

# ***Slim KVM Solution***

**1U** Keyboard / Monitor + 8 Ports / 42 Ports



## ***SMK 580***

### ***USER'S MANUAL***

Rev 1.1

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## **Specification:**

Size:	1U 19" RACKMOUNT Type
Keyboard:	Mechanical type ,108 Keys
Mouse:	Touchpad
Dimension:	442.4 x 44 x 550 mm (W X H X D)
Weight:	15 kg
Power Supply:	AC 100/240V auto switch or DC +48V
Protection:	Rail with self-locking device
AUTO POWER SWITCH	LCD back-light will be turned-off when the screen set is turned down
Operating Temperature:	0-50°C (32-122°F)

## **Display:**

Diagonal Size:	<b>17"</b>
Resolution:	1024 x 768
Contrast Ratio:	350:1
Brightness:	250 NTS
Frequency:	60Hz
Color: Native	16.7M colors
Control:	OSD

## **Accessories:**

Extension Bracket	x 2
Power Cord	x 1
D-Sub 15 VGA-PS/2 Cable (3 in 1)	x 1
Screws package	x 1
User Manual	x 1

## Introduction

Thank you for purchasing SMK-580. SMK-580 can save your MONEY, TIME, SPACE, EQUIPMENT and POWER.

Controlling multiple PCs from One Keyboard, Mouse and VGA Monitor. SMK-580 is loaded with features such as 19" Rack Mount Size, Daisy Chain up to eight units, On Screen Display Menu, Password security, Searching PC server name, Hot key Control, Front Panel Push Button and Auto Scan Control. It has complete keyboard and mouse emulation for simultaneous PCs boot-up process.

## Features

- 8-port KVM switch for standard 19" rack mount design.
- Support DOS, Win3.X, Win95/98/98SE/2000/ME/XP, WinNT, Netware, SCO Unix, HP Unix, Linux
- Hot Plug - Add PCs or Remove Connected PCs for Maintenance without Powering down the SMK-580 or PCs.
- High Video Quality - Up To 1024x768, Bandwidth: 200MHz
- No Software Required - easy PC selection via On Screen Display Manual, Push Buttons, Hot Keys
- Support eight characters password protection and search PC server name
- Auto Scan Mode for monitoring PCs and flexible Scan time from 5~99 seconds
- Keyboard status restored when switching PCs
- LED Display for easy status monitoring
- Buzzer sound for switching port confirmation.
- Compatible with standard PS/2 Keyboard, PS/2 Mouse, and VGA.
- Built-in one extra daisy chain port and no waste any PC port
- No DIP switch setting needed and auto detect daisy chain bank

## Package Contents

### Model No.: SMK-580

SMK-580	1 PCS
User's manual	1 PCS
AC to DC Power Adapter	1 PCS
Rack Mount Kit	1 SET
Daisy Chain Cable	1 SET

## Technical Specifications

Model No.	SMK-580
PC Port	8
Console Port	1
PC Port Connector (All Female Type)	PS/2 Keyboard mini Din 6 pin PS/2 Mouse Mini Din 6 pin VGA HDDB 15pin
Daisy Chain Port Connector (All Female Type)	PS/2 Keyboard mini Din 6 pin PS/2 Mouse Mini Din 6 pin VGA HDDB 15pin
PC selection	On Screen Display Menu, Hot Key, Push Button
7 segment LED	One Bank LED, Two PC Port LEDs
On Screen Display Control	Yes
Scan Intervals	5~99 Sec.
Keyboard Emulation	PS2
Mouse Emulation	PS2
VGA Resolution	1024x768
Bandwidth	200MHz
Daisy Chain MAX Level	8 levels
MAX PC Connection	120
Housing	Metal
Power	110/220 AC
Operation Temperature	0~40°C
Storage Temperature	-20 ~ 60°C
Humidity	0~90%, Non-Condensing
Size	19" Rack Mount / 1U
Weight (kg)	33lb
Dimension (cm)	23"(L) X 19(W) X 1U(H)

## System Requirements

### Specifications:

Model No.	SMK-580
Console	Built-in VGA Monitor Built-in PS/2 Keyboard Built-in PS/2 Touchpad
To Computers	8 HDB 15 pin male to male VGA cables 8 PS/2 cables male to male for Keyboard 8 PS/2 cables male to male for Mouse

## Connector Diagrams

### PS/2 Cable:

Mini Din 6 pin Male to Male



### VGA Cable:

HDB15 pin Male to Male



### AT to PS/2 keyboard adapter: (Optional)

Din 5 pin Male to Mini Din 6 pin Female



### PS2 to DB9 adapter (Optional)

Mini Din 6 pin Female to DB 9 pin Female



# Hardware Installation

Before installation, please make sure all of peripherals and computers have been turned off.

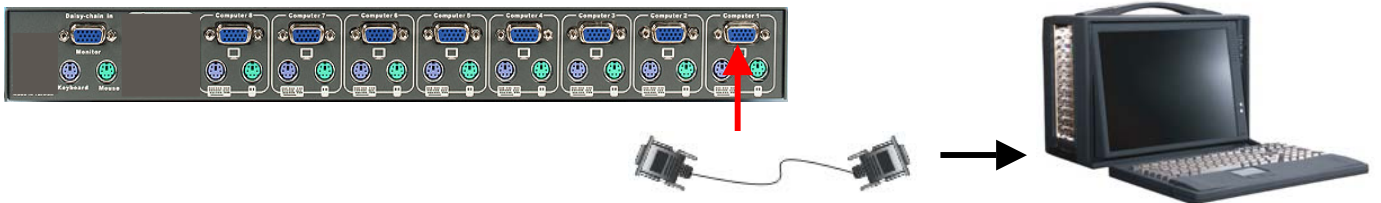
## Step 1

Find a convenient place to put your SMK-580. When mounting to a rack, attach the included brackets to the sides of the SMK-580. Take note of the length of your cables so that your computers keyboard, mouse and monitor are distanced properly.



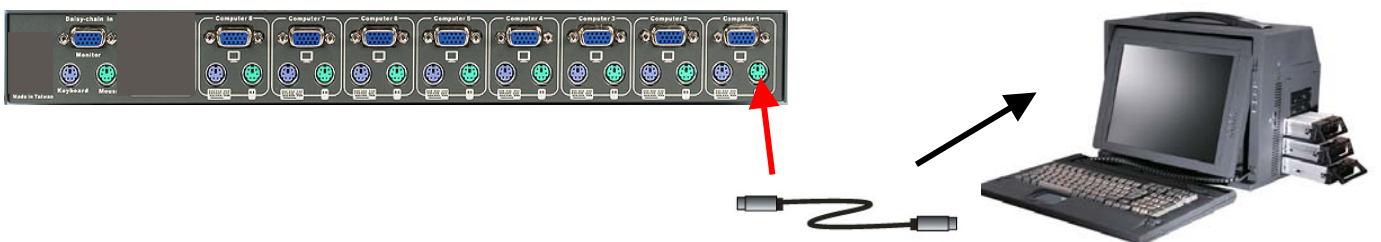
## Step 2

Now the PC connections can 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 switch to the connector labeled VGA. Repeat this for all PCs.



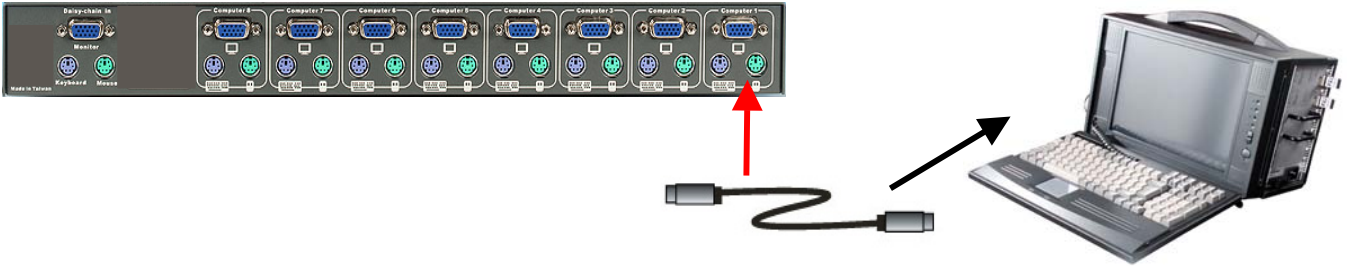
## Step 3

Connect the first computer's mouse cable to the SMK-580. If using a PS/2 cable, connect one end to the PS/2 mouse port on the computer, and the other end to the PC1 PS/2 mouse port on the back of SMK-580. If using a serial mouse cable (optional), 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 back of the SMK-580. If you need Serial DB-9 to PS2 Mini Din 6 pin adapter, please contact your supplier.



#### Step 4

Connect the first computer's keyboard cable to the KVM Switch. Using another PS/2 cable connect one end to PS/2 keyboard port on the computer, and the other end to the PC1 keyboard port on the back of SMK-580. If your computer has an AT type keyboard port, you will need a PS/2 to AT keyboard adapter.



#### Step 5

Double-check all of the connections. You can check the color of keyboard and mouse connector to make sure the keyboard and mouse cables go to the correct ports.

#### Step 6

Repeat step 2 to 5 for the remainder of the computers.

#### Step 7

Attach the power supply to the SMK-580 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.

## Usage

### The power on state of 8-port SMK-580:

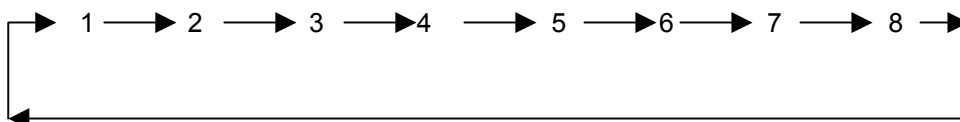
When you power on the SMK-580, it will ask you for the password, **the default password value is eight zero –“ 00000000 “**. Please key in eight zero and enter the same value at retype field.

**Note:** If you are not familiar with the operation of OSD menu, please don't change the password – i.e. keep default eight zero (00000000) value. Otherwise, if you have set the password and unfortunately forget the password, you need send it back to your distributor for maintaining the password.

### 7-Segment LED Indication :

When you select one of eight PC ports and this PC is shut down or this PC port is disconnected to the PC, the selected port LED will flash. When you select one of eight PCs ports and this PC is powered on, the selected port LED is lit.

SMK-580

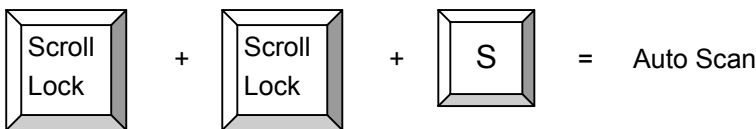
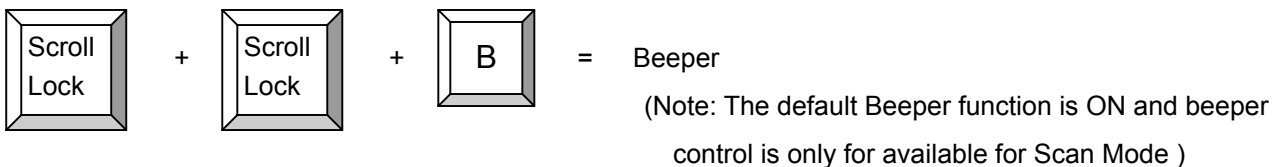
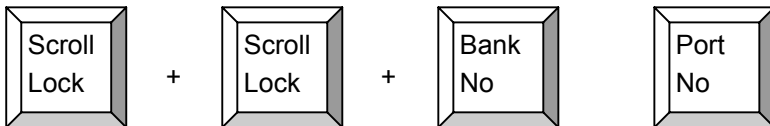
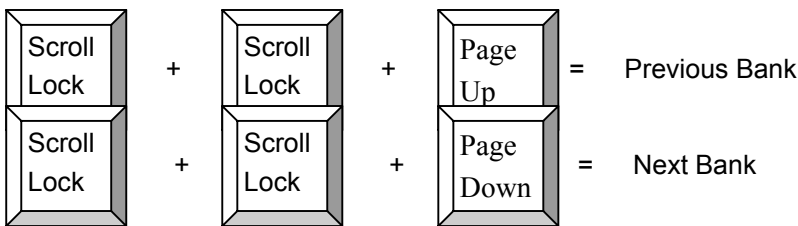
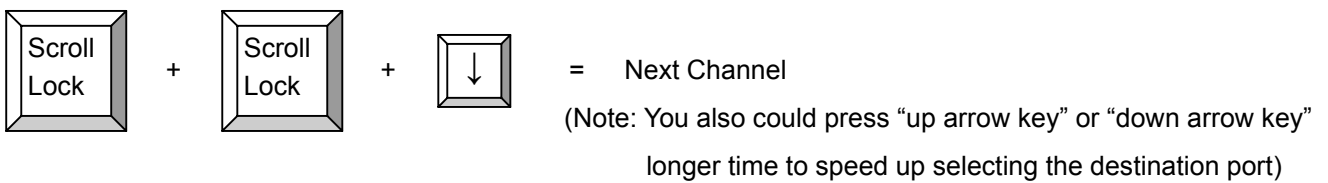
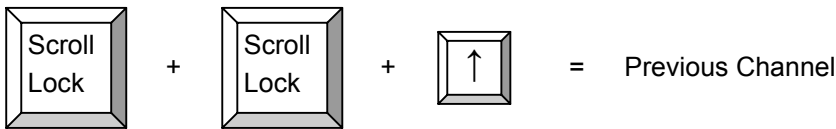


**Keyboard Hot Key Commands:**

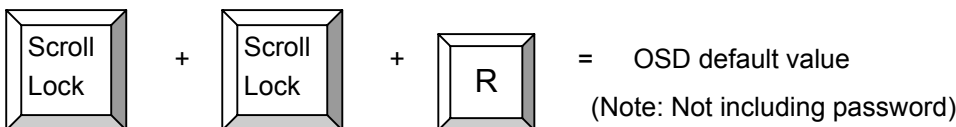
You can also conveniently command SMK-580 by switching ports through simple key sequences. To send commands to the SMK-580, the **“SCROLL LOCK” key must be pressed twice within 2 seconds**. You will hear a beep for confirmation and the keyboard is in hot key mode. If you have not pressed any key in hot key mode within 2 seconds, the keyboard will go back to normal Operation System control state.

**Below are the different hot key commands:**

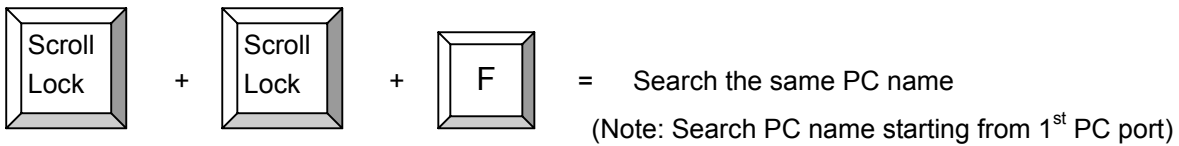
↔ within 2 seconds ↔



To get out of Auto Scan Mode, Press any key or SPACE bar.



**ROM REFLASH**



**Example :**

A. To access a computer attached to Port 6 of the fifth Bank. You can press through hot key as below:

Scroll lock + Scroll lock + "5" + "0" " 6"

B. To access a computer attached from Bank 3 to Bank 4, You can press through hot key as below:

Scroll lock + Scroll lock + Page Down

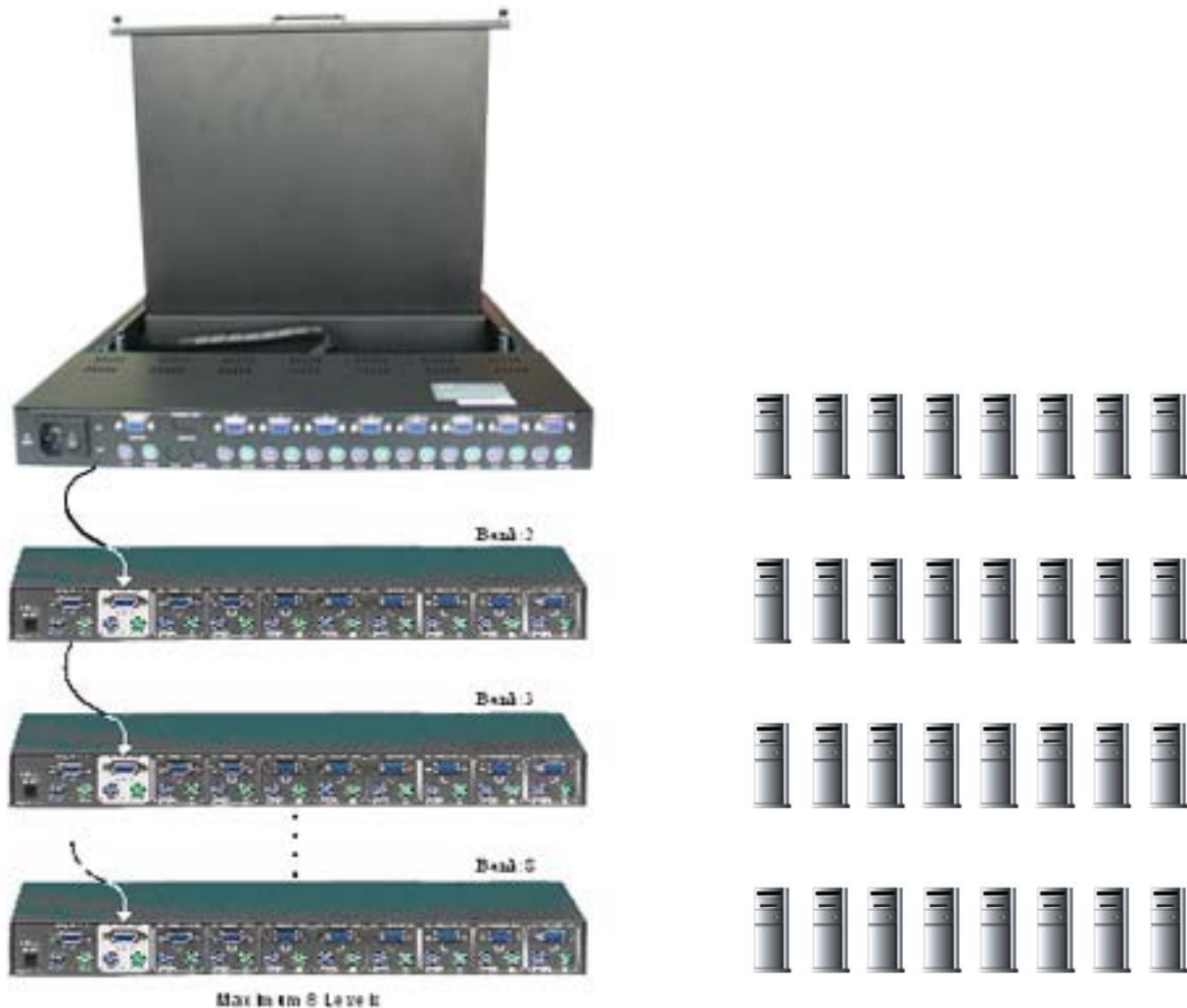
**Note:**

Bank no. and Port no. selection must be made using the numeric keys on the keyboard. Numeric keys on the keypad are not available as a hot key command.

## Daisy Chain Connection Diagram

**Please use the attached 3 feet 3-in-one daisy chain Cable Kit to daisy chain the SMK-580.**

- A. Connect Keyboard, Mouse and Monitor to the console port (white color block) of bank 1 SMK-580.
- 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 SMK-580.
- C. Please repeat item B to daisy chain more bank as you want. But, the maximum daisy chain bank is eight.
- D. Before chaining the slave bank up to six banks, you need a VGA extender (Model No. VGA-100, Max. 100 feet ) between the fifth bank and the sixth bank to enhance the VGA signal.



## Hot Plug

The SMK-580 supports “Hot Plug“ function for easy addition or removal of PCs. The user can arrange or maintain PCs as follows:

- A PC can be disconnected and reconnected to the same or different port of the SMK-580 unit without having to power it off as long as it is not the Daisy-chain port or pass through port.
- You may unplug the mouse or the keyboard from the console port and plug it back in at any time.

### NOTE:

Some O.S. (Operation Systems) like SCO Unix are unable to support “ Hot Plug ” function. If you apply “Hot Plug” to this kind of O.S., it will cause unpredictable behavior or shut down the PC. Before attempting to use “ Hot Plug ” , please make sure your O.S. and software driver supports the “Hot Plug” function.

## On Screen Display Operation

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

<b>BANK : 1</b>			
<b>01</b>	<b>SYSTEM</b>	<b>01</b>	<b>02</b> ☀ <b>SYSTEM</b> <b>02</b> 🐛
<b>03</b> ☀	<b>SYSTEM</b>	<b>03</b>	<b>04</b> ☀ <b>SYSTEM</b> <b>04</b>
<b>05</b> ☀	<b>SYSTEM</b>	<b>05</b>	<b>06</b> <b>SYSTEM</b> <b>06</b>
<b>07</b>	<b>SYSTEM</b>	<b>07</b>	<b>08</b> ☀ <b>SYSTEM</b> <b>08</b>

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

b. The 2<sup>nd</sup> block is your PC system name list. You will find the system number list from 01 to 8. You can define your PC name in maximum 8 characters. The factory default names for all ports is "SYSTEM 01", to "SYSTEM 08". Besides, the sun symbol "☀" near to the PC name represents the PC system is powered on.

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

↑/↓: SELECT PORT

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

PgDn/PgUp: BANK SELECT

To press "INS" key for editing PC name. After finishing the edit, please press "Enter" key for saving information.

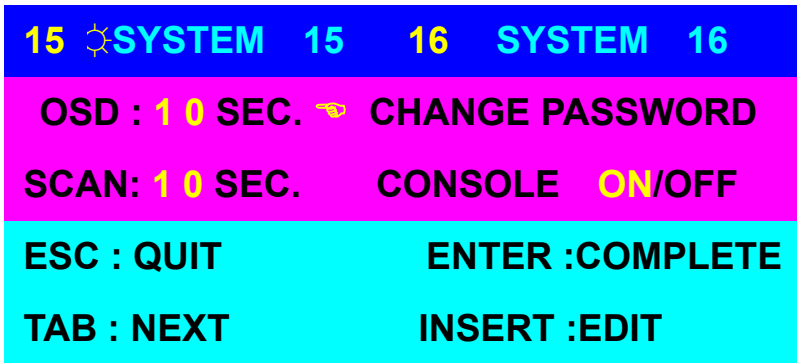
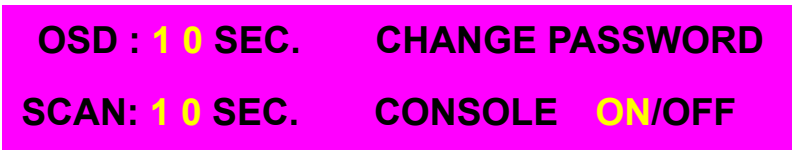
ESC : QUIT

ENTER : COMPLETE

TAB : NEXT

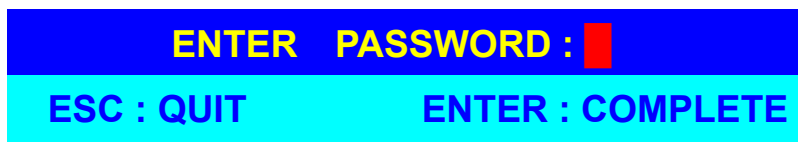
INSERT : EDIT

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

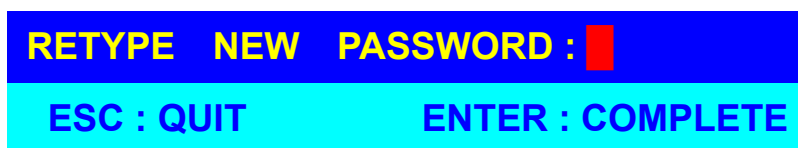
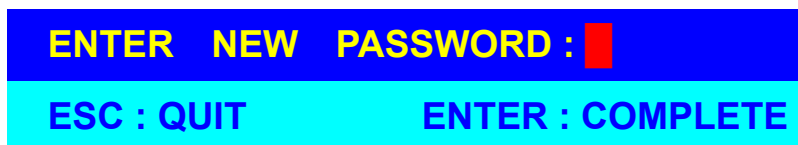


a. The “ OSD: 10 SEC” means that the OSD windows display or PC system name exists 10 sec. on your monitor. You can modify it from 05 sec to 99 sec. The factory default value is 10 sec..

- b. The “ SCAN TIME” means that scan interval from one PC port to next PC port. The default SCAN time is 10 sec and the maximum scan time is 99 sec.
- c. The “ CHANGE PASSWORD” is for user to avoid all PC systems to be intruded by the other person. The default password is 8 digits “ 00000000 “.



There is an enter password window showed out when you select this item and then press the Enter. The maximum password is eight digits. After you key in the password already and press the Enter key, there is another window for confirming your typed password.



You need to retype the password again for rechecking your previous key-in password is matched or not.



- d. The “ CONSOLE ON/OFF “ means to manage the SMK-580. If you select “ CONSOLE ON “, it means that any user can use the console. If you select “ CONSOLE OFF “(factory default OFF state), it means that any user will not be allowed to use the console unless you enter the password. When you enter the password already and pass the SMK-580 authentication, the CONSOLE will be set to ON. After you finish using SMK-580, please don’t forget to set CONSOLE ON state to OFF state. Besides, if current CONSOLE is ON state and you reset SMK-580, the CONSOLE will be set from ON state back to OFF state.
- e. When you finish the setting up of PC name and exiting the 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.



- f. If you want OSD returning back to factory default value, you can execute “SCROLL LOCK”, “SCROLL LOCK”, “R” keys in this order. The Seven segment LEDs on the front panel will be flashed during the refresh process.



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

## Troubleshooting

1. Ensure that all cables are well seated. Label all of cables with the number for each respective computer to avoid confusion.
2. The recommended VGA cable distance is 5 meters maximum without ghosting and degradation. Normally, the cable length is based on driver capacity of your VGA card. If you need longer VGA cable, please use VGA extender to accomplish your applications.
3. The recommended PS2 cable distance is 5 meters maximum. Normally, the cable length is based on driver capacity of your motherboard PS2 port. If you need longer PS2 cable, please use PS2 extender to accomplish your applications.

4. Don't press any keys on the keyboard while the selected computer is booting up. Otherwise, it might cause the keyboard error or keyboard is not detected at PC side.
5. The computer boot up fine, but keyboard doesn't work
  - Make sure the keyboard port works on the computer.
  - Try a independent keyboard with the computer
6. The Mouse is not detected during PC boot up.
  - Make sure the mouse port works on the computer.
  - Try a independent mouse with the computer.
  - Avoiding moving the mouse or pressing the mouse buttons when switching ports.
  - Avoiding switching ports during shutting down the PC process.
  - When you switch one PC port to another PC port, the best scan time setting need to be set at 5 sec. or more. Normally, the VGA monitor change one resolution mode to another will take a few seconds.
7. If forgetting the " password " you typed, please contact your supplier.

## **Compliance**

### **FCC**

This equipment has been tested and found to comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference
- (2) This device must accept any interference received. Including interference that may cause undesired operation.

### **CE**

This equipment is in compliance with the requirements of the following regulations: EN 55 022: CLASS B

