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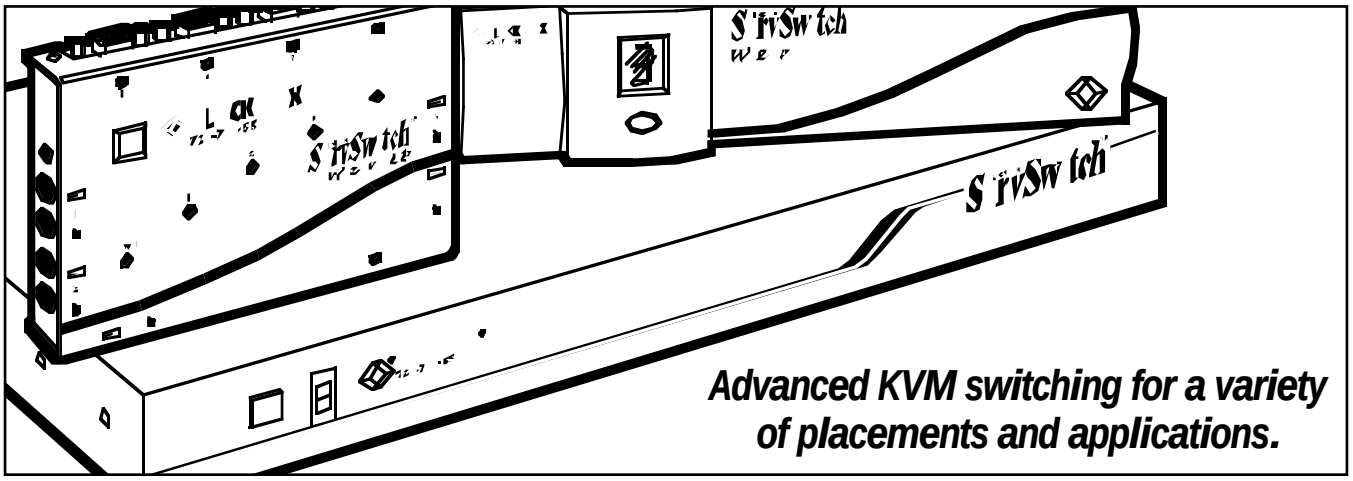
BLACK BOX®
NETWORK SERVICES

SERVSWITCH WIZARD SOLUTIONS



Advanced KVM switching for a variety of placements and applications.

Key Features

- ***All models:* Handle resolutions up to 1600 x 1280.**
- **Powered from interface or optional power supply.**
- ***Wizard*: Supports DDC, flash-upgradable.**
- ***Wizard LP*: Small, light, can be placed almost anywhere.**
- ***Wizard PRO*: Menus enable easy configuration and operation.**
- ***Wizard MP*: Works with PCs, Sun, and Macintosh.**
- ***Wizard DVI*: Supports DVI video cards with up to four outputs.**

The **ServSwitch™ Wizard** (SW651A–SW652A) is designed to be placed on desktops and to look great there. But it's not just for show—it's a sophisticated switch that can support Display Data Channel (DDC) PC-to-monitor communication and whose firmware can be flash-upgraded. Two or more Wizards can even be synchronised to support CPUs with multiple video outputs.

The **ServSwitch Wizard LP** (SW641A–SW642A) is a little over an inch (2.5-cm) thick and measures 6.6"W by 4.8"D (16.8 x 12.2 cm). It's so tiny that we ship it with VELCRO® strips, so you can stick it on the wall!

In addition, we offer Wizard and Wizard LP models in kits (add "-K" to the product codes). They include all the premium KVM user cables and keyboard and mouse port adapters you'll need.

The **ServSwitch Wizard PRO** (SW644A, SW648A) can be placed in a 19" rack with its Rackmount Kit (RMK19WP). Even if you put it on the desktop, it's sturdy enough to go under a monitor or other device. It has a powerful on-screen menu system.

The **ServSwitch Wizard MP** (KV804A–KV805A) is a high-performance multiplatform keyboard-, monitor-, mouse-, and audio-sharing device that supports a wide range of IBM® PC and Sun® compatible hardware and software platforms, including some high-end PS/2® compatible computers (RS/6000®, Compaq® Alpha®, and SGI™).

The KV805A model also supports computers with USB keyboard and mouse ports, including USB versions of the Apple® Macintosh® G3™ and G4™. The Wizard MP enables control of up to four devices.

Like the Wizard MP, the **ServSwitch Wizard DVI** enables control of high-end PS/2 compatible computers (IBM RS/6000, Compaq Alpha, and SGI). This ServSwitch is specifically designed to work with Digital Visual Interface (DVI) video. It comes in several models.

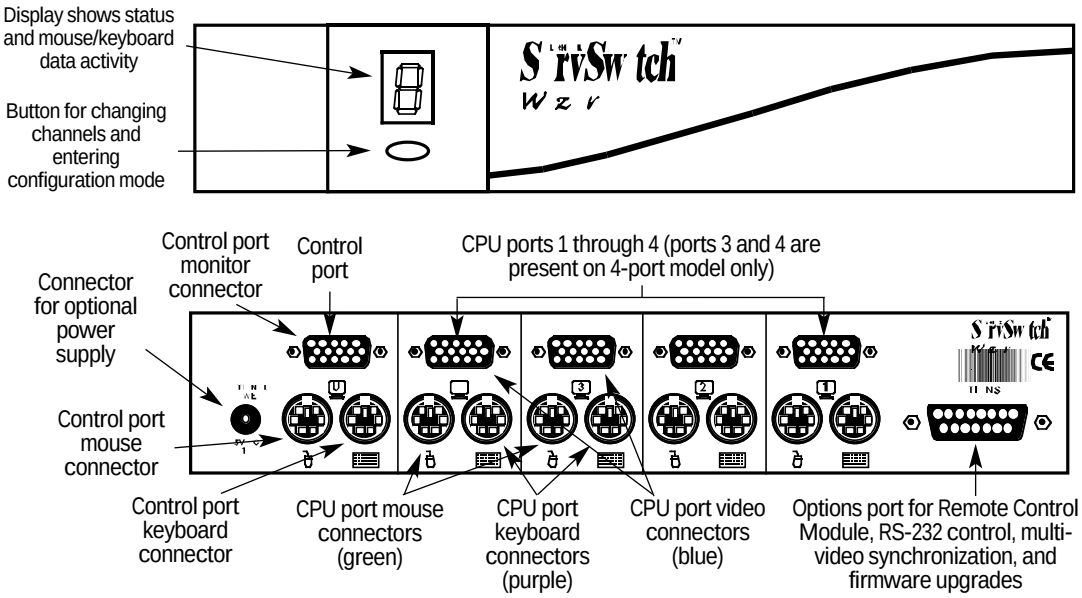
The 2-Port (KV1002A) and 4-Port (KV1004A) Single-Head models support DVI video cards with a single video output.

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 combine dual video feeds into a single image.

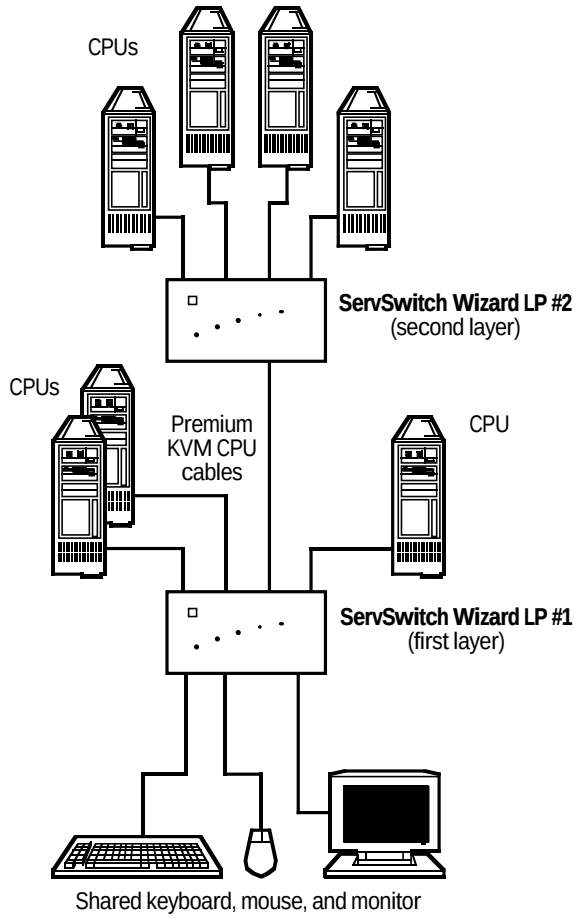
The 2-Port (KV1042A) and 4-Port (KV1044A) Quad-Head models support DVI video cards with up to four video outputs. They also support user stations with either as many as four monitors or a single monitor that can combine as many as four video feeds into a single image.

All models include support for video resolutions up to 1600 x 1280, multiple channel-switching methods, auto-scanning, screen blanking, cascading, and keyboard commands (using any of several possible hotkeys).

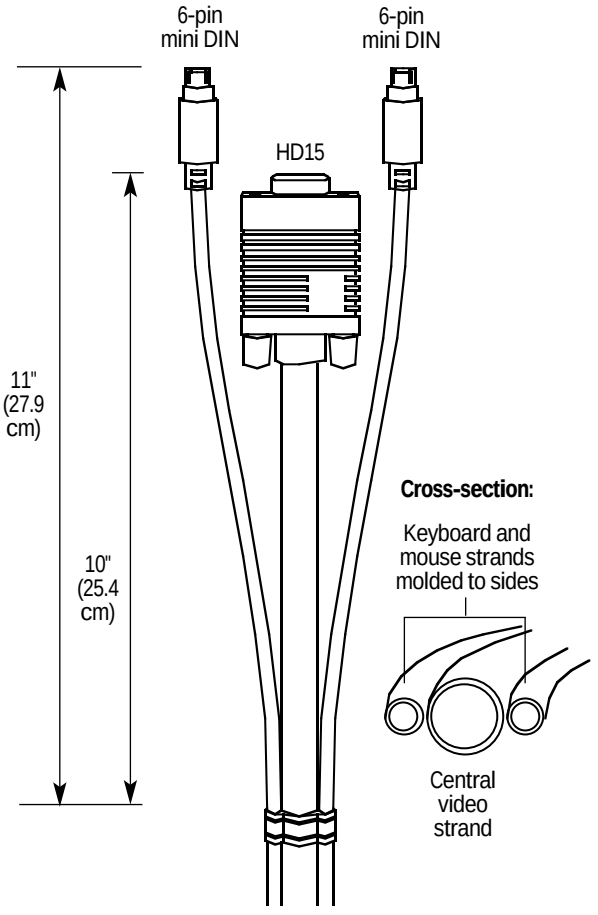
The ServSwitch Wizard is flash-upgradable, supports DDC, and has sleek desktop styling.



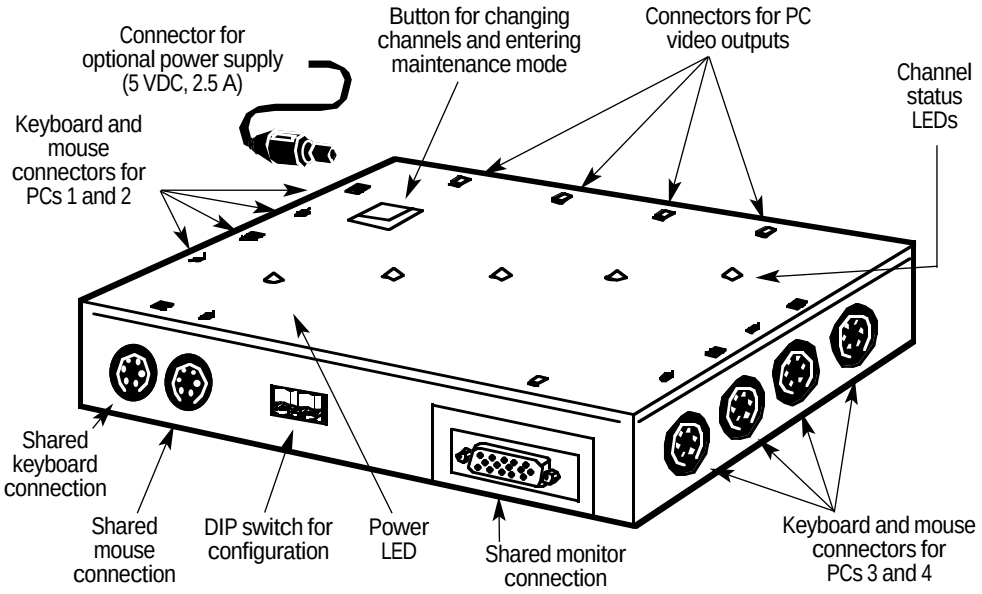
Control as many as four or eight PCs with one Wizard family switch, or cascade switches to control more.



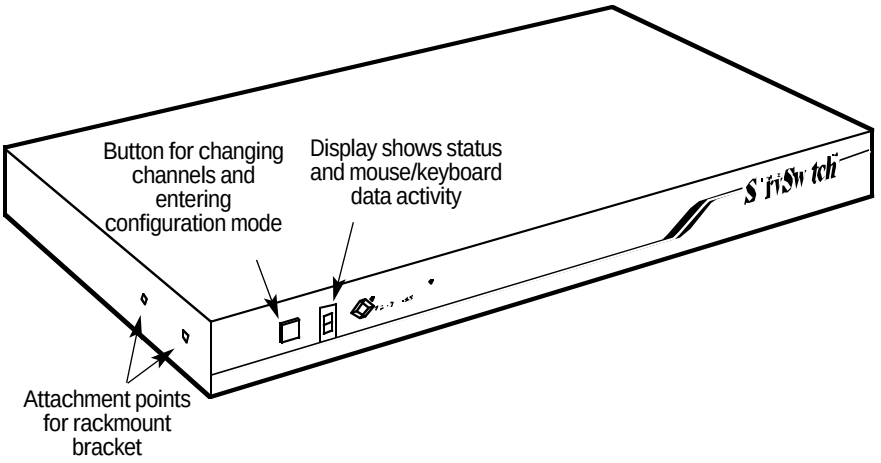
You can use Premium KVM Cables (EHN408, EHN409) to run most Wizard family device connections to greater distances.

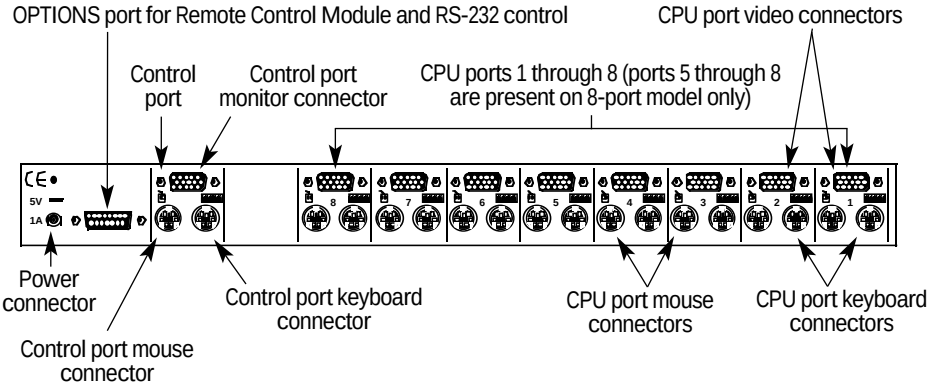


The ServSwitch Wizard LP (4-port model shown here) packs a ton of useful components into the least possible space.

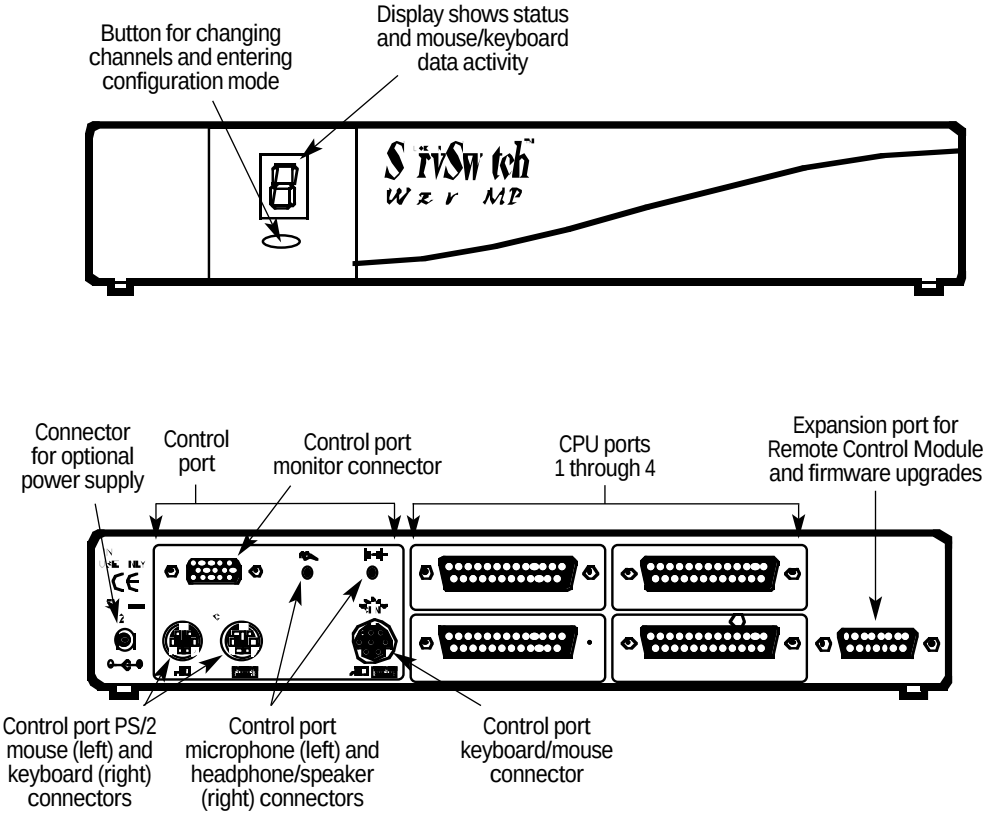


The ServSwitch Wizard PRO does everything the Wizard LP does, and also has a powerful on-screen menu system and a front-panel 7-segment display. It's even tough enough to put a monitor on top of.

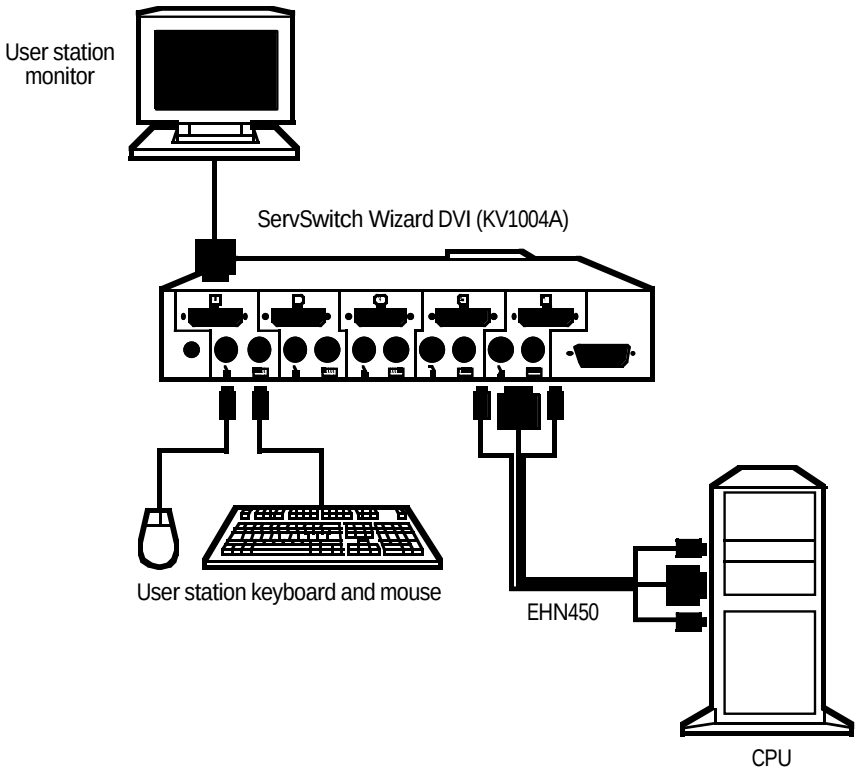




The ServSwitch Wizard MP for PC and Sun (KV804A model shown here) is a KVM- and audio-sharing device that supports a wide range of IBM PC and Sun compatible hardware and software platforms.



The ServSwitch Wizard DVI (4-port single-head model shown here) can support DVI video cards with up to four video outputs. They also support user stations with as many as four monitors.



Specifications

Compliance: Wizard, Wizard LP, Wizard PRO: CE (EN55022 Class B), FCC Part 15 Subpart B Class A, IC Class/classe A;
Wizard MP, Wizard DVI: CE (EN55022 Class A), FCC Part 15 Subpart B Class A, IC Class/classe A

Distance (Maximum):
All models except Wizard DVI: 2 m (6.5 ft.) if interface-powered or 10 m (32.8 ft.) if AC-powered to any attached keyboard, monitor, and mouse;
Wizard, Wizard PRO, Wizard MP: 5 m (16.4 ft.) if interface-powered or 30 m (98.4 ft.) if AC-powered to any attached CPU or cascaded KVM switch;
Wizard LP: 10 m (32.8 ft.) if interface-powered or 30 m (98.4 ft.) if AC-powered to any attached CPU or cascaded KVM switch;
Wizard DVI: 5 m (16.4 ft.) to any attached CPU or cascaded KVM switch

Resolution: All: Up to 1600 x 1280 noninterlaced at up to 100 Hz;
Wizard DVI: 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

RS-232 Characteristics of OPTIONS Port (Wizard, Wizard PRO, Wizard MP, Wizard DVI):
Protocol: Asynchronous;
Data format: 8 data bits, no parity, 1 stop bit;
Data rate: 1200 bps;
Flow control: None

Standards: Wizard, Wizard LP, Wizard PRO, Wizard MP: VGA, SVGA, XGA, XGA-2, SXGA, or UXGA video;
Wizard MP: Also supports VESA DDC, DDC1 and DDC2 signaling;
Wizard DVI: DDC2B signaling

Interface:
Wizard, Wizard LP, Wizard PRO:
Video: VGA;
Keyboard and mouse: IBM PS/2 compatible; with appropriate adapters, also supports IBM PC/AT® keyboards, CPUs with PC/AT keyboard ports, and CPUs with TIA/EIA RS-232 mouse ports;
OPTIONS port (Wizard, Wizard PRO): TIA/EIA RS-232 proprietarily pinned on DB15;
Wizard MP:
Video: VGA;
Keyboard and mouse:
Both models: IBM PS/2 or Sun compatible; with appropriate adapters, also supports IBM PC/AT keyboards, CPUs with PC/AT keyboard ports, and CPUs with TIA/EIA RS-232 mouse ports
KV805A only: USB;
Audio: 3.5-mm stereo;
OPTIONS port: TIA/EIA RS-232 proprietarily pinned on DB15;
Wizard DVI:
Video: Digital Video Interface;
Keyboard and mouse: IBM PS/2 or compatible; with appropriate adapters, also supports CPUs with TIA/EIA RS-232 mouse ports;
OPTIONS port: TIA/EIA RS-232 proprietarily pinned on DB15

User Controls:
All models: Keyboard commands; mouse-click functions;
Wizard, Wizard PRO, Wizard MP, Wizard DVI: (1) front-mounted pushbutton for channel change and configuration mode;
Wizard LP: (1) top-mounted pushbutton for channel change and maintenance mode;
Wizard, Wizard MP only: (1) bottom-mounted 8-position DIP switch for reset and firmware upgrade;
Wizard PRO only: On-screen menu;
Wizard DVI only: (1) bottom-mounted 8-position DIP switch for bootup autoswitching, reset, and firmware upgrade; optional Remote Control Module for channel change; optional serial commands for channel change and multichassis synchronization

Connectors:
Wizard, Wizard PRO, Wizard MP, Wizard DVI: (1) rear-mounted barrel jack for optional power-supply connection; (1) multipurpose DB15 F;
Wizard LP: (1) side-mounted barrel jack for optional power-supply connection;
Wizard, Wizard PRO, Wizard LP:
User port: (1) HD15 F for monitor attachment; (2) 6-pin mini-DIN F for keyboard and mouse attachment;
CPU ports ([2] on SW641A, SW651A; [4] on SW642A, SW644A, SW652A; [8] on SW648A), each consisting of: (1) HD15 F for video port attachment; (2) 6-pin mini-DIN F for keyboard port and mouse port attachment;
Wizard MP:
User port: (1) HD15 F for monitor attachment; (1) 8-pin mini-DIN F for Sun keyboard and mouse attachment; (2) 6-pin mini-DIN F for PS/2 keyboard and mouse attachment; (2) 3.5-mm stereo audio jacks: (1) for microphone attachment, (1) for speaker or headphone attachment;
CPU ports: (4) DB25 F composite;
Wizard DVI:
User port: (2) 6-pin mini-DIN F for keyboard and mouse attachment; Molex DVI-D F for monitor attachment: ([1] on KV1002A, KV1004A; [2] on KV1022A, KV1024A; [4] on KV1042A, KV1044A);
CPU ports ([2] on KV10x2A models; [4] on KV10x4A models), each consisting of: (2) 6-pin mini-DIN F for keyboard and mouse attachment; Molex DVI-D F for video port attachment: ([1] on KV1002A, KV1004A; [2] on KV1022A, KV1024A; [4] on KV1042A, KV1044A)

Indicators:
Wizard, Wizard PRO, Wizard MP, Wizard DVI: (1) front-mounted 7-segment status display;
Wizard LP: All top-mounted:
(1) Power LED;
SW641A: (2) Port (Channel) LEDs;
SW642A: (4) Port (Channel) LEDs

Enclosure:
Wizard, Wizard MP, Wizard DVI: Steel, aluminum, and plastic;
Wizard LP, Wizard PRO: Steel and aluminum

Temperature Tolerance: 32 to 104°F (0 to 40°C)

Humidity Tolerance: 5 to 60%, noncondensing

Altitude (Maximum): 10,000 ft. (3048 m)

Power:
All models except Dual- and Quad-Head Wizard DVI:
- 5 VDC at up to 500 mA from the keyboard interfaces of the attached computers, or
- From the optional power supply PS649 (not included): 100–240 VAC, 50–60 Hz from power outlet, through detachable power cord and IEC 320 M inlet, to external transformer;

Dual- and Quad-Head Wizard DVI only: From power supply PS649 (not included): 100–240 VAC, 50–60 Hz from power outlet, through detachable power cord and IEC 320 M inlet, to external transformer

Size:
Wizard, Wizard MP, Wizard DVI: 1.75"H (1U) x 10.3"W x 5.9"D (4.4 x 26.2 x 15 cm);
Wizard LP: 1.1"H x 6.6"W x 4.8"D (2.8 x 16.8 x 12.2 cm);
Wizard PRO: 1.75"H (1U) x 17.1"W x 8.1"D (4.4 x 43.4 x 20.6 cm); connectors protrude an additional 0.2" (0.5 cm) from the rear of the unit, for a total depth of 8.3" (21.1 cm)

Weight:
Wizard, Wizard MP, Wizard DVI: 2.2 lb. (1 kg);
Wizard LP: 1 lb. (0.5 kg);
Wizard PRO: 3.2 lb. (1.5 kg)

Ordering Information

ITEM	CODE
ServSwitch™ Wizard	
2-Port	
Standalone	SW651A
Kit	SW651A-K
4-Port	
Standalone	SW652A
Kit	SW652A-K
ServSwitch Wizard LP	
2-Port	
Standalone	SW641A
Kit	SW641A-K
4-Port	
Standalone	SW642A
Kit	SW642A-K
ServSwitch Wizard PRO	
4-Port	SW644A
8-Port	SW648A
ServSwitch Wizard MP for PC and Sun	
4-Port	KV804A
4-Port with USB	KV805A
ServSwitch Wizard DVI	
Single-Head	
2-Port	KV1002A
4-Port	KV1004A
Dual-Head	
2-Port	KV1022A
4-Port	KV1024A
Quad-Head	
2-Port	KV1042A
4-Port	KV1044A
If you need an external DC power supply, order…	
Optional Power Supply (100 to 240 VAC input, 5 VDC/1 A output)	PS649
To connect the Wizard, Wizard LP, or Wizard PRO to your CPUs, order…	
Premium KVM CPU Cable (to connect CPUs)	
10-ft. (3-m)	EHN408-0010
20-ft. (6.1-m)	EHN408-0020
30-ft. (9.1-m)	EHN408-0030
To extend the distance between your control station (keyboard/monitor/mouse) and the Wizard, Wizard LP, or Wizard PRO, order…	
Premium KVM User Cable (to extend distance to user stations)	
10-ft. (3-m)	EHN409-0010
20-ft. (6.1-m)	EHN409-0020
30-ft. (9.1-m)	EHN409-0030

(continued)

Ordering Information (continued)

ITEM	CODE
To connect the Wizard MP to your CPUs, order…	
Wizard MP KVM CPU Cables with Audio	
PS/2	
6.6-ft. (2-m)	EHN825-0006
16.4-ft. (5-m)	EHN825-0016
Sun	
6.6-ft. (2-m)	EHN826-0006
16.4-ft. (5-m)	EHN826-0016
USB	
6.6-ft. (2-m)	EHN827-0006
16.4-ft. (5-m)	EHN827-0016
To connect the Wizard DVI to your CPUs, order…	
Wizard DVI CPU Cables	
Single-Head Switch	
3-ft. (0.9-m)	EHN450-0003
6-ft. (1.8-m)	EHN450-0006
10-ft. (3-m)	EHN450-0010
Dual-Head Switch	
3-ft. (0.9-m)	EHN460-0003
6-ft. (1.8-m)	EHN460-0006
10-ft. (3-m)	EHN460-0010
Quad-Head Switch	
3-ft. (0.9-m)	EHN470-0003
6-ft. (1.8-m)	EHN470-0006
10-ft. (3-m)	EHN470-0010
To extend the distance between the Wizard DVI and your monitor, order…	
DVI-D Male–DVI-D Female Extension Cable	
6-ft. (1.8-m)	EVNDVI03-0006
10-ft. (3-m)	EVNDVI03-0010
To extend the distance between the Wizard DVI and your keyboard or mouse, order…	
6-Pin Mini-DIN Cable	
2-ft. (0.6-m)	EVMPS03-0002-MF
3-ft. (0.9-m)	EVMPS03-0003-MF
6-ft. (1.8-m)	EVMPS03-0006-MF
10-ft. (3-m)	EVMPS03-0010-MF
You may also need…	
Adapter for connecting the keyboard port of a PC/AT type CPU (use with CPU Cable, comes with Kits)	FA212
Adapter for connecting the serial mouse port of a PC/AT type CPU (use with CPU Cable, comes with Kits)	FA314
Adapter for connecting a PC/AT keyboard	FA211
Remote-Control Module for ServSwitch Wizard, Wizard PRO, and Wizard DVI	
with 10-ft. (3-m) Cable	KV6REM
with 25-ft. (7.6-m) Cable	KV6REM-25
with 50-ft. (15.2-m) Cable	KV6REM-50
with 75-ft. (22.9-m) Cable	KV6REM-75
ServSwitch Wizard PRO Rackmount Kit	RMK19WP