window

Locate the blue mouse cursor anywhere within the window. Press and hold the left mouse button and drag the window to your desired location. Release the left mouse button.

To resize a window

Place the blue mouse cursor at the lower-right corner of the required window. Press and hold the right mouse button and drag to resize the window up or down accordingly. Release the right mouse key when the window is at the desired size.

Depending on the current autoscaling setting, the video will (or won't) adjust in size and/ or aspect ratio. To force the source to rescale within the defined window you can use either of the following:

- To fill with a fixed aspect ratio: *L Ctrl | L Ctrl | F11 | w*

- To fill with a non-fixed aspect ratio: *L Ctrl | L Ctrl | F11 | y*

Further information

This chapter contains a variety of information, including the following:

* Getting assistance - see right
* Appendix A - Hotkey commands

GETTING ASSISTANCE
If you are still experiencing problems after checking the information contained within this guide, then please refer to the Support section of our website:

www.adder.com

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APPENDIX B - Hotkey commands

This section provides a summary of hotkey commands used on the secure switch.

Note: The hotkeys assume use a of US keyboard.

To invoke the OSD

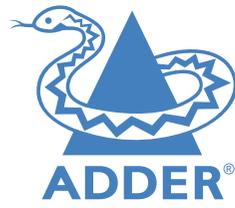Press and release **Left Ctrl** then **Right Ctrl** then **o**

Other commands

Press and release: **Left Ctrl** then **Left Ctrl** then:

System mode	o
User mode	u
Maximize window to full-screen	f
Tile window layout (quad view)	q
Focus window layout	s
Increase window scaling	+
Reduce window scaling	-
Set output display resolution	F11 d# *(where # is 1 to 8)*

- 1 = 2048 x 2048
- 2 = 2560 x 1440
- 3 = 2560 x 1600
- 4 = 1920 x 1080
- 5 = 1920 x 1200
- 6 = 3840 x 1080
- 7 = 3440 x 1440
- 8 = 3840 x 2160

Unpin all windows	F11 f r
Pin/unpin window toggle	F11 F#
(where # is the required function key: F1 to F8)	
PiP mode toggle	F11 INS p
Load presets 1..8	F1..F8
Save preset 1..8	F11 INS F1..F8
Relative mouse mode	F11 b
Absolute mouse mode	F11 c
Presentation mode off	F11 n
Presentation mode on	F11 p
Reset to factory defaults	F11 r
Fix aspect ratio	F11 w
Non-fixed aspect ratio	F11 y
Enable autoscaling with aspect ratio maintained	F11 w w
Enable autoscaling without aspect ratio maintained	F11 w y
Disable autoscaling	F11 w n
Increase mouse speed	F11 +
Reduce mouse speed	F11 -

Move and resize window	F11 End <Channel> <Operation> <Percent>

Refer to the API Manual (MAN-000022) for further details

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