



## Desktop KVM Switch

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## Content

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### *FCC Statement*

This device generates and uses radio frequency and may cause interference to radio and television reception if not installed and used properly. This has been tested and found to comply with the limits of a Class B computing device in accordance with the specifications in Part 15 of the FCC Rules. These specifications are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by plugging the device in and out, the user can try to correct the interference by one or more of the following measures:

#### *Reorient or relocate the receiving antenna.*

- Increase the separation between the device and receiver.
- Connect the computer into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## 1. Introduction

Thank you for your purchase of Combo KVM Switch! You now have a high quality, durable system that will enable you to control 2/4 Host computers and/or servers by using PS/2 and/or USB Connectors from one console (PS/2 Mouse & PS/2 Keyboard, and Monitor).

## 2. Features

1. Complex connections with PCs via either way of PS/2 and/or USB arbitrarily.
2. Controls 2 / 4 computers from a single console PS/2 (Keyboard/Mouse) over PS/2 and/or USB connections.
3. Supports Windows, Linux, Mac OS9/OSX, Sun Microsystems.
4. Emulates a keyboard on each PC to allow your computers to boot normally without a keyboard error.
5. Supports hot-swap. All devices connected to the KVM can be added or removed at any time, without shutting the unit down.
6. Supports 2 types of switching:
  - (1) Hardware Push Button,
  - (2) Hot-Keys on PS/2 keyboard
7. Supports Auto-Scan function to alternate video between computers in preset intervals.
8. Supports LED display for PC status monitoring.
9. Supports VGA resolutions up to 2048 x 1536 @ 85HZ.
10. Supports Beeper during switching enabled.
11. Self powered through PS/2 and/or USB connection.
12. Fully compliant with the USB 1.1/ 2.0 specification.

## 3. Package Contents

The product you purchased should contain the following equipment and accessories:

1. 2-Port or 4-Port Combo KVM Switch
2. User Manual

## 4. Specifications

Spezifikation	
Number Of Computers Controlled	2 / 4
Selection Method	Push Button and Hot-Key (PS/2 Keyboard)
LEDs	Red for PC Selection Green for PC On-Line ready
PC Connectors	Video 2 / 4 x HDB -15 female ( USB & PS/2 signal combined )
Console Ports	Keyboard 1 x 6 pin mini-DIN female Mouse 1 x 6 pin mini-DIN female Video 1 x HDB - 15 female
Auto-Scan Interval	From 5 to 250 Seconds
DDC, DDC2 monitor	Yes (Max. Resolution: 2048 x1536) @ 85Hz
Hot Swappable	Yes
Operating systems supported	<b>Windows 98SE/ME/2000/XP/2003 Server/Vista, Linux Mac OS9/OSX and Sun Micro System</b>
Device driver	No Need
Power	By PS/2 and/or USB or External Power Adaptor (Optional)
Dimensions (L X W X H)	2-Port : 14.0 x 8.5 x 4.5 cm (5.5 x 3.3 x 1.7 inches) 4-Port : 21.5 x 8.8 x 4.5 cm (8.5 x 3.4 x 1.7 inches)
Unit Weight	2-Port : 420 g 4-Port : 620 g
Housing material	Metal
Operating Temperature	32~ 122°F (0~ 50°C )
Humidity	0%~80%RH

## 5. System Requirements

### *Console*

A VGA, SVGA, Multisync monitor capable of the highest resolution.

PS/2 Keyboard/Mouse

### *Computer or Server*

The following equipment must be equipped with each computer or server.

- A VGA, SVGA or Multisync card.
- Type A USB port or PS/2 6 pin mini-DIN for Keyboard and Mouse.

### *Cables*

The Combo Free KVM Switch must be used specific custom 4-in-1 cables.

To purchase the specific cable sets, please contact your dealer. The cables are available in 1.8m, 3m and 5m length (item numbers 331992, 331993, 331995).

## 6. Installation

### *LED Indicators:*

RED LED "Selected":

indicates that the KVM Switch is selected to the corresponding PC.

GREEN LED "On-Line":

indicates that the KVM Switch is ready to the corresponding PC.

### *Reset Switch:*

Press this switch when a system reset. This switch must be pushed with a thin object, for example, such as the end of a paper clip, or a ball point pen.

### 6.1 Single installation

#### **Precaution:**

1. With under running OS Windows 98 , we suggest that the PC must be plugged to PS/2 ports, because of Windows 98 is not support installation at first time as through USB HID installation driver.
2. There are some of older PCs can support USB ports during booting, but you need to open BIOS USB setting at first.

### *Console connecting:*

Plug your PS/2 keyboard, mouse and VGA video into the Console ports located on the KVM Switch's front panel.

*System connecting:*

Use KVM custom cable sets to connect any available PC ports to the video and either USB or PS/2 ports alternatively, or even USB & PS/2 both all connected to the computers you are connecting up.



( Fig 1 ) combo custom 4-in-1 cable

**Note:**

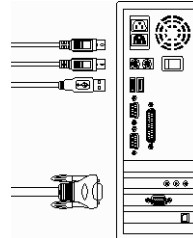
The custom cable set, as Fig. 1, is not supplied with this package; it has to be purchased separately. The cables are available in 1.8m, 3m and 5m length (item numbers 331992, 331993, 331995).

*Tune monitor display quality:*

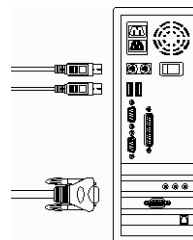
If you are using LCD monitor connected with Combo KVM switch and feel the quality is not comfortable to you, then you can push monitor panel Auto-Adjusting function button to tune gain better display quality at just the first time. After then, the display quality will be remained better condition continuously.

This KVM Switch with custom specific cable set provide three connecting methods.

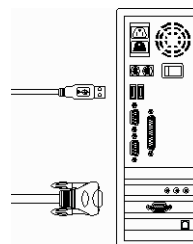
1. Plug USB, PS/2 ( keyboard/mouse) ports and VGA into PCs at same time, recommended in priority.



2. Plug only PS/2 (keyboard / mouse) ports and VGA into PCs.



3. Plug only USB and VGA into PCs.



## 7. Operations

The 2 / 4-Port Combo KVM Switch has the ability to switch the keyboard, video, mouse simultaneously.

### **Note:**

When using the two-step Hot Key sequences, the keys must be pressed within 5 seconds; otherwise the Hot Key action will be terminated.

### 7.1 Push Button on front panel

### 7.2 Hot-Key operation ( PS/2 Keyboard )

### **Note:**

If your keyboard is without < Scroll Lock > button, please press < Caps Lock > or <Num Lock > instead of Scroll Lock (please reference 7.2.0).

## 7.2.0 Hotkey Selection

*Hot Key:*

[Ctrl] -> [Ctrl] -> [Caps Lock] -> [Enter] : The hotkey changed to [Caps Lock]

[Ctrl] -> [Ctrl] -> [Num Lock] -> [Enter] : The hotkey changed to [Num Lock]

[Ctrl] -> [Ctrl] -> [Scroll Lock] -> [Enter] : The hotkey reversed to [Scroll Lock]

**Note :**

The default hotkey setting is <Scroll Lock>, after you changing the hotkey setting, the new setting will effect on the KVM until power off or reset.

## 7.2.1 PCs Selection

*Hot Key:*

[Scroll] -> [Scroll] -> [ 1 ] -> [Enter] or

[Scroll] -> [Scroll] -> [ 2 ] -> [Enter] or

[Scroll] -> [Scroll] -> [ 3 ] -> [Enter] or

[Scroll] -> [Scroll] -> [ 4 ] -> [Enter]



You can synchronize the PC selection, by using the following two-step Hot Key sequence. To send commands to the Combo KVM Switch, press the [Scroll] key twice (Step 1), then press key [1] or [2] or [3] or [4] and [Enter] (step 2) to assign the PC to a particular PC. (If you press key [1] or [2] or [3] or [4] on the number pad, the keyboard, mouse & video will also be switched synchronously.)

## 7.2.2 Auto-Scan Function

*Hot Key:*

[Scroll] -> [Scroll] -> [S] -> [Enter] to BEGIN.

[Scroll] -> [Scroll] -> [S] -> [Enter] to STOP.



You can activate the Auto-Scan function by using the following two-step Hot Key

sequence. To send commands to the Combo KVM Switch, press the [Scroll] key twice (Step 1), then press [S] and then press [Enter] (Step 2). When you press the Auto-Scan hot key sequence, the Combo KVM Switch alternates between the two or four PCs and displays them on the monitor.

Each PC is display one of time interval from 5 ~ 250 seconds (The interval is adjustable) before switching to the next. When you press the Auto-Scan Hot Key sequence again, the Auto-Scan will stop and the monitor screen will jump back to the original PC.

Adjustable scan time interval setting ( 5 ~ 250 sec. )

*Hot-key:*

Pressing the <Scroll >, <Scroll > then <S> and <5 ~250 > <Enter>

## 7.2.3 Beeper Enable

*Hot Key:*

[Scroll] -> [Scroll] -> [B] -> [Enter] to Disable

[Scroll] -> [Scroll] -> [B] -> [Enter] to Enable



The Speaker/Beeper's default setting is "Enable". While the switching connections are activated and Speaker/Beeper is in "Enable" status, the beeper has a short beeping sound.

**Hot Key definition table**

Step 1	Step 2	Action
[Scroll] + [Scroll]	[1] + [Enter]	Switch the active connection to PC 1
[Scroll] + [Scroll]	[2] + [Enter]	Switch the active connection to PC 2
[Scroll] + [Scroll]	[3] + [Enter]	Switch the active connection to PC 3
[Scroll] + [Scroll]	[4] + [Enter]	Switch the active connection to PC 4
[Scroll] + [Scroll]	[B] + [Enter]	Disable or enable beeper
[Scroll] + [Scroll]	[S] + [Enter]	Activate the Auto-Scan mode, default 5 sec.
[Scroll] + [Scroll]	[S] + [5 -250] + [Enter]	Select the Auto-Scan interval from 5 to 250 Sec.

**Sun Microsystems Function Key Emulation:**

There are 16 special functions on the Sun Microsystems keyboard, the Combo KVM

Switch can emulate these function keys via the PS/2 keyboard. Here is the mapping table for these functions operation. To active these emulation on the PS/2 keyboard, you have to press the LEFT Window KEY first (this key usually is located between the left [Ctrl] and left [Alt]), then choice the second relative key.

Sun Micro System Function Key	PS/2 Keyboard
Stop	1. L_Win & L_Alt
Props	L_Win & L_Ctrl
Compose	L_Win & L_Shift
Front	L_Win & F1
Open	L_Win & F2
Find	L_Win & F3
Again	L_Win & F4
Undo	L_Win & F5
Copy	L_Win & F6
Paste	L_Win & F7
Cut	L_Win & F8
Help	L_Win & F11
Power	L_Win & F12
Mute	L_Win & 1
Volume Down	L_Win & 2
Volume UP	L_Win & 3

