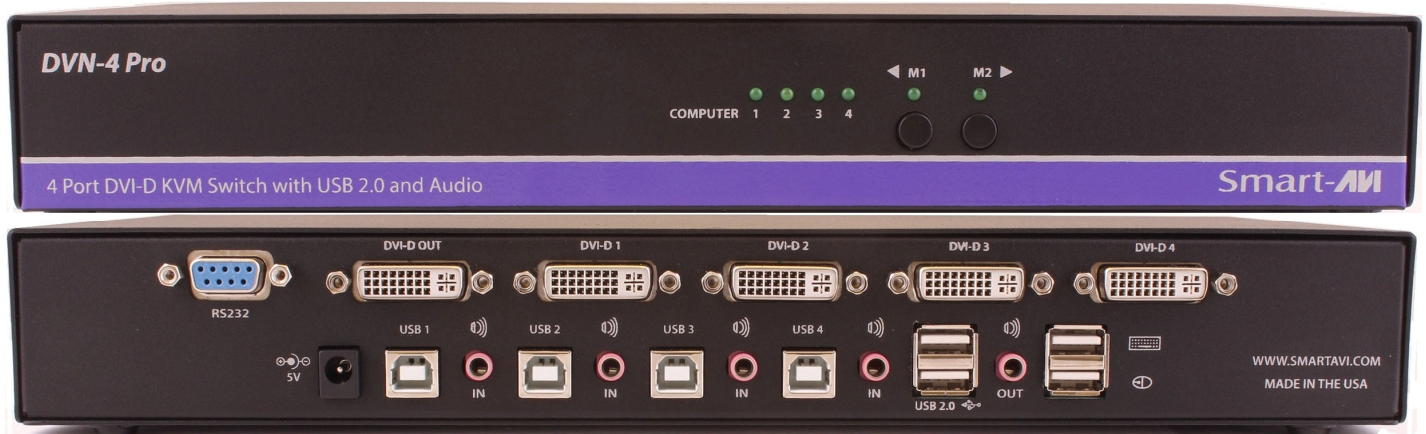


DVN-4Pro

User Manual

4-Port DVI-D KVM Switch with Audio and USB 2.0 Sharing



Access and control up to 4 computers with one USB keyboard, one USB mouse and a DVI-D monitor

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WHAT'S IN THE BOX?		
PART NO.	QTY	DESCRIPTION
DVN-4ProS	1	DVN-4Pro, 4x1 DVI-D, USB 2.0, Audio Switch
PS5VDC4A	1	Power Supply
	1	Quick Start Guide



Figure 2-1

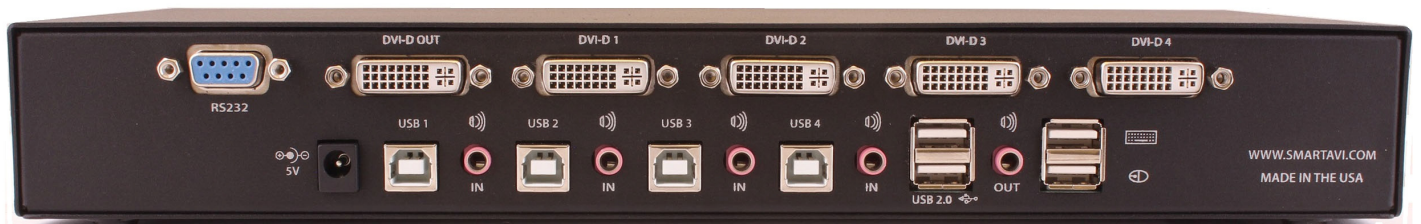


Figure 2-2

INTRODUCTION

DVN-4Pro is a dedicated multi-platform KVM switch capable of managing up to 4 different computers through a single DVI-D monitor, USB keyboard & mouse, a single set of speakers and USB 2.0 Devices. It features USB keyboard and mouse emulation for faster and reliable switching through the use of hotkey sequence commands. It is also RS-232 compliant, capable of being controlled remotely.

FEATURES

- Compatible with Windows, Mac and Linux Operating Systems
- Supports up to 1920x1200 digital video resolution
- Uses universal DVI single-link connectors
- Supports all USB 2.0 Devices (Flash drives, Printers, Cameras, Scanners, etc.)
- Supports USB keyboard and mouse emulation
- Balanced stereo audio output
- Front panel buttons with LED display for local control
- RS-232 for additional control
- Special Hotkey keyboard sequence for independent device selection

APPLICATIONS

- Server Collocation
- Digital Signage
- Education
- Airports
- Dealer Rooms
- Control Rooms
- Audio/Visual Presentations
- Shopping Centers
- Hotels/Resorts
- KVM Switches



TECHNICAL SPECIFICATIONS

VIDEO	
Format	DVI-D Single Link
Maximum Pixel Clock	165 MHz
Input Interface	(4) DVI-D 29-pin (female)
Output Interface	DVI-D 29-pin (female)
Resolution	Up to 1920 x 1200 @60Hz
DDC	5 volts p-p (TTL)
Input Equalization	Automatic
Input Cable Length	Up to 20 ft.
Output Cable Length	Up to 20 ft.
AUDIO	
Input Interface	(4) 3.5 mm Stereo Audio
Output Interface	(1) 3.5 mm Stereo Audio
Impedance	600 Ohm
Frequency Response	20 Hz to 20 kHz
Nominal Level	0-1.0 V
Common Mode	Rejection at 60 dB
USB	
Signal Type	USB 2.0, 1.1, and 1.0 w/ internal hub
Input Interface	(4) USB Type B (female)
Output Interface	(2) USB Type A (female) for keyboard and mouse only; (2) USB 2.0 Transparent
CONTROL	
Front Panel	Buttons
RS-232	Control Via @ 9600 N,8,1, No Flow Control
Hotkeys	Via Keyboard
OTHER	
Power Supply	5VDC4A @20W
Weight	3.2 lbs.
Dimensions	12.63"W x 5.75"D x 1.875"H
Operating Temp	32-131 °F (0-55 °C)
Storage Temp	-4-185 °F (-20-85 °C)
Operating Humidity	Up to 95% No Condensation
Emulation	Keyboard & Mouse

HARDWARE INSTALLATION

1. Ensure that power is disconnected from DVN-4Pro.
2. Connect the DVI cables, USB cables (male-A to male-B), and audio cables from the computers to the respective ports on the DVN-4Pro.
3. Optionally connect RS-232 for control functions.
4. Connect the USB keyboard & mouse to the two USB ports labeled for keyboard & mouse.
5. Optionally connect USB peripherals to the 2 USB ports labeled USB 2.0.
6. Connect the speakers to the Audio Out port.
7. Connect the display monitor to the DVI OUT connector on the DVN-4Pro.
8. Power on the DVN-4Pro.

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DVN-4Pro

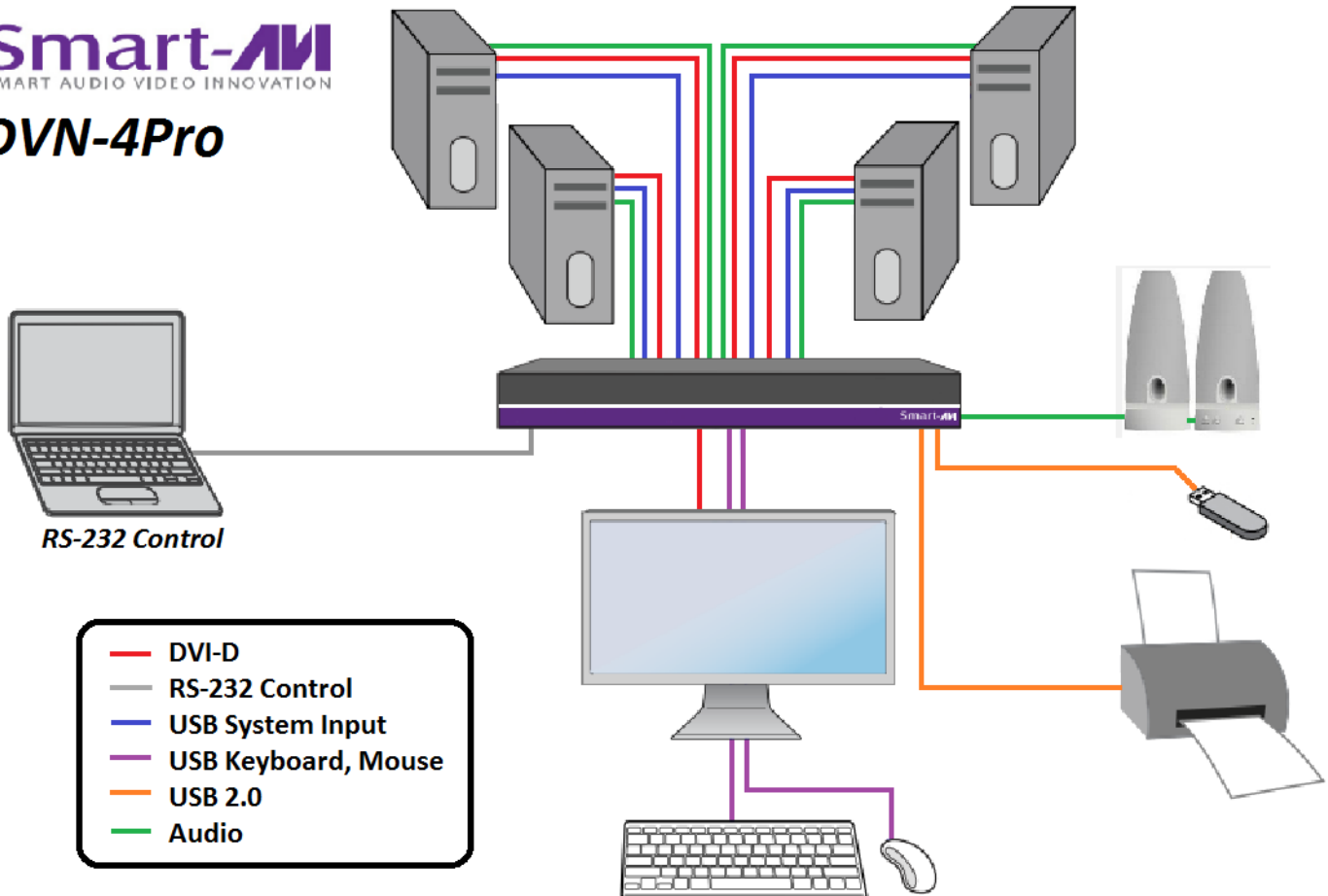


Figure 5-1

EDID LEARNING

The DVN-4Pro is fully capable of “learning” and remembering what type of display monitor is connected to the unit. With its EDID learning feature, the DVN-4Pro provides plug-and-play capability to its display.

Programming the EDID can be accomplished through the Front-Panel buttons, Hot Keys or through RS-232. See page 6 for control commands.

CONTROL

Front Panel Control

To switch ports using the front panel, press the UP button to navigate up and DOWN button for down. EDID learning is also done through the front panel buttons by pressing both buttons simultaneously.



Figure 6-1

RS-232 Control

Use a male-to-female serial cable to connect a computer to the RS-232 port of the DVN-4Pro. Use terminal client software such as the PuTTY to connect to the DVN-4Pro. Make sure to use the standard communication mode of 9600 bps, 8, N, 1 No flow control.

NOTE: PuTTY and other terminal software may not default to no flow control. If you attempt to connect to the DVN-4Pro and flow control is not set to none RS-232 communication may not work until you correct the settings and cycle power to the DVN-4Pro or issue a reset command via hot keys or RS-232.
“[CTRL] [CTRL] r” or “//r”

Hotkey Commands

The Hotkey command is a keyboard sequence used to trigger an action on the DVN-4Pro through the use of the keyboard connected on the USB port of the DVN-4Pro. To activate the hotkey sequence, press the CTRL key twice and then enter the desired hotkey commands.

COMMANDS	HOTKEYS	RS-232 CONTROL
Switch all devices (KVM, USB 2.0, and Audio)	[CTRL] [CTRL] m [port #] [ENTER]	//m [port #] [ENTER]
Switch KVM only	[CTRL] [CTRL] c [port #] [ENTER]	//c [port #] [ENTER]
Switch audio only	[CTRL] [CTRL] a [port #] [ENTER]	//a [port #] [ENTER]
Switch USB 2.0 only	[CTRL] [CTRL] u [port #] [ENTER]	//u [port #] [ENTER]
Same as front panel ◀ M1 button	[CTRL] [CTRL] ↑	n/a
Same as front panel M2 ▶ button	[CTRL] [CTRL] ↓	n/a
Activate Hotplug	[CTRL] [CTRL] h	//h
Reset	[CTRL] [CTRL] r	//r
Factory Defaults	[CTRL] [CTRL] f	//f

Figure 6-2

LIMITED WARRANTY STATEMENT

A. Extent of limited warranty

Smart-AVI Technologies, Inc. warrants to the end-user customers that the Smart-AVI product specified above will be free from defects in materials and workmanship for the duration of 1 year, which duration begins on the date of purchase by the customer. Customer is responsible for maintaining proof of date of purchase.

Smart-AVI limited warranty covers only those defects which arise as a result of normal use of the product, and do not apply to any:

- a. Improper or inadequate maintenance or modifications
- b. Operations outside product specifications
- c. Mechanical abuse and exposure to severe conditions

If Smart-AVI receives, during applicable warranty period, a notice of defect, Smart-AVI will at its discretion replace or repair defective product. If Smart-AVI is unable to replace or repair defective product covered by the Smart-AVI warranty within reasonable period of time, Smart-AVI shall refund the cost of the product.

Smart-AVI shall have no obligation to repair, replace or refund unit until customer returns defective product to Smart-AVI.

Any replacement product could be new or like new, provided that it has functionality at least equal to that of the product being replaced.

Smart-AVI limited warranty is valid in any country where the covered product is distributed by Smart-AVI.

B. Limitations of warranty

To the extent allowed by local law, neither Smart-AVI nor its third party suppliers make any other warranty or condition of any kind whether expressed or implied with respect to the Smart-AVI product, and specifically disclaim implied warranties or conditions of merchantability, satisfactory quality, and fitness for a particular purpose.

C. Limitations of liability

To the extent allowed by local law the remedies provided in this warranty statement are the customers sole and exclusive remedies.

To the extent allowed by local law, except for the obligations specifically set forth in this warranty statement, in no event will Smart-AVI or its third party suppliers be liable for direct, indirect, special, incidental, or consequential damages whether based on contract, tort or any other legal theory and whether advised of the possibility of such damages.

D. Local law

To the extent that this warranty statement is inconsistent with local law, this warranty statement shall be considered modified to be consistent with such law.

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20170113



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