

Rackmount KVM Drawer **(8 Port /16 Port)** **User Manual**



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Printing date: 2016/11

Version: V2.1

Contents

OVERVIEW	3
Description:.....	3
Features	3
Front View	4
Structure size.....	5
HARDWARE INSTALLATION	6
Frame installation	6
Cable Description	7
Installation diagram.....	8
Pushbutton Explanation.....	10
LCD Display operation.....	10
OSD MENU OPERATION	12
OSD function description	13
F1: ADM	14
F2: SCAN	17
F3: Set	18
F4 :Tool	20
F6: Edit	21
F7 :QV	21
F8: Lout	21
USB MODULE SIMULATION KEYBOARD	23
Mac Keyboard	23
Sun Keyboard.....	24
APPENDIX	25
Technical Specifications	25
Troubleshooting.....	26

Overview

Description

The KVM-1708A (KVM-1716A) VGA LCD KVM Switch is a control unit that allows access to multiple computers from an USB or PS/2 KVM console. It allows to access and control up to 8 / 16 computers from a single console (keyboard, mouse, and monitor). As many as 256 / 512 computers can be controlled from a single keyboard-monitor-mouse console by daisy-chained to another 31 additional switches.

Quick and easy installation, only need to connect the cables to the correct port, without software configuration, so there is no complicated installation process or incompatibility issues.

Product Features

- 17" TFT LCD monitor, high brightness, high resolution;
- 1U height, suitable height for standard 19" rack mount, metal structure;
- Ultra slim 99 keys keyboard with small numeric keyboard;
- High resolution and high flexibility with touchpad; with two function buttons and scroll wheel.

Switch Functions

- A single USB console controls up to 8 or 16 computers
- By daisy chaining up to 31 additional Combo-KVM, as many as 512 computers can be controlled from the single KVM console which supports 8 or 16 ports KVM seamless mixed cascade connection
- Dual interface--supports computers with PS/2 and USB keyboard and mouse
- Auto PS/2 and USB interface detection
- Supports wireless keyboard and mouse from different suppliers
- Two level password security--only authorized users view and control computers; up to four users and an administrator with a separate profile for each
- Users can set up different hot keys(【Scroll Lock】/【Caps Lock】/【F12】/【Ctrl】, auto scanning time, port display time, log out time, buzzer on/off and mouse on/off according to their different needs
- Broadcast mode--operations simultaneously performed on all selected computers
- Multiplatform support--Windows2000/XP/Vista, Linux, Mac and Sun
- Supports multimedia USB keyboard(PC, Mac and Sun)
- USB or PS/2 keyboard emulation--computer boot even the console focus is else where
- Convenient computer switching via front panel pushbuttons, hotkeys, OSD menu
- Automatically shows the computer position on the front panel LCD screen under daisy chaining connection without DIP set by hand

- Auto scan feature for monitoring user-selected computers
- Hot pluggable --add or remove computers without having to power down the switch
- Quickly select your computer by naming the server or inputting SN number of the server

Front View (Fig 1-1.1)

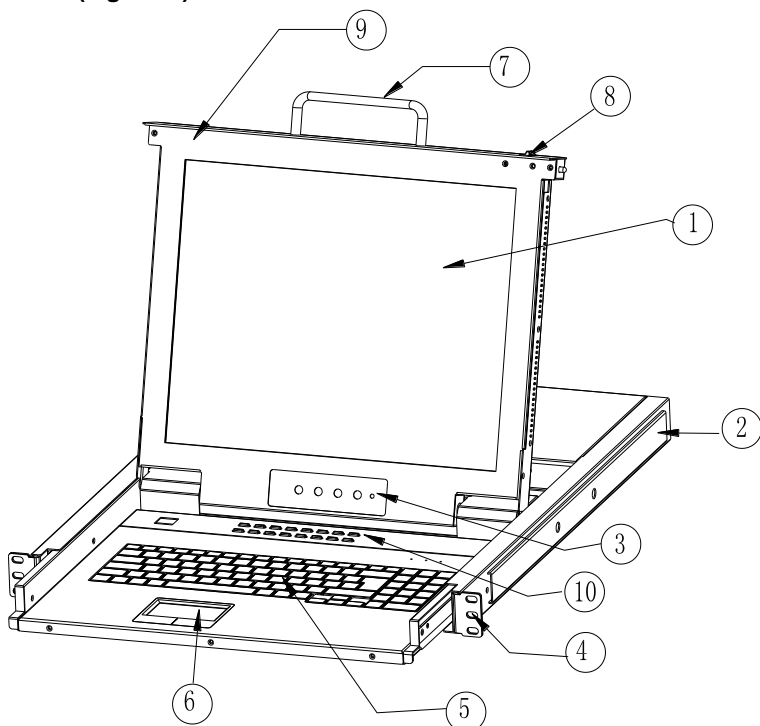


Fig1-1.1 Front side

1. TFT LCD Monitor
2. Rear Bracket Slot
3. OSD Control Key
4. Front Mounting Bracket
5. Keyboard
6. Touch Pad
7. Handle
8. Lock
9. Panel
10. Front Panel Push Button

Structure size

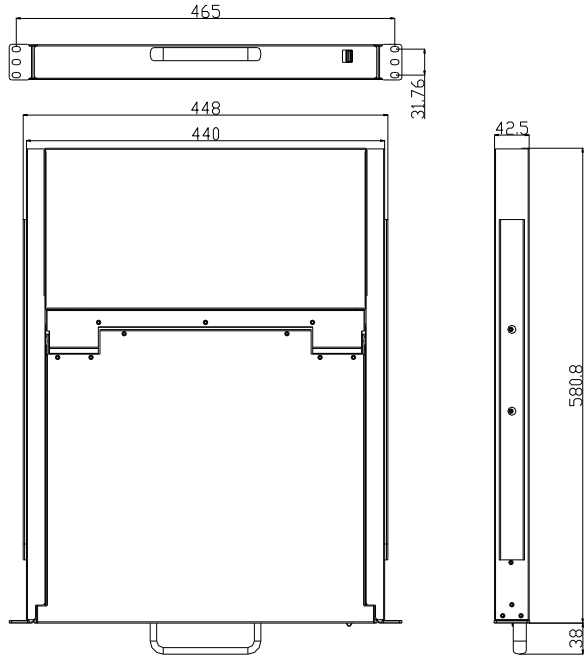


Fig 1-1.2 dimensional drawing

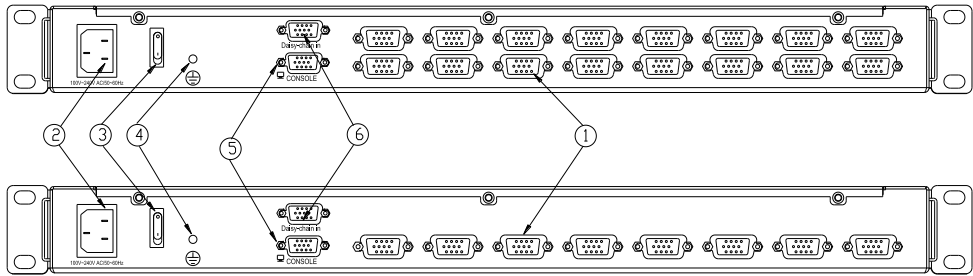


Fig 1-1.3 08/16 Port Rear Side

1. PC ports: 8 ports/ 16 ports (integrated signal input end of VGA / keyboard / mouse)
2. Power Input Socket (AC or DC)
3. Power Switch
4. Ground screw Console
5. Console Ports
6. Daisy Chain- in port

Hardware installation

Frame installation

Meet for rack mounting in a 19" system rack. Push it into the rack from front to rear for installation. Then insert the rear mounting brackets into the slide way and secure the unit to the rack with the front and rear brackets, finally screw the front and rear brackets. Rack mounting depth range are 650-850mm, (See fig1-2.1, fig 1-2.2)

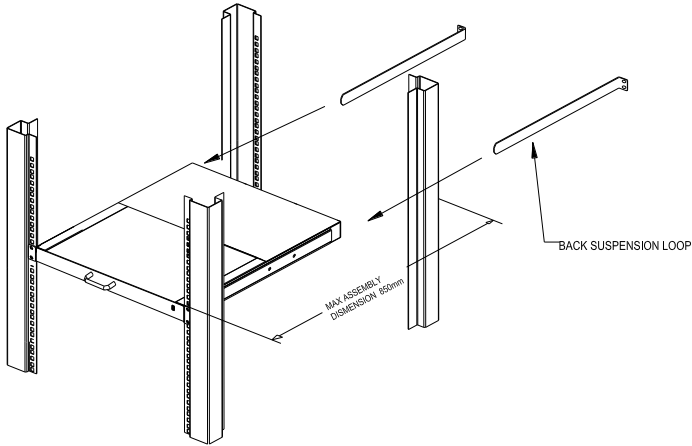


Fig 1-2.1 Rack installation diagram

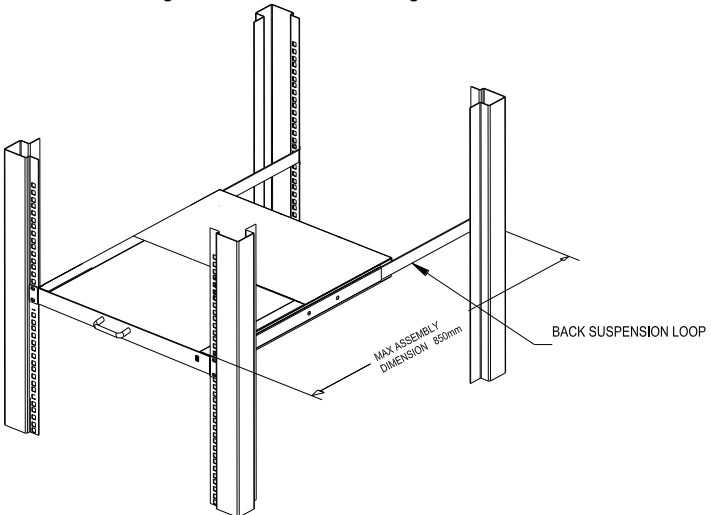
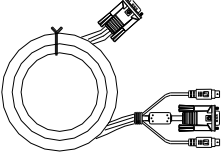
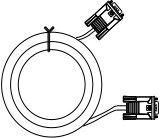


Fig 1-2.2 Rack installation diagram

Cable Description

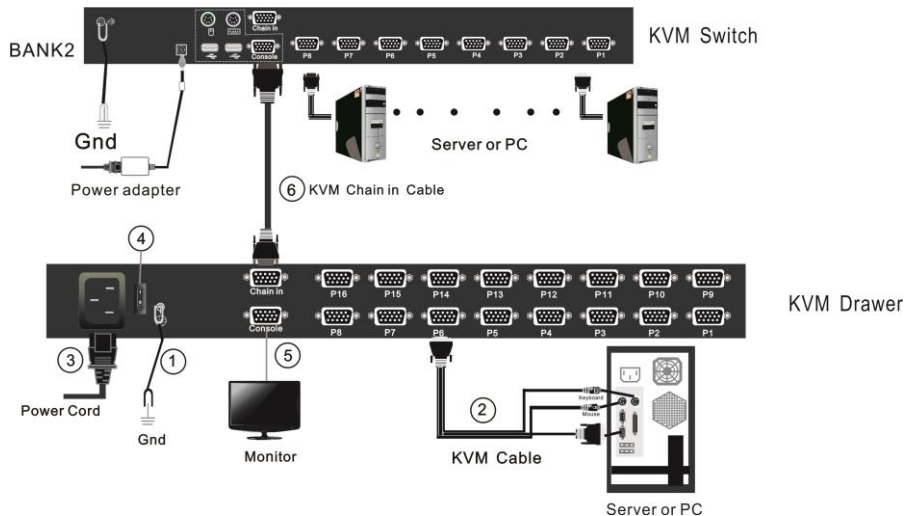
No.	Function	Model	Interface of Cables
①	KVM Cables – PS/2	 CH-1800P(length 1.8M) CH-3000P(length 3M) CH--5000P(length 5M)	PC or Server port: Keyboard port: 6 pins MIN-DIN DTE Mouse port: 6 pins MIN-DIN DTE Monitor port: 15 pins HDB DTE
	KVM Cables – USB		PC or Server port: USB port: USB A TYPE(DCE) Display: 15 pins HDB DTE
	KVM Cables – COMBO		PC or Server port:: USB port: USB A TYPE(DCE) Display: 15 pins HDB DTE Mouse port: 6 pins MIN-DIN DTE Monitor port: 15 pins HDB DTE
②	Cascade Cables	 CH-1801 (length 1.8M) Note: USB interface and PS / 2 interface can't simultaneous connection of PC	KVM port: 15 pins HDB DTE
		CH-3000C (length 3M)	15 pins HDB DTE

Form2-1.1 Connecting Cables

In order to ensure the best signal integrity and simplifying layout, we strongly suggested that you use high quality and multi length custom cable group as described, you can buy custom cable group from your distributor.

Installation diagram

1. Make sure the KVM switch has been connected to the ground (1 in the diagram).
2. Connect KVM switch with computers according to 2 in the diagram.
3. Connect power cable to KVM port as shown in 3 in the diagram.
4. Turn on the power, the KVM start to work after power on (4 in the diagram).

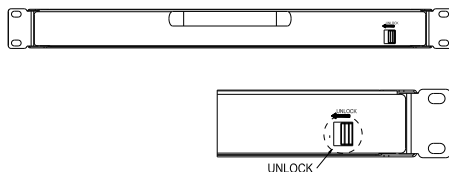


Note:

- 1) Connect monitor, USB or PS/2 keyboard and mouse to Console port to connect another console. (5 in the diagram)
- 2) Daisy chaining multiple KVM switches according to 6 in the diagram. Plug the yellow port of daisy chaining cable in the yellow "Daisy-Chain in" DB 15 port on KVM console, then plug the other blue port in the blue "Console" DB 15 port on KVM switch, etc.

Opening the console

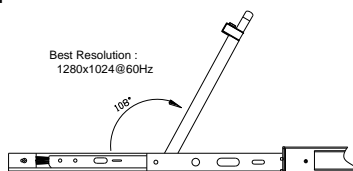
- Release the release catch;



2-1.3 unlocking

***Note:** The release lock can only do horizontal locking, it can't bear any load.

- Pull the LCD panel all the way out until it clicks into place.
- Rotate the LCD module all the way back to expose the LCD screen, the LCD module can be rotated up to 108°.



2-1.4 rotate angle of the console

- Turn on power switch, KVM will be issued two "beep" sound, The Port LEDs light flashes 4 times, the LCD displays the prompted to enter the users password.

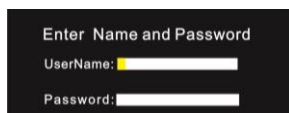


Fig 2-1.5 Enter password

- LCD panel is powered on when the power LED is green.
- Power on computer or server after power on KVM and you will see green light at each port.
- The factory default password is blank, it will be OK after double click "Enter".

Closing the console

- Close the LCD display panel and the power automatically shut down.
- Push the release catch in the direction of the arrow, push the LCD panel all the way in until it automatically lock up.

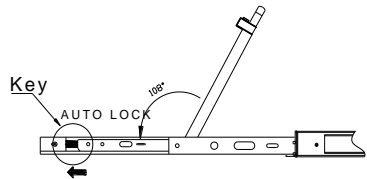


Fig 2-1.6 The release lock

LED Pushbutton Instructions



Fig 3-1.1 Front view
Form 3-1.1 Pushbutton Explanation

No.	Components	Function
1	1-8 or 1-16	1) Switching freely from port 1 to port 8 /16 2) Press 【1】 and 【2】 at the same time resets the KVM. 3) Press 【7】 and 【8】 at the same time switches to next stage level.
2	Port Selection Buttons& LEDs	Indicator LEDs are built into the switches, the online LED light is on the left and the selected LED light is on the right. 1) An online LED light(green) indicates that the KVM has connected to its corresponding computer and power on. 2) A selected LED light(orange) indicates that the computer attached to its corresponding port is up and running.
3	Station ID	Display the current port

LCD OSD Configuration



Buttons	Functions
MENU SELECT	Press this button invokes the menu function and brings up the main menu.
EXIT/AUTO	Press this button exits the current menu and return to the previous menu or press this button exits the LED OSD. Press AUTO for automatic configuration.
SL-/SL+	Press this button moves your menu to make corresponding adjustment.
LED state	Green :running Red :power off or access nonstandard VESA signal Flash green : energy saving mode or no signal

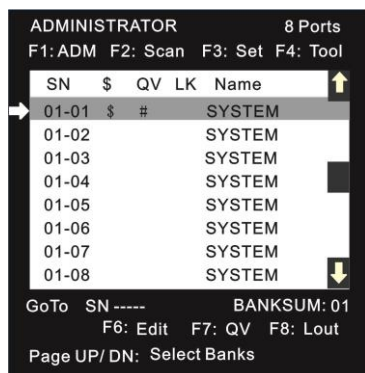
Form 3-1.2 LCD Display operation explanation

Press AUTO if the screen migrates after power on or under other circumstances, then the screen auto configure to its best display state.(It might can't be adjusted to its best state if part of the display mode is not standard VESA mode, if so return back to OSD menu to RESET, then it will back to normal.

We suggest our customers to set up the display mode at 1280x1024, refresh rate at 60Hz.

OSD Menu Operation

Right-Click the mouse button twice or press **【Scroll Lock】** twice access the following



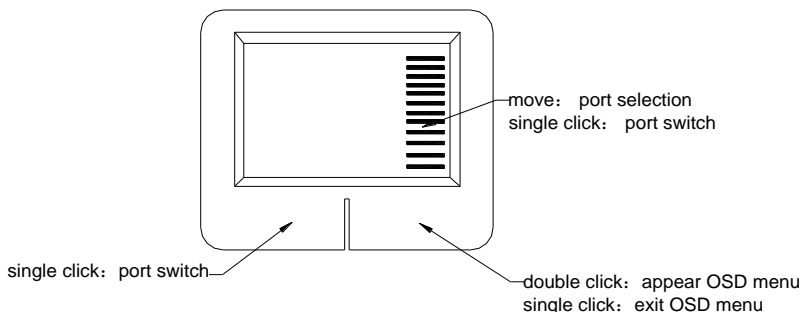
Heading	Description
SN	level number-port number
	It shows the computer port is under monitoring.
\$	The computers are power on and are online
QV	"#" : quick view the port "BC" : Broadcast port
LK	"@" shows that the port is only available for viewing
Name	Port name, the maximum is 12 bytes

Form 1.4: OSD menu key

To access the OSD menu through keyboard:

1. In the submenus that appear, moving the highlight bar to your selected port and then press Enter.
2. Press **【Page Up】** or **【Page Down】** quickly moves to next BANK
3. Press any key from **【0-9】** to enter any port of current station, type BANK+PORT to enter other stations.

To access the OSD menu through keyboard:



*Note: Operate via keyboard after invoke the OSD menu via the touchpad.

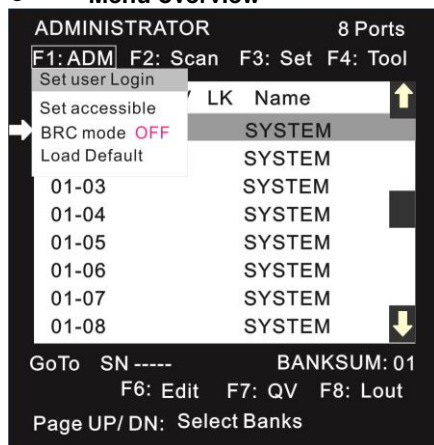
OSD function description

Menus	Keys	Submenu/explanation
ADM	F1	Set User login: account and password Set accessible: Set access permissions BRC Mode: monitor multiple computers at the same time Load Default: reset the menu to the original factory default settings
Scan	F2	All: Lists all the ports on the installation Power On: lists only powered on ports that have attached computers. Quick View: Lists only the ports that have been selected as Quick View ports
Set	F3	Auto Scan: set scanning time period Port ID: set how long a port displays on the monitor OSD Hotkey: set OSD hotkeys Lout Time off: to set the time out value
Tool	F4	Reset KM: press Enter resets keyboard and touchpad Beeper 【On】: press Enter switch Bee sounds Mouse Hot 【On】: press Enter to shut down touchpad operating on OSD. Restore Values: press Enter restore the current user default value. About KVM: press Enter shows the KVM version
Edit	F6	Edits port names
QV	F7	Start or close Quick View
Lout	F8	Log out/blank the console screen
Exit	Esc	Press this key exits OSD menu
	Scroll Lock	Press this key exits OSD menu
	Num Lock	Press this key exits OSD menu

Form1.5

F1: ADM

● Menu overview



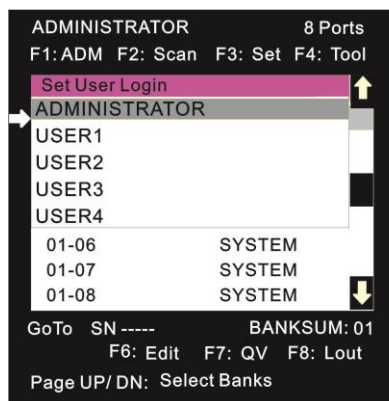
Operating instructions

- 1) Press **【F1】** or **【←】【→】** enters the F1 submenus.
- 2) Press **【↑】【↓】** moves the highlight bar to select the submenu.
- 3) Press **【Enter】** selects and exits ADM menu.
- 4) Press **【Esc】** cancels the operation and exits ADM menu.

● Menu explanation

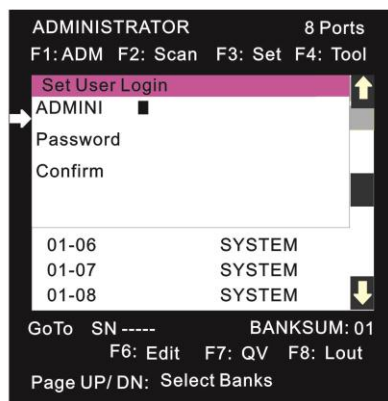
1. Set User Login—Press **【Enter】** and select Set User Login, a screen as below diagram 4-1.1 appears:

One administrator and four users account can be set (the account and the password are no more than 16 characters)



4-1.1

Enter



4-1.2

Note: You can set up an account and password according to diagram 4-1.2, then a “User setup ok” pops up showing you have done your set, and “Password Not Match” pops up, you need to type in your password again as you did in your first type.

- ✧ Set accessible—Press 【Enter】 key choose menu, the following shows (4-1.3)

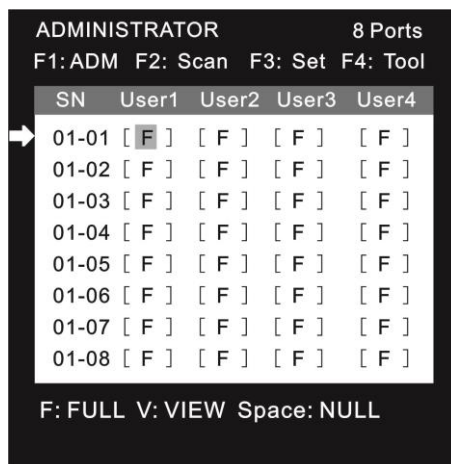


Fig 4-1.3

Menu	Description
FULL	Visit completely, any operate for port
VIEW	View only, cannot operate port
NULL	Blank, The port will not show up on the OSD

Note: The Administrator always has full a have access to all ports

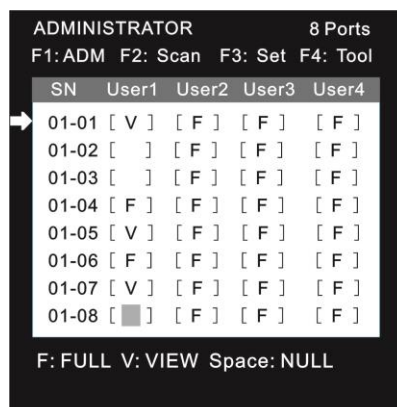


Fig4-1.4

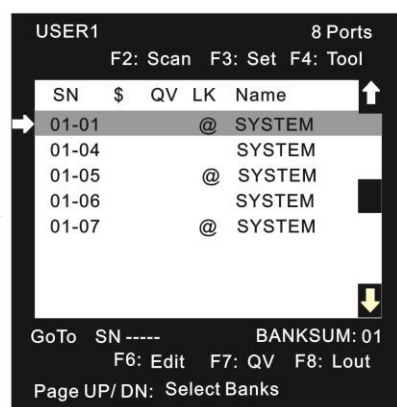


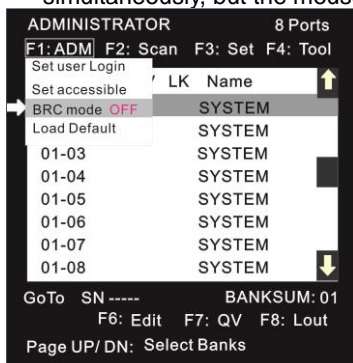
Fig4-1.5

Instruction:

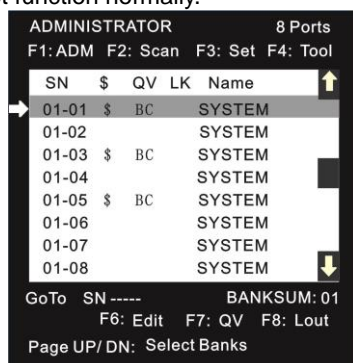
1. If you set permission under “User1”, Press 【Space】 key to cycle through the choices
2. By “User1” user login OSD menu (figure 4-1.5) shown

- ✧ BRC Mode - Press **【Enter】** to enter the BRC mode. Enter the main menu, press **【F7】** to add or remove a port that need broadcast function. When BRC mode is effect, a “BC” symbol appears in QV column. (See below diagrams).

While BRC mode is in effect, we can operate multiple computer ports simultaneously, but the mouse is not function normally.

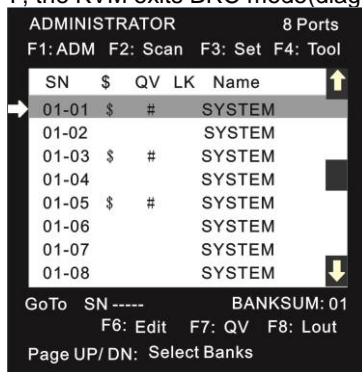


4-1.6



4-1.7

- Open BRC mode
【F1】 ->BRC Mode OFF->press **【Enter】** --> BRC Mode ON (see 4-1.6)
- Open the port that need broadcast function
 Press **【↑】【↓】** key->select the port that need broadcast function->press **【F7】** -> “BC” symbol appears in the QV column which shows the port has entered broadcast mode.
- Close the broadcasting port
 Press **【↑】【↓】** key-> select the port->press **【F7】** ->exit BRC mode and the speaker symbol disappears
- Exit BRC mode
 Invoke OSD main menu → **【F1】**->BRC Mode ON ->press**【Enter】**--> BRC Mode OFF, the KVM exits BRC mode(diagram 4-1.8)



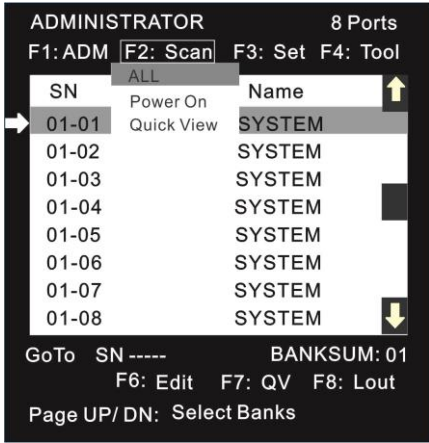
4-1.8

Press **【F1】**->BRC Mode OFF ->press **【Enter】** ,enter the main menu, all “#” symbols turn into “BC” symbol(diagram 4-1.7)

Load Default--- Press **【Enter】** and select Load Default, all the set values are restore to original factory default settings.

F2: Scan

● Figure menu



Operate method

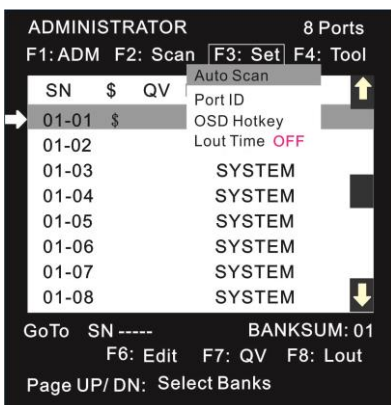
1. Use **【F2】** key or use **【←】【→】** key from other menu item enter into submenu
2. Use **【↑】【↓】** key remove highlight bar select submenu option
3. Use **【Enter】** key choose and exit scan men
4. Use **【Esc】** key cancel this time operate and exit scan menu

● Menu Description

Submenu	Meaning
All	Use this function to scan all ports according to the set scanning interval.
Power On	Use this function to scan all ports with"\$" according to the set scanning interval.
Quick View	Use this function to scan all ports with "#" quick view symbols according to the set scanning interval.

F3: Set

- **Figure Menu**

**Operate method**

1. Use **【F3】** key or use **【←】【→】** key from other menu item enter into submenu
2. Use **【↑】【↓】** key remove highlight bar select submenu option
3. Use **【Enter】** key choose and exit set menu
- 4 Use **【Esc】** key cancel this time operate and exit set menu

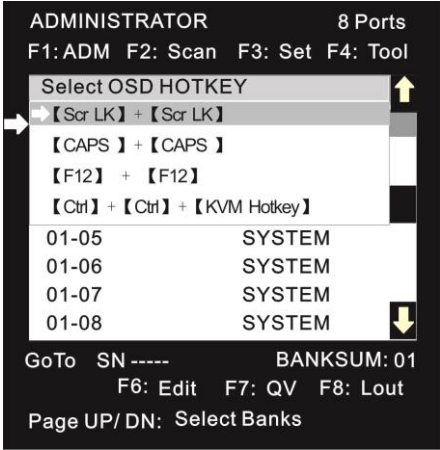
- **Menu Description**

Submenu	Description
Auto Scan	5S (valid range 5-99)
Port ID	0S: no display 1-98S: According to the corresponding number of seconds, maximum 98s 99S: permanently displayed
OSD Hotkey	【Scroll Lock】 + 【Scroll Lock】 【Caps Lock】 + 【Caps Lock】 【F12】 + 【F12】 【Ctrl】 + 【Ctrl】 + 【KVM Hotkey】
Lout Time off	0: off 1-99M: Set appropriate time when you do not use, it will appear user login window, Lock the KVM control terminal <div data-bbox="497 1098 785 1244" data-label="Image"> </div> <p>Enter User name and password; you can use the KVM switch.</p>

OSD Hotkey Operation

Operating instruction

- 1. Press **【F3】** and move the highlight bar with **【↓】** to select “OSD Hotkey” submenu . Press **【Enter】** and below screen appears:
- 2. KVM default hotkey: **【Scroll Lock】**



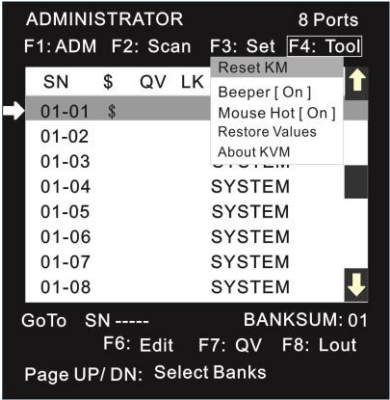
- 2. Select the“**【Ctrl】 【Ctrl】 +【KVM Hotkey】**” and press**【Enter】**, and then the **【Ctrl】** hotkey is available in this hotkey mode, the mouse hotkey can't enter the OSD menu.

Invoke hotkey: double click **【L_Ctrl】** + the corresponding function key

Function	Operating	Function description
Switching port	+ 1~8	Skip ports from 1~8, Eg.: Double click 【L_Ctrl】 plus 2 to skip to the second port of the current station.
	+ F1~ F8	Skip ports from 9-16
	+ ↑/↓	Skip to previous/next port
Auto scanning	+ S	1. Auto Scan automatically scan ports that attached PC or server. Users can set the scan duration in OSD menu and press any key to exit scanning mode. 2. Move the mouse to extend scan interval.
Invoke OSD main menu	+ “space key”	This allows you to invoke OSD main menu（see OSD menu operation）

F4: Tool

● Figure Menu



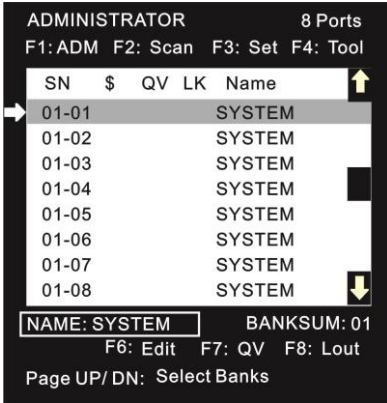
Operate method

- 1. Use **【F4】** key or use **【←】【→】** key from other menu item enter into submenu
- 2. Use **【↑】【↓】** key remove highlight bar select submenu option
- 3. Use **【Enter】** key choose and exit set menu
- 4 Use **【Esc】** key cancel this time operate and exit set menu

● Menu Description

Submenu	Description
Reset KM	Initializes mouse, keyboard When connected to mouse of switch, keyboard appeared failure
Beeper 【On】	Switching Bee voice, Press 【Enter】 to 【On】 changed to 【Off】 shows it do not have Bee voice
Mouse Hot 【On】	Mouse Switching, Press 【Enter】 to 【On】 changed to 【Off】 shows mouse is unable operate to OSD
Restore Values	Restore factory default values Display time, NAME, Quick View and so on, F1 operate function except
About KVM	Press 【Enter】 to display the KVM version,

F6: Edit



Set Port Name:

- Use **【↑】****【↓】** key choose channel;
- After click **【F6】** key, cursor is resting the first letter that you want to modify;
- Use **【Enter】** key save new name and exit line editor
- Use **【Esc】** key cancel this time operate and exit the editor

Note:

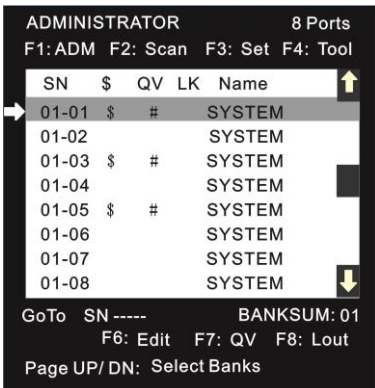
NAME Name Characters include:

Alpha Characters: A-Z


All numeric characters: 0-9

Default: SYSTEM

F7: QV



Set Quick View:

- Use **【↑】****【↓】** key choose channel;
- Press **【F7】** key to set current channel Quick View , View have a symbol  displays in this column to indicate

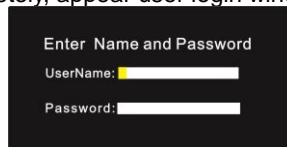
Note:

Press **【F7】** to cancel the QV symbol is the current port has already have a QV arrowhead symbol in its QV column; if you want to cancel all the QV function, press Restore Values under **【F4】**:Tool.(The port name restores to default setting at the same time.)

F8: Lout

Set lock control platform port

- Press **【F8】** key exit OSD main menu and exit the current port completely, appear user login window



- If user want to login in, must input user and password

OSD factory default settings

Set	Default value
OSD hotkey	Twice 【Scroll Lock】 key
ADM Factory user	Press 【Enter】 key
ADM Factory password	Press 【Enter】 key
Port shown time	0s
Port shown mode	Cascade port number +port number + port name
Port name	SYSTEM
Scan time	5s
Scan mode	All
Automatic	【Esc】 key

Operate system





The following table means support operate system:

Operate system		version
Windows		2000 or higher
Linux	RedHat	6.0 or higher
	SuSE	8.2 or higher
	Mandriva(Mandrake)	9.0 or higher
UNIX	AIX	4.3 or higher
	FreeBSD	3.51 or higher
	Sun	Solais8 or higher
Nove11	Netware	5.0 or higher
Mac		8.6 or higher
DOS		6.2 or higher

USB module simulation keyboard









Mac Keyboard

The PC compatible (101/104 key) keyboard can emulate the functions of the Mac keyboard. The emulation mappings are listed in the table below:

PC keyboard	MAC keyboard
[Shift]	Shift
[Ctrl]	Ctrl
	
L_Win & "1"	
L_Win & "2"	
L_Win & "3"	
L_Win & F12	
[Alt]	Alt
[Print Screen]	F13
[Scroll Lock]	F14
	=
[Enter]	Return
[Backspace]	Delete
[Insert]	Help

Sun Keyboard

The PC compatible (101/104 key) keyboard can emulate the functions of the Sun Keyboard when the Control Key [L_Win] is used in conjunction with other keys. The corresponding functions are shown in the table below.

PC keyboard	Sun keyboard
L_Win&L_Alt	Stop
L_Win&F4	Again
L_Win&L_Ctrl	Props
L_Win&F5	Undo
L_Win&F1	Front
L_Win&F6	Copy
L_Win&F2	Open
L_Win&F7	Paste
L_Win&F3	Find
L_Win&F8	Cut
L_Win&"1"	V_DN  
L_Win&"2"	Mute  
L_Win&"3"	V_UP  
L_Win&F12	Power 
L_Win&F11	Help
L_Win&L_Shift	Compose
	◆

Appendix

Technical Specifications

Performance parameters		KVM-1708A	KVM-1716A
Host Connections	Direct	8	16
	Maximum	256	512
Emulation	Keyboard, mouse	PS/2, USB	
LCD	LCD Type	SXGA TFT	
	Display area	17 "	
	Best Resolution	1280×1024@60Hz	
	Color	16.7 M	
	Luminance	250cd/m ² (Typ)	
	Contrast ratio	1000 : 1 (Typ)	
	Pixels intervals (mm)	0.264(H) × 0.264(W)	
Touch Pad	X/Y resolution	>1000 / inch, (40 point /mm)	
	Wheel	Support wheel function	
Keyboard		99keys(82keys+17independent Number keys)	
Port Selection		OSD menu, hot key, Pushbuttons and mouse	
Power Input rating		100V- 240Vac , 50~60Hz , <1.5A	
Power Consumption		17W	23W
Operating temperature		0—40 °C	
Store Temperature		-20~ 60 °C	
Humidity		0~80% RH, Non-condensing	
Net Weight		13.6kg	13.7kg
Unit Dimensions (W x D x H)		448mm×581mm×42.5mm	
Package Dimensions (W x D x H)		765mm×615mm×185mm	
Optional Power Supply		-36V~ -72V DC (Model: KVM-1708D/ KVM-1716D)	

Troubleshooting

1. The KVM console do not work when I connect and use the console for the first time.

Solutions:

Please re-connect the KVM console according to below steps:

- 1) Disconnect all the signal and power cables connected to KVM.
- 2) Then power on KVM and you hear the boot indicating sound from the beeper, a screen automatically pop up for you to enter the user name and password.
- 3) Type in the correct user name and password, the original password is clicking Enter twice, then the OSD main menu pop up on the screen.
- 4) Check the KVM console and make sure it can normally switch ports.
- 5) Connect one server (PC) to one of the KVM ports with signal cable and check port switching function, check the keyboard and mouse, if they are not working, try to re-start the server (PC).
- 6) After successfully finishing all above steps, gradually add server (PC) to this console until meet your need.

2. There is no pop up window to type in user name and password or the pop up window is not normally displayed.

Solutions:

- 1) Check the AC/DC output.
- 2) Make sure you have heard the indicating sound and the keyboard LED is on after starting up the computer.
- 3) Check the LED power and make sure the LED signal cable has connected to the KVM console.

3. I can't log in the KVM system after starting computer.

Solutions:

- 1) Make sure the KVM keyboard is working, the user name and password is correct. The default value is blank, you can log in after press Enter.
- 2) If you still can't log in the system, try to connect an external USB or PS/2 keyboard.(The original default value is blank, you can log in after double clicking Enter)

4. I can't switch from one port to another after logging in the KVM system.

Solutions:

- 1) Invoke the OSD main menu and check the user name on the top left, make sure the user has got the access permission from the administrator.
- 2) Please contact the distributor or the KVM manufacturer.

5. Bad display quality of PC screen.

Solutions:

- 1) Check the signal cables, make sure they are connected.
- 2) Reset the monitor's display settings.

6. When I switch to one port, the keyboard and mouse do not work.

Solutions:

- 1) Make sure you have exited the OSD menu.
- 2) Invoke the OSD main menu and check the user name on the top left, make sure the user has got the access permission from the administrator.
- 3) Pull out the USB port of the server (PC) then plug in.
- 4) If you connected the PC with PS/2 port, try to re-start the server (PC).

7. I can't invoke the OSD main menu.

Solutions:

- 1) Check the keyboard to make sure it is working.
- 2) Double click **【Scroll_Lock】**.
- 3) Double click **【F12】**
- 4) Double click **【Caps Lock】**

8. The OSD code is in disorder or abnormal displayed when daisy chaining.

Solution:

Invoke the OSD menu after daisy chaining, press **【F1】** and choose **【Load default】**, then press enter to refresh OSD ROM.