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User Manual

CV-1602

1U Rackmount PS/2 KVM Switch
(Two Consoles)

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2. Introduction

Two Consoles KVM switch enhanced the function of standard PS/2 KVM with two simultaneous users when one of them is sitting 500-feet away in maximum from the switch. The two consoles PS/2 KVM switch comes configured for either 8 or 16 ports.

The switch supports for variety of VGA monitor types as well as PS/2 keyboard, PS/2 mouse peripherals. Two Consoles KVM switch would also be an advisable choice as the cables connecting servers to switch are highly compatible. STP / UTP cable will be the one for connecting local switch to remote console.

3. Features

- **Multi-platform** - Mix PCs, SUN Microsystems, IBM compatibles, HP, Compaq and Dell.
- **Hot Pluggable** - Add PCs or remove connected PCs for maintenance without powering down the PS/2 KVM switch or PCs.
- **No S/W required** - Easy PC selection via on screen display manual, push buttons and hot-key.
- Support one CAT.5 remote console up to 500 feet away from KVM switch.
- Built-in microprocessor emulation for each port boots up process.
- High video quality with up to 1,920 x 1,440 and 200MHz bandwidth.
- Name servers up to 16 characters long.
- Scan mode with Monitor servers at intervals 5 to 99 seconds.
- Support eight characters password protection and search PC server name.
- VGA, keyboard & mouse all-in-one by 15pin HDDDB connector at KVM side.
- Cascade for use up to 128 servers.

Disclaimer

This information is subject to change without notice. The producer of this manual accepts no responsibility for damage or claims, resulting from misuse or misinterpretation

4. Package Contents

PS/2 KVM Switch (Two Consoles)	1 Piece
DC 12V Power Adapter (KVM)	1 Piece
Receiver	1 Piece
DC 9V Power Adapter (Receiver)	1 Piece
User manual	1 Piece
19" Mounting Bracket	1 Pair
CA-2 3 to 3 Cascade Cable	1 Piece

Before Unpacking

It is very important to locate the PS/2 KVM switch (Two Consoles) in a suitable environment.

1. The surface for placing and fixing PS/2 KVM switch (Two Consoles) should be stable and level or mounted into a suitable cabinet.
2. Make sure the place is ventilated and out of direct sunlight, away from sources of excessive dust, dirt, heat, water, moisture and vibration.
3. Convenience for connecting PS/2 KVM switch (Two Consoles) to the related facilities should be well considers too.

Unpacking

The PS/2 KVM switch (Two Consoles) comes with the standard parts shown as above. Check and make sure they are included and in good condition. If anything is missing, or damage, contact the supplier immediately.

5. Optional Accessories

KVM Cable	
CD-6 / 10 / 15	6ft / 10ft / 15ft PS/2 3-in-1 cable
Cascade Cable	
CA-2 / 6 / 10 / 15	2ft / 6ft / 10ft / 15ft PS/2 3-to-3 cable

6. Peripheral Products

Model	Description
SUN-31	SUN / iMac USB to PS/2 Adapter
RP115	1U 15" LCD Monitor Drawer
RP 615 / 717 / 819	6U(15") / 7U(17") / 8U(19") LCD Monitor
RKP115	1U LCD Keyboard Drawer

7. Important Safeguards

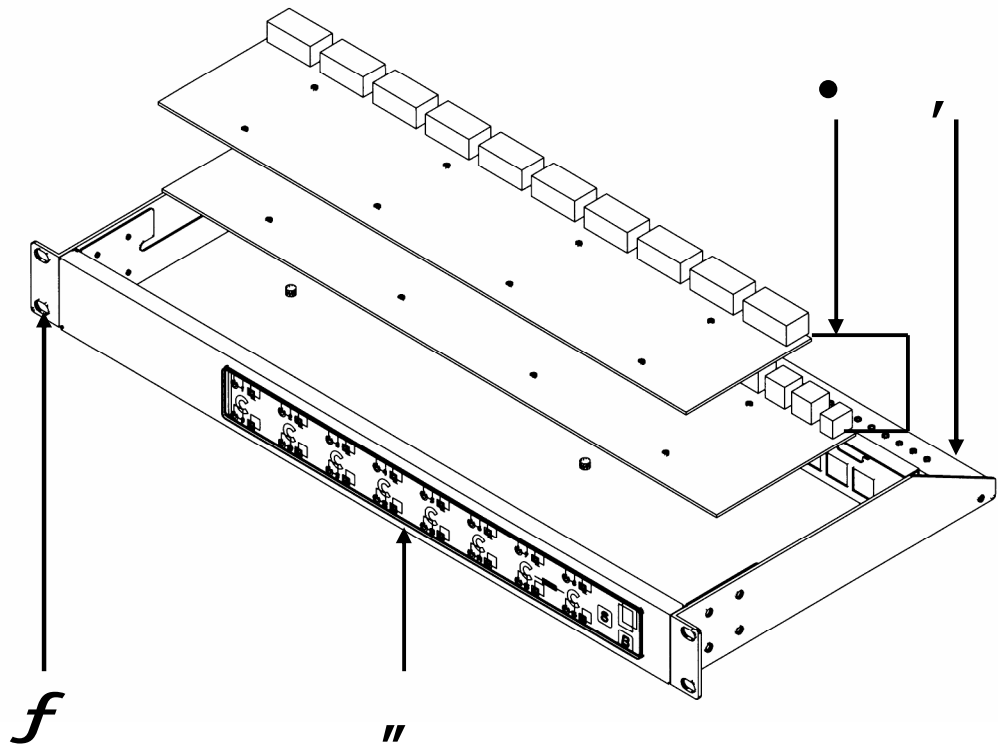
Please read all of these instructions carefully before you use the device. Save this manual for future reference.

- Unplug the PS/2 KVM switch (Two Consoles) from the power outlet before cleaning.
- Do not spray liquid cleaners or aerosol directly on the device. Wet a cloth with a neutral detergent (e.g. clean water) and squeeze it tight, then clean the screen slightly with it.
- Do not expose the PS/2 KVM switch (Two Consoles) directly to rain, water, moisture or sunlight.
- Do not attempt to service the device yourself. Improper operation may void your warranty. Refer all servicing to qualified service personnel.
- Safe storage environment of the PS/2 KVM switch (Two Consoles) is ranging between -20°C and 60°C . Permanent damage could occur if the USB KVM switch is stored outside the safe range.
- Unplug the keyboard drawer with PS/2 KVM switch (Two Consoles) immediately and call a qualified service personnel under the following conditions:
 1. If the PS/2 KVM switch (Two Consoles) has been exposed to rain, liquid or water.
 2. If the PS/2 KVM switch (Two Consoles) has been dropped or the casing has been damaged.

What the warranty does not cover

1. Any product, on which the serial number has been defaced, modified or removed.
2. Damage, deterioration or malfunction resulting from:
 - a) Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
 - b) Repair or attempted repair by anyone not authorized by us.
 - c) Any damage of the product due to shipment.
 - d) Removal or installation of the product.
 - e) Causes external to the product, such as electric power fluctuation or failure.
 - f) Use of supplies or parts not meeting our specifications.
 - g) Normal wear and tear.
 - h) Any other causes which does not relate to a product defect.
3. Removal, installation, and set-up service charges.

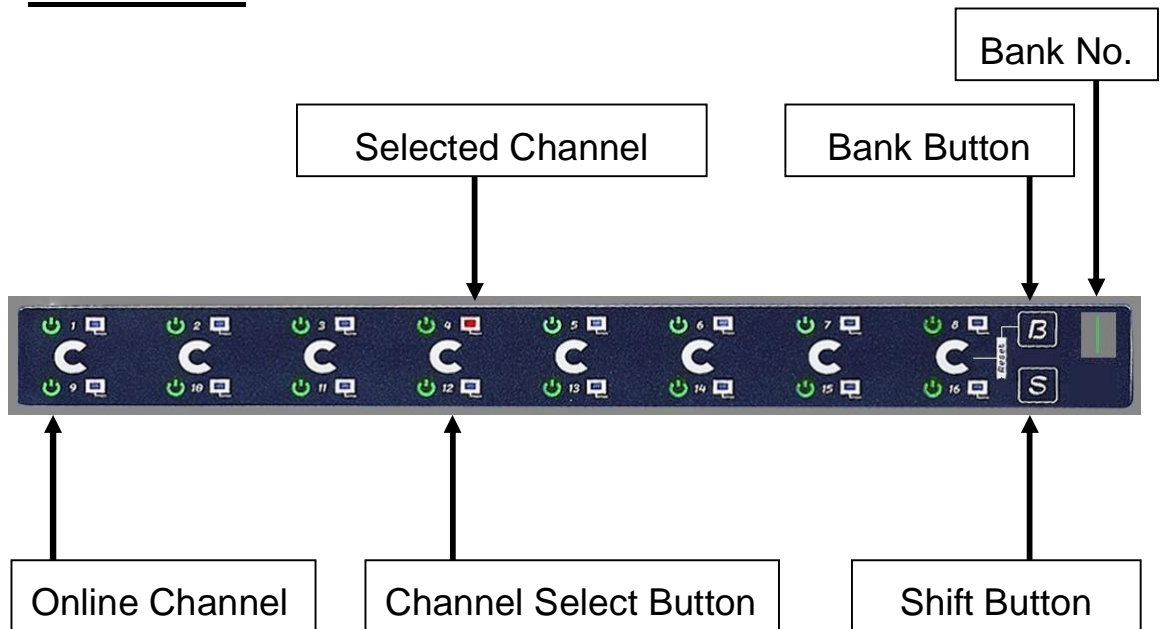
8. Structure Diagram



1. PS/2 KVM Switch (Two Console)
2. Cable Mounting Kit
3. 19" Mounting Kit
4. KVM Membrane

9. KVM Session

Front View

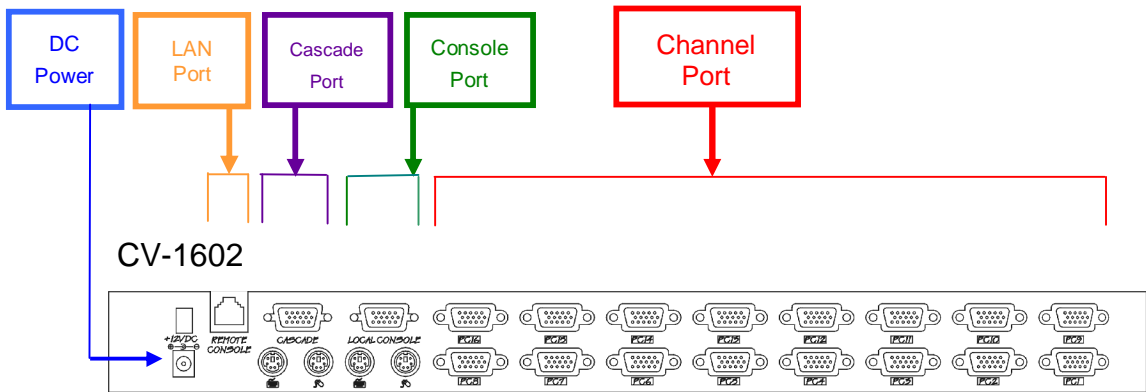


LED Indication

- | | |
|-----------------------|--|
| Selected Channel | - Displayed channel on monitor & red in LED. |
| Channel select button | - Press to select channel from 1 – 8. |
| Shift button | - Press & Hold follow with a channel button to select channel from 9 – 16. |
| Online Channel | - Green LED state the PC has connected and power on. |
| Bank No.. | - Display the Bank no. from 1 – 8. |
| Bank button | - Select the bank from 1 – 8 (for cascade only) |

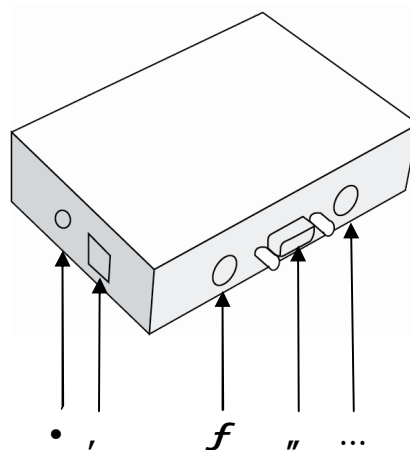
9. KVM Session

Rear View



- DC Power** - connect to external 12V DC power adapter.
- Cascade Port** - connect to additional KVM switch for channel expansion.
- Console Port** - connect to monitor, PS/2 keyboard & mouse.
- Channel Port** - connect to PC computer with CD-6 3-in-1 KVM cable.
- LAN port** - connect to the remote console by UTP / STP cable

CV-1602 (Remote Console)



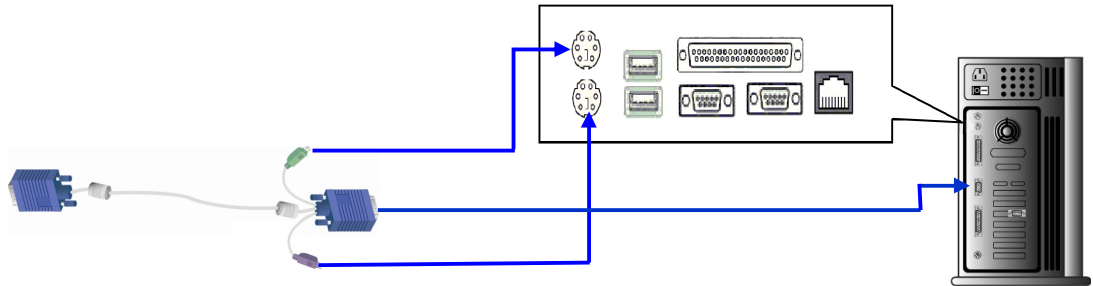
- **DC Power** - connect to external 12V DC power adapter.
- , **LAN Port** - connect to local console by UTP / STP cable.
- f* **Keyboard Port** - connect to PS/2 keyboard
- " **VGA Port** - connect to VGA Monitor
- ... **Mouse Port** - connect to PS/2 mouse

9. KVM Session

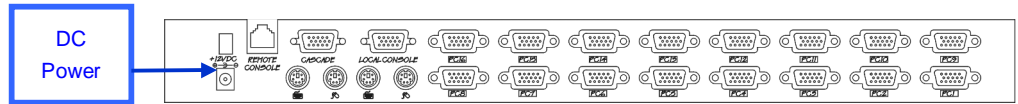
Installation Steps

Before installation, please make sure all computers are turned on and its operating system are running properly with keyboard and mouse.

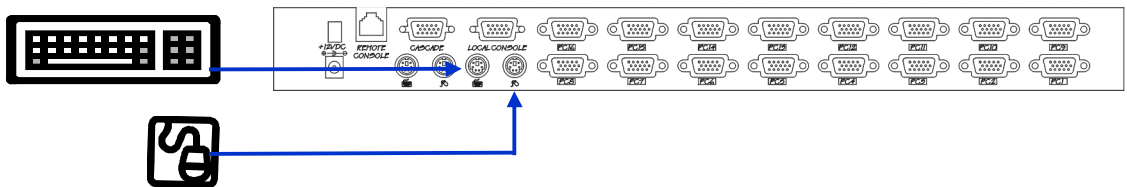
1. Connect the 3-in-1 KVM cable to the one of your server.
 - Mini Din 6-pin Male connector to the USB Port
 - HDDDB 15-pin Male connector to the VGA Port



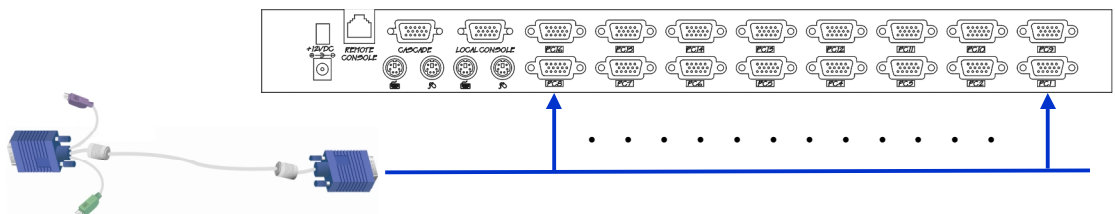
2. Plug the power adapter included to the switch.



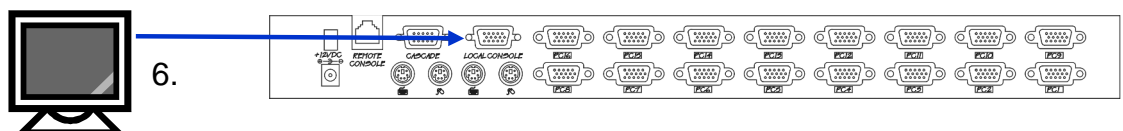
3. Connect PS/2 keyboard and mouse the console port of the switch.



4. Connect the another end of the 3-in-1 cable to the PS/2 KVM Switch (Two Consoles)



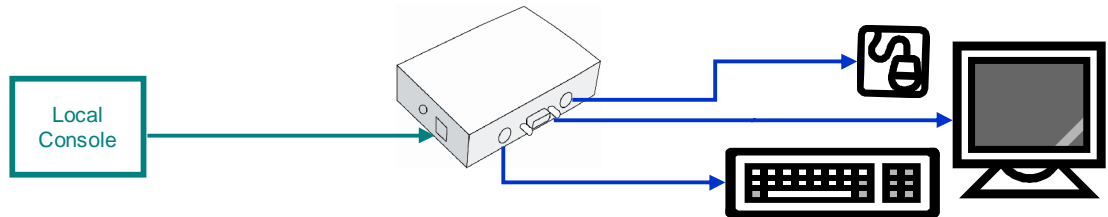
5. Connect a monitor to the console port of the PS/2 KVM Switch (Two Consoles)



9. KVM Session

Installation Steps (Cont.)

5. Connect another end of the STP / UTP cable and mouse, keyboard & monitor to the receiver.



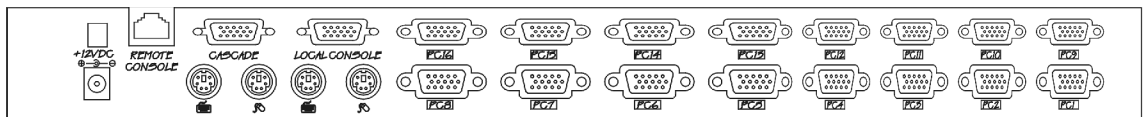
6. Reset PS/2 KVM Switch (Two Consoles) by membrane

9. KVM Session

Cascading

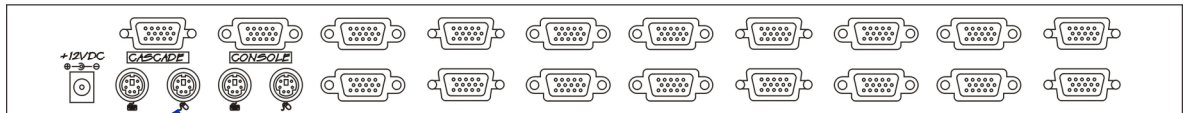
Using CA-6 PS/2 KVM cable to connect from Bank 1's "Cascade port" to Bank 2's "Console port". After connected please press "Bank" & "Channel" button on the front of the PS/2 KVM switch to reset the PS/2 KVM switch.

Bank 1



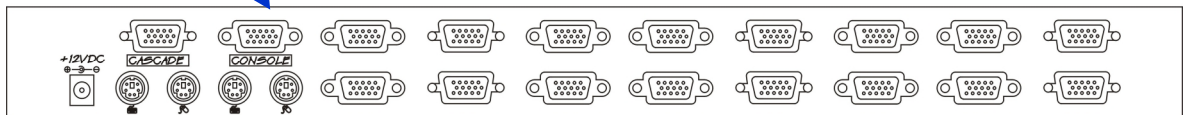
Bank 2

CA-6 PS/2 KVM cable



Bank 8 (Max.)

CA-6 PS/2 KVM cable



Cascade level Max. : 8 level

- Max. PC connection is 128 or with additional 122 PCs.
- All PS/2 KVM switch is compatible & can cascade with each other.
- Using CA-6 PS/2 KVM cable to cascade.
- Normal distance from one PS/2 KVM to another is 15 feet.

Note: If you would like to cascade 8-port and 16-port PS/2 together, the master bank must be 16-port PS/2 KVM switch

10. Start Up

1. The channels that have PC connected and it is switch on will have a green LED on that channel.
2. The red LED will indicate the selected channel.
3. 7 segments LED will display the bank number.
4. Press channel button to select the channel.
5. Enter the password, default is "00000000" eight zeros. Otherwise the keyboard & mouse will be locked.
6. If you forget your password, send back to Manufacturer.

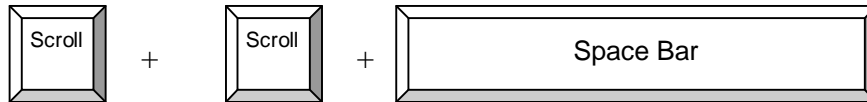
Hot Key Command

- Simple key sequence.
- Press " Scroll Lock" twice within 2 seconds.
- Follow with a beep sound, going into the hot key mode.
- Need to key in the hot key within 2 seconds.
- Go back to Operation System Control state.

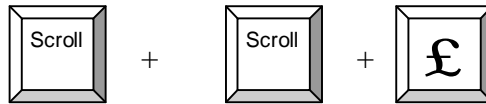
10. Start Up

Hot Key Operation

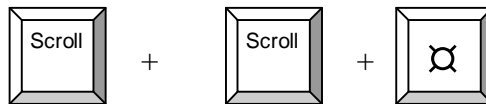
1. Calling OSD Menu



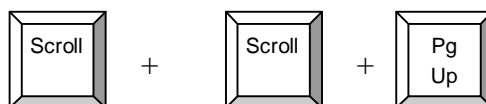
2. Switch to Previous Port (powered on PC only)



3. Switch to Next Power On Port (powered on PC only)



4. Switch to Previous Bank



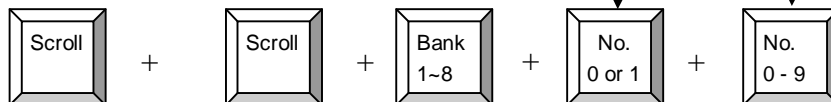
First digit of Port Number:

0 for Port 0-9

1 for Port 10-

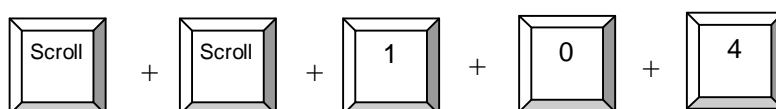
Second digit of port Number

5. Switch to Specific Port

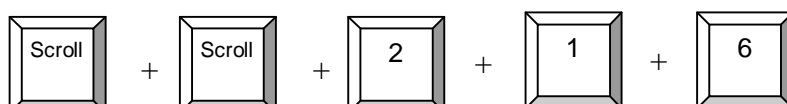


Example :

a) Bank 1 Port 4



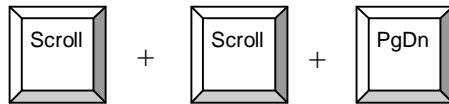
b) Bank 2 Port 16



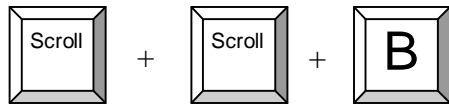
10. Start Up

Hot Key Operation

6. Switch to Next Bank

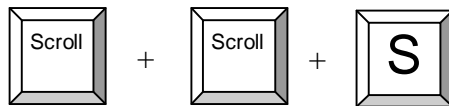


7. Enable / Disable beeper sound

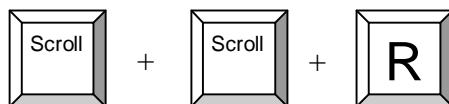


Note: The default Beeper function is ON and beeper control is only for

8. Auto Scan for Powered on PC



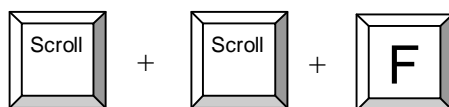
9. Reset to factory Default Setting



ROM REFLASH

Note: Not available for password reset.

10. Find Port by name

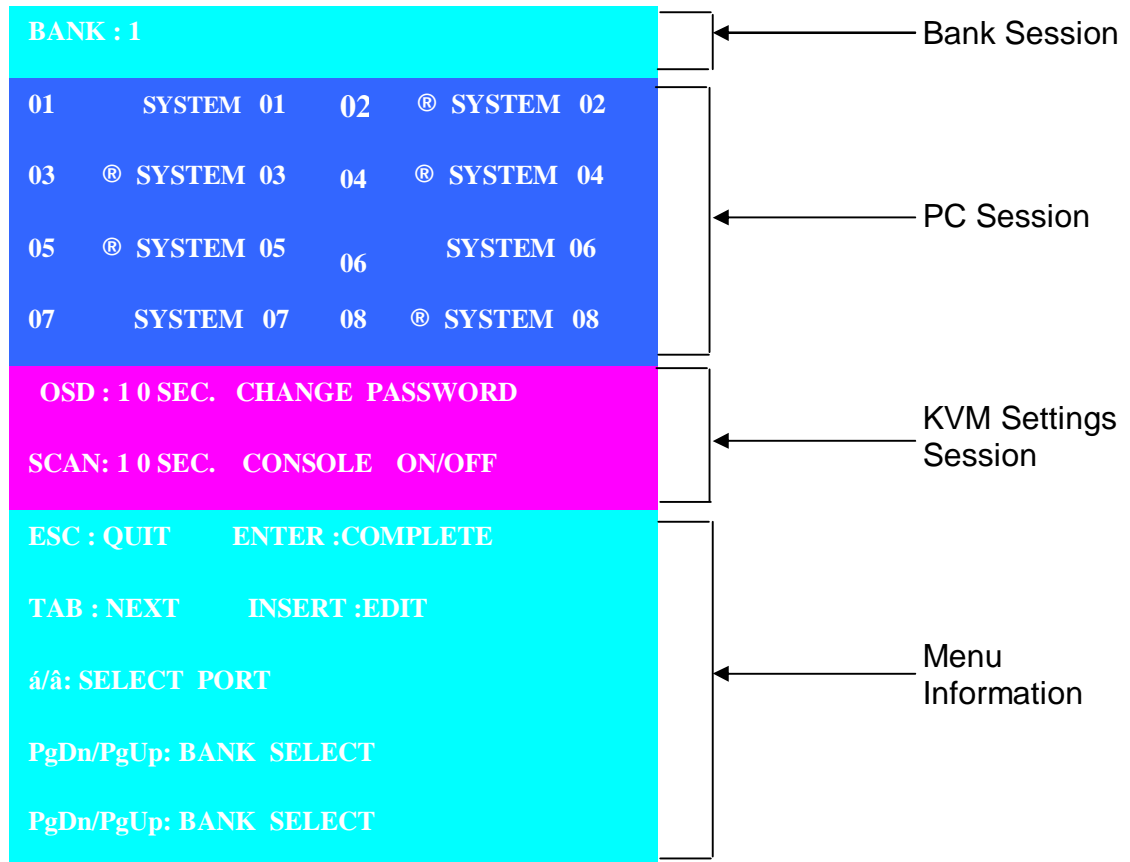


FIND:

Note: When the above dialogue appear, type the PC name and the OSD Menu will search PC name starting from 1st powered on PC port.

11. Start Up

KVM OSD Structure Diagram



KVM OSD Menu Operation

Use "**Tab**" key to select session like Bank, PC, OSD, SCAN, CHANGE PASSWORD, CONSOLE ON/OFF, etc...

Bank Session

Use **Page Up** & **Page Down** to switch previous or next bank

PC Session

1. "®" next to the PC name represents the PC system is powered on
2. Use up arrow key "á" or down arrow key "â" to select port for destination PC name and press "**Enter**" to select
3. Edit PC name - Press "**Ins**" key for editing PC name

Note: PC name should not be more than 8 characters.

4. When editing is finished press "**Enter**".

11. Start Up

KVM Settings Session

1. OSD
 - OSD Menu on screen time default is 10 seconds.
 - It can be modified from 05 – 99 seconds.
2. Scan
 - Scan interval from one PC port to next PC port when applying auto scan, its default is 10 seconds.
 - It can be modified to 99 seconds for maximum.
3. Change Password
 - Default password “00000000” 8 zeros
 - Choose “Change Password” in KVM Setting Session.
 - Key-in the existing password.
 - Enter the New Password.
 - Re-Enter the New Password.
 - Changing Password complete.
 - The steps are shown as next picture:
4. Console On/OFF
 - ON – any user can use the console
 - OFF – user is not allowed to use the console port, unless password is entered.
 - Default – OFF, you need to key-in password.
5. Escape
 - When the following screen is appeared, you can press “ESC” key to escape.

ENTER PASSWORD : ■

ESC : QUIT ENTER :

ENTER NEW PASSWORD : ■

ESC : QUIT ENTER : COMPLETE

RETYPE NEW PASSWORD : ■

ESC : QUIT ENTER : COMPLETE

NEW PASSWORD COMPLETE

ESC : QUIT ENTER : COMPLETE

11. FAQ

1. **The recommended distance of VGA cable 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.
2. **The recommended distance of PS/2 cable is 5 meters (maximum).** Normally, the cable length is based on driver capacity of your motherboard PS/2 port. If you need longer PS/2 cable, please use PS/2 extender to accomplish your applications.
3. 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.
4. **The computer boot up fine, but keyboard doesn't work**
 - Make sure the keyboard works when directly plugged into the computer.
 - Try a different keyboard, but use only 101, 102 or 104-key keyboard.
5. **The Mouse is not detected during PC boot up.**
 - Make sure the mouse works when directly plugged into the computer.
 - Make sure the mouse is a true PS/2 mouse. A combo mouse will work just as long as it is set for PS/2 mode with the correct adapter. Please try a different mouse.
 - 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 to 5 sec. or more. Normally, the VGA monitor change one resolution mode to another will take one or two seconds. So, the scan time is not recommended to below 5 seconds.
6. **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.**

KVM Switch unit draws the power source from power adapter and all PC's PS/2 port. Some PC's PS/2 port can support enough power for the switch, but some PC's PS/2 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 Switch unit are able to support enough power to the stand alone switch, KVM Switch unit still needs a power adapter

11. FAQ

7. If you forget the “ password ” of the switch (default is 00000000), please contact your supplier.
8. CAT5 Console Receiver power LED is not ON, to make sure power adapter is connected to KVM CAT5 receiver.
9. **No video signal is displayed on the remote monitor.**
 - Please check all VGA cables & connectors whether CAT5 cable & connector is loosed or disconnected. Also, please make sure VGA cable was attached to computer during boot up process.
 - Power adapter is not connected to receiver.
10. **Video signal is foggy or un-cleared on the screen.**

Please check VGA connector, or the VGA resolution is too high for the length of cable being used. If the problem happened at VGA resolution, to shorten the CAT5 cable length or reduce VGA resolution. It is highly recommended to use “optimal CAT5 cable length “to get the best video quality and don’t waste unnecessary CAT5 cable. High VGA resolution is up to 1280X1024 and CAT5 cable length could up to 500 feet approximately.

12. Technical Specifications

Item	Specification	
	Local Console	CAT.5 Remote Console
PC port	16	N/A
PC Port interface	HDDB 15 pin	N/A
PC Computer Interface	PS/2 Keyboard: Mini Din 6 pin Female	N/A
	PS/2 Mouse: Mini Din 6 pin Female	
	VGA : HDDB 15pin Female	
Cascade Port Connector	PS/2 Keyboard: Mini Din 6 pin Female	N/A
	PS/2 Mouse: Mini Din 6 pin Female	
	VGA: HDDB 15pin Female	
KVM Cable Connection	3-in-one HDDB 15-pin KVM Cable (CD-6/ 10/ 15)	N/A
PC Selection	On screen display menu, Hot key, Push button	
LED	1 Bank LED	1 Power LED
	16 Online LED (Green)	1 Status LED (Red)
	16 Selected LED (Green)	
On screen display control	Yes	
Scan intervals	5-99 seconds	
Keyboard and mouse emulation	PS/2	
VGA resolution (Max.)	1920 x 1440	1600 x 1200
CAT.5 cable length (Max.)	N/A	500 feet
Bandwidth	200MHz	160MHz
Cascade Level (Max.)	8 Levels	
Housing	Metal	
Power Adapter	DC 12V 1A	DC 9V 500mA
Operation Temperature	0~40 °C	
Humidity	0~80%, Non-Condensing	