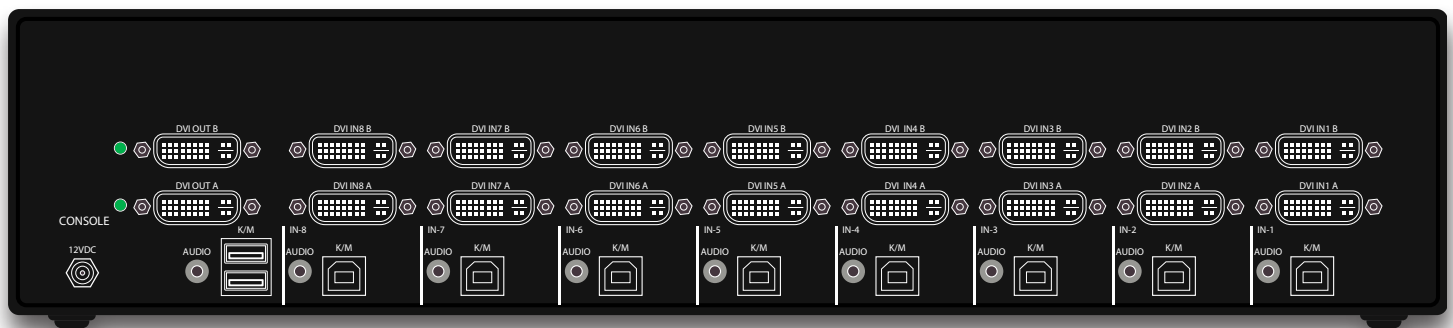**BLACK B■X**®

# Secure 8-Port, Dual-Head DVI-I KVM Switch with 4K Ultra-HD Support



## KEY FEATURES

- Supports Windows, Mac and Linux OS
- Dual-head DVI-I video interface
- Native DVI-I resolutions support up to 2560 x 1600 @ 60 Hz
- 4K Ultra-HD resolution supports up to 3840 x 2160 @ 30 Hz via adaptor
- Supports balanced speakers output and switching
- Supports legacy PS/2 keyboard and mouse
- Front panel tactile buttons with LED indicator
- External power supply - Level VI efficiency

## SECURITY FEATURES

- Non-reprogrammable ROM
- Active Anti-tamper switches
- Long-life internal Anti-tampering battery
- External tamper-evident seals
- Keyboard, Mouse and Video emulation
- Absolute isolation - No data leakage between ports
- Certified by NIAP, the latest Common Criteria (Protection Profile for Peripheral Sharing Switch Version 4.0)

## APPLICATIONS

- Government Operations
- Defense Applications
- Secure Control Rooms
- Corporate Communications
- Server Operations
- Educational Administrations

- Medical Facilities
- Banking Network
- Insurance Data Centers
- Transit Management
- Industrial Operation
- Intelligence Communications

# WHY SECURE KVM?

Traditional non-secure KVM switches offer centralized control of multiple computers, but offer no absolute isolation between them. This exposes systems to the possibility of malicious damage and disruption, and acquisition of sensitive data from one computer to another.

Black Box's Secure KVM Switch is designed for use in secure defense and intelligence applications where sensitive data must be protected. The Switch is NIAP PP 4.0 certified and equipped with the highest security features that meet today's Information Assurance safe control standards. The switch prevents data leakage between computers that can run at different security levels, and eliminates any potential cyber threat.
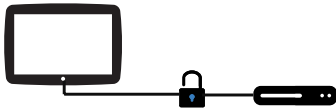
# SECURE EDID LEARN AND VIDEO EMULATION

The KVS4-2008D simulates a generic EDID as default, allowing it to operate most of the connected monitors. Both selected and non-selected computers maintain a constant connection with the unit's video emulation controllers, allowing for ultra-fast switching and restricting discovery of newly connected monitors during switching operations. Upon activating the KVM, the unit will quickly and automatically learn new EDID for specific monitors. The unit then prevents unwanted and unsecure data from getting transmitted through DDC lines by means of secure EDID learning and emulation.

# ULTRA-SECURE KVM SWITCHING

The KVS4-2008D allows users to control KVM (Keyboard, Video and Mouse) operation on up to eight computers with dual-head DVI displays. It features mechanical, electrical and optical signal isolation to prevent hacking and data leakage in environments where security is paramount.
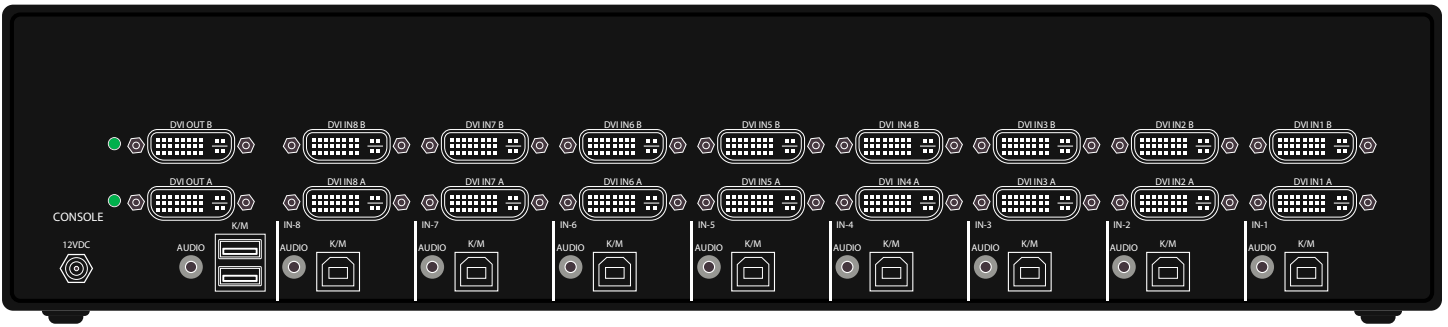
With the KVS4-2008D, all data relays are controlled by inverted signals, shielding connections from outside intrusion by forcing them each to work one at a time. Each port uses its own isolated data channel and each unit features non-reprogrammable ROM to better protect the switch's functions. Better yet, the KVS4-2008D offers the highest security when accessing classified and public networks over the internet through these isolated connections. By isolating connections between networks, the KVS4-2008D ensures no data is leaked between secure ports and the outside world.

The KVS4-2008D has clearly marked front-panel buttons for controlling the device, so securely switching between sources is always simple. For high-grade secure switching made easy, look no further than the KVS4-2008D.
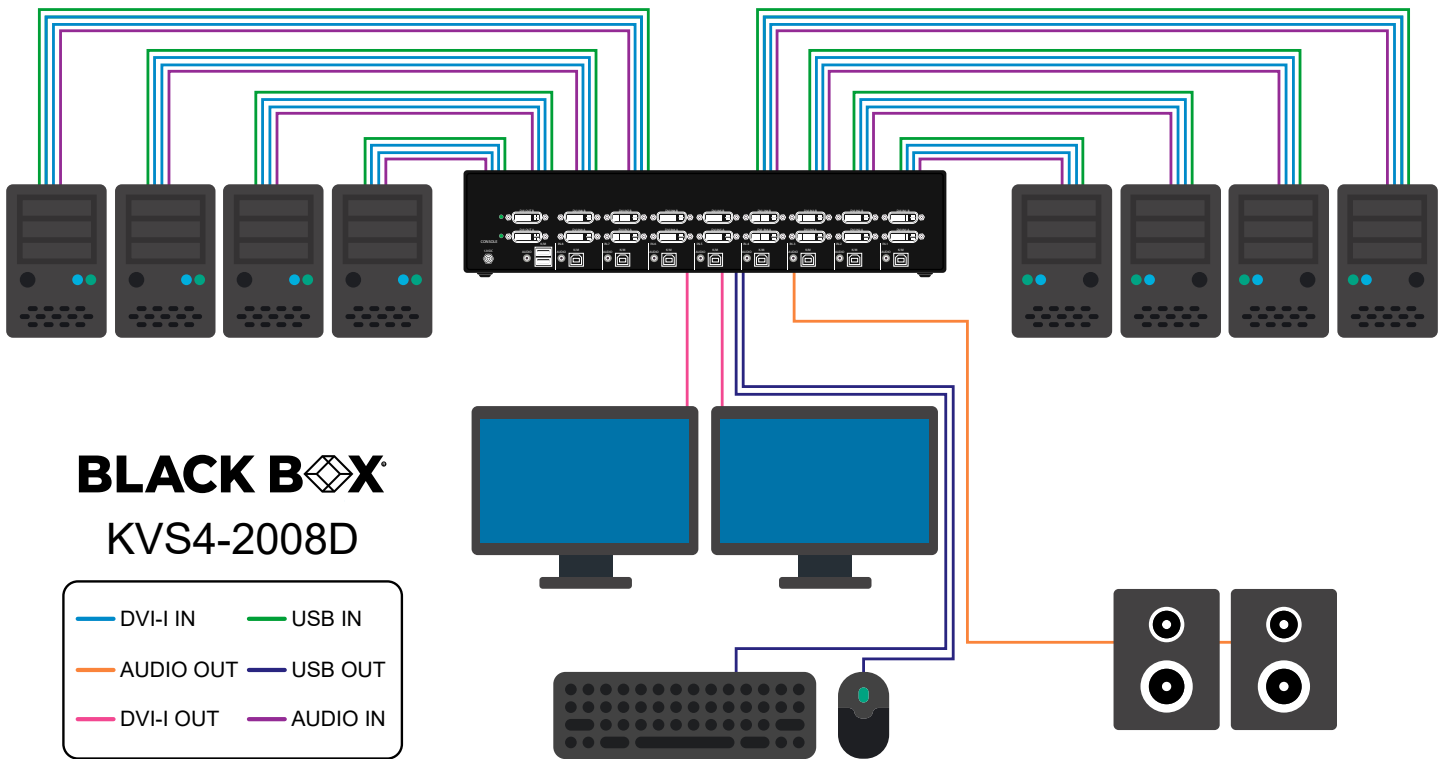
# KEYBOARD AND MOUSE EMULATION

The Secure KVM emulates (simulates) the presence of a keyboard and mouse for every attached computer through a USB cable. Both selected and non-selected computers maintain a constant connection with the unit's keyboard-mouse emulation controllers, allowing for ultra-fast switching and restricting discovery of newly connected peripherals during switching operations.  Emulation of keyboard and mouse also prevents direct connection between the peripherals and the connected computers, shielding systems from potential vulnerabilities.

KVS4-2008D (Rear)

DVI OUT B · DVI IN8 B · DVI IN7 B · DVI IN6 B · DVI IN5 B · DVI IN4 B · DVI IN3 B · DVI IN2 B · DVI IN1 B

DVI OUT A · DVI IN8 A · DVI IN7 A · DVI IN6 A · DVI IN5 A · DVI IN4 A · DVI IN3 A · DVI IN2 A · DVI IN1 A

CONSOLE

K/M

12VDC · AUDIO

IN-8 · IN-7 · IN-6 · IN-5 · IN-4 · IN-3 · IN-2 · IN-1

AUDIO K/M

# INSTALLATION DIAGRAM

**BLACK BOX**

KVS4-2008D

| — DVI-I IN | — USB IN |
| — AUDIO OUT | — USB OUT |
| — DVI-I OUT | — AUDIO IN |

# SPECIFICATIONS

| VIDEO | |
|---|---|
| Format | DVI-I Dual Link, DVI 1.0, DVI-D, XVGA |
| Max. Pixel Clock | 248 MHz |
| Input Interface | (16) DVI-I 29-pin |
| Output Interface | (2) DVI-I 29-pin |
| Resolution | Up to 4K (3840x2160 @30Hz) |
| DDC | 5 volts p-p (TTL) |
| Input Equalization | Automatic |
| Input Cable Length | Up to 20 ft. |
| Output Cable Length | Up to 20 ft. |
| Data Rate | 1.65 Gbps |

| USB | |
|---|---|
| Input Interface | (8) USB Type B |
| Output Interface | (2) USB 1.1 Type A for KM Devices |
| Emulation | USB 1.1 and USB 2.0 Compatible |

| AUDIO | |
|---|---|
| Audio Input | (8) 3.5mm stereo audio |
| Audio Output | (1) 3.5mm stereo audio |

| CONTROL | |
|---|---|
| Front Panel | Front panel SELECT buttons |

| OTHER | |
|---|---|
| Power | External 100-240 VAC/ 12VDC3A @ 36W |
| Dimensions | 17.0" W x 2.7" H x 8.69" D |
| Weight | 6.9 lbs |
| Approvals | NIAP PP 4.0, UL, CE, ROHS Compliant |
| Operating Temp. | +32 to +104°F (0 to +40°C) |
| Storage Temp. | -4 to 140°F (-20 to +60°C) |
| Humidity | Up to 80% (no condensation) |

| ORDERING INFORMATION | |
|---|---|
| Part No. | Description |
| KVS4-2008D | 8-Port DH Secure Pro DVI-I KVM w/ audio, NO CAC, PP 4.0 |

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**KVS4-2008D_ds_Rev1.pdf**