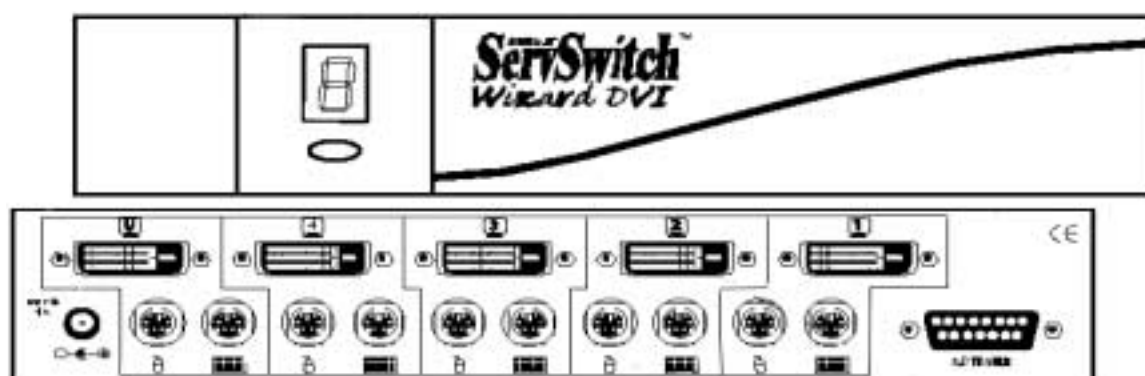




BLACK BOX[®]

NETWORK SERVICES

ServSwitch Wizard DVI



Features and Benefits

The ServSwitch™ Wizard DVI is a high-performance keyboard-, monitor-, and mouse-sharing device that supports a wide range of IBM® PC compatible hardware and software platforms, including some high-end IBM PS/2® compatible computers (IBM RS/6000®, Compaq® Alpha®, and SGI™). It is specifically designed to support DVI (Digital Visual Interface) video. It comes in several models:

- The 2-Port (product code KV1002A) and 4-Port (KV1004A) Single-Head models support DVI video cards with a single video output.
- The 2-Port (KV1022A) and 4-Port (KV1024A) Dual-Head models support DVI video cards with up to two video outputs. They also support user stations with either dual monitors or a single monitor that can composite dual video feeds into a single image.
- The 2-Port (KV1042A) and 4-Port (KV1044A) Quad-Head models support DVI video cards with up to four video outputs. They also support user stations with either as many as four monitors or a single monitor that can composite as many as four video feeds into a single image.

Here are some of the useful features of the ServSwitch Wizard DVI and some of the ways those features benefit you:

- Use a single keyboard, mouse, and one to four monitors or monitor feeds to control multiple computer CPUs that output DVI video.
- Supports DVI monitors at resolutions up to 1600 x 1200 pixels and refresh rates up to 60 Hz. Its maximum pixel frequency is 165 Mhz per port—the maximum single-link bandwidth in the DVI specification —so higher refresh rates can be supported for lower resolutions.
- When used with video cards and monitors that can transmit and receive multiple parts of the same image on multiple video heads, the dual-video models can support resolutions up to 2400 x 1600, and the quad-video models can support resolutions up to 3200 x 2400.
- Supports IBM RS/6000®, Compaq® Alpha®, and SGI™ computers that output DVI video.
- Compatible with all popular operating systems for the IBM PC.
- Continuous keyboard and mouse emulation on all ports ensures problem-free computer bootup. And

because all ports are simultaneously active, all attached CPUs can be booted at the same time.

- Automatically detects attached hardware.
- Can usually draw all the power it needs from the attached CPUs. For demanding applications with cascading and/or high-end video, an optional power supply (product code PS649) is available.
- Local channel switching using its front-panel pushbutton, a keyboard hotkey sequence, or a 3-button mouse.
- Remote channel switching through its RS-232 serial port, using its convenient optional Remote-Control Module (RCM) or some other device.
- Intelligent switching: You can scan/switch between all ports or just the active ones.
- Flash-upgradable for easy on-site firmware upgrades.
- Video channels support DDC2B Display Data Channel signaling and DVI Hot Plug Detect.
- Can be cascaded to control a large number of CPUs.
- Can be paired to control CPUs with dual video outputs.
- Password security prevents

unauthorized use.

- Stores its configuration in persistent EEPROM memory.
- Automatically restores keyboard and mouse states when channel is changed.
- CPUs can have PS/2 keyboard ports and either PS/2 or RS-232 mouse ports.
- Supports keyboard modes 1, 2, and 3, as well as both "prompt" and "stream" mouse modes, for maximum compatibility.
- Support for Microsoft® IntelliMouse™ and many other "wheel mice."
- Mouse-restoration functions that make it possible to hot-plug certain systems.
- If problems occur, you can soft-reset the keyboard, the mouse, or the Wizard DVI itself without disconnecting any devices.
- Includes screen-blank, autoscans, and variable-hotkey options.
- Front-panel 7-segment LED shows you how the Wizard DVI is operating.
- Metal enclosure for good shielding and video quality.

Specifications

Compliance — CE (EN55022 Class B); FCC Part 15 Subpart B Class A, IC Class/classe A

Standards — Supports DDC2B signaling

Interfaces —

Video: DVI (Digital Visual Interface); *Keyboard and mouse:* IBM PS/2 compatible; with appropriate adapters, also supports CPUs with EIA/TIA RS-232 mouse ports; *OPTIONS/FLASH port:* EIA/TIA RS-232 proprietarily pinned on DB15

Resolution and Refresh Rate — Up to 1600 x 1200 noninterlaced at up to 60 Hz (higher refresh rates possible at lower resolutions); with video cards and monitors that support composite images transmitted on multiple heads, the KV1022A and KV1024A can support up to 2400 x 1600 and the KV1042A and KV1044A can support up to 3200 x 2400

Protocol — RS-232: Asynchronous
Data Format — RS-232: 8 data bits, no parity, 1 stop bit

Data Rate — RS-232: 1200 bps

Flow Control — RS-232: None

Maximum Distance — 2m if interface-powered or 5m if AC-powered to any attached keyboard, monitor, and mouse; 5m o any attached CPU or cascaded KVM switch

User Controls — Keyboard commands; Mouse-click functions; (1) Front-mounted pushbutton for channel change and configuration mode; (1) Bottom-mounted 8-position DIP switch for reset and firmware upgrade; Optional Remote Control Module for channel change; Optional serial commands for channel change and multi-chassis synchronization

Indicator — (1) Front-mounted 7-segment status display

Connectors —

All rear-mounted:
(1) Multipurpose DB15 female; (1) Barrel jack for optional power-supply connection;

User port: (2) 6-pin mini-DIN female for keyboard and mouse attachment;

Molex DVI-D female for monitor attachment: KV1002A, KV1004A: (1); KV1022A, KV1024A: (2); KV1042A, KV1044A: (4);

CPU ports ([2] on KV10x2A models, [4] on KV10x4A models), each consisting of: (2) 6-pin mini-DIN female for keyboard- and mouse-port attachment;

Molex DVI-D female for video-port attachment: KV1002A, KV1004A: (1); KV1022A, KV1024A: (2); KV1042A, KV1044A: (4)

MTBF — 500,000 hours (based on the historical reliability of similarly designed and manufactured products)

Maximum Altitude —3048 m

Temperature Tolerance — 0 to 40°C
Humidity Tolerance — 5 to 60% noncondensing

Enclosure — Steel, aluminum, and plastic

Power — KV1002A, KV1004A: 5 VDC at up to 500 mA from the keyboard interfaces of the attached computers; *All other models* (optionally, KV1002A and KV1004A as well: From the optional power supply PS649 (not included): *Input:* 100 to 240 VAC at 50 to 60 Hz from utility-power outlet, through detachable power cord and IEC 320 male inlet, to external transformer; *Output:* 5 VDC at up to 1 A; *Consumption:* 5 watts maximum

Size — HxWxD 4.4 (1U) x 26.2 x 15cm

Weight — 1 kg

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We are, with 25 years of experience, the world leader in network infrastructure services.

On the Phone — no charge, answer calls in less than 20 seconds, find the right product with our technical experts.

On-site — superior design and engineering, Certified installations, end-to-end service.

On-line — receive technical knowledge on-line, including technology overviews, BLACK BOX Explains and the Knowledge Box.

Most comprehensive TECHNICAL SUPPORT — our best Product! Free hotline TECH SUPPORT!

The world's best customer service — Custom design services and products, the best warranties, money-saving discount programs.

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Ordering information

ITEM	CODE
ServSwitchWizard DVI	
1:2, single VideoKV1002A
1:4, single Video .....	.KV1004A
1:2, dual Video .....	.KV1022A
1:4, dual Video .....	.KV1024A
1:2, quad Video .....	.KV1042A
1:4, quad Video .....	.KV1044A
Power Supply, optional	PS649
Remote Control Units	
3.0 m .....	.KV6REM
7.6 m .....	.KV6REM-25
15.2 m .....	.KV6REM-50
22.9 m .....	.KV6REM-75

Ordering information

ITEM	CODE
Server - Cables	
ServSwitch DVI 1, DVD-D, 0.9m .....	.EHN450-003
ServSwitch DVI 1, DVD-D, 1.8m .....	.EHN450-006
ServSwitch DVI 1, DVD-D, 3.0m .....	.EHN450-0010
ServSwitch DVI 2, DVD-D, 0.9m .....	.EHN460-0003
ServSwitch DVI 2, DVD-D, 1.8m .....	.EHN460-0006
ServSwitch DVI 2, DVD-D, 3.0m .....	.EHN460-0010
ServSwitch DVI 4, DVD-D, 0.9m .....	.EHN470-0003
ServSwitch DVI 4, DVD-D, 1.8m .....	.EHN470-0006
ServSwitch DVI 4, DVD-D, 3.0m .....	.EHN470-0010