

DVDO



DVDO-HDMI-KVM-41
4x1 KVM Switcher

User Manual

Version: V1.0.0



Important Safety Instructions



1. Do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.



6. Clean this apparatus only with dry cloth.



2. Do not install or place this unit in a bookcase, built-in cabinet or in other confined spaces. Ensure the unit is well ventilated.



7. Unplug this apparatus during lightning storms or when unused for long periods of time.



3. To prevent risk of electric shock or fire hazard due to overheating, do not obstruct the unit's ventilation openings with newspapers, tablecloths, curtains, and similar items.



8. Protect the power cord from being walked on or pinched particularly at plugs.



4. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.



9. Only use attachments / accessories specified by the manufacturer.



5. Do not place sources of naked flames, such as lighted candles, on the unit.



10. Refer all servicing to qualified service personnel.

FCC Warning

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Table of Contents

Introduction	5
Overview	5
Features	6
Package Contents	6
Specifications	7
Panel Description	9
Front Panel	9
Rear Panel	10
Installation and Wiring	11
Installation	11
Wiring	12
Troubleshooting	13
Warranty Terms and Conditions	15

1 Introduction

1.1 Overview

DVDO-HDMI-KVM-41 is a 4x1 HDMI KVM switcher with HDMI 2.0 and HDCP 2.2 compatibility. The four port KVM switch allows the user controls four source devices / computers with only one set of USB devices (e.g. USB mouse, USB keyboard, USB flash and other USB 2.0 compliant devices). This product provides a cost-effective way to share one USB keyboard, one USB mouse, one USB 2.0 device and one HDMI monitor to control four computers.

The DVDO-HDMI-KVM-41 supports HDMI 2.0 specification features including data rates up to 18Gbps 4Kx2K@60Hz (4:4:4) video, multi-channel audio and automatic HDCP 2.2/1.4 compatibility.

The DVDO-HDMI-KVM-41 provides four USB-B ports to connect upstream USB host devices and three USB-A ports to control. These USB ports are USB 2.0 compliant and downward compatible with USB 1.1/1.0. The DVDO-HDMI-KVM-41 also provides a microphone input and a headphone output interface for computers that do not have audio input/output.

The DVDO-HDMI-KVM-41 supports direct switching through buttons on the front panel and provides a wide compatibility choice for different operating systems, such as Windows, Mac OS and Linux, no driver required and simple plug and play.

1.2 Features

- 4x1 HDMI KVM switcher with HDMI 2.0 and HDCP 2.2 compliance
- Full 18G bandwidth, up to 4K/UHD @60Hz with 4:4:4 chroma sampling
- Supports three USB-A port for USB keyboard, USB mouse and other USB 2.0 devices to control one of the four computers
- Supports switching the KVM input port by push button on the front panel, the HDMI input and USB input are switched simultaneously
- Supports one microphone input and one headphone output for audio application
- Wide compatibility with Windows 10/8/7 XP, Mac OS and Linux
- No driver required and simple plug and play.

1.3 Package Contents

- 1 x DVDO-HDMI-KVM-41 Switcher
- 1 x DC 12V Power Adapter (with US pins)
- 2 x Mounting Bracket
- 4 x USB-A to USB-B Data Cable (1500mm)

1.4 Specifications

Video	
Video Input	4 x HDMI IN, 4x USB2.0 type-B Host
Input Signal Type	HDMI: HDMI w/ HDCP 2.2 USB: USB2.0
Input/Output Resolution Supported	<p>VESA:</p> <p>640x480^{8,9,10}, 800x600^{8,9,10}, 1024x768^{8,9, 10}, 1024x768^{8,9,10}, 1280x768^{8,10}, 1280x800⁸, 1280x960^{8,10}, 1280x1024^{8,9,10}, 1360x768⁸, 1366x768⁸, 1400x1050⁸, 1440x900⁸, 1600x900⁸, 1600x1200⁸, 1680x1050⁸, 1920x1200⁸</p> <p>SMPTE:</p> <p>720x480P^{7,8}, 720x576P⁸, 1280x720P^{1,2,3,4,5,6,7,8}, 1920x1080I^{6,8}, 1920x1080P^{1,2,3,4,5,6,7,8}, 3840x2160^{2,3,5,6,8}, 4096x2160^{2,3,5,6,8}</p> <p>1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = at 60 Hz, 9 = at 75 Hz, 10 = at 85 Hz</p>
Maximum Data Rate	HDMI: 18Gbps USB: 480Mbps
Output	1 x HDMI, 3x USB2.0 type-A devices, 1x MIC in, 1x Audio out (Analog)

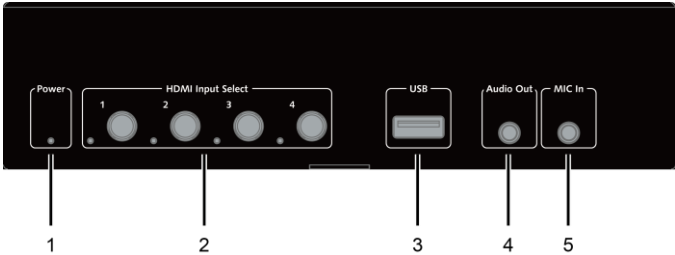
Output Signal Type	HDMI: HDMI 2.0 /HDCP 2.2 USB: USB2.0
Audio format supported	PCM 2.0/5.1/7.1, Dolby True HD and DTS HD Master Audio
Control method	Front Panel Button Control
General	
Operating Temperature	0 to + 45°C (32 to + 113 °F), 10% to 90%, non-condensing
Storage Temperature	-20 to +70°C (-4 to +158 °F), 10% to 90%, non-condensing
Humidity	10% to 90%, non-condensing
ESD Protection	Human Body Model: ±8kV (air-gap discharge)/ ±4kV (contact discharge)
Product Supply	DC 12V/2A
Power Consumption	7.7W
Product Dimension (W x H x D)	170mm × 101mm × 42mm / 6.69" × 3.98" × 1.65"
Product Weight	0.60kg / 1.32lb

Transmission Distance

Cable Type	Range	Supported Video
HDMI	Input/Output: 15m/49ft	1080P@60Hz
	Input/Output: 10m/33ft	4K@60Hz 4:2:0 8bit
	Input/Output: 5m/16ft	4K@60Hz 4:4:4 8bit

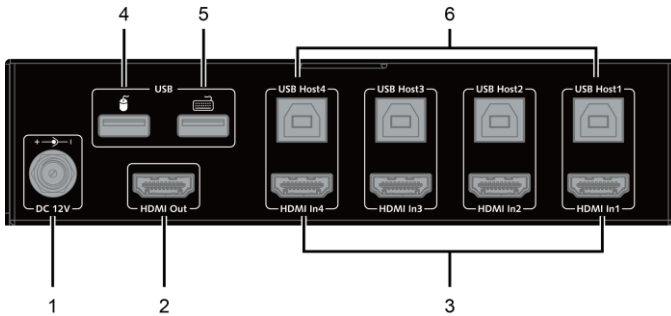
1.5 Panel Description

1.5.1 Front Panel



No.	Name	Description
1	Power LED	On: The switcher is powered on. Off: The switcher is powered off.
2	HDMI Input Select Buttons and LEDs (1-4)	HDMI Input Select Buttons (1-4): Press the button to select HDMI IN 1/2/3/4. LED: LED is located on the left of the button. <ul style="list-style-type: none">LED On: The input is selected.LED Off: The input is not selected.
3	USB-A Port	Connect to a USB device such as a camera.
4	Audio Out	Connect to an earphone.
5	Mic In	Connect a microphone.

1.5.2 Rear Panel



No.	Name	Description
1	DC 12V	Connect to a DC 12V power adapter.
2	HDMI Out	Connect to an HDMI Display device.
3	HDMI IN (1-4)	Connect to HDMI sources.
4	USB A Port	Connect to a USB device such as a keyboard.
5	USB A Port	Connect to a USB device such as a Mouse.
6	USB Host (1-4)	Connect to a PC. The USB Host 1-4 is bound with HDMI IN 1-4, When an HDMI input is selected, the corresponding host PC will be connected to the USB devices e.g. mouse and keyboard.

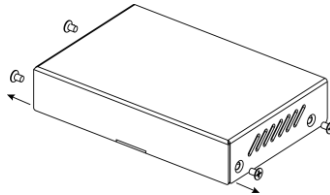
2 Installation and Wiring

2.1 Installation

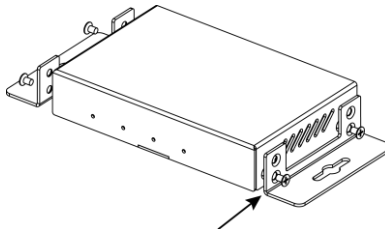
Note: Before installation, please ensure the device is disconnected from the power source.

Steps to install the device in a suitable location:

1. Remove the four screws from the enclosure.



2. Position and attach the mounting brackets to the enclosure using the screws in step 1.



3. Attach the brackets to the surface you want to hold the unit against using the screws (provided by others).

2.2 Wiring

Warnings:

- Before wiring, disconnect the power from all devices.
- During wiring, connect and disconnect the cables gently.

Steps for device wiring:

1. Connect HDMI IN

Connect HDMI source devices to HDMI IN (1-4) of the switcher using high-quality HDMI cables (e.g. PC).

2. Connect HDMI OUT

Connect an HDMI display device to HDMI OUT of the switcher (e.g. TV, projector, LCD/LED display, etc.).

3. Connect USB host and USB device

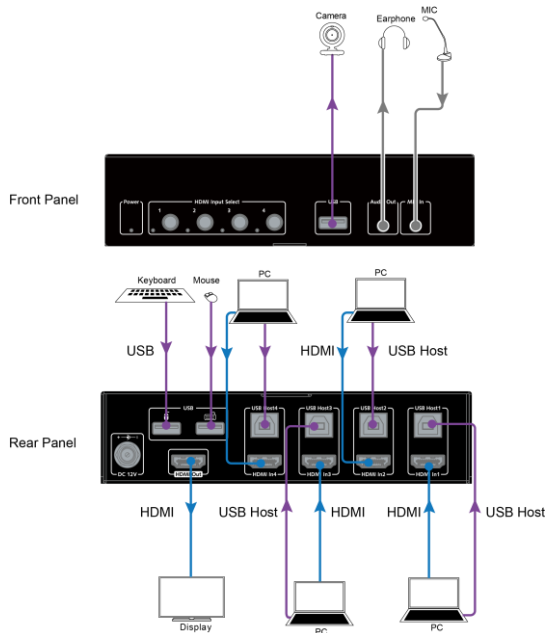
- Connect the PC to the USB Host port of the switcher.
- Connect USB devices to USB ports (on front panel or rear panel) of the switcher (e.g. mouse, keyboard, USB camera, etc.)

4. Connect an earphone and a MIC to the Audio Out and MIC In of the switcher.

5. Connect the power adapter provided to the switcher.

6. Power on all attached devices.

When all is set, check if all LED indicators on the switcher are normal to ensure installation is successful. For LED indication, please refer to Panel Description section.



Troubleshooting

- 1 **Power:** Ensure all devices are powered on.
- 2 **Indicator:** Ensure all LED indicators of the switcher are normal according to user manual.
- 3 **Devices:** Ensure picture can be shown normally when connecting source to display device directly.
- 4 **Cable:** Plug in and out the HDMI cable or try another HDMI cable. Ensure the specific cable length is within the available transmission range according to Specification section.
- 5 **Compatibility:** Please test other source and display devices to determine if it is a compatibility issue.

Warranty Terms and Conditions

A service charge will apply for service(s) claimed for repairable products if the warranty becomes unenforceable or inapplicable due to the following cases:

1. The original serial number labeled on the product has been removed, erased, replaced, defaced or is illegible.
2. The warranty has expired.
3. The defects are caused by the product being repaired, dismantled or altered by anyone other than an authorized service partner.
4. The defects are caused the product being used or handled improperly, roughly or not as instructed in the User Guide.
5. The defects are caused by any force majeure including, but not limited to, accidents, fire, earthquake, lightning, tsunami and war.
6. Any service, configuration or offer not covered by contract.

DVDO reserves the right to determine these cases, and changes may be made at any time without notice.