



Quick Installation Guide

4 Ports High Security KVM Combiner Switches

Introduction

Thank you for purchasing this HSL Secure 4 Ports KVM Combiner. This KVM Combiner is designed for use in secure defense and intelligence environments across wide security gaps.

Unlike a regular secure KVM switch that enables the user to view and interact with one of the connected computers at the time, this secure KVM Combiner enables viewing all connected computers on the same screen simultaneously and interact with both easily and intuitively.

Objectives

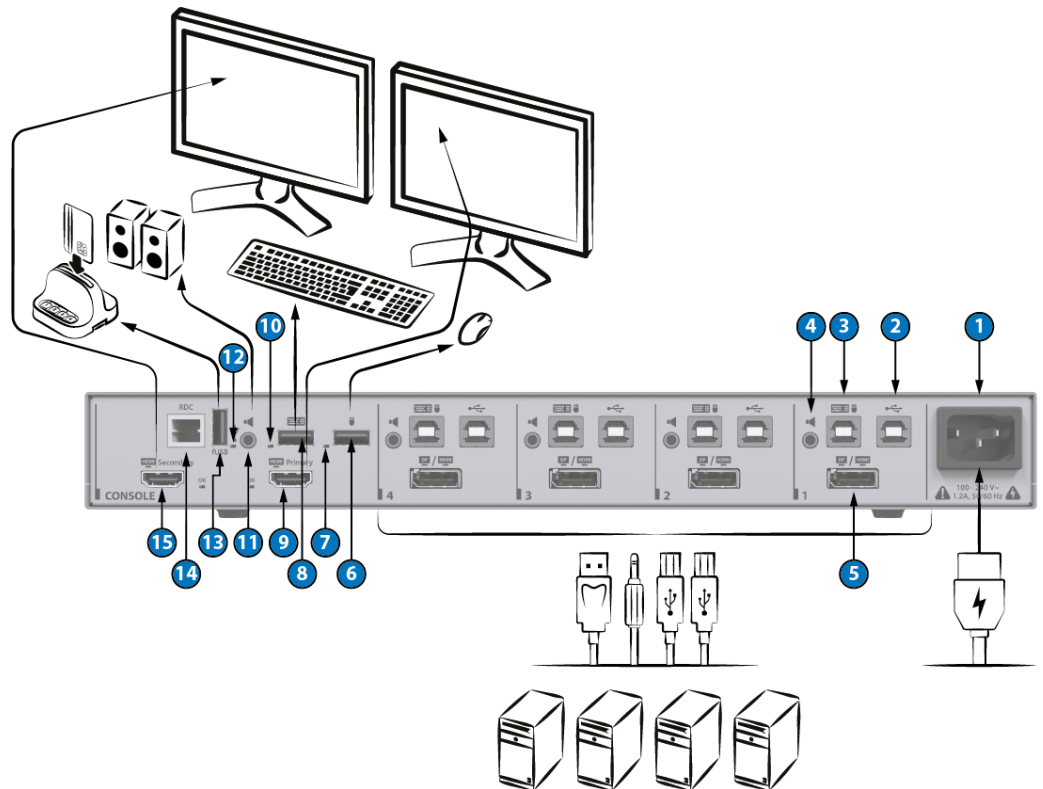
This guide includes instructions for installing and basic operation of HSL's DP/HDMI KVM Combiner SC42PH-4 device.

For further assistance please refer to HSL website: <http://www.highseclabs.com>

The following diagram references the SC42PHU-4 device:

Rear Panel Index:

1. DC in
2. PC fUSB input
3. PC Keyboard/Mouse input
4. Analog audio input
5. PC Video DP/HDMI input
6. Console Mouse
7. Console Mouse LED
8. Console Keyboard
9. Primary DP/HDMI Output
10. Console Keyboard LED
11. Analog audio output
12. fUSB output LED
13. fUSB output
14. Remote Desktop Control port (for AFP)
15. Secondary DP/HDMI Output



Installation Precautions:

Do not connect this product to computing devices that:

- Are TEMPEST computers
- Include telecommunication equipment
- Include frame grabber video cards
- Include special audio processing cards.

WARNING: Peripherals' Warning - For security reasons, this product does not support wireless keyboards. It is recommended not to connect a microphone or headset to the audio output port.

NOTE: In order to comply with the product's Common Criteria evaluation and to prevent unauthorized administrative access to the product, the default administrator username and password must be changed prior to first product use.

Installation:

- Verify that all peripherals and computers are turned OFF prior to connecting them to the product.
- Connect the computers and peripherals to the HSL Combiner as shown in the above diagram.
- It is possible to connect an HSL AFP (remote control) to the RDC port of this device. Please refer to the AFP datasheet for information on how to connect it.
- **Power ON the monitors and the PCs:** Make sure that the monitors and the connected PCs are turned ON prior to powering ON the Combiner.

- **Power ON the system:** Power ON the Combiner by plugging it to the AC wall outlet . Boot time of the KVM Combiner is about 40-60 seconds
By default, after product power-up, the active channel will be computer #1, indicated by the applicable front panel push button LED lit.

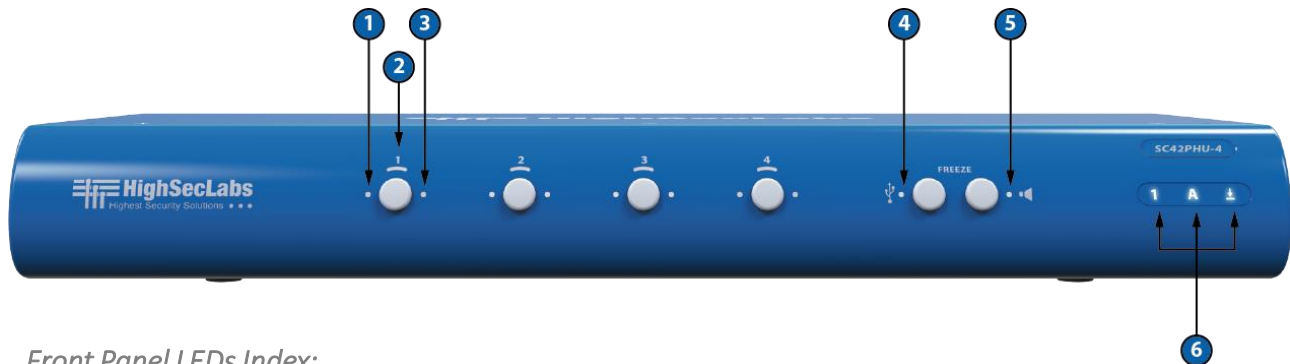
NOTE : HSL devices covered by this manual include a special DP/HDMI connector, enabling the user to use the product with both video formats as input and output.

NOTE : In models supporting fUSB, it is possible to connect additional USB devices and use them on the host PCs. By default, authentication devices such as CAC readers, smart card

readers, and biometric readers are enabled. It is possible to enable other USB devices. Please refer to HSL's administrator manual on how to enable additional USB devices.

EDID Acquisition

The HSL KVM combiner has a fixed EDID file which is transmitted to all connected PCs. At no point will the actual connected display EDID be transferred to the connected PCs.



Front Panel LEDs Index:

1. fUSB freeze indication LED - On when fUSB freeze activated on that channel
2. Active PC channel LED
3. Audio freeze indication LED – On when audio freeze activated on that channel
4. fUSB freeze button active LED
5. Audio freeze button active LED
6. Keyboard LEDs Num/CAPS/SCRL

Combiner Rear Panel LED Indications:

HID LEDs:

- Off – no device detected
- Flicker – device rejected
- On- device approved

Using the HSL 4 Port Combiner:

HSL's 4 Ports KVM Combiner has three layouts for presenting the 4 sources on the screen :

- **Full screen** – one of the four source PCs is presented on the display in full screen. To get into this mode, use the: "**L CTRL | L CTRL | f**" keyboard shortcut.
- **Quad**: All channels are shown on the connected display. To get into this mode, use the: "**L CTRL | L CTRL | q**" keyboard shortcut.
- **Scale**: One channel is presented on

two-thirds of the screen with the other 3 channels on the remaining space on the right. To get into this mode, use the: "**L CTRL | L CTRL | s**" keyboard shortcut.

The HSL KVM Combiner also supports a second display that can be used in **clone** or **extend** modes.

To change between display modes, use the following keyboard shortcuts:

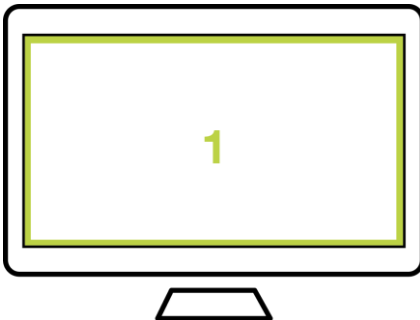
- **L CTRL | L CTRL | F11 | s | 0** – single display (default)

- **L CTRL | L CTRL | F11 | s | 1** – clone display
- **L CTRL | L CTRL | F11 | s | 2** – extended display

Please see below a diagram of each mode of operation on one and two displays:

Full Screen layout Single/Clone

in Extended mode the second screen will show the remaining 3 channels in Quad mode



Quad layout Single/Clone



Scale layout Single/Clone

in Extended mode the second screen will show the remaining 3 channels in Quad mode



- Each channel shown has a frame around it to distinguish between the channel.
- To select a channel (map the mouse and KB to it) use the KVM Combiner front panel push buttons.

As a secondary switching method, the user can use **CNS (cursor navigation switching)**. Cursor navigation switching is enabled by default and requires the user to drag the mouse while pressing and holding the left CTRL key.

Notes

- **Power ON Self-Test Procedure:** As the product powers-up it performs a self-test procedure. In case of self-test failure for any reason, including jammed buttons, the product will be Inoperable and self-test failure will be indicated by abnormal LED behavior. In this case, please call Technical Support and avoid using the product.

For further information please refer to the product administrator and setup guides.

Safety and Regulatory Statements

Safety Symbols

One or more of the following symbols may be included in your product documentation and/or on the product.



Instructions: This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the product user manual.



Dangerous Voltage: This symbol is intended to alert the user to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



Power On: This symbol indicates the principal on/off switch is in the ON position.



Power Off: This symbol indicates the principal on/off switch is in the OFF position.



Protective Grounding Terminal: This symbol indicates a terminal which must be connected to earth ground prior to making any other connections to the equipment.

Safety Precautions

WARNING: To avoid a potentially fatal shock hazard and possible damage to equipment, please observe the following precautions.

- Do not disable the power grounding plug. The grounding plug is an important safety feature.
- Plug the power cord into a grounded (earthed) outlet that is easily accessible at all times.
- Disconnect the power from the product by unplugging the power cord from either the electrical outlet or the product. The AC inlet is the main disconnect for removing power to this product. For products that have more than one AC inlet, to remove power completely, all AC line cords must be disconnected.
- This product has no serviceable parts inside the product enclosure. Do not open or remove product cover.

CAUTION: Some HSL products contain a lithium battery. This battery is not a field replaceable item, and replacement should not be attempted by a user. If errors occur when using the product and the battery is suspected, contact HSL Technical Support.

WARNING: For Service Personnel Only - There is a risk of explosion if the battery is replaced with an incorrect type. Dispose of used batteries according to the manufacturer's instructions.

This product is for use with other products that are Listed or Certified by a Nationally Recognized Testing Laboratory (NRTL).

NIAP Protection Profile

This product is certified to the NIAP Protection Profile PSD version 4.0 certification for peripheral sharing switch devices.

Installation Precautions

Note: HSL Secure KVM Combiner Switches are protected with Holographic Tamper-Evident Labels on the product's enclosure to provide a visual indication in case the enclosure has been opened or compromised.

WARNING: Unit Enclosure Warning - If the unit's enclosure appears disrupted or if all LEDs flash continuously, remove the product from service immediately and contact Technical Support.

Security Vulnerability

If you are aware of a potential security vulnerability while installing this product, contact Technical Support immediately by:

- Web form: www.highseclabs.com/support/case/
- Email: security@highseclabs.com
- Tel: +972-4-9591191/2

Change Management

For change management tracking, perform a quarterly log check to verify that the RFD was not improperly used to override the current device policy by an unauthorized person.