

- 2- and 4-port SlimLine KVM switches
- 4-, 8- and 16-port 19-inch rackmountable USB & PS/2 KVM switches
- Single rail 15-inch LCD consoles
- Dual rail 17-inch LCD consoles

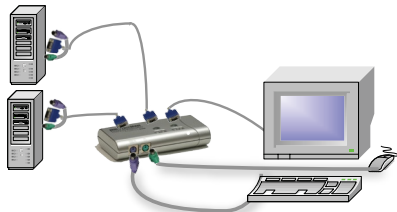
Rackmount and Enterprise Solutions

Large networks of computer servers can be controlled through one Minuteman KVM switch in a cascaded configuration of 16-port KVM switches.

- 4-, 8- and 16-port PS/2 rackmount KVM switches
- 4-, 8- and 16-port rackmount USB PS/2 KVM switch with on screen displays and no delay in switching



4-PORT SLIM LINE KVM



The Minuteman® Keyboard/Video/Mouse (KVM) product solutions from Para Systems, Inc. provide users of multiple computers, an economical way of controlling multiple keyboards, video displays and mouse devices. These cost-effective KVM switches are optimized to provide easy-to-use maximum control and flexibility in a space-saving configuration with a robust set of standard features.

Minuteman® KVMs are ideal for a wide variety of environments from desktop and small offices to network configurations with up to 128 computers. Benefits include:

- Elimination of clutter caused by multiple keyboards, video monitors and mouse devices
- Reduction of investment in keyboards, video monitors and mouse devices

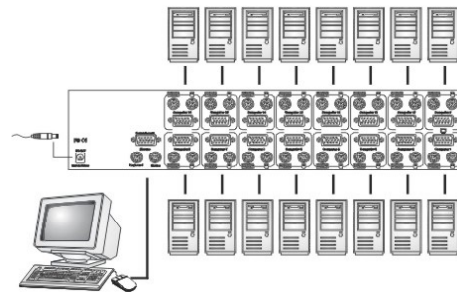
Desktop and SOHO Applications

We have two KVM units for individual and small business users to control two to four computers:

- 2-port Slim Line Desktop PS/2 KVM Switch (MMAKVS02SK) with two required 3-in-1 cables
- 4-port Slim Line Desktop PS/2 KVM Switch (MMAKVS04SK) with four required 3-in-1 cables



4-port KVM with audio and microphone channel controls (MMAUSB314SK)



Up to 128 computers/servers can be controlled via one set of keyboard, video display, and mouse through a cascaded Minuteman KVM

In addition, two rackmountable KVM LCD consoles are available.

- Single-rail 15-inch integrated rackmountable KVM LCD console (MMKVM15NBSR)
- Dual-rail 17-inch integrated rackmountable KVM LCD console (MMKVM17NB2RR)

Please refer to our separate datasheet on the rackmountable LCD consoles for additional information.



1U Dual-rail Integrated rackmountable 17-inch LCD console (MMKVM17NB2RR). (15-inch single-rail version also available)

DESKTOP AND SOHO APPLICATIONS

The Minuteman® Slim Line Desktop KVM Switches (MMAKVS02SK and MMAKVS04SK) are compact and specifically designed for individual and SOHO use. You can use them to control two to four computers using only one keyboard, video display and mouse.

- **Single integrated connector for keyboard, video and mouse.** Due to its single integrated slim connector for PS/2 keyboard, video and mouse interface,

AUDIO KVM SOLUTIONS

The four-port USB KVM Switch with audio and microphone switching (MMAUSB314SK) function:

- **Enhanced multimedia experience** with KVM switching. You can control four USB-enabled multimedia computers and two USB 2.0 devices using only a USB keyboard, mouse, monitor and a set of speakers and microphone.
- **Versatile operation** - You can select the computers, USB device hub port control and audio/microphone channels independently.
- **Monitor the audio/microphone input/output** on each of your multiple computers without plugging on and off the audio/microphone cables.
- **Only one set of speakers and microphones required** instead of one set for each computer.

RACKMOUNT, SMB AND ENTERPRISE APPLICATIONS

The rackmount PS/2-only KVM switches are designed for economical computer/server management at a centralized single administrative area in corporate, factory and campus computing environments.

- **Hot plugging without powering down a rack** - This is especially convenient when you are working on a sever rack.
- **Robust and reliable for corporate server room or industrial floor** - Minuteman KVM switches are industrial and enterprise grade. A robust and durable metal enclosure provides EMI shielding. The metal case offers a sturdy protection needed to withstand accidental impact.
- **Centralized rackmount management** - The MMAKV KVM models feature a console port to connect your shared keyboard, video and mouse, and 4/8 or 16-PC ports to connect to your computers/servers. The rackmount design offers a neat placement of the KVM Switch units on the rack for centralized management and also for security enhancement that could be provided by a locked server room. You can simply place it on desktop or mount it on a standard 19-inch rack for more secured and centralized management.

- **Eliminates clutter** - there will be no more cabling clutters on your desktop. The Slim Line Desktop KVM models require a special Slim Line 3-in-1 KVM combo cable for connection with the PC.
- **Cables included** - Special Slim Line 3-in-1 KVM combo cables are included. Two sets of cable are supplied for the 2-port MMAKVS02SK and four sets are supplied for the 4-port MMAKVS04SK.

- **Share your high-speed USB devices** with a 2-port USB 2.0 device hub on its backpanel.
- **Speed operations** with the keyboard hotkeys or front-panel buttons.
- **Multi-platform support** for PC, Macintosh G3/G4, iMAC, and allows you to access, control, boot and reboot multiple USB-enabled multimedia computers using only one keyboard, video, mouse device and one set of speakers and microphone.
- **Cables supplied** - 4 USB cables (Type A to Type B, 4 audio/microphone combo cables and 4 HDB-15 cables are included.

Two product lines are available:

- **PS/2 Rackmount KVM Switch** - available with 4-, 8- and 16-port models. Mounting brackets are included. An AC-DC 9V DC 1A adapter is optional for 8- and 16 port units only. Cables sets are available in 6-foot (MMAKVPS218M) and 9-foot (MMAKVPS230M) lengths.



Rear of 16-port PS/2 KVM switch - model MMAKV1680

- **USB-PS/2 Rackmount KVM Switch** - available with 4-, 8- and 16-port models. Mounting brackets are included along with an AC-DC adapter 12V DC 1A (for 8- and 16 port units only). Cables sets are available in 6-foot (MMAKAUSB18M) and 9-foot (MMAKAUSB230M) lengths.



Rear of 16 port USB-PS/2 KVM with On Screen Display and No Delay Switching - model MMAUSB1680SD

Minuteman® PS/2 KVM Switches Specifications

Model No.	MMAKVS02SK	MMAKVS04SK	MMAKV0480	MMAKV0880	MMAKV1680
PC port	2	4	4	8	16
Consoleport	1				
PC port connectors *	2 x integrated slim connector for PS/2 keyboard, video and mouse	4 x integrated slim connector for PS/2 keyboard, video and mouse	4 x PS/2 keyboard 6-pin mini-DIN female	8 x PS/2 keyboard 6-pin mini-DIN female	16 x PS/2 keyboard 6-pin mini-DIN female
			4 x PS/2 mouse 6-pin mini-DIN female	8 x PS/2 mouse 6-pin mini-DIN female	16 x PS/2 mouse 6-pin mini-DIN female
			4 x VGA HDB 15-pin female	8 x VGA HDB 15-pin female	16 x VGA HDB 15-pin female
Console port connectors (All female)	1 x PS/2 keyboard 6-pin Mini DIN female		1 x PS/2 keyboard 6-pin mini DIN female		
	1 x PS/2 mouse 6 pin Mini DIN female		1 x PS/2 mouse 6-pin mini DIN female		
	1 x VGA HDB 15-pin female		1 x VGA HDB 15-pin female		
PC selection	hotkeys / push buttons				
PC port LED	2	4	8	16	32
Keyboard/mouse emulation	PS/2				
VGA resolution	2048 x 1536			2048 x 1536	
Scan delay time	5 sec.		5 ~ 100 sec. programmable through hotkey		
Power type	PS/2 interface power				
Power adapter	(Optional DC 9V 500mA)		---	DC 9V 1A (Optional)	
Operation temperature	32°F ~ 104°F (0 ~ 40°C)				
Storage temperature	-4°F ~ 140°F (-20 ~ 60°C)				
Humidity	0~90% RH, non-condensing				
Size	Slim desktop		1U Standard 19-inch rack mount	2U Standard 19-inch rack mount	
Housing	Plastic		Metal enclosure		
Dimension (L x W x H)	5.2 x 2.6 x 1.0 in (131 x 65 x 26 mm)	8.0 x 2.6 x 1.0 in (205 x 65 x 26 mm)	8.7 x 3.9 x 1.8in (220 x 100 x 44.5 mm)	16.1 x 6.5 x 1.8 in (410 x 165 x 44.5 mm)	16.1 x 6.5 x 3.4 in (410 x 165 x 86 mm)
Weight	0.9 lb (420 g)	1.9 lb (840 g)	2.2 lb (1000 g)	4.9 lb (2200 g)	7.7 lb (3500 g)
Safety / emission	FCC/CE				
Cable included	2 x slim 3-in-1 KVM combo cable	4 x slim 3-in-1 KVM combo cable	--	--	--
Cables available	---		Standard PS/2 3-in1 cables are available in 6-foot (MMAKVAPS218M) and 9-foot ((MMAKVAPS230M) lengths.		

Minuteman® KVM Rackmountable Consoles Specifications

	Single-Rail Integrated Rackmountable KVM Console	1-U Dual-Rail Integrated Rackmountable KVM Console
Part number	MMKVM15NBSR	MMKVM17NB2RR
LCD size	15-inch TFT active matrix	17-inch TFT active matrix
Resolution	1024 x 768 (XGA)	1280 x 1024 (SXGA)
Pixel pitch	0.297mm x 0.297mm	0.264mm x 0.264mm
Display colors	16 million – True Color	16.2 million – True Color
Brightness	250 cd/m2 typical	
Viewing angle	140 deg H x 120 deg V	
Contrast ratio	300:1 typical	450:1 typical
Keyboard	105-key PS/2 notebook keyboard with integrated touch pad & Windows key	
Numeric key pad	Yes	
Dimension - closed	19.0 x 17.6 x 1.70in (482.6 x 431.8 x 43.2 mm)	17.9 x 17.7 x 1.7in (454.6 x 449.6 x 43.2 mm)

Minuteman® PS/2-USB KVM Switches Specifications

Model No.	MMAUSB048OSD MMAUSB088OSD MMAUSB168OSD	MMAUSB314SK
PC connections	4/8/16	4
Console port	1	1
Daisy-chain port	2 x (1 x in; 1 x out)	N/A
Daisy-chain	8 units (with any MMUSB048OSD/ MMUSB088OSD/MMUSB168OSD)	N/A
Maximum. PC connections	128 PCs (8 x USB-0168OSD)	N/A
PC port connectors	4/8/16 port x HDB 15-pin female (VGA-USB and VGA-PS/2 interface integrated)	4 x USB Type B 4 x VGA HDB 15-pin female 4 x 3.5mm audio jack 4 x 3.5mm mic jack
Console port connectors	2 x USB Type A 1 x PS/2 keyboard 6-pin mini din female 1x VGA HDB 15-pin female connector	2 x USB 1.1 Type A for keyboard/mouse 2 x USB 2.0 Type A device hub port 1 x VGA HDB 15 pin-female connector 1 x 3.5mm audio jack 1 x 3.5mm mic jack
On-screen display	Yes	No
PC selection	Push buttons / hotkeys / OSD menu	USB keyboard hotkey / push buttons
PC port LEDs	4/8/16 x Green LED / Red LED ; Numerical x 1	4
Autoscan period	5 ~ 95 sec. programmable through OSD menu option	5 ~ 100 sec. programmable (default = 5 sec)
Hub port control LED	---	4
Keyboard/mouse emulation	USB and PS/2	USB
VGA resolution	2048 x 1536	2048 x 1536
Power	PS/2 and USB interface power	USB interface power
Operation temperature	32°F ~ 104°F (0 ~ 40°C)	
Storage temperature	-4°F ~ 140°F (- 20 ~ 60°C)	
Humidity	0~90% RH, non-condensing	
Size	Standard 19-inch rack mount / 1U	Desktop
Housing	Metal enclosure	Plastic / metal
Dimension (L x W x H)	16.1 x 6.5 x 1.7 in (409.0 x 165.0 x 43.1 mm)	10.0 x 4.6 x 1.8 in (255.0 x 117.5 x 45.0 mm)
Power adapter	(Optional) DC 9V 1A	(Optional) DC 9V 500mA
Weight	4.2 lb/4.4 lb/4.9 lb (1900g / 2000g / 2200g)	2.2 lb (1000 g)
Safety / emission	FCC/CE	
Cable included	Cables not included	Special Slim Line 3-in-1 combo KVM cables are included.
Cable available	Cable sets are available in 6-foot (MMAKAUSB18M) and 9-foot (MMAKAUSB230M) lengths.	--

Para Systems, Inc., with its Minuteman® line of power technology products, is a leading provider of uninterruptible power supplies and power management hardware and software for mission-critical equipment such as network equipment, computers, point-of-sale systems, telecommunications systems, security systems and home theater systems. Its UPS products range from 325VA standby units to true sine wave, line-interactive, and on-line models rated up to 10kVA.

Minuteman® power technology products include:

- **UPS systems** - on-line, line interactive and standby
- **Surge suppressors** - including rotating outlets, "child safety" outlets and ruggedized units
- **Power distribution units (PDUs)**
- **KVM (keyboard, video, mouse) systems**
- **Power monitoring and control software**
- **SNMP cards**



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