

# **KVM-08LB**

## **8 Ports Stackable KVM Switch**

Keyboard, Mouse, 15" LCD Panel Display



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# CHAPTER 1 Introduction

## 1.1 Before you start

Before you start to install your KVM-08LB, please make sure that you received the following materials as listed below:

<i>Item</i>	<i>Qty</i>	<i>Remark</i>
KVM-08LB	1 pc.	8 Ports Stackable KVM Switch Keyboard, Mouse, 15" LCD Panel Display
Power Adapter	1 pc.	12V / 2.83A DC output adapter
Power cord	1 pc	AC inlet power cable
K/ M/ V 3 in 1 cable	3 pcs	1 pc : 3 feet 3-in-1 Cable Kit to daisy chain 2 pcs : 6 feet 3-in-1 Cable Kit to PC
Mouse Converter	4 pcs	DB-9 to 6-pin Mini-DIN converter
User's Manual	1 pc.	This user's manual
Key	1 pc.	KVM-08LB's key

## 1.2 Features

- Allows a user to control eight computers from one keyboard, mouse and monitor.
- No software required, each channel contains a microprocessor emulation to intelligently manage the boot-up process for all your attached PCs boot-up transparently and simultaneously.
- Daisy Chain ports allow control over as many as 64 computers through 8 banks of KVM-08LB units.
- Hot plug—Add PCs or remove connected PCs for maintenance without powering down the KVM Switch or PCs.
- No DIP-switch setting needed and auto detect daisy chain bank.
- On-Screen Display menu gives the user a visual interface to name and select computers.
- Support eight characters password protection and search PC Server name.
- On-Screen Display, push button or keyboard "Hot Key" commands switching.
- AutoScan mode for even more convenience.
- Audible feedback when switching.
- Recalls CAPS LOCK, NUM LOCK and SCROLL LOCK keys' status for each computer automatically.
- Supports VGA, SVGA and MultiSync monitors.
- Up to 1024 x 768 resolution support, 200MHz Bandwidth.
- Integrated mouse conversion technology allows connection of AT type computers that have serial mouse ports while using a PS/2 mouse only at console.
- Keyboard and mouse emulation for error-free boot ups.
- Microsoft® IntelliMouse®, Microsoft IntelliMouse Explorer support and emulation.
- Supports both AT and PS/2 type keyboards (AT requires AT - PS/2 adapter).
- User inexpensive and commonly found standard cables.
- Optional standard 19" rack mounting kit available.
- Cherry Keyboard for 1 million switch life cycles.

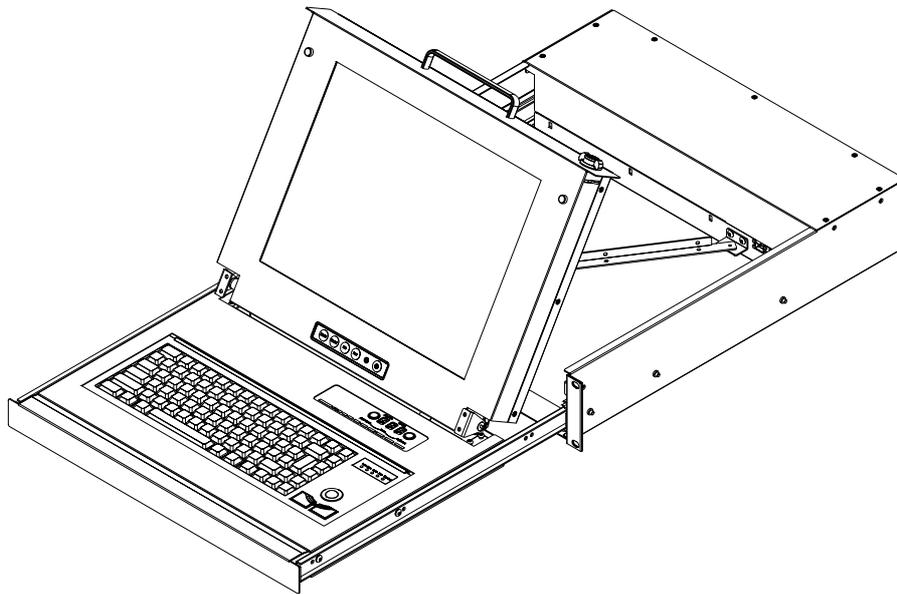
## 1.3 Specification

<b>General</b>	
□ <b>Size</b>	19" Rack Mount
□ <b>KVM Ports</b>	8
□ <b>KVM Console Port</b>	1
□ <b>LCD Power On/Off LED</b>	1
□ <b>KVM / Console Port Connector (All Female Type)</b>	PS/2 Keyboard Mini Din 6 pin PS/2 Mouse Mini Din 6 pin VGA HDDB 15 pin
□ <b>PC selection</b>	1. On Screen Display Manual 2. Hot Key 3. Button
□ <b>Bank LED</b>	1
□ <b>Port LEDs</b>	2
□ <b>On Screen Display Control</b>	Yes
□ <b>Hot Plug</b>	Yes
□ <b>Scan Intervals</b>	5~99 Sec
□ <b>Keyboard Emulation</b>	PS2
□ <b>Mouse Emulation</b>	PS2
□ <b>Monitor</b>	15" XGA 1024x768 LCD Panel
□ <b>Keyboard</b>	Cherry G84-4400
□ <b>Mouse Conversion (Console port to PC port)</b>	Console PS2 to each PC Port Serial Mouse
□ <b>VGA Resolution</b>	1024 x 768
□ <b>VGA Bandwidth</b>	200MHz
□ <b>Daisy Chain and Levels</b>	8 levels
□ <b>MAX PC Connections (Daisy Chain 8 Levels)</b>	64
□ <b>Dimension (H x W x D)</b>	88 x 440 x 508 mm
□ <b>Weight</b>	22.1Kg
□ <b>Power Adapter</b>	12V / 2.83A DC output
□ <b>Storage Temperature</b>	-20~60
<b>Monitor</b>	
□ <b>LCD panel size</b>	15.0" XGA
□ <b>Resolution</b>	1024(H) x 768(V)
□ <b>Back light</b>	Cold cathode filament tube
□ <b>View angle Left/Right</b>	75 degrees
□ <b>View angle Up/Down</b>	70 degrees
□ <b>PC VGA input</b>	Analog signal, 0.7V p-p, 75 ohms, D-sub 15-pin
□ <b>Graphics mode</b>	Follow VESA standard mode, auto-detection
□ <b>Color depth</b>	262,144 colors
□ <b>Average Luminance of White</b>	250 cd/m <sup>2</sup>
<b>Keyboard &amp; mouse</b>	
□ <b>Keyboard</b>	Cherry(G84-4400) Industrial keyboard with Trackball
□ <b>Key</b>	83 keys
<b>ORDERING INFORMATION</b>	<b>KVM-08LB (Customer model No.)</b>

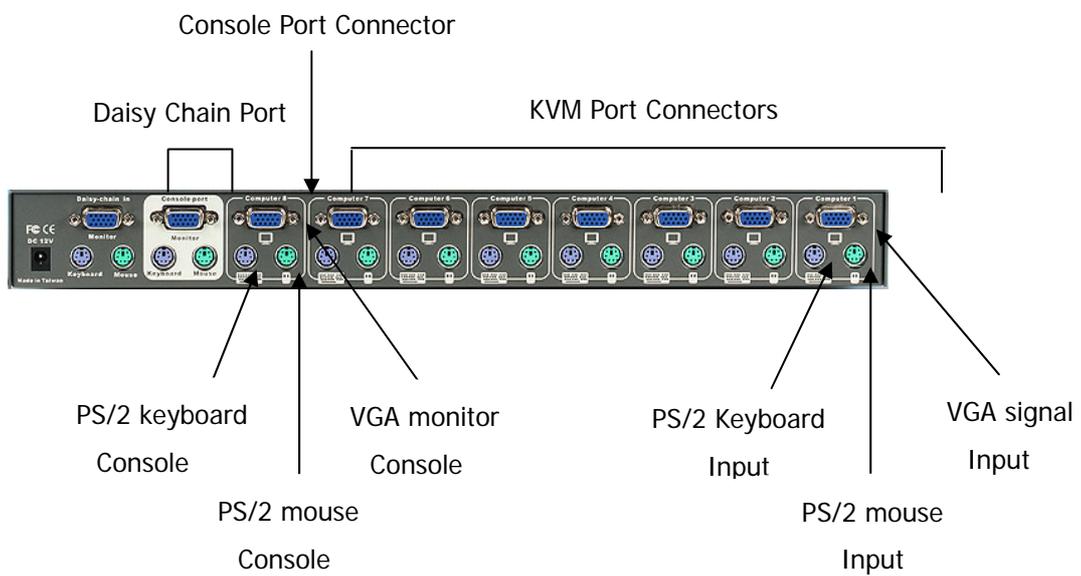
# CHAPTER 2 Installation

## 2.1 Product Details

### 2.1.1 Front View

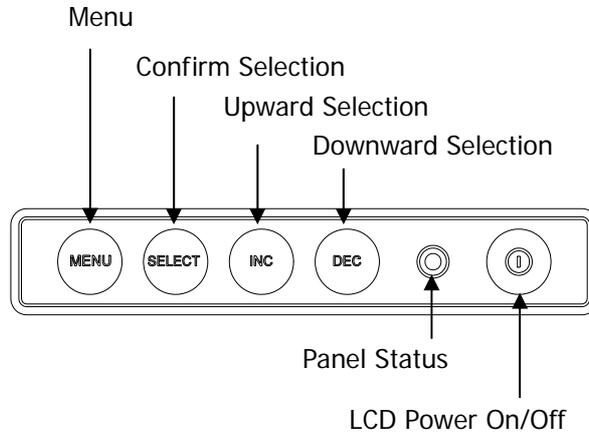


### 2.1.2 Rear View



## 2.1.3 Push Button Function

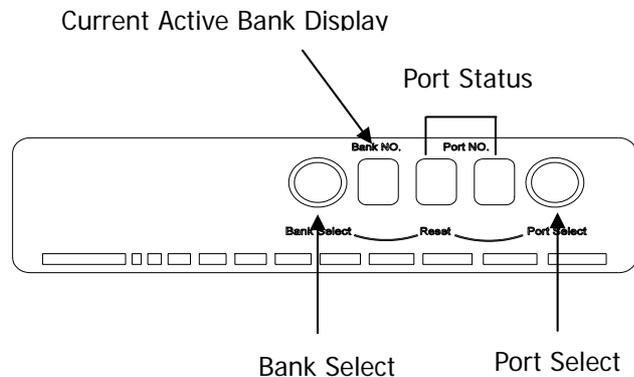
### Push Buttons of LCD Function



### Instruction

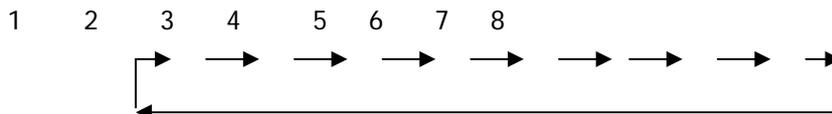
Please plug in power adapter to KVM-08LB and power on your PC, before adjusting console LCD display. Push your LCD power on switch, then you can push the menu button to see a menu display, you can depend on your enjoy pushing the upward /downward selection button to choose the brightness or adjusting the right/left of screen...etc.

### Push Buttons of KVM Function



### Instruction

Pressing the button cyclically through all the ports.



You can press the button in order like mentioned-above diagram. When you select one of eight KVM ports and this KVM is shut down or this KVM port is disconnected to the PC, the display LED of selected port will flash. When you select one of eight KVM ports and this PC is powered on, the selected port LED is lit.

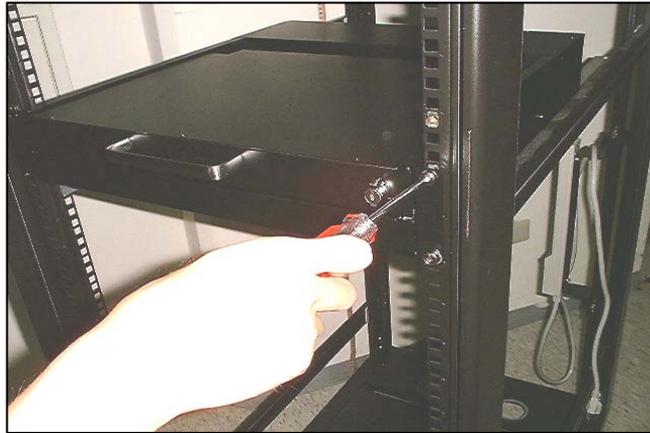
## 2.2 HARDWARE INSTALLATION

### 2.2.1 RACK INSTALLATION

Please follow the steps below closely and in the order as shown, Otherwise , it may cause the unpredictable behavior.

#### Step 1 Locking the screws up to the rack

Please put KVM-08LB into a 19" rack mount, then lock the screws up to the rack. Illustrated as below:



#### Step 2 Opening KVM-08LB by key

Please find the attached key to open KVM-08LB. Illustrated as below:



### Step 3 Pulling KVM-08LB to the end for Fixing

Pull KVM-08LB to the end and then you will hear a voice for lock .By doing so, KVM-08LB will be fixed. Illustrated as below:



#### **NOTE HOW TO SLIDE KVM-08LB BACK TO RACK**

Press two sides in front part of sliders and push KVM-08LB back at the same time. Illustrated as below:



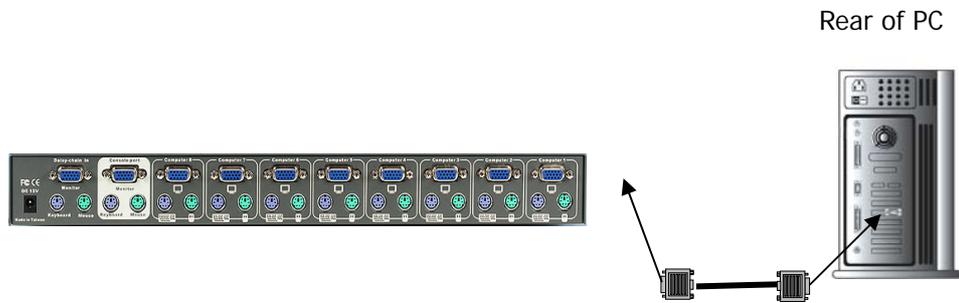
## 2.2.2 Connecting PCs

### **WARNING!**

Before attempting to connect anything to the KVM-08LB or the computers, make sure everything is powered off. Otherwise, plugging and unplugging cables may cause irreversible damage to your computers and the KVM-08LB.

### **Step 1 Connecting VGA**

Now the PC connections will be made with the monitor (VGA) connections first. Connect a VGA cable (15-pin HDDB Male / Male) with the Male side to both of the PC and the rear panel of the KVM-08LB unit to the connector labeled VGA. Repeat this for all PCs.



### **Step 2 Connecting Keyboard and Mouse**

Connect the first computer's mouse/keyboard cable to the KVM-08LB. If using a PS/2 cable, connect one end to the PS/2 mouse/keyboard port on the computer, and the other end to the PC1 PS/2 mouse/keyboard port on the rear of KVM-08LB. If using a serial mouse cable, connect one end to a DB-9 serial port on the computer, and the other end to the PC1 DB-9 serial mouse port on the rear of the KVM-08LB; If your computer has an AT type keyboard port, you will need a PS/2 to AT keyboard adapter.



### Step 3 Check Again

Double-check all of the connections. Make sure the keyboard and mouse cables go to the correct ports.

### Step 4 Connecting Other PCs

Repeat step 1 to 2 for the remainder of the computers.

### Step 5 Connecting KVM Power

Attach the power supply to the KVM-08LB unit and plug the other end into an electrical receptacle. Now you will see the LED for Port 1 light up, and you will hear a beep. Switch on your monitor.

**NOTE:**

Please be remind to plug in power adapter. If you forgot to plug in power adapter on the status of daisy chain, it may cause the unpredictable behavior or shut down the PC.

### Step 6 Turn on all PCs

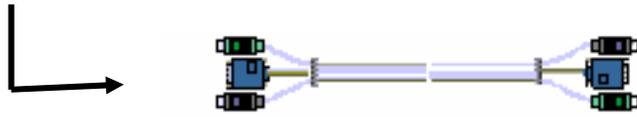
Now power up all computers simultaneously. The first computer will be shown on the monitor. You may check to see if the mouse, keyboard and monitor work after the system has booted up. If this is OK, use the "Select" button to choose the next computer and verify the functionality in the same way. If you find errors, recheck all cables for proper connections before going to the trouble shooting section of this manual.

**NOTE:**

Please don't switch the PC port (i.e. Don't press the push button of KVM switch or run hot key) while the computers are under their boot-up process. Normally, during boot-up process, each PC will communicate with the keyboard and mouse. If you switch PC ports on the KVM at this moment, it will cause communication errors or initialization failures between PC and keyboard or mouse.

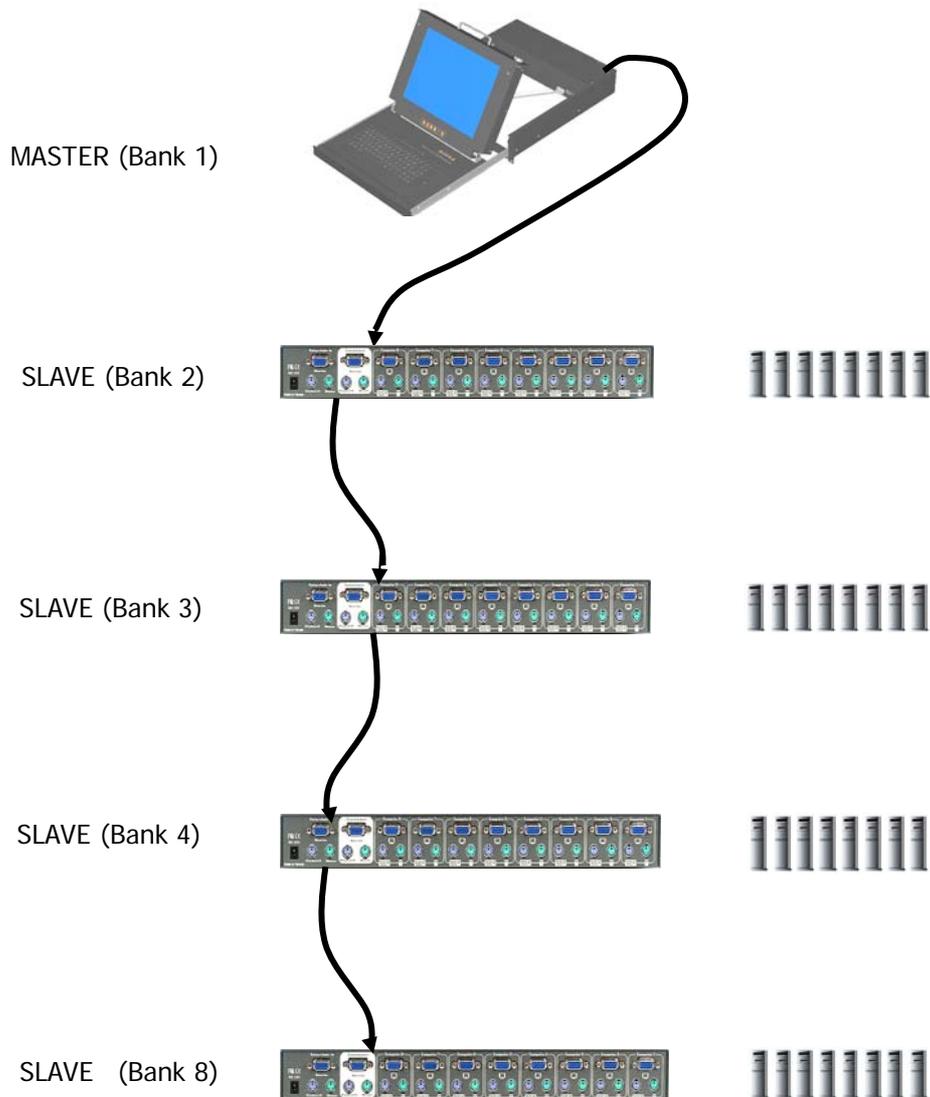
### 2.2.3 DAISY CHAIN YOUR SWITCH

A Please use the attached 3 feet 3 in 1 Kit to daisy chain the KVM, first.



B Use one end of 3-in-one Cable Kit to connect the daisy chain port of bank 1 and the other end for the console port (white color block) of bank 2 KVM switch.

C Please repeat item B to daisy chain more bank as you want. But, the maximum daisy chain bank is eight levels.



## CHAPTER 3 Console Operation

### 3.1 Password Protection

There is an administration password for locking the console display and also switching between managed PCs. It could be set via OSD. The password supports at most 8 digits, and only accept " A~Z ", " 0~ 9 ". The default password is " 00000000 ". For the security reason, please change the default password at the first time you configure the KVM switch. It is strongly recommend to write down the new password. Once the password is forgot, you will need to contact with the vendor for erasing password that has been reset.

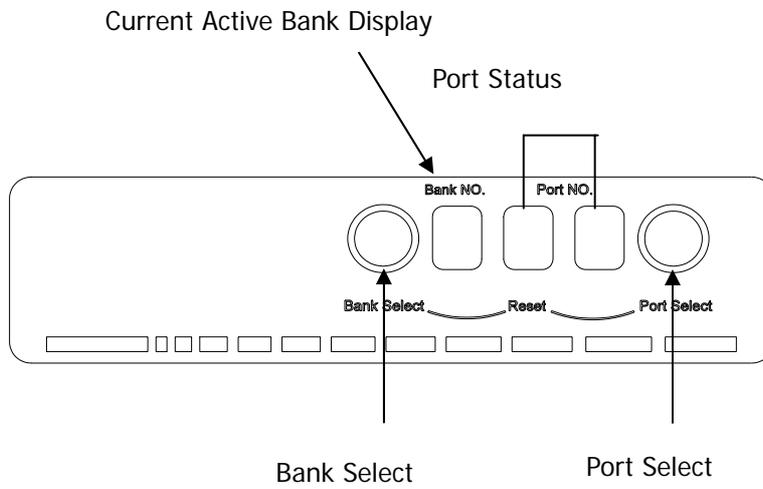
### 3.2 Hot Plug Function

KVM-08LB supports " Hot Plug " function. When mouse/keyboard connection has been changed from one port to the other, it is not necessary to reboot the managed PC to take the change in effect.

#### **Example:**

PC1 is originally connected to KVM switch port 1. When you pull out the keyboard/mouse/VGA cables from port 1 and plug them into port 2, you won't need to reboot PC1 and still can gain back the control of keyboard/mouse /VGA of PC1.

### 3.3 Selecting PC Through Push Buttons



#### Example

If you want to the third port of first bank. First, you can push once to choose Bank Select , and the Bank No will display current Active (1) Bank. Then you can push three time to Port Select ,and the Port No will display Port Status (3) Port.

### 3.4 Selecting PC Through Hot Key

You can conveniently command KVM-08LB by keyboard hot key entry. To send commands to KVM-08LB, the "SCROLL LOCK" key must be pressed twice within 2 seconds, then you will hear a beep for confirmation and the keyboard is in hot key mode. If you have not pressed any key in hot key mode within 2 seconds, the keyboard will back to under Operation System control state.

Below are the hot key commands list:

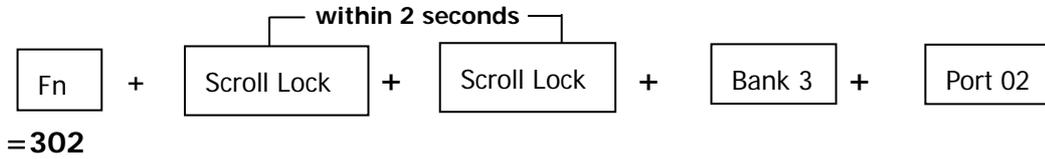
This Combination					Does This
Fn	Scroll Lock	Scroll Lock	↑	=	Previous Channel
Fn	Scroll Lock	Scroll Lock	↓	=	Next Channel (Note: You also could press "up arrow key" or "down arrow key" to speed up selecting the destination port)
Fn	Scroll Lock	Scroll Lock	Page Up	=	Previous Bank
Fn	Scroll Lock	Scroll Lock	Page Down	=	Next Bank
Fn	Scroll Lock	Scroll Lock	Bank No + Port No	=	Selection PC
Fn	Scroll Lock	Scroll Lock	B	=	Beeper (Note: The default Beeper function is ON)
Fn	Scroll Lock	Scroll Lock	S	=	Auto Scan
Fn	Scroll Lock	Scroll Lock	R	=	OSD default value (Note: 1. Rom re-flash command need take 2~3 minutes. 2.Not including password)
Fn	Scroll Lock	Scroll Lock	F	=	Search the same PC name (Note: Search PC name starting from 1 <sup>st</sup> PC port)
Fn	Scroll Lock	Scroll Lock	Space bar	=	On Screen Display Menu

**Note:**

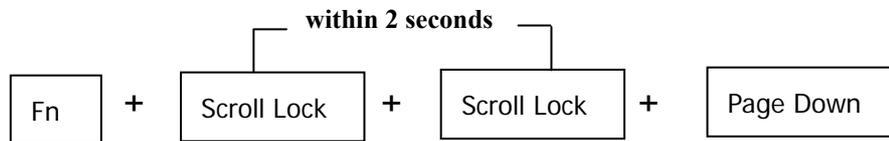
1. If you set up scan mode command already, KVM-08LB issue one beeper for confirmation every time when one of PC ports hop to next PC port.
2. To get out of Auto Scan Mode, press any key or SPACE bar.
3. Please press Fn until you already have completely your command.

## Example

1. To access a computer attached to Port 2 of the third Bank. You can press through hot key as below:



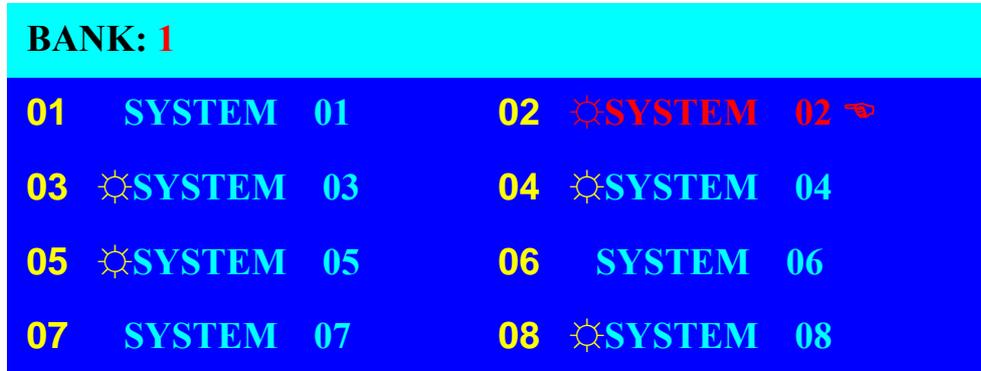
2. To access a computer attached from 1 Bank to 2 Bank, You can press through hot key as below:



**Note** You must press Fn until you already have completely your command.

### 3.5 OSD OPERATION DETAILS

When you pop up the OSD menu window go through the hot key, you will see the following small window on your monitor.



The 1<sup>ST</sup> line bar is Bank No.

The 2<sup>nd</sup> block is your KVM system name list. You will find the system number list from 01 to 08. You can define your KVM name in maximum 8 levels. The factory default of 8 port KVM switch KVM name is from "SYSTEM 01", "SYSTEM 02",..., "SYSTEM 08".

**Sun symbol “” represent that KVM port is at powered on status.**

The sun symbol “” beside the KVM name shows that PC is at powered on status.

**To use up arrow key “” or down arrow key “” to select KVM port.**

To use up arrow key “” or down arrow key “” to select port for destination KVM name. After you have selected the KVM port already, you can press the ENTER Key to switch the KVM port you want immediately.

**To use “PgUp” or “PgDn” key for selecting previous or next Bank No.**

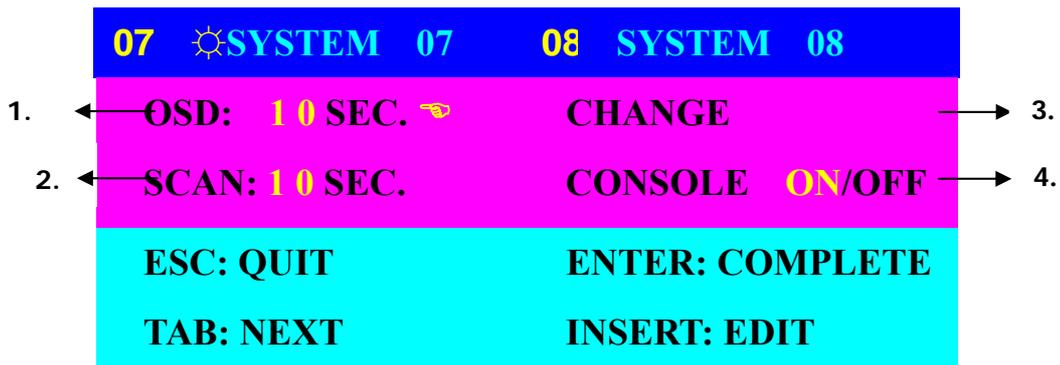
To use “PgUp” key or “PgDn” key for selecting previous or next Bank no. (or Box No.)

**To press “Insert” key for editing PC name.**

To press “INS” key for editing PC name. When editing is finished, press the “Enter” key to save the information.

**To press “Tab” key to select Bank, OSD, Scan...ect.**

To use “Tab” key to select items like Bank, OSD, SCAN, CHANGE PASSWORD, CONSOLE ON/OFF, etc...



1. The "OSD: 10 SEC" means that the OSD windows display or KVM system name exists 10 sec. on your monitor. You can modify it from 05 sec to 99 sec. The factory default value is 10 sec.
2. "SCAN " is the scan interval between one KVM port hopped with the next KVM port. The default SCAN time is 10 sec and the maximum scan time is 99 sec.
3. "CHANGE PASSWORD" allows the user to change the password used to access all PC systems connected. The default password is 8 digits " 00000000".
4. "CONSOLE ON/OFF" lets you select the console access of the KVM switch. If you select "CONSOLE ON", any user can use the console. If you select "CONSOLE OFF"(factory default is OFF state), a password must be entered to use the console. When you enter the password and pass the KVM switch authentication, the CONSOLE will be set to ON. After you finish using the KVM switch, please do not forget to set the CONSOLE ON state to OFF for password authentication. ( Note: If you reset the KVM switch, or there is a power failure, the CONSOLE will be set at the OFF state. )
5. When you finish the set up of PC name and get out of OSD setting mode, you will find the PC name showed at the up-left corner of monitor. Now you can use ESC key to clear the message right away if you don't need it.

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6. If you want OSD returning back to factory default value, you can execute "SCROLL LOCK", "SCROLL LOCK", "R" keys in order. The Display LEDs on the front panel will be flashed during the refresh process.

## ROM REFLASH

When the OSD value back to default setting, the Display LEDs on the front panel will stop flashing

## CHAPTER 4 Troubleshooting

### General Problems

**Q: The OSD menu does not display a “☀” on a channel where a computer is connected and powered up. What do I do?**

**A:** KVM-08LB will updated “☀” every 2 seconds. Using hot key to access the OSD menu again and it should have re-detected all the active channels.

**Q: When cascading the MASTER unit does not see the slave unit(s).**

**A:**

- Refer to the Installation section for information on how to properly connect the daisy-chain cable.
- Make sure the daisy-chain cable that you are using is right. Using any other cable will not guarantee proper operation or video quality.
- Reset the all slave unit first and then reset master unit to get the lost slave unit.
- Although a power supply is not necessary to make the slave unit work, try adding a power supply.

### Monitor / Video Problems

**Q: I am getting ghosting shadowing or fuzzy images on my monitor. What do I do?**

**A:**

- Check the cables and make sure they are inserted properly.
- Your resolution and / or refresh rate is extremely high, or your cable is too long. Replace your VGA cables with coaxial, double-shielded cables.
- Check to make sure that the power adapter is plugged in and is working properly. Make sure the power switch is on.
- Lower your refresh rate and / or screen resolution settings.

### Problem with power switch and power adapter

**Q:** The power switch is off, but the switch still works fine or power adapter is unplugged from the switch, but the switch still works fine ?

**A:** KVM-08LB draws the power source from power adapter and PC's PS2 port. Some PC's PS2 port can support enough power for the switch, but some PC's PS2 port ( like laptop, notebook computer...etc.) is unable to supply enough power for the switch. In order to make sure the system can work steadily, please do not set power switch to off state or remove the power adapter from the switch.

Although the PCs connected to KVM-08LB are able to support enough power to the stand alone switch, KVM-08LB still needs a power adapter for daisy chain more banks.