8/16-Port PS/2 KVM Switch

KV-P00801
KV-P01601

User Manual

◄ V1.0 ►

www.green-box.com.tw

Certifications

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 55022: CLASS B

RoHS

All contents of this package, including products, packing materials and documentation comply with RoHS.

Contents

1. Product introduction

This PS/2 KVM (Keyboard, Video and Mouse) Switch allows multiple computers (PCs or servers) controlled by one set of keyboard, monitor and mouse. It ensures easy switch by front panel button, Hot-keys or the friendly On Screen Display (OSD) menu with connection up to 128 computers (by chaining 16-port PS/2 KVMs). Not only naming for each computer can be done for easy identification, it also protects access by passwords. Additionally with the Auto Scan function it helps you managing all connecting systems at ease.

■ Why use a PS/2 KVM Switch?
— Saves money, time, spaces and energy

1. Saves money – With only one set of keyboard, monitor and mouse you can manage multiple systems. This greatly reduces the cost of implementing hardware for each computer and system administrator to handle the installation.
2. Saves time – Completely centralized control to save your time traveling between every computer.
3. Saves space – As only one set of keyboard, monitor and mouse is required to manage all computers, no need to worry about extra spaces for each system. You may utilize the space for future use.
4. Saves energy – As number of keyboard, monitor and mouse is greatly reduced, the electricity burden caused by each hardware is also reduced..

■ Who should use the PS/2 KVM?
Anyone who owns two or more computers, who wishes to reduce cost and control her system efficiently, PS/2 KVM can be the best solution. Following list is some of the example where PS/2 KVM can be implemented.
1. SOHO, small to medium offices
2. Organization's server management centre
3. Hardware/software experiment and system coalition
4. PC production quality test
5. Industrial rack application
6. Customer's service centre
7. ISP (Internet Service Provider),ASP (Application Service Provider, IDC(Internet Data Center).. etc. Global information system centre.

2. Product Feature

- Software free, easy installation, fully plug-and-play design.
- Compatible with typical PS/2 computers, monitors and keyboards. Supports IntelliMouse, IntelliMouse Explorer, and Logitech Net Mouse... etc.
- Compatible using DOS, Win3.x, Win95/98/98SE/2000/ME/XP/Vista, WinNT, Netware, HP Unix, Linux...etc.
- If keyboard or mouse is using USB interface, please implement USB to PS/2 converter.
- Supports Hot plug-and-play (if computer and operation system also supports this feature)
- Supports high resolution video at 1920 x 1440, with DDC2 monitor compatibility.
- Auto Scan function scans for all connecting computer at intervals between 5~255 seconds.
- Use power adaptor to provide electricity.
- Front panel channel selection button and indication lights.
- By daisy-chaining it can connect up to 64 computers (for all 8-port PS/2 KVM connection) or 128 computers (for all 16-port PS/2 KVM connection)
- Separate naming for each computer for easy identification.
- Provide password protection and operation level restriction.
- 19″ rack mount kit for easy rack installation
- Has CE, FCC and C-Tick Certifications
- Exclusive port for daisy-chain connection
- Firmware upgrade facility through RS-232 interface
- Dual power input- When primary power connection fails, secondary power automatically initiates to prevent unwanted device shutdown.

3. Specifications

Model No.	8PORT KVM	16PORT KVM
Computer port	8	16
Console Port	1	1
Firmware Upgrade Port	1	1
Daisy Chain Port	1	1
Computer Port Connector (All Female Type)	HDDB 15-pin	
Console Port Connector (All Female Type)	PS/2 Keyboard mini Din 6-pin PS/2 Mouse Mini Din 6-pin Monitor VGA HDDB 15-pin	
Firmware Upgrade Port Connector (Male type)	RS-232 DB 9-pin	
Daisy Chain Port (All Female Type)	PS/2 Keyboard Mini Din 6-pin PS/2 Mouse Mini Din 6-pin Monitor VGA HDDB 15-pin	
PC Port Select Method	Hot-Key Push Button OSD Menu	
Port indication	3 digits One digit indicates Bank Two digits indicates active computer ports	
Computer port LED	Online indication and Power on indication for each computer port.	
SCAN LED	1	
OSD Menu	Yes	
Auto Scan Interval	5 ~ 255 seconds	
Keyboard Emulation	PS/2	
Mouse Emulation	PS/2	

Firmware Upgrade Port	RS-232	
Monitor resolution	1920X1440 /60Hz	
DDC version	DDC2	
Daisy Chain MAX Level	8 levels maximum	
Maximum connected computers	120	128
Housing	Metal 19″ 1RU (Rack Mount Unit)	Metal 19″ 1RU (Rack Mount Unit)
Power adaptor	Dual Power Input) DC 5V/1A *1 DC5V/1A* 1 (Redundancy)	
Operating Temperature	0 ~ 70°C	
Storage Temperature	-20 ~ 85°C	
Weight (gram)	1450g	1950g
Size (mm)	(420)X(130)X(44)	(420)X(130)X(44)

4. Hardware Installation

Prior to installation please switch off all computer and peripherals. Following guide is using 8-port PS/2 KVM as example. Please note 16-port PS/2 KVM has similar hardware installation.

Step 1
Please open the package carefully and take out all required accessories to prepare fluent installation. The size of device is 19″. For installation on rack please install the rack-mount kit. Please measure the suitable distance between PS/2 KVM and computer, keyboard, monitor and mouse before installation.

Step 2
Plug power adaptor into PS/2 KVM and power socket. You will hear one beep and port-1 red LED Constant lids.
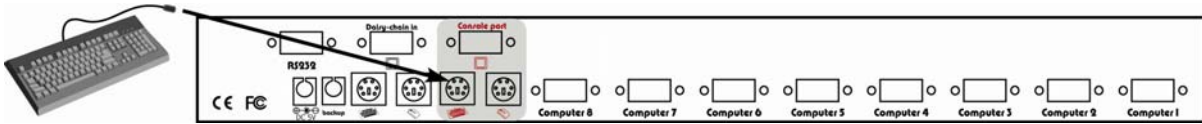
Step 3
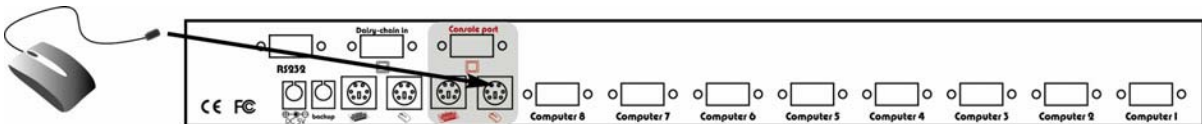Please connect HDDB 15-pin blue connector on monitor to console port on PS/2 KVM as illustrated below:
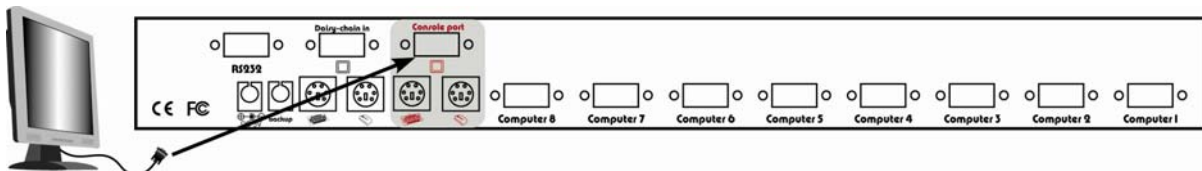
Step 4

Please connect PS/2 Mini Din 6-pins purple connector on keyboard to console port on PS/2 KVM as illustrated below:

Step 5

Please connect PS/2 Mini Din 6-pins green connector on mouse to console port on PS/2 KVM as illustrated below:

Step 6

Please use KVM cable to connect computer and PS/2 KVM. Plug the end with only one HDDB 15-pin to PS/2 KVM computer port, and the other end of the cable with HDDB 15-pin and two PS/2 Mini Din 6-pin to back of computer. Please use the above method to connect every computer to PS/2 KVM.

★ **NOTE:** One end of this cable only has one HDDB 15-pin connector, the other end has three connectors- one HDDB 15-pin and two PS/2 Mini Din 6-pin.
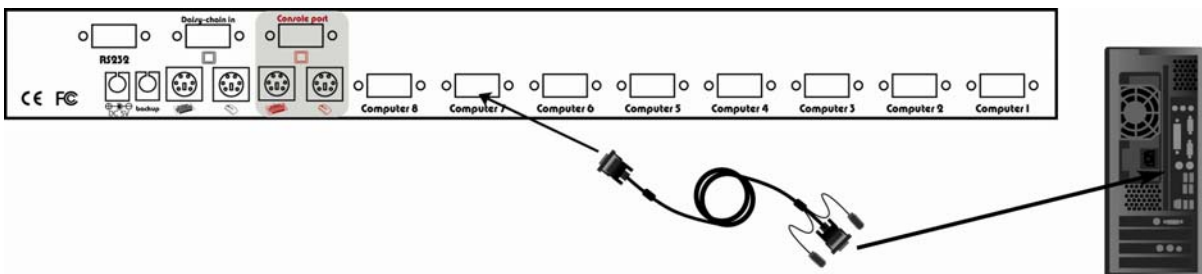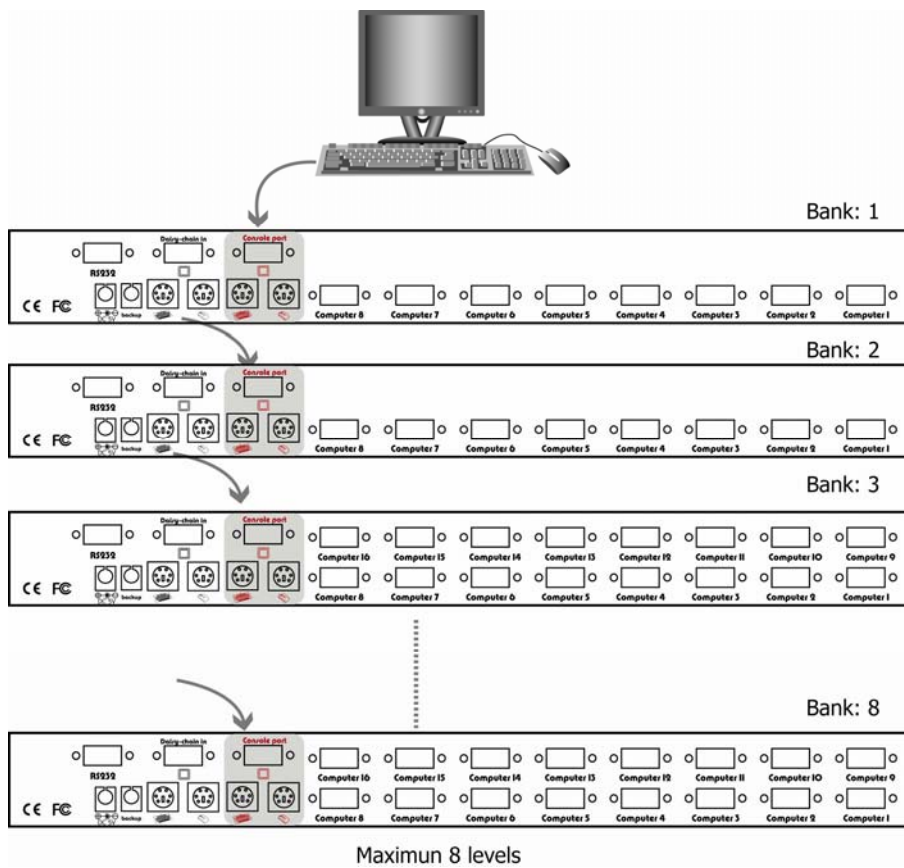
Step 7

When above cable installation is complete, please re-check all cable is securely fastened at correct socket. Recommend attach label for identification.

Step 8 Daisy Chain (optional)

If daisy chaining is needed please use the daisy chain cable included with package.

★ **NOTE:** Please do not use other type of cable for daisy chaining PS/2 KVMs.

# 5. Operation & Usage

5.1 Set Password

At factory default the PS/2 KVM will not ask for password unless it is set by user. You may press "**Scroll Lock**" twice followed by "**F2**" to bring up password setting menu.

★ **NOTE :** Before you are familiarized with this device, it is strongly recommended to use without password. If password is forgotten, please send PS/2 KVM to your distributor for factory reset.

5.2 Activate OSD

To switch port, you may enter OSD menu to select port, or, use Hot-Key to perform switching. To bring up OSD menu, please press "**Scroll Lock**" twice to activate OSD Main Menu as illustrated below**<fig.1>.**

OSD Main Menu
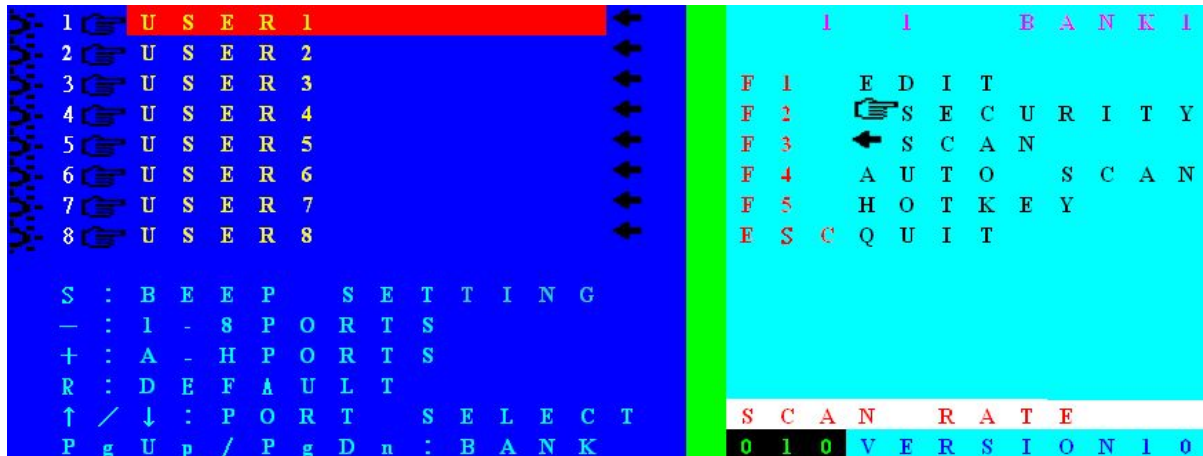
5.3 OSD Main Screen Headings

∑-	indicates the computer is powered on at selected port
☞	indicates the computer attached at this port has password protected. All ports at factory default do not have password assigned, therefore no icon present
USER1~8	Port name of corresponding port number. USER 1~8 illustrated as factory default setting.
←	indicates the PC port is set for Auto Scan Mode. At factory default all PC port is active for Auto Scan.
S	Every time switching is made PS/2 KVM beeps for notification. Please press Scroll Lock twice followed by "S" to turn beeper on or off
–	to select 1~8 computer Ports (1~8 PC Port)
+	to select A~H computer port (9~16 PC Port)
R	to set factory default. (★**NOTE:** password will not be erased after this operation)
↑	Select computer at previous port
↓	Select computer at next port
PgUp	Select previous bank
PgDn	Select next bank
1 1	Left hand side "1" indicates current active port, right hand side "1" indicates current active bank.
F1	Edit computer name
F2	Password setting
F3	Select scan port
F4	Auto scan mode
F5	Hot key setting
ESC	Exit OSD
SCAN RATE	Scan rate
VERSION	Firmware version

5.4 OSD Status Indication

Use right hand side of OSD commands for adjust settings
Function keys: **F1, F2, F3, F4, F5, ESC and → left arrow key**
- First row on right hand window – "1   1   Bank1" : indicates currently PS/2 KVM active at Bank 1, computer port 1.
- SCAN RATE set at 10 second
- Firmware version now at version 1.0

5.5 Edit Computer Name

F1 Edit computer name (EDIT)
On the OSD menu, please press F1 to edit PC port name as illustrated below <fig.2>.

Now please use the secondary function key to **F1(SAVE), F2(ERASE), or ESC(QUIT)**

- ➤ Edit the desirable name at cursor position, maximum 12 characters.
- ➤ F1- Save port name settings and brings back to OSD main menu
- ➤ F2- Erase all texts. To erase individual character, please use Backspace (←)
- ➤ ESC to exit EDIT menu

Edit PC port name menu
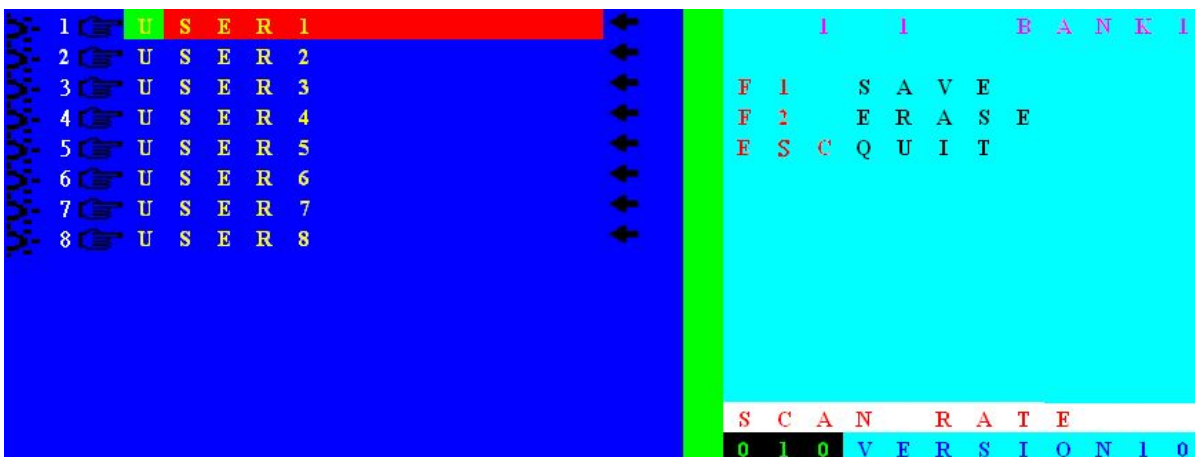
5.6 Set Password

F2- Password setting (SECURITY)

Press F2 at OSD main menu to activate password setting (☞ SECURITY).
Password setting menu for "PORT USER" pops up as illustrated below <fig.3>.
In this screen you may use the secondary OSD function keys:
F1(SUPERUSER), ESC(QUIT), ENTER(Complete).

> **F1**- To set password please press F1(SUPERUSER) to set SUPERUSER
> password <fig.5>

No password for SUPERUSER is set at factory default. Please enter password of
maximum 8 characters. To remove SUPERUSER password, press ENTER at
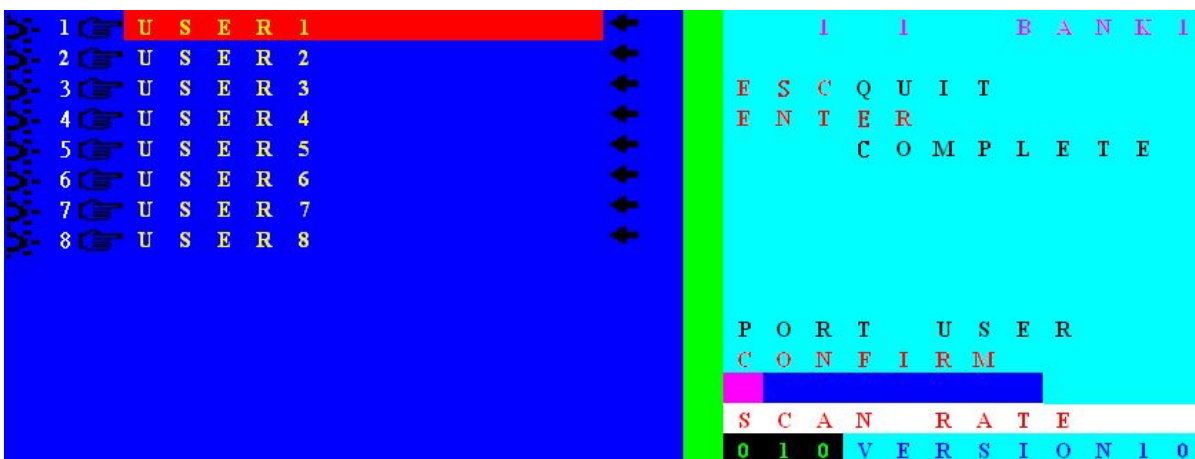"New Password" field.

> **ENTER**- Press ENTER to complete settings
> **ESC**- When setting is finished, press ESC return to OSD main menu.
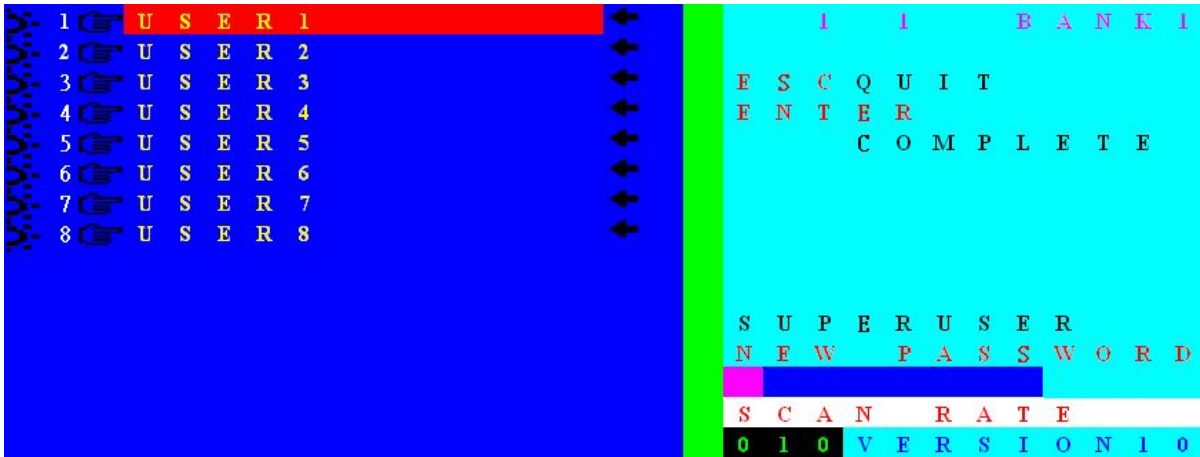
Set PC Port Password :

<fig.3>
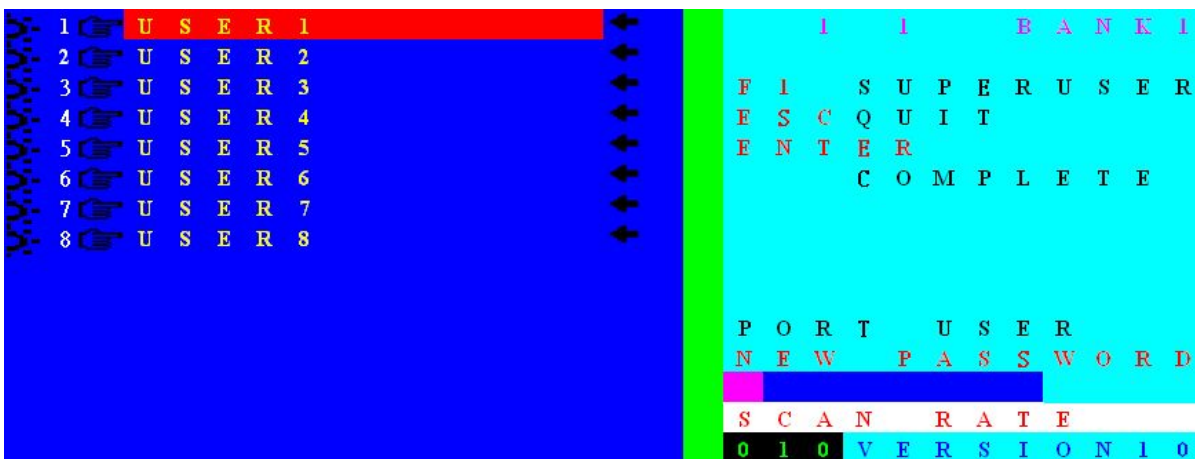
Retype your password for verification (CONFIRM) :

Set Super User Password

<fig.5>

PC port without Password illustrated below <fig.6>:

<fig.6>

At factory default, no password is set for PS/2 KVM Switch as illustrated above.

Selected PC port is powered on with 📌 indication.

To setup password please open OSD, select SECURITY. Please refer to <fig.3> and <fig.4>

PC port with password illustrated below <fig.7>:

<fig.7>

Password request OSD appears for Port-1 computer with powered on 📌 status.

Enter password directly. Password allowable length at 1 to 8 characters only (8 character max). Press ENTER after password input to commence operation for this PC.

SUPERUSER PASSWORD illustrated below <fig.8>:

<fig.8>

If SUPERUSER password is set, PS/2 KVM Switch will ask for password when KVM is powered on or at RESET. Please enter password follow by ENTER key to continue operation.

5.7 Scan Setting

F3- SELECT SCAN PORT

Press F3 at OSD main menu to select Auto Scan active port. If a port is

selected for Auto Scan, a ⬅ icon appears, press F3 again, the ⬅ icon will

disappear.

F4- AUTO SCAN

Press F4 at OSD main menu to enter Auto Scan function menu as illustrated below <fig.9>. The secondary function keys are F1, F2 and F3

> ➢ F1- To start complete scanning, please press F1 (BROADCAST). All ports will be scanned regardless whether the port is connected with active computer. The scanning process will be stopped when ESC is pressed. As scan terminates, KVM switch maintains at last scanned PC port OSD.

> ➢ F2- To start scanning powered on PC only, please press F2 (POWERED ON PC). To stop scanning, please press ESC button. As scan terminates, KVM switch maintains at last scanned PC port OSD.

> ➢ F3- To scan selected PC, please press F3 (SCAN SELECT PC) to commence scanning. To stop scanning, please press ESC button. As scan terminates, KVM switch maintains at last scanned PC port OSD.

> ➢ ESC- Press ESC to Exit the Auto Scan menu.

AUTO SCAN

5.8 Hot-Key Setting

F5- HOT-KEY

At OSD main menu, please press F5 to enter HOT-KEY setting menu <fig.10>.
In the HOT KEY setting menu, secondary selection keys are F1, F2, F3, ENTER.

- ➢ Press **F1** to select Scroll Lock as Hot-key
- ➢ Press **F2** to select Num Lock as Hot-key
- ➢ Press **F3** to select Caps Lock as Hot-key
- ➢ Press **ENTER** to save setting and exit the Hot-key setting menu

Hot Key

5.9 OSD Rate / Scan Rate Setting

To set scan rate please press ⟶ button to enter Scan Rate/OSD Rate setting menu as illustrated below <fig.11>. The secondary menu functions are F1 and ENTER button

SCAN RATE SETTING
Please note that scan rate is set 10 seconds at factory default. Please enter desirable time interval (005~255 seconds) in the cursor and press ENTER to confirm setting.

OSD RATE SETTING
➢ Press F1 to enter OSD TIME setting screen <fig.12>. Please enter OSD RATE at bottom right corner (005~255 seconds).
➢ Press ENTER to complete setting (005~255 seconds) and returns to OSD main menu.
➢ Please press ESC to clear OSD display if OSD Time is not set. When OSD Time is set, please wait until setting time terminates. Note that ESC button OSD cancellation cannot be used when OSD Time is set.
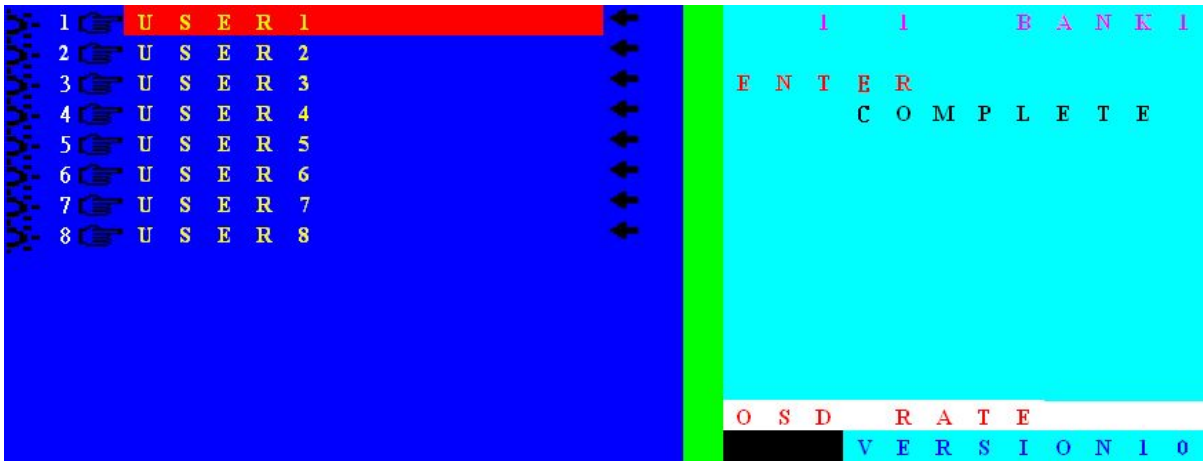
★ **NOTE:** When entering OSD RATE and SCAN RATE please enter complete three digits. For example, to enter 5 seconds, please input 005; to enter 10 seconds, please input 010.

Main OSD scan rate setting menu
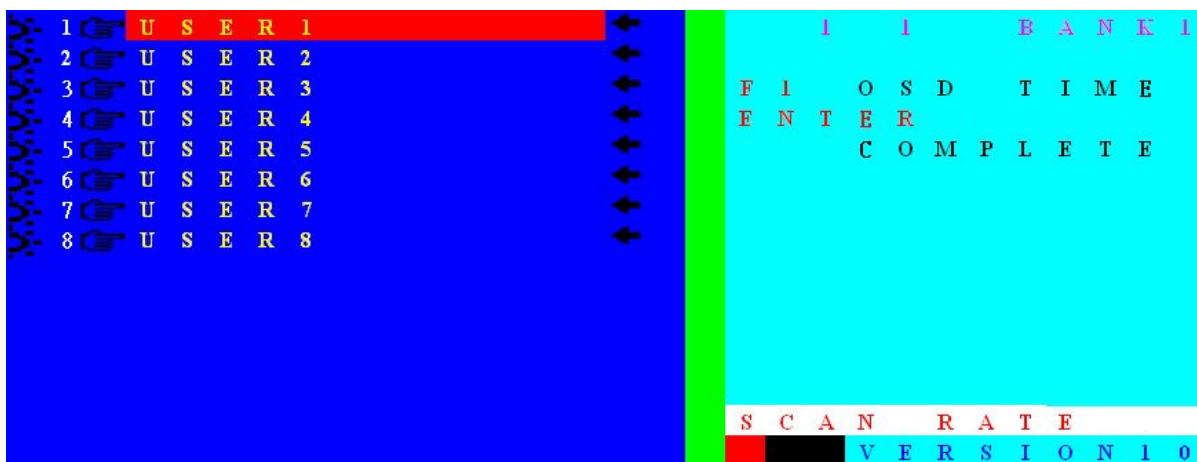
OSD time setting menu

<fig.12>

6. Upgrade firmware

This PS/2 KVM Switch has built-in ability to upgrade firmware. Whenever upgrading is desirable, the device can be easily upgraded without purchasing new hardware to suit the new environment.
A CD ROM software package is included with the package. Please execute BSETUP.EXE to obtain the new firmware file. Upgrading is done through RS-232 connection to PS/2 KVM to complete the process.
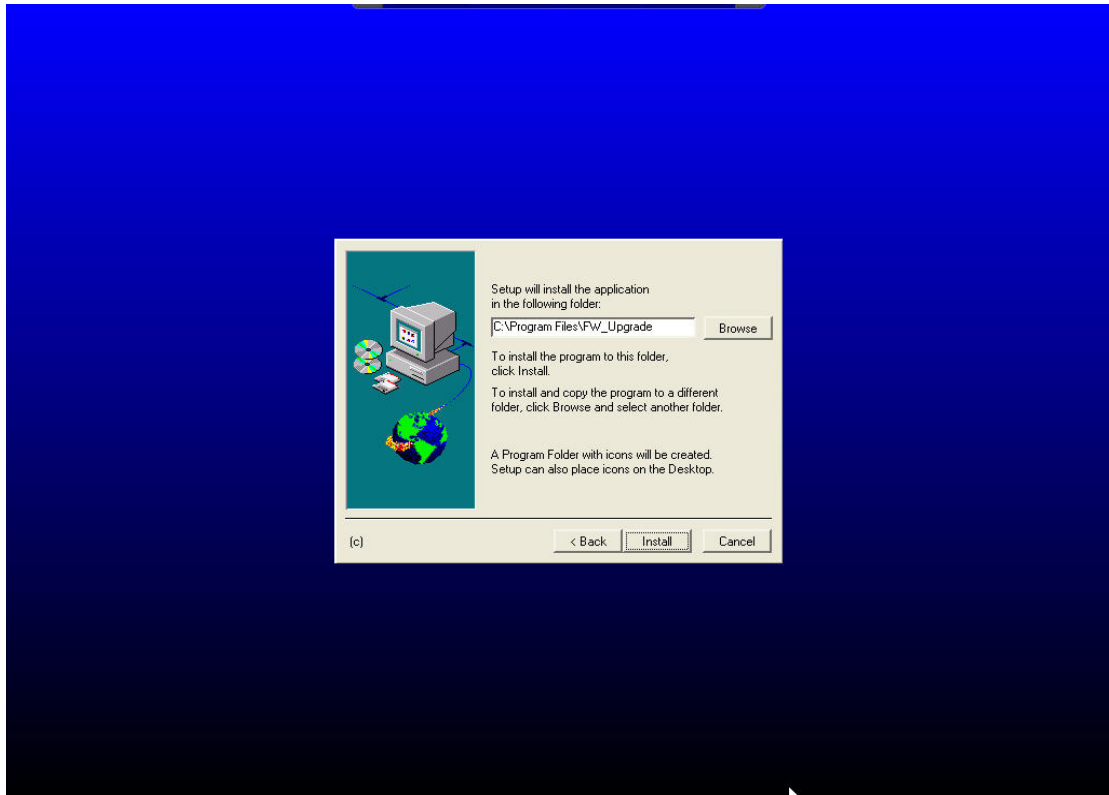This firmware updates OSD functions

Updating procedure:
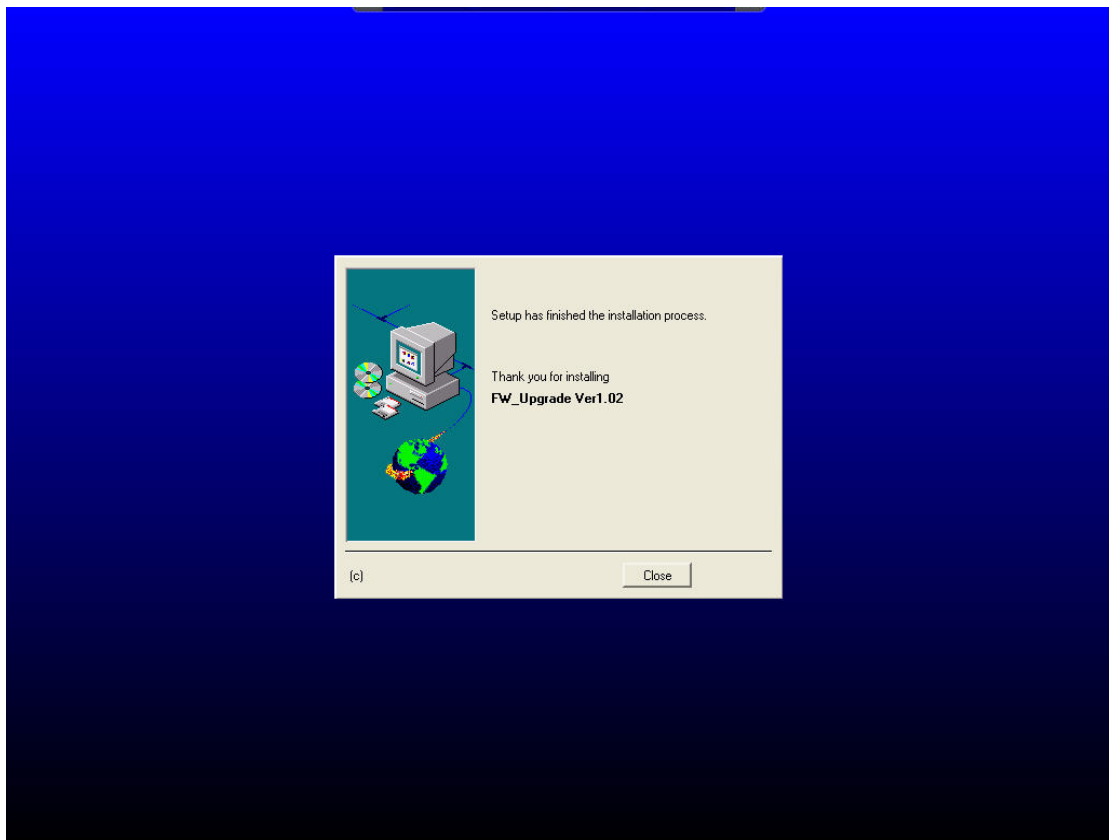
6.1 Please connect the RS-232 cable included with the PS/2 KVM package connect with a computer with BSETUP.EXE file and PS/2 KVM.

6.2 Power on all connecting devices and execute BSETUP.EXE file. When running BSETUP.EXE, you will see the following image<fig.13><fig.14><fig.15>:

<fig.13>

<fig.14>
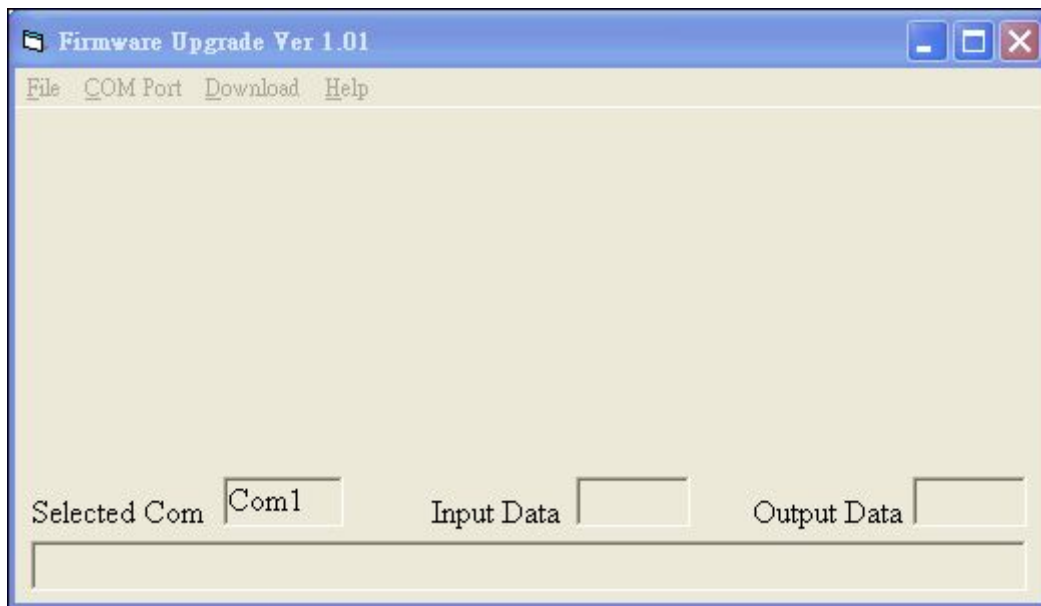

<fig.15>
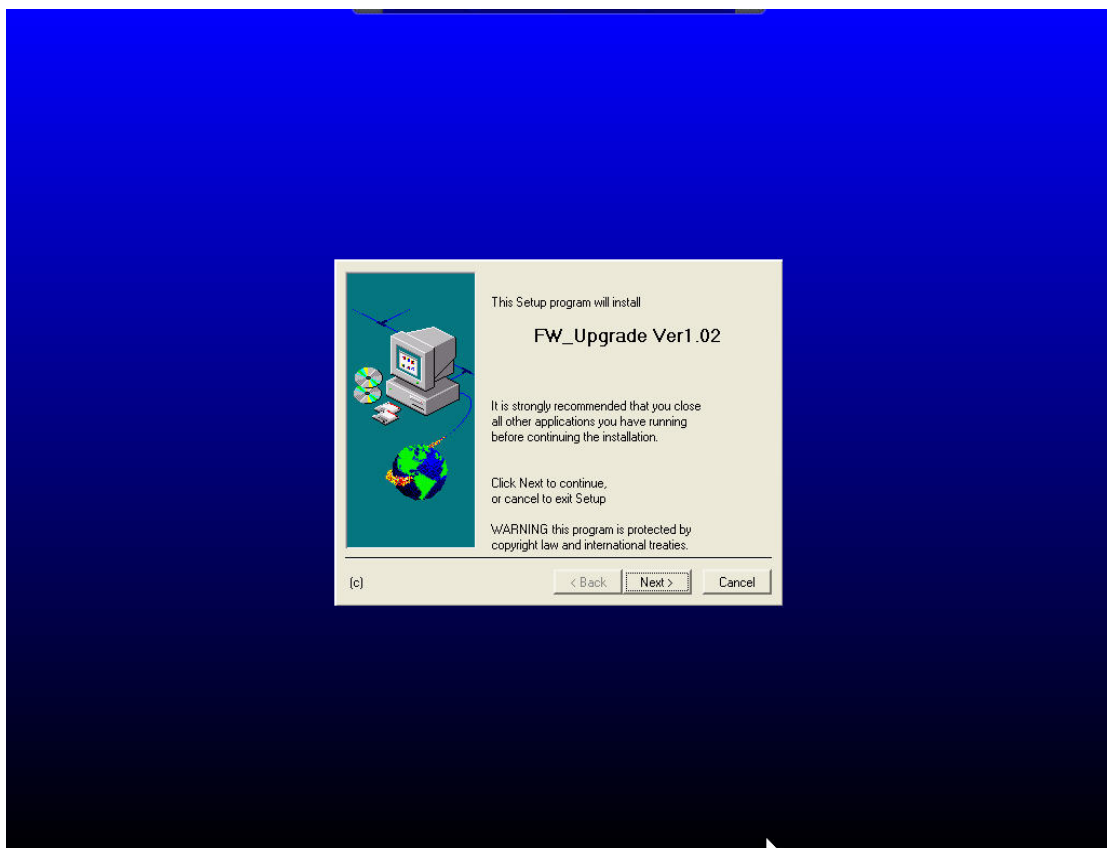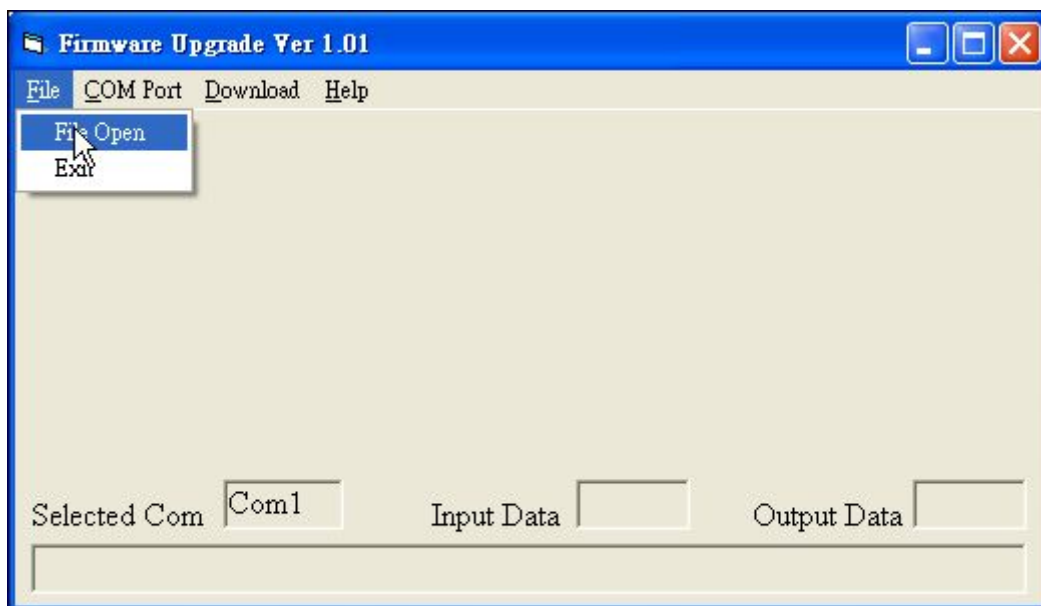
6.3 Please run FW upgrade program as illustrate below<fig.16>

<fig.16>

6.4 Download new upgrade file as illustrate below<fig.17>
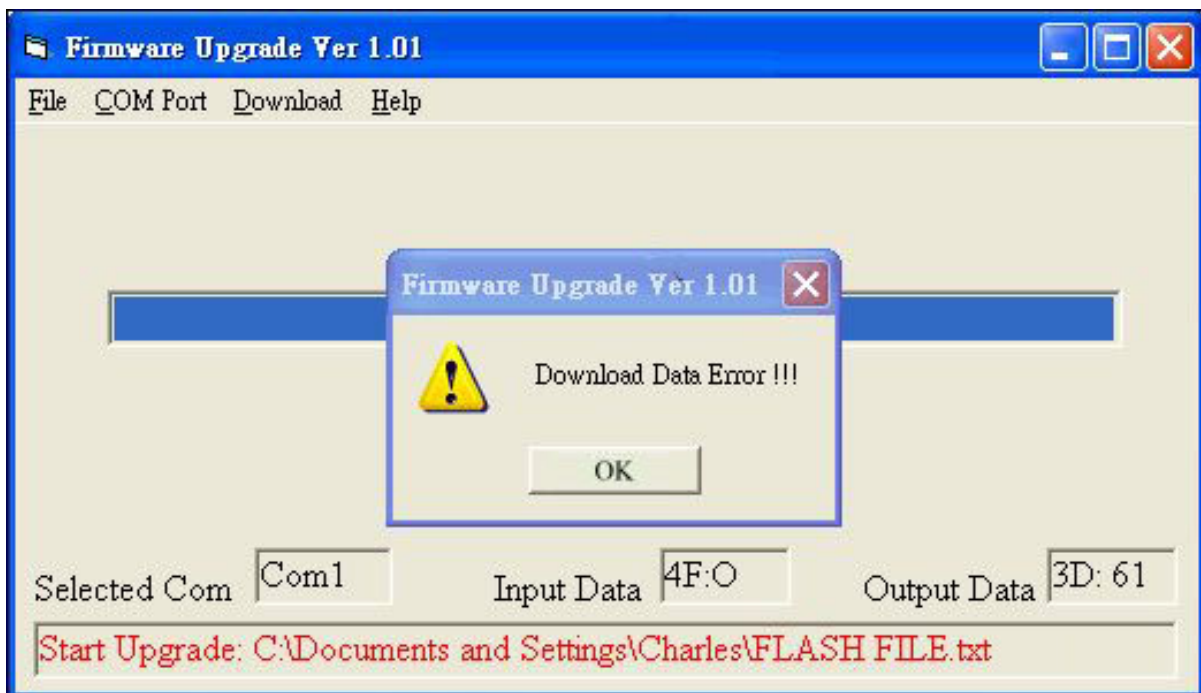
6.5 KVM not found as illustrate below<fig.18>

<fig.18>

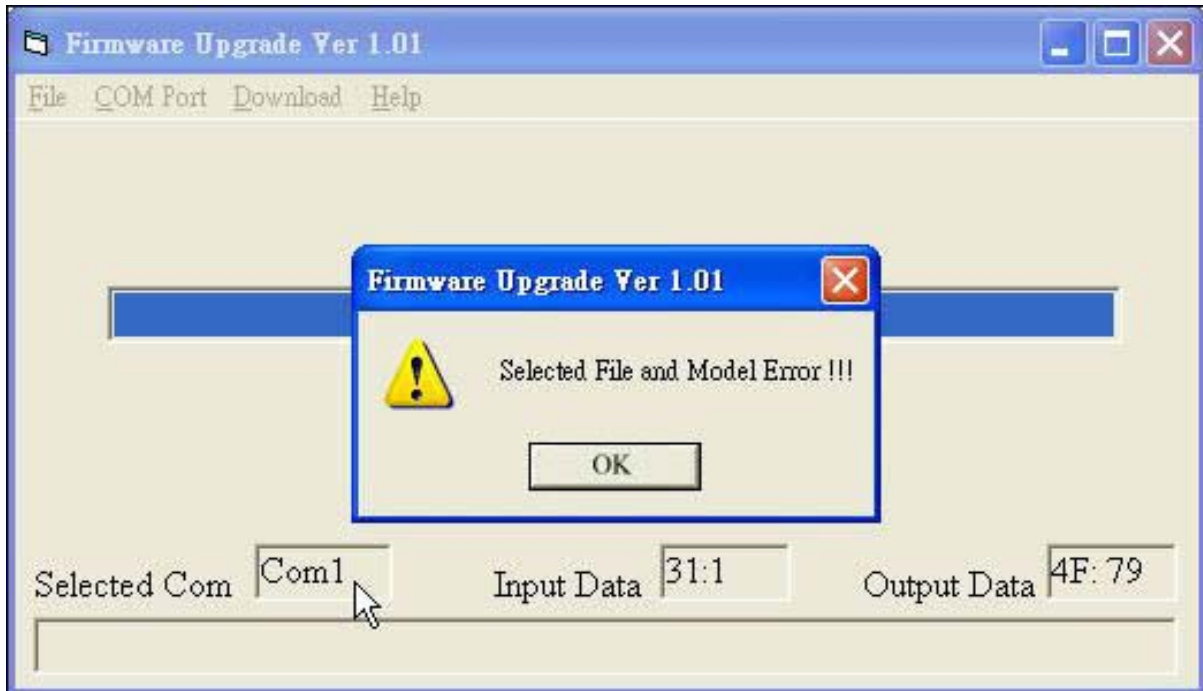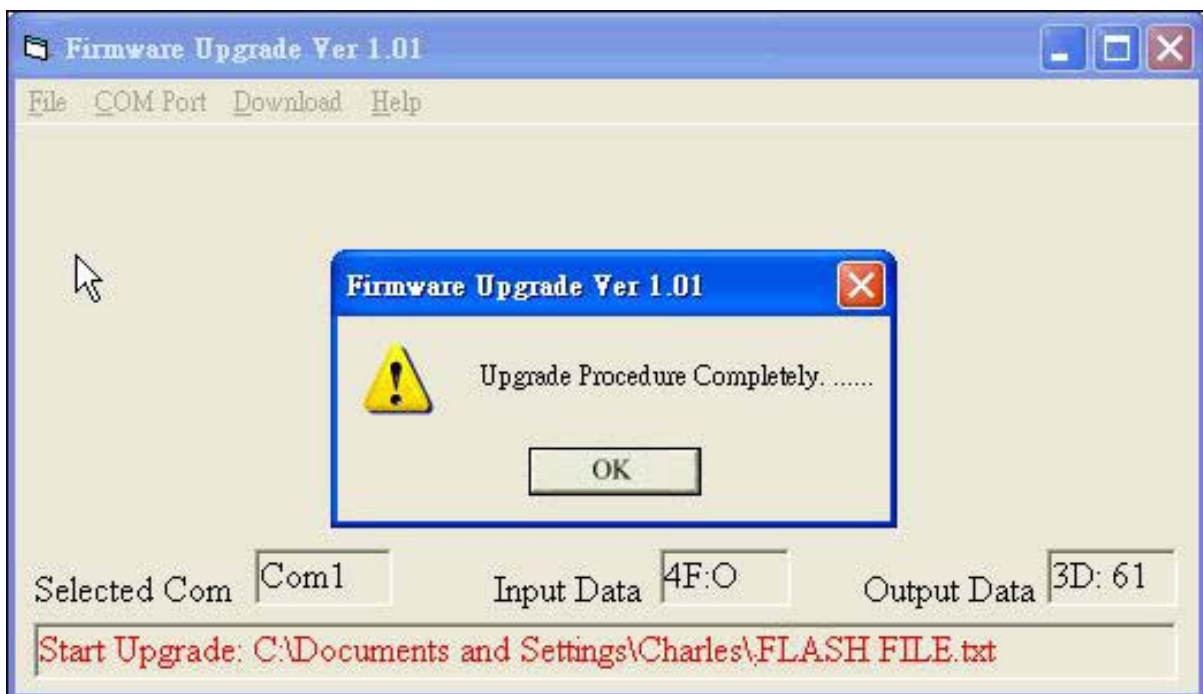6.6 If RS-232 Port Fail as illustrate below <fig.19>

6.7 The models chosen are not accorded with upgrade file as illustrate below <fig.20>

<fig.20>

6.8 Firmware upgrade successful as illustrate below <fig.21>

7. Troubleshooting

The following guide is intended to assist users to solve possible issues from operating or installing PS/2 KVM.

i. After hardware installation, please affix label to all cable to assist in future maintenance.

ii. The maximum KVM cable distance is approximately 100 inches when high quality cable is used.

iii. The PS/2 KVM is implemented with dual power design to collaborate with dual powered server system. The power input with "back up" label is optional. If second power source is required please contact your distributor to purchase additional power adaptor.

iv. PS/2 KVM uses standard polarity power adaptors (tip negative/barrel positive)

v. As computer booting up please do not perform switching (push button or hot-key operation) to prevent unforeseen situation.

vi. If keyboard or mouse is not operating, please try to connect keyboard or mouse directly to the computer without PS/2 KVM. Please check if keyboard or mouse is working properly.

8. Optional Accessories

A. USB to PS/2 Converter

To connect keyboard and mouse from PC, iMAC, Sun Microsystem with USB interface to PS/2 KVM, please use USB PS/2 converter.

B. KVM CAT5 Extender

The maximum distance between PS/2 KVM and computers is 100". To extend beyond this distance please use a KVM Cat5 Extender.

9. Notice

1. All other company or product names mentioned herein are trademarks or registered trademarks of their respective companies.
2. Specifications are subject to change without notice.
3. Please read user manual carefully before operating the device
4. Please use the power adaptor accompanied with this product. Warranty does not cover for damages caused by pairing other power adaptor
5. Please check all connecting devices are properly grounded to avoid electric failure
6. This product has limited warranty for one year from defects in material and workmanship. Items that are physically damaged, misused, tempered with or altered are void of warranty. For further details please contact your distributor. In case warranty sticker is damaged or missing, warranty is void. For further details please contact your distributor.