User-definable Hotkey Preceding Sequence
Factory Default Restore Hotkey
Macintosh keyboard mapping on PC keyboard
Firmware Upgradable

USB-0480/0880/1680
4/8/16-port 19 USB PS/2 Rackmount KVM Switch

Quick Installation Guide

Thank you for purchasing the **USB-0480/USB-0880/USB-1680 Rackmount USB PS/2 KVM Switch**! This USB PS/2 Rackmount KVM Switch supports USB interface and legacy PS/2 interface on both console side and PC side. You can use either PS/2 or USB keyboard/mouse on the console side as well as either PS/2 or USB interfaces on the PC side. It is especially useful when your server room is inhabited with legacy computers with only PS/2 interfaces and yet with some newer computers equipped with only USB interfaces. You can simply place it on desktop or mount it on a standard 19 rack for more secured and centralized management.

This KVM Switch features a metal case with a plastic front-panel for better shielding against electromagnetic interference commonly seen in lab or factory floor environment. It also features a **hot-plugging** capability [for the PS/2 interface] that allows you to plug off and on the KVM cablings without powering down a whole rack of servers, especially convenient when you are working on a sever rack. With our highly reliable and quality product, user can enjoy countless benefits from using it.

For users who might need to use a hotkey preceding sequence other than two scroll locks, we also offer five key alternatives for free configuration.

This KVM Switch also allows its user to upgrade firmware contents whenever is needed to enhance compatibility or functionality. Thus, your investment on this KVM Switch is further ensured and its life-time value just maximized! *For the Flash upgrade procedure, please refer to the Flash Upgrade Operation Guide provided with the new version of Firmware upgrade file.*

USB-0480/USB-0880/USB-1680
Rackmount USB PS/2 KVM Switches

Before you install

The default setting of the **USB-0480/USB-0880/USB-1680 Rackmount KVM Switch** is appropriate for most systems. In fact, you do not have to make any configuration before installation. It's an out-of-the-box installation: Just connect and set up the cable connections for the KVM switch and your computers, boot them up in correct sequence and you can start to operate immediately!

For a quick start on installation and operation, please follow the instructions below.

Out-of-the-box Installation

### Take the KVM Switch out of the box and begin installation...

If you are using only window PCs: for the first-time installation, you don't even need to power down all the computers that are going to be connected to the KVM Switch .. The hot-pluggability of this KVM Switch allows "hot-plugging" of the KVM cables while the computer is powered on, and your mouse will stay alive throughout. It is especially convenient when you have to change or rearrange the KVM cablings of your computers while still want to keep the computers working.

If you are using any Linux PCs: you might possibly experience a lock on mouse if hot-plugging it to the KVM switch (since Linux is not a PnP OS somehow) If your mouse gets locked, you can try to use the mouse reset hotkeys (see the **Quick Reference Sheet**) to bring it back to normal. Another alternative is to turn the Linux PC off before connecting it to the KVM Switch.

Step 1. Connect the shared USB or PS/2 mouse, keyboard and monitor to the console port connectors on the backpanel of your KVM Switch.

Note that since the KVM Switch is powered through the USB or PS/2 interface, it is powered on immediately when connected to the USB or PS/2 keyboard/mouse port of your PC (nonetheless even when the PC being in powered off state, the USB or PS/2 interface is still live with electricity).

Step 2. Just connect your USB-enabled [PS/2-enabled] computers (*no matter they are powered on or off!*) to the PC ports at the backpanel of the KVM Switch, using our special 3-in-1 USB [or PS/2] KVM combo cables.
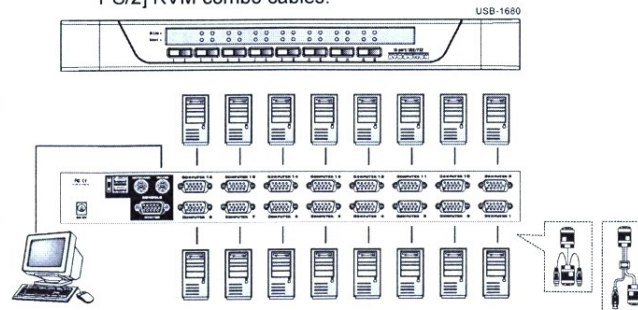
Step 3. If your computer is still not powered up, then power them up. Once the computers are powered up (or they are already powered on before connecting to KVM Switch), you can

manage all of them through the local console of your KVM Switch.

If you experience mouse lock on any of your computer, **You can use** the mouse reset hotkey sequence to regain the mouse control (*see the* **Quick Reference Sheet***).*

Easy Operation

There are two methods to select a specific computer, using a *front-panel push button* or a *hotkey sequence*.

Front-panel push buttons
The front-panel buttons let you have direct control over KVM switch operation and channel switching. Simply press a button to switch to its corresponding channel. *See Quick Reference Sheet*

Keyboard hotkeys

A *keyboard hotkey sequence consists of at least three specific keystrokes: See Quick Reference Sheet*

Hotkey sequence = [ScrLk]* + [ScrLk]* + *Command key(s)*
* User-definable = SCROLL LOCK, CAPS, ESC, F12 or NUM LOCK

Hotkey preceding sequence configuration: For users who want to use a preceding sequence other than two consecutive Scroll Locks, there is also one convenient way to configure it. **(1)**Hit ScrollLock + ScrollLock + H, then two beeps will signal readiness for new preceding sequence selection [or Press and hold down the last front-panel button (Button 4, 8 or 16) until you hear two beeps, release the button.] **(2)** Select and press the key you would like to use as your preceding sequence (**SCROLL LOCK, CAPS, ESC, F12 or NUM LOCK** keys are available for selection) and you'll hear a beep for selection confirmation. Now you can use the new preceding sequence to execute your hotkey commands.

The two consecutive ScrLk (scroll lock) keystrokes should be pressed within 2 seconds and the following command key(s) should also be pressed within 2 seconds in likewise manner. Otherwise, the hotkey sequence will not be validated.

For detailed Hotkey sequences and their corresponding functional commands. *See Quick Reference Sheet*

System Requirements

Model Number	USB-0480/USB-0880/USB-1680
PC Side	4/8/16 x USB [or PS/2] KVM Combo Cable (USB-HDB15 [PS/2-PS/2-HDB-15] interface, all-male)
Console Side	1 x USB [PS/2] Keyboard 1 x USB [PS/2] Mouse 1 x Monitor

Quick   Reference   Sheet

19" Rackmount USB PS/2 KVM Switch / Operation Commands for Hotkeys/ Front-Panel Button

Hotkey sequence = [ScrLk]* + [ScrLk]* + Command key(s) * User-definable Preceding sequence = SCROLL LOCK, CAPS, ESC, F12 or NUM LOCK

Command	Hotkeys	Front-panel Button	Description
Select PC Channel	**For USB-0480/0880** $\boxed{ScrLk} + \boxed{ScrLk} + \boxed{(x)}^1$ x = 1 ~ 4/1~8 for PC channel number **For USB-1680** $\boxed{ScrLk} + \boxed{ScrLk} + \boxed{(x)} + \boxed{(y)}^1$ xy = 01~16 for PC channel number	*Press the corresponding* front-panel *button to select the desired PC channel*	Select the active PC channel
Next lower PC channel	$\boxed{ScrLk} + \boxed{ScrLk} + \boxed{\uparrow}$ (arrow up)	--	Select the next lower PC channel (Switch only to the next lower channel with live power input from PS/2 or USB interface)
Next higher PC channel	$\boxed{ScrLk} + \boxed{ScrLk} + \boxed{\downarrow}$ (arrow down)	--	Select the next higher PC channel (Switch only to the next higher channel with live power input from PS/2 or USB interface)
Previous PC channel	$\boxed{ScrLk} + \boxed{ScrLk} + \boxed{\leftarrow}$ (Backspace)	--	Toggle between the previous channel and current channel
Beep Sound On/Off [default = ON]	$\boxed{ScrLk} + \boxed{ScrLk} + \boxed{B}$	--	Toggle on/off the beep sound for hotkey/channel switching operation
Mouse/Keyboard Reset[2]	$\boxed{ScrLk} + \boxed{ScrLk} + \boxed{End}$	--	Reset mouse/keyboard
Autoscan	$\boxed{ScrLk} + \boxed{ScrLk} + \boxed{S}$	--	Autoscan through every connected channel for quick screen browsing of each channel (scan delay = 5 sec.)
Define Hotkey Preceding Sequence [default = ScrLk + ScrLk]	$\boxed{ScrLk} + \boxed{ScrLk} + \boxed{H} + \boxed{(y)}$ (y) = SCROLL LOCK, CAPS, ESC, F12 or NUM LOCK	Press and hold down last button (Button 4 / Butotn8 / Button 16) till two beeps, release the button, then press $\boxed{(y)}$ key.	Select the hotkey preceding sequence among 5 alternative keys
Restore to Factory Default [3]	$\boxed{ScrLk} + \boxed{ScrLk} + \boxed{R}$	--	Restore to factory setting (factory default = beep sound ON / hotkey preceding sequence set to $\boxed{ScrLk} + \boxed{ScrLk}$)
Firmware Upgrade	--	*Button 1* (*Press and hold down for 2 till 2 beeps, indicating its ready for firmware upgrade file upload*)	Go into Upgrade Mode and ready for firmware upgrade file upload. For more details, please refer to the *Firmware Upgrade Operation Guide.*
Autoscan with Programmable Delay Time [default = 10 seconds]	$\boxed{ScrLk} + \boxed{ScrLk} + \boxed{S} + \boxed{(x)}^1$ x = 0~9 1 → 10 ; 2 → 20 ; 3 → 30 ; 4 → 40 ; 5 → 50 6 → 60 ; 7 → 70 ; 8 → 80 ; 9 → 90 ; 0 → 100	--	Autoscan with a user-defined delay time within a range of 10 ~ 100 seconds. [Default = 10 seconds]
Stop Autoscan	*Press any key on keyboard*	*Press any button*	Terminate Autoscan activity

Notes:

1. You can use either top row number keys or the keypad number keys for hotkeys commands.

2. In normal usage condition, mouse/keyboard should not require any use of this hotkey. However, if you encounter keyboard/mouse lockup or other problems, you can use this keyboard/mouse reset hotkey to facilitate recapturing of the keyboard/mouse device on the connected PC.

3. **If your hotkey preceding sequence has been changed by a previous user**, and you don't' know what it is exactly, please just try over the possible alternatives: either they are SCROLL LOCK, CAPS, ESC, F12 or NUM LOCK. You should be able to find what the currently preceding sequence is within a minute.

Mac user: Standard $\boxed{PC}$ Keyboard == mapping to == $\boxed{MAC}$ Keyboard → $\boxed{ScrLk} + \boxed{ScrLk} + \boxed{C} = \boxed{\triangle}$ (CD/DVD drive eject key); $\boxed{ScrLk} + \boxed{ScrLk} + \boxed{F10} = \boxed{F13}$; $\boxed{ScrLk} + \boxed{ScrLk} + \boxed{F11} = \boxed{F14}$; $\boxed{ScrLk} + \boxed{ScrLk} + \boxed{F12} = \boxed{F15}$

LED information: a solid red-lit LED indicates a live power input for that specific port; a solid green-lit LED indicates an active port; a flashing green LED indicates no connection for the active port (i.e. no power input from the active port).

Hotkey convention: The hotkey notation $\boxed{ScrLk} + \boxed{ScrLk} + \boxed{(key)}$, denotes that you should hit the individual key consecutively one at a time, not simultaneously.