



4KVIEWER Series

HDMI 1.4 4K Quad Multi View

4KVIEWER-HDMI-4 · 4KVIEWER-KVM-4



EMC Information

FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

The device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Warning: Operation of this equipment in a residential environment could cause radio interference.

RoHS

This product is RoHS compliant.



Package Contents

The 4KVIEWER-HDMI-4 consists of:

- ◆ 1 4KVIEWER-HDMI-4
- ◆ 1 DC 12@3A Power
- ◆ 1 IR Remote Control
- ◆ 1 User Instructions

The 4KVIEWER-KVM-4 consists of:

- ◆ 1 4KVIEWER-KVM-4
- ◆ 1 DC 12@3A Power
- ◆ 1 IR Remote Control
- ◆ 1 User Instructions

Check to make sure that all the components are present and that nothing got damaged in shipping. If you encounter a problem, please contact your local dealer.

Read this manual thoroughly and follow the installation and operation procedures carefully to prevent any damage to the unit, and/or any of the devices connected to it.

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About this Manual

This User Manual is provided to help you get the most from your system. It covers all aspects of installation, configuration, and operation for the following models of the 4KVIEWER:

Model	Product Name
4KVIEWER-HDMI-4	4-Port 4K-Quad View Switch-HDMI
4KVIEWER-KVM-4	4-Port USB 4K-Quad View Switch-HDMI

An overview of the information found in the manual is provided below.

Chapter 1, Introduction, introduces you to the 4KVIEWER series. Its purpose, features and benefits are presented, and its front and back panel components are described.

Chapter 2, Hardware Setup, describes how to set up your installation. Diagrams showing the necessary steps are provided.

Chapter 3, Basic Operation, explains the fundamental concepts involved in operating the 4KVIEWER series.

Chapter 1

Introduction

Overview

The 4KVIEWER series charts a revolutionary new direction in KVM switch functionality by combining a 4-port HDMI and providing different display modes, including Quad View mode, Picture in Picture mode (Dual, Triple, or Quad), Picture by Picture mode (Dual, Triple, or Quad), Picture on Picture mode, and Full Screen mode. Control and switch between computers/video sources is versatile using the front-panel pushbuttons, IR remote control, On-Screen Display (OSD), through hotkey combinations entered from the console keyboard and mouse.

The 4KVIEWER series allows users to access 4 computers/devices from a single console, consisting of a USB keyboard, USB mouse, and HDMI monitor. You can connect to monitor – supports all the display modes, and the other acts as a secondary display that only shows a channel selected from the main monitor in full-screen mode. Video switching for the second monitor is easy with Boundless Switching which allows you to switch channels simply by moving the console mouse to the desired channel on the main display.

The 4KVIEWER series further improves on previous designs with HDMI connectors, and the transfer of keyboard and mouse data to the computers via a fast, reliable USB connection.

Setup is fast and easy; simply plug cables into their appropriate ports. There is no software to configure, no installation routines, and no incompatibility problems. Since the 4KVIEWER series intercepts keyboard input directly, it works on Microsoft Windows, Linux, Sun and MacOS platforms.

The 4KVIEWER series improves operational efficiency for a wide range of practical applications, including control rooms, monitoring systems, and traffic control centers, as well as process control centers, server rooms, medical industries, broadcasting, production and automation, aircraft and vehicles. In combination with projectors, it is also used in presentations and conference rooms. Allowing you to switch seamlessly between four PCs, and share USB peripherals, the 4KVIEWER series is ideal for multimedia applications, and offers the ultimate in space-saving, streamlined KVM technology.

Features

- ◆ Multi-view modes allow users to view and control up to four video channels on one screen with display modes including Quad View, Picture in Picture (PiP), Picture by Picture (PbP), and Picture on Picture (PoP)
- ◆ Easy resizing and/or repositioning of PiP or PbP to suit users' viewing needs
- ◆ System configuration (display mode and KVM port selection) via the front panel, OSD, IR Remote control, and EnterNet commands
- ◆ Superior video quality – Up to 4K (4096 x 2160 @ 30 Hz)
- ◆ Drop-down menu – edit display windows and other functions with the console mouse and on-screen control panel
- ◆ KVM port selection via the front-panel pushbuttons, hotkeys, mouse
- ◆ Power on detection
- ◆ Hot-pluggable
- ◆ Supports keyboard combinations via emulation
- ◆ Boundless Switching – Simply moves the mouse cursor across windows to switch to other video sources

Requirements

Refer to the table below to prepare the required devices, equipment, and cables to set up a 4KVIEWER series.

	4KVIEWER-HDMI-4	4KVIEWER-KVM-4
Console	<ul style="list-style-type: none">◆ 1~5 x HDMI cable◆ 1 x USB mouse◆ 1 x USB keyboard	<ul style="list-style-type: none">◆ 1 ~5 x HDMI cable◆ 1 x USB mouse◆ 1 x USB keyboard◆ 1~4 x USB Type B Cable (Optional)
Computers	<p>Each computer must be equipped with the following:</p> <ul style="list-style-type: none">◆ 1 x HDMI port²◆ 1 x USB Type A port	

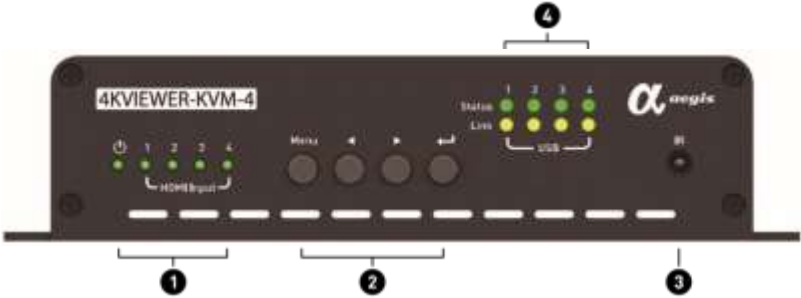
Operating Systems

Supported operating systems are shown in the table below:

OS		Version
Windows		7, 8.1, 10
Linux	RedHat	CentOS 7, Ubuntu 16.04
	SuSE	OpenSuSE 13.2
UNIX	Sun	10
Novell	Netware	X
MacOS		10.12

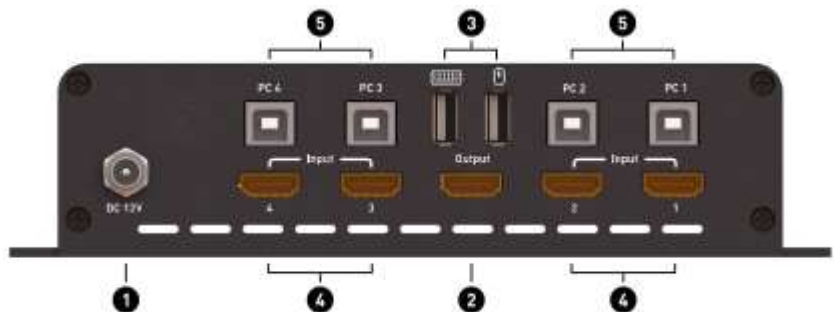
Components

4KVIEWER-KVM-4 Front View



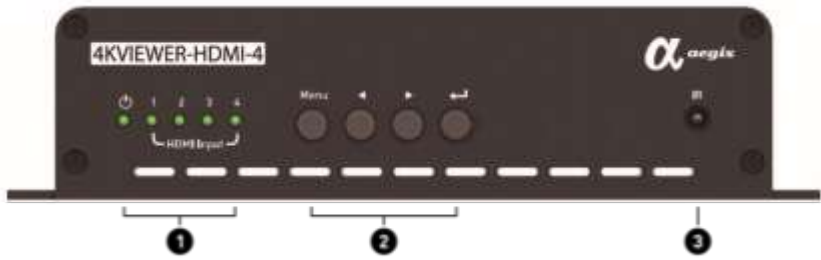
No.	Component	Description
1	Power & HDMI Input LED	When power and the source to be connected, the indicator light will be bright.
2	Menu Button	Press this to invoke the on-screen display (OSD) Menu. When the OSD Menu is enabled, press the OSD button to go back to the previous menu/submenu.
3	IR Receiver	To receives signals from the IR remote control.
4	KVM Power LED And Status	When Connect USB B cable to host and PC, the indicator will be bright. When access KVM function to any one of PC, the indicator will be bright to indicate which PC is under the KVM function.

4KVIEWER-KVM-4 Rear View



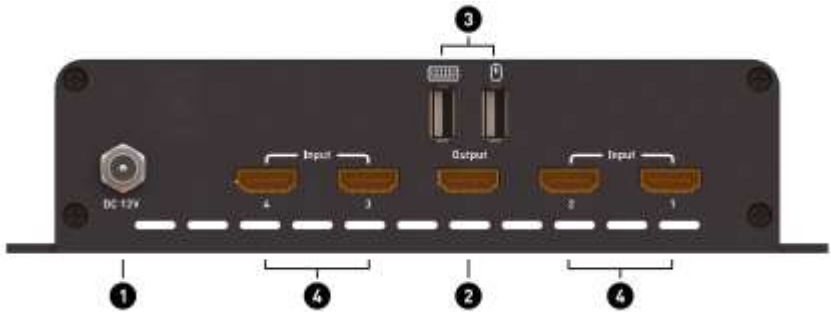
No.	Component	Description
1	Power DC jack 12V	Connect 12V DC power supply to this port.
2	HDMI Output Ports	Connect HDMI cable between this port and display device.
3	Keyboard and Mouse Ports	Plug Keyboard and Mouse to access KVM function
4	HDMI Input	Connect HDMI cable between this port and source device.
5	PC Input	Connect USB-B type cable between this port and PC device.

4KVIEWER-HDMI-4 Front View



No.	Component	Description
1	Power & HDMI Input LED	When power and the source to be connected, the indicator light will be bright.
2	OSD Button	To control OSD function via these button
3	IR Receiver	To receives signals from the IR remote control through an IR extension, which can be purchased separately

4KVIEWER-HDMI-4 Rear View



No.	Component	Description
1	DC 12V	Connect 12V DC power supply to this port
2	HDMI Output	Connect HDMI cable between this port and display device.
3	Keyboard and Mouse Ports	Plug Keyboard and Mouse to access KVM function
4	HDMI Input	Connect HDMI cable between this port and source device.

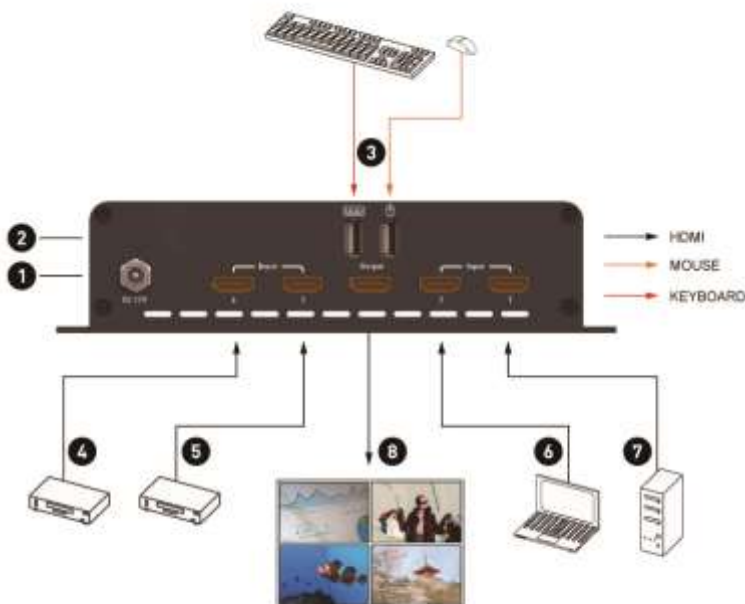
Chapter 2

Hardware Setup

Installation

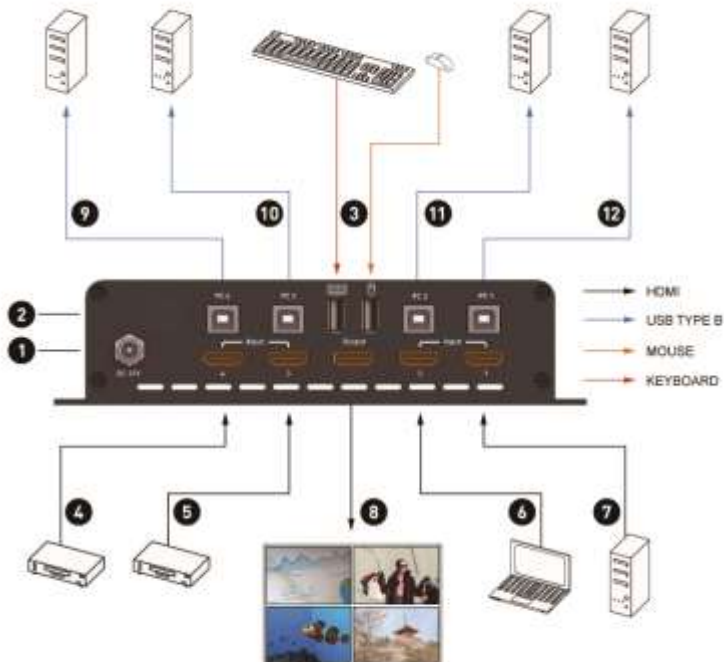
4KVIEWER-HDMI-4 Single Station Installation

1. Link DC power 12V@3A
2. Link Ethernet cable CAT-5e to Ethernet Hub or pc Control Quad-View HDMI Switch
3. Link Keyboard and Mouse Control Quad View HDMI Switch
4. HDMI Cable to link Source
5. HDMI Cable to link Source
6. HDMI Cable to link Source
7. HDMI Cable to link Source
8. Link to TV(4k@30)



4KVIEWER-KVM-4 Single Station Installation

- 1.Link DC power 12V@3A
- 2.Link Ethernet cable CAT-5e to Ethernet Hub or pc Control QV HDMI Switch
- 3.Link Keyboard and Mouse Control Quad View HDMI Switch
- 4.HDMI Cable to link Source
- 5.HDMI Cable to link Source
- 6.HDMI Cable to link Source
- 7.HDMI Cable to link Source
- 8.Link to TV(4k@30)
- 9.10.11.12 Link PC USB



Chapter 3

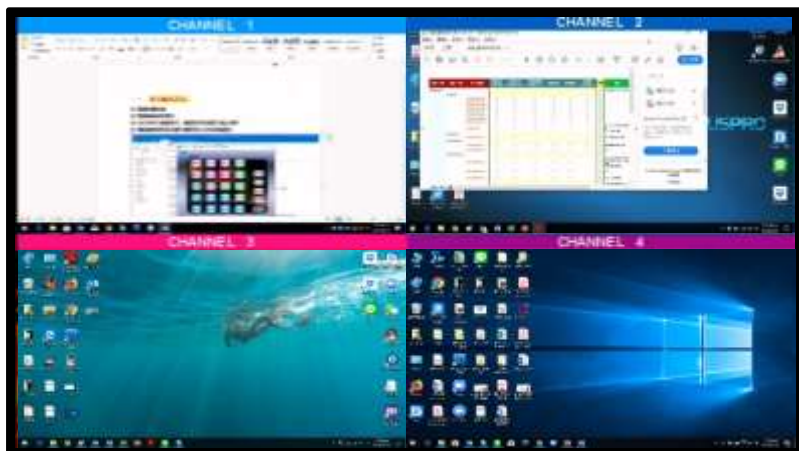
Basic Operation

Overview

This section includes switching methods, display modes and preset configuration. It explains the basic components used to switch and display computers connected to the 4KVIEWER series Switch.

Identifying the Source Device

The channel information can be shown on the top in the screen.



- ✧ Mouse : To identify the source connected to the 4KVIEWER Switch, **hold down the right mouse button and click one time the left mouse button.**

To hide this information, same operation as above action on the mouse

To display this information of individual source, move mouse cursor to the source you want to identify, the channel ID will therefore appear.

- ✧ Remote Control : Press the  to show or to hide the source

NOTE : Channel ID number is assigned according to the port that the computer USB or HDMI source is connected to on the rear of the machine. For example, a computer USB connected to port 1 is assigned Channel ID

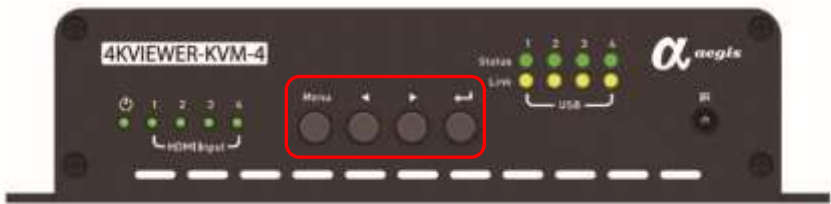
Switching

The 4KVIEWER Switch features its independent switching:

- It offers user to switch KVM (keyboard, video, mouse) on computer and audio independently between different computers. It means to work on one computer (KVM) while access the audio to another (stereo audio).

Front Panel Pushbuttons

Use the 4 pushbuttons located on the front panel enable to display and select the OSD menu, sub-menu, resolution, audio and hiding images functions. The front panel LEDs of HDMI Input, Status and Link are indicated the connection and selection.

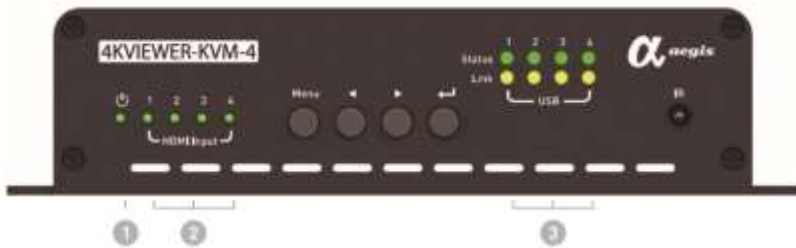


- ✧ Menu : Press the “Menu” button to show the OSD menu functions
- ✧ ◀ ▶ : Press right or left symbol button to move the OSD selections
- ✧ ↵ : Press arrow button to enter into the function

**NOTE : To restore default setting of all functions, press and hold down both ◀ ▶ buttons for 3 seconds, the HDMI Input LED lights will blink as indicating the processing and screen is in black. Once complete the restoring the defaults, the screen will be displayed.*

LED Display

The front panel has three LEDs sections that indicate the power, HDMI sources and the computer USB connection status. The LEDs light green or orange depending on which source is being accessed on what computer, as explained in the table



LED Sections		Indication
1	Power	<ul style="list-style-type: none"> Lights BRIGHT GREEN indicates power is connected
2	HDMI Input	<ul style="list-style-type: none"> FLASH GREEN in turns between 1,2,3,4 indicates the machine is in booting and stop flashing when completed. Normal booting time is about 7 seconds LED indication number is corresponding with the HDMI source that plug in in the back of machine. Always light BRIGHT GREEN indicates the HDMI source is connected. FLICKER GREEN lights unsteadily that indicates a machine problem has encountered
3	Status USB	<ul style="list-style-type: none"> LED indication number is corresponding with computer USB that plug in the back of machine. Always light BRIGHT GREEN indicates a computer USB is connected
	Link USB	<ul style="list-style-type: none"> Always light BRIGHT ORANGE indicates the KVM is selected on a computer

Hotkey Switching

To reach OSD and KVM functions using hotkeys from the keyboard.

Quad View Layout	Alt + F1	
	Alt + F2	
	Alt + F3	
Full Screen Layout	Alt + F4	
	Alt + F5	
	Alt + F6	
	Alt + F7	
Free Style Layout	Alt + F8	
	Alt + F9	
	Alt + F10	

Disable Image	Alt + Shift + 1	
	Alt + Shift + 2	
	Alt + Shift + 3	
	Alt + Shift + 4	

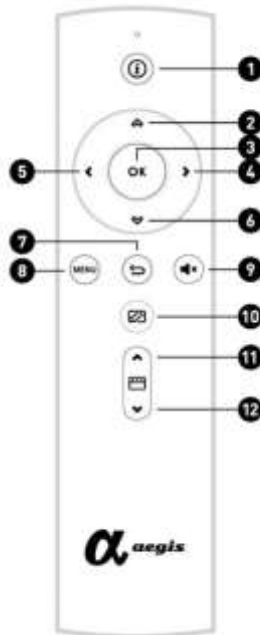
Resolution	Alt + F11	
	Alt + F12	

Audio Selection	Alt + 1	
	Alt + 2	
	Alt + 3	
	Alt + 4	
	Alt + 5	

KVM switch	Alt + Ctrl + Shift + 1		Enter to PC 1
	Alt + Ctrl + Shift + 2		Enter to PC 2
	Alt + Ctrl + Shift + 3		Enter to PC 3
	Alt + Ctrl + Shift + 4		Enter to PC 4
	Alt + Ctrl + Shift + 5	Switch out from KVM functions	

IR Remote Switching

You can operate and select OSD with the IR remote control. Point the remote at the 4KVIEWER and press the button you want to access.



1. To identify or to hide the AVsource
2. Enter to OSD Sub-manual bar
3. Enter a choice you have made
4. 5. Navigation Arrow
6. 7. Return to previous manual bar
8. Display menu bar
9. Mute on or off
10. A full screen layout or return to previous screen layout
11. Forward selection of on-screen image source
12. Backward selection of on-screen images source

OSD Switching

To operate the OSD menu bar by a console mouse with following steps:

1. Click one time right mouse button to display, to return or to hide the OSD main-menu bar. The OSD menu bar will appear at bottom center of the screen.



2. Move the mouse cursor to the icon on main-menu you want to operate, it lights green as selected.



3. Click one time left mouse button on the selected icon and The OSD sub-menu bar will appear at the top of the main-menu bar.
Click one time left mouse button on the selected icon in sub-menu bar to enter the function.



4. Click one time left mouse button to access and enter the function of your selected icon.
5. Same steps as above 1~4 for HD resolution, Audio and Disable Images on OSD.
6. Move the cursor to the PC image that you want to use KVM function.
7. Press down mouse wheel and roll up to enter to the select PC for KVM function
8. Press down mouse wheel and roll down to exit the KVM function from the computer












Display Modes


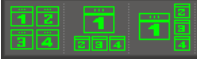
You can view multiple computers connected to the 4KVIEWER series on the same screen, in different layout by setting the display mode. This section introduces you to different display modes, and ways of switching to them.

Quad View

A quad view displays four computers on the monitor in 3 default layouts: Equal sized windows, Picture by Picture-Quad in 2 type of layouts.






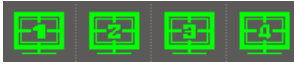







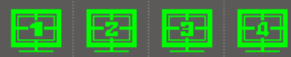
Method	Actions
Front Panel Button	press  → press  for sub-menu → press  to  → press   for selection → enter 
IR Remote Control	Press “Menu” →  for sub-menu →   for selection → enter 

Keyboard Hotkey	Press “Alt” + “F1~F3” for layout selections. See Page 20 for operation of Hokey switching
Console Mouse	In the OSD, one time right mouse button for main-menu, click on  for sub-menu and select layout  See Page 22-23 for operation of OSD Switching.

Full Screen

A full-screen view displays one computer in full extension. Total 4 Default full-screen layouts.



Method	Actions
Front Panel Button	<p>press  → press  for sub-menu → press  to</p> <p> → press   for selection →</p> <p>enter </p>
IR Remote Control	<p>Press “Menu” →  for sub-menu → </p> <p>for selection → enter </p>
Keyboard Hotkey	<p>Press “Alt” + “F4~F7” for layout selections. See Page 20 for operation of Hokey switching</p>
Console Mouse	<p>In the OSD, one time right mouse button for main-menu, click on  for sub-menu and select a computer for full-screen</p> <p></p> <p>See Page 22-23 for operation of OSD Switching.</p>

Free-Style



A free style of display includes picture-on-picture (PoP) up to 4 computers in separate windows on the monitor as default layout. Using the console mouse to resize and re-position each window on the screen and can be saved.







Note: When stacking 4 channels freely in the customized mode, Channel 4 will always on top of other Channels; Channel 3 will be on top of Channel 2 and Channel1, and so forth.

Method	Actions
Front Panel Button	press → press for sub-menu → press to → press for selection → enter
IR Remote Control	Press “Menu” → for sub-menu → for selection → enter
Keyboard Hotkey	Press “Alt” + “F8~F10” for layout selections. See Page 20 for operation of Hokey switching
Console Mouse	In the OSD, one time right mouse button for main-menu, click on for sub-menu and select a screen to edit the layouts. After editing, move the console mouse back to the selected icon (A, B, or C) and click left mouse button, will appear and click on the tick symbol to save the layout or cross symbol to not save. See Page 22-23 for operation of OSD Switching.

Picture in Picture



A quad PiP view has up to 4 computers on the monitor with one computer as the main display and the other three which can be resized and re-positioned by using the console mouse overlapping the main display in inset windows.

Method	Actions
Console Mouse	<p>In the OSD, one time right mouse button for main-menu, click on  and select a screen    to make the desire layouts.</p> <p>Double Click Left Mouse Button on the computer image that treated as the main display, it will be in full extension. Other images can be resized and repositioned via the console mouse.</p> <p>After editing, move the console mouse back to the selected icon (A, B, or C) and Click Left Mouse Button,   will appear. Click on the tick symbol to save the layout or cross symbol to not save.</p> <p>See Page 22-23 for operation of OSD Switching.</p>

Feature Functions

This section explains the 4KVIEWER series feature functions including: Transparent Function, Disable Functions, Audio and Resolution selections.













Transparent Function (Picture in Picture Mode)


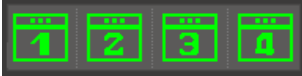


At PiP display, one computer as the main display and others as sub-display can be transparent by mouse wheel roll down or up. The transparent function only apply in one full display with other sub-display (pip) mode.

Disable Function















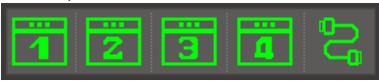

Method	Actions
Front Panel Button	<p>Press  → press  to  → press  for sub-menu → press   to select a channel → enter </p>
IR Remote Control	<p>Press “Menu” → press right button  to  →  up button for sub-menu →  to select a disable channel , then press </p>
Keyboard Hotkey	<p>Press “Alt” + “Shift”+ “1~4” for disable selection. See Page 20 for operation of Hokey switching</p>

Console Mouse	<p>In the OSD, click one time mouse right button for main-menu, click on  and select a channel from  to be disabled.</p> <p>Note : The disable channel will not be seen in any layout.</p> <p>Same step for enable the channel.</p> <p>See Page 22-23 for operation of OSD Switching.</p>
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Audio Selections












The audio is independent from visuals. You can select and play an audio source from up to 4 HDMI inputs while display from a different source. 4KVIEWER series also offers auto-play audio from the full-screen source in a PIP mode.

Method	Actions
Front Panel Button	<p>Press  → press  to  → press  for sub-menu → press  to select an audio channel → enter </p>
IR Remote Control	<p>Press “Menu” → press right button  to  →  up button for sub-menu →  to select an audio source, then press </p>
Keyboard Hotkey	<p>Press “Alt” + “1~4” for selection.</p> <p>Press “Alt” + “5” for auto-play audio of the full-screen source</p> <p>See Page 20 for operation of Hokey switching</p>



Console Mouse	<p>In the OSD, click one time mouse right button for main-menu, click on  and select an audio channel from </p> <p> : auto-play audio of the full-screen source See Page 22-23 for operation of OSD Switching.</p>
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Resolution Selections

4KVIEWER series supports up to 4K/30. It offers 2 resolution options for display: 1080p or 4K.
When the resolution of the monitor does not support 4K, the screen will be in black for 8-9 seconds before display 1080p again.

Method	Actions
Front Panel Button	<p>Press  → press  to  → press  for sub-menu → press  to select an audio channel → enter </p>
IR Remote Control	<p>Press “Menu” → press right button  to  →  up button for sub-menu →  to select a resolution , then press </p>

Preset Configuration

Steps	Description
1. Configure the display setting as required under the Free-style mode.	
2. Move the console mouse to the current Free-style icon.	
3. Click one time left mouse button	
4. The “Tick and Cross” bar will appear.	
5. Click on the Tick or the Cross icon as confirmation of actions.	

The OSD Menu

The OSD Menu contains all the display settings and system settings for the Multi-View KVMP™ Switch. To access the OSD Menu, use any of the following methods:

- ◆ Press the OSD pushbutton on the front panel.
- ◆ Press the OSD button on the IR remote control
- ◆ Tap [Scroll Lock] twice on the console keyboard

Specifications

Function			4KVIEWER-HDMI-4	4KVIEWER-KVM-4
Computer Connections			4	
Port Selection			Front-panel Pushbuttons, Hotkeys, IR Remote Control, On-screen Display (OSD), Commands	
Connectors	Console Ports	Keyboard	1 x USB Type A Female (Black rear panel)	1 x USB Type A Female (Black, rear panel)
		Video	1 x HDMI	1 x HDMI
		Mouse	1 x USB Type A Female (Black rear panel)	1 x USB Type A Female (Black, rear panel)
	KVM Ports	KB/Mouse	4 x USB Type B Female (White)	
		Video	4 x Single Link DVI-D Female (White)	4 x HDMI Female (Black)
Emulation	Keyboard / Mouse		USB	
Switches	Selected		4 pushbuttons	
Video			4096 x 2160@30Hz (HDMI)	4096 x 2160 @ 30Hz (HDMI)
LEDs	KVM		4 (Amber)	
	HDMI Input		4 (Green)	
	USB		4 (Green)	
Maximum Input Power Rating			DC12V@3A	DC12V@3A
Power Consumption			1.2A	1.2A
Environment	Operating Temp.		0–40°C	0–50°C
	Storage Temp.		-10–60°C	-20–60°C
	Humidity		0–80% RH, Non-condensing	0–95% RH, Non-condensing

Function		4KVIEWER-HDMI	4KVIEWER-KVM
Physical Properties	Housing	Metal	
	Weight	1.238Kg	
	Dimensions (L x W x H)	204mmX133mmX48mm	