



8 ports/16 ports USB/PS/2 Combo-KVM Switch



Manual

DS-23200-2 • DS-23300-2

PRODUCT MODEL LIST

Model	Specification
DS-23200-2	8 input (USB & PS/2), 1 output (USB), Supporting cascade & hub.
DS-23300-2	16 input (USB & PS/2), 1 output (USB), Supporting cascade & hub.

- Please check to make sure that all the components are present and that nothing was damaged in shipping. If you encounter a problem, contact your dealer.
- Read this manual thoroughly and follow the installation and operation procedure carefully to prevent any damage to the unit, and/or any of the devices that connect to it.

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OVERVIEW

8 ports/16 ports USB/PS/2 KVM (Keyboard, Video, Mouse) Switches are control units that allow access and control of up to 8 (DS-23200-2) or 16 (DS-23300-2) computers from a single USB/keyboard, USB/mouse, and monitor console.

There are two convenient methods to access any computer connected to the installation: (1) using the push button port selection switches located on each unit's front panel; (2) selecting from menus provided by the On Screen Display (OSD).

Setup is fast and easy: simply plug cables into their appropriate ports. There is no software to configure, and no incompatible problems. It works on multiple operating platforms (PC compatible, Sun, etc.).

There is no better way to save time and money than with a DS-23200-2/DS-23300-2

Installation: Since a single console manages all of the computers, the DS-23200-2/DS-23300-2 setup (1) eliminates the expense of having to purchase a separate keyboard, monitor, and mouse for each computer; (2) saves all the space those extra components would take up; (3) saves on energy costs; (4) eliminates the inconvenience and wasted effort involved in constantly moving from one computer to another.

PACKING LIST

The complete 8 ports/16 ports USB/PS/2 KVM switch package consists of:

- 8 ports/16 ports USB/PS/2 KVM switch
- Power Adapter
- User Manual

FEATURES

- One console controls 8 or 16 computers
- Be compatible with USB/keyboard and mouse in console and PS/2, USB keyboard and mouse in computer
- Computer selection via front panel switches and OSD
- LEDs display for easy status monitoring
- Auto Scan Mode for monitoring all computers
- Superior video quality
- Easy installation – no software required
- Hot pluggable – add or remove computers for maintenance without powering down the switch
- Support Windows, Solaris etc.

HARDWARE REQUIREMENT

CONSOLE

- A VGA, SVGA monitor capable of the highest resolution that you will be using on any computer in the installation
- A USB/mouse
- A USB/keyboard

COMPUTER

The following equipment must be installed on each computer:

- A VGA, SVGA card
- PS/2, USB keyboard and mouse ports

OPERATION SYSTEM

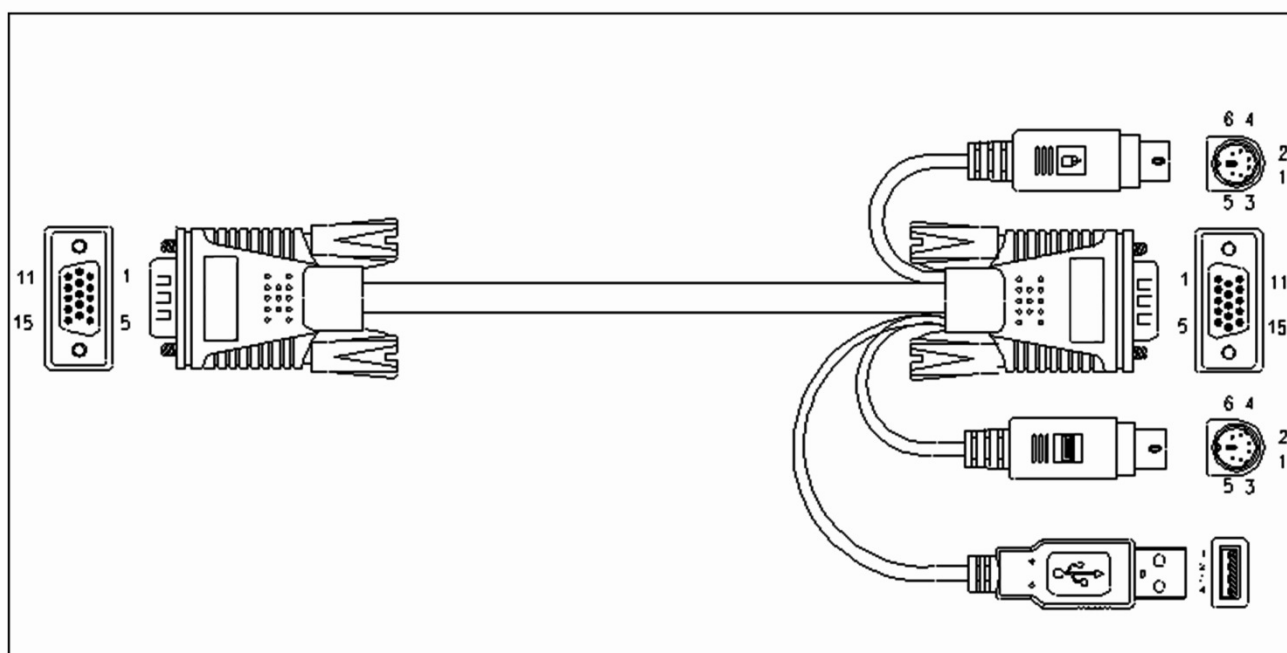
Operation System		Version
Windows		Windows 2000/XP/2003/2008/Vista/7/10
Linux	RedHat	9.0 or higher
	SuSE	10/11.1 or higher
	Debian	3.1/4.0
	Ubuntu	7.04/7.10
UNIX	AIX	4.3 or higher
	FreeBSD	5.5 or higher
	Sun Solaris	8 or higher
Mac		OS 9.0~10.6 (Snow Leopard)
Novell	Netware	6.0 or higher

More operating system support, please pay attention to the latest version of the relevant product compatibility.

CABLE

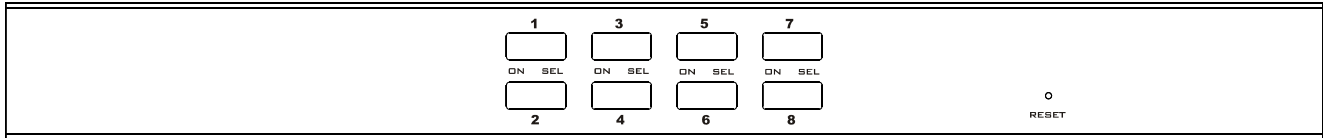
Only customized KVM cable sets, which are specially designed to work with these switched, may be used. To purchase DIGITUS KVM cable sets, contact your dealer.

VGA+ USB (Type A)+ PS/2 Keyboard (Purple) +PS/2 Mouse (Green)

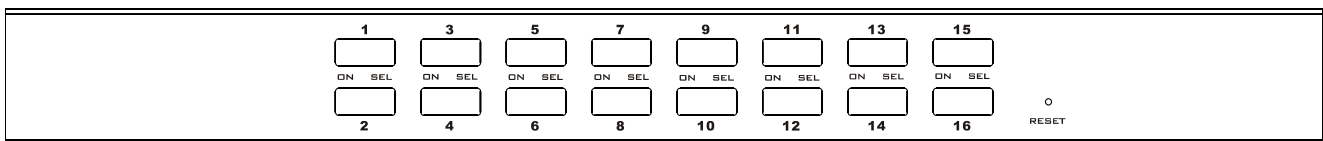


INTRODUCTION

Front View



8 ports selection switches



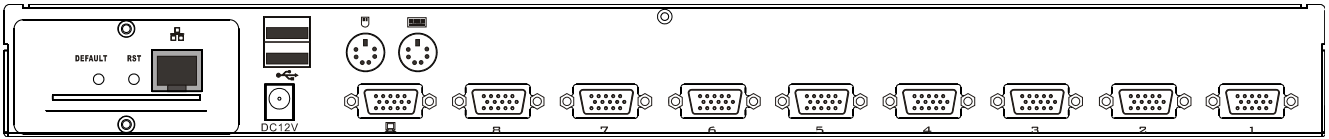
16 ports selection switches

1&2

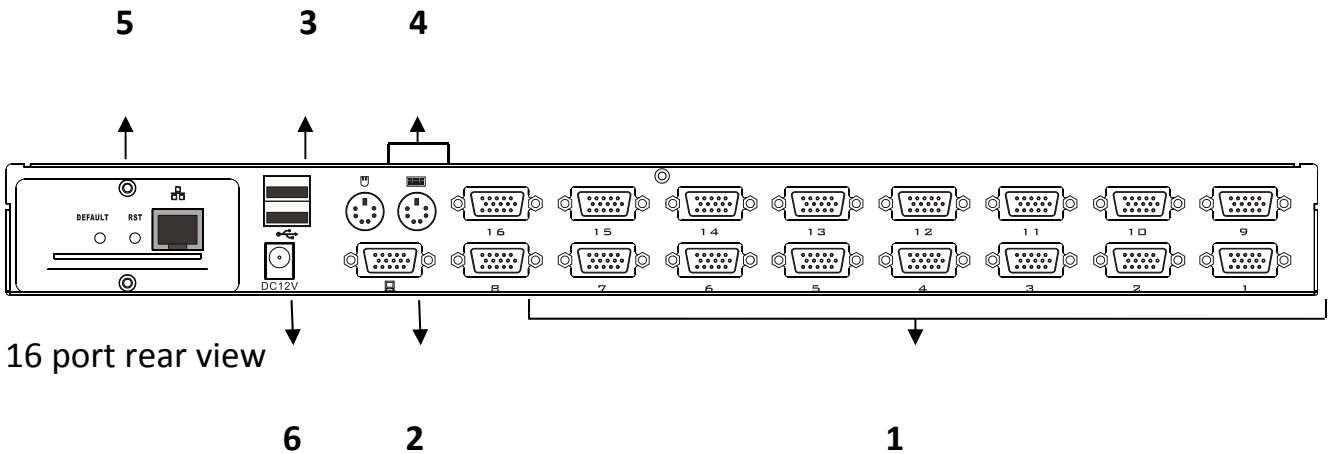
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No.	Section	Function
1	Port Selection Switches	Press a switch button to access the computer attached to its corresponding port. The internal buzzer beeps, it means that the switching action is performed correctly, The selected port LED will light up as well.
2	Port LEDs	<p>The port LEDs are built into the Port Selection Switches. The upper ones are the On Line LEDs; the lower ones are the Selected Port LEDs:</p> <ul style="list-style-type: none"> ◆ The On Line LEDs light RED to indicate that the computer attached to the corresponding port is up and running. ◆ The Selected LEDs light GREEN to indicate that the computer that attached to the corresponding port is the one that has the KVM focus.
3	Reset	If KVM has no responding, plug needle or ballpoint pen into the hole to reset KVM

Rear View



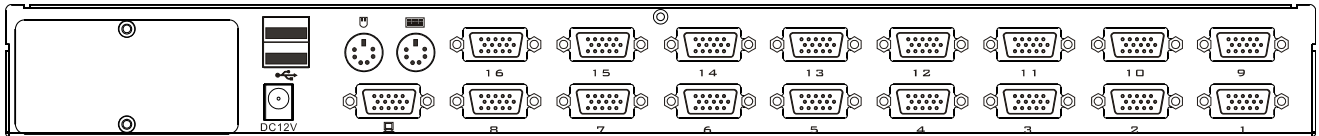
8 port KVM rear view



16 port rear view

No.	Section	Function
1	KVM Connection Port	Port to connect computer. Connect one end of the VGA connector of the corresponding KVM cable to this, and the other end of the keyboard connector to the port corresponding to the PC. (Refer to the description of "Cable" in the relevant section.)
2	VGA port	Connect the VGA cable from the control panel to this port.
3	USB Keyboard, Mouse port	Plug your USB keyboard, USB mouse. USB Type A (Optional)
4	PS/2 Keyboard, Mouse port	Plug your PS/2 keyboard, PS/2 mouse (Optional)
5	IP Remote Control Part	To provide users with remote network control. (Refer to the instruction manual of the module product for specific operation.) (Optional)
6	Supply hub	Plug the power adapter here.

If you purchase the product does not contain IP expansion module is similar to the product shown below.



DS-51000-1

No IP Module Rear View

The part marked with “DS-55100-1” is the external baffle of the extended IP module, and it needs to be removed and replaced to install the IP module.

INSTALLATION

Single KVM device installation

Note: Before installation, make sure that the equipment is powered off. To prevent damage to the equipment during installation, make sure that all the devices installed are well grounded.

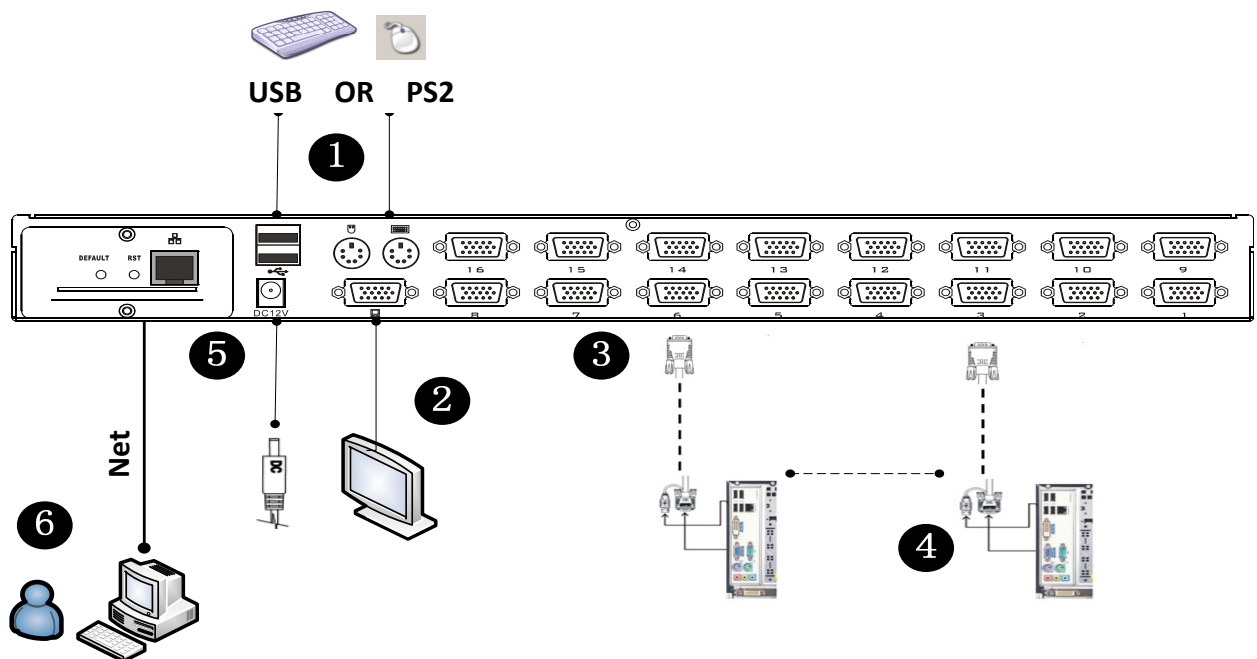
To install a single-level KVM, refer to the following online diagrams (numbered in the order of steps on the online graph) and operate as per bellowing:

1. Plug your USB keyboard, mouse, or PS/2 keyboard and mouse into the USB or PS/2 console port on the rear of the switch.
2. Connect the VGA monitor's video signal cable to the VGA console port and turn on the power.
3. Plug the VGA connector into the VGA port of any available VGA port on the switch by using a set of KVM cables corresponding to the product model.
4. Connect the corresponding VGA video connector, USB or PS/2 connector of the KVM cable to the corresponding PC port.
5. Plug the power adapter supplied with this package into the AC power supply, and plugs the other end of the power adapter into the power jack on the switch.

6. Connect the network cable to the IP port of the IP module. (Optional)
7. Turn on the computer.

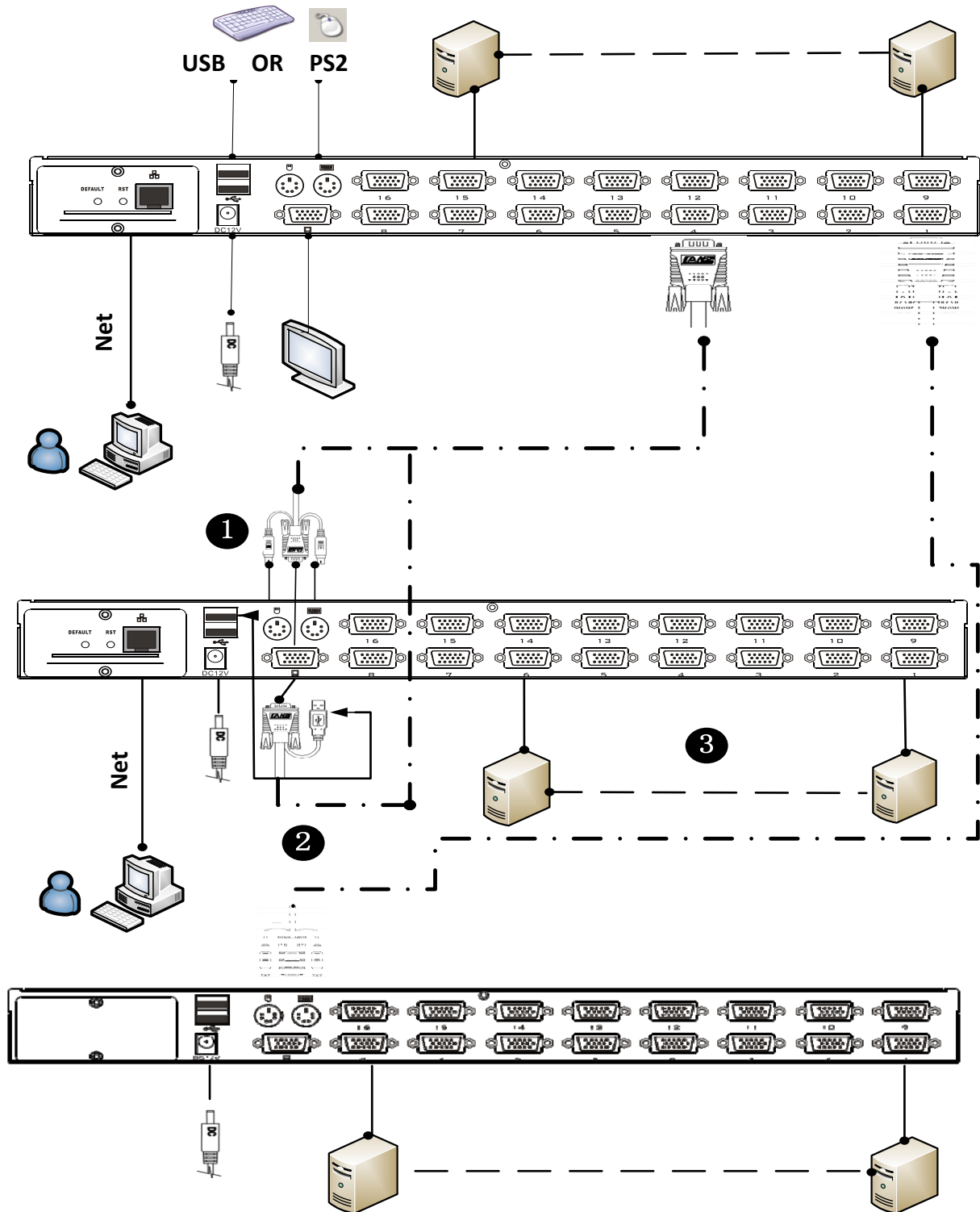
Note:

1. Make sure all plugs are connected to the same set of KVM port jacks (all on port 1, or all on port 2).
 2. The IP module is an optional module of the product. If the product you purchased does not contain the module, please ignore the related operation in Step 6.
 3. Before using the IP module, please make the corresponding configuration and network debugging, and then connect to the network you want to connect. Otherwise, the IP module may not be able to control normally because of the connection failure. (Refer to the manual of the IP module product manual for how to use and debug the IP module.)
-



Cascade device connection

This product can be cascaded to increase the number of controlled devices, combined with IP remote control mode can be flexibly used in a variety of user environment requirements.



The cascade mode, it's the same method of keyboard, mouse and computer connections as stand-alone connection, this part will not repeat them, the number part of the description is as follows:

1. A cascaded KVM switch can be connected in two ways by using a USB KVM cable or a PS/2 KVM cable, Connect to the upper-level switcher.
2. The number of computers connected to each level can be free to increase or decrease according to your needs.

Important Note: This cascade mode is divided into two levels, you need to set the two levels of the OSD menu hot-key for two different hot-key combination, Otherwise the cascaded KVM hotkey cannot be activated (All cascaded KVMs are belong 2nd level. Please refer to the OSD chapter for details on the OSD Hot Key settings.)

OPERATION

HOT SWAP:

The DS-23200-2/DS-23300-2 supports hot plugging. Components can be removed and added back into the installation by unplugging and replugging their cables from their respective ports without the need to shut the switch down. For hot plugging to work properly, the following procedure must be observed:

Hot Swap CPU Ports:

When to plug or unplug the cable from the port, the cable must be plugged back to the same port it removed

NOTE: The console section does not support hot plugging of PS/2 mouse and keyboard.

POWER OFF AND REBOOT:

If it becomes necessary to power off one of the KVM unit, before starting it back up you must do the following:

1. Shut down all the computers that are attached to the unit

Note: If the unit is operating under external power, unplug the power adapter cable.

2. Wait 10 seconds, then plug the power adapter back and power on all computers

PORT SELECTION:

The DS-23200-2/DS-23300-2 provides two methods to obtain instant access to any computer in your installation: manual and OSD.

Manual:

Simply press the appropriate port selection switch on the DS-23200-2/DS-23300-2's front panel. After pressing the switch, the selected LED lights will indicate that the port has the KVM focus.

OSD:

OSD (On Screen Display) provides a menu driven interface to handle the computer switching procedure to provide instant access to any computer on the installation. OSD operation is discussed below

OSD OPERATION

OSD OVERVIEW:

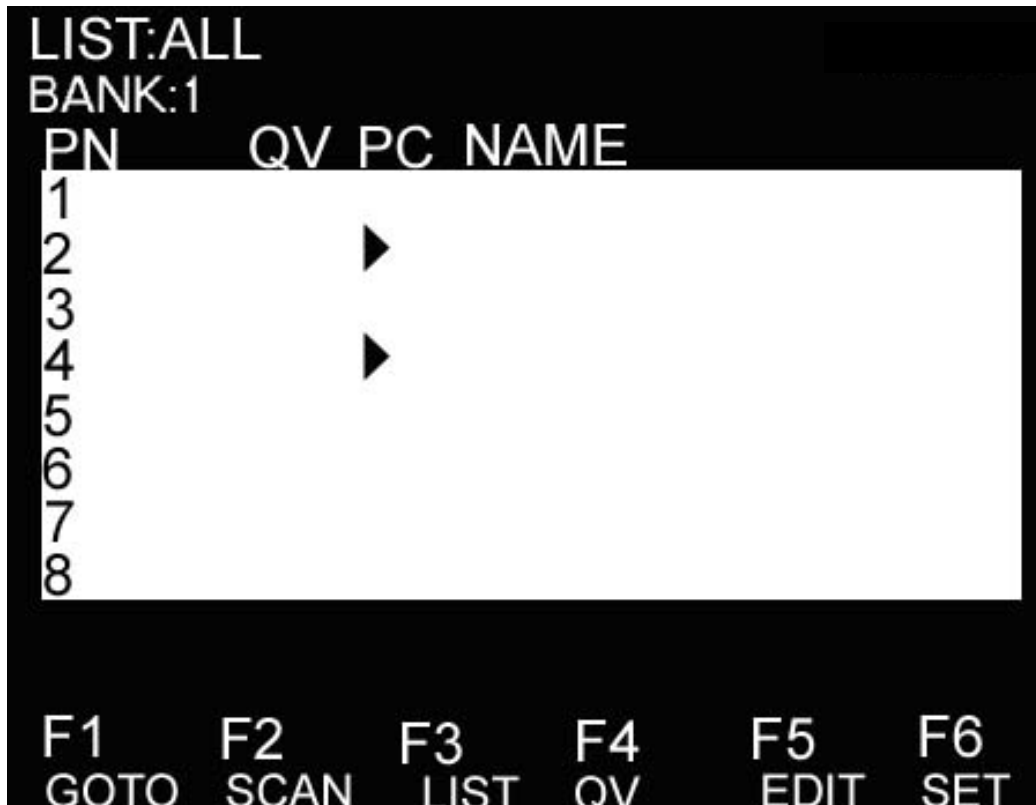
The On Screen Display (OSD) is used to handle all computer control and switching procedures. All procedures start from the OSD main menu. To pop up the main menu, tap the [ALT] twice.

Note: You can optionally change the hotkey to the [Ctrl] key, in which case you would tap [Ctrl] twice.

If OSD menu is set as “console locked”, you must input password each time the main menu appears. If no password has been set, just press [Enter] to show main menu.

Note: There are two passwords in OSD. One is user password which is initially empty. And the other is factory password which is “admin”.

OSD menu interface is shown as below:



Note: OSD always starts in List View, with the highlight bar at the same position it was in the last time it was closed.

OSD NAVIGATION:

To dismiss OSD, press [Esc].

To move up and down through the list one line at a time, use the Up and Down Arrow Keys. If there are more list entries than what can appear on the main screen, the screen will scroll.

To activate a port, move the highlight bar to it then press [Enter].

After selecting a port, the OSD menu automatically disappear and a blue tip window appears to indicate the port currently selected.

OSD MAIN SCREEN HEADINGS:

Heading	Explanation
PN	This column lists the port numbers for all the CPU ports on the installation. The simplest method to access a particular computer is to move the highlight bar to it, then press [Enter].
QV	If a port has been selected for Quick View scanning, an arrowhead symbol displays in this column to indicate so.
PC	The computers that are powered on and are on line have an arrowhead symbol in this column to indicate so.
NAME	If a port has been given a name, its name appears in this column.

OSD FUNCTIONS:

OSD functions are used to configure and control the OSD. For example, you can: rapidly switch to any port; scan selected ports only; limit the list you wish to view; designate a port as a Quick View Port; create or edit a port name; or make OSD setting adjustments.

F1 GOTO:

GOTO allows you to switch directly to a port either by keying in the port's name or its port number. To use NAME method, move highlight bar to "NAME", press [Enter], input name of a port, then press [Enter] to confirm. To use PN method, move highlight bar to "PN", press [Enter], input port number, and then press [Enter] to switch. If the port number is invalid, it will remind the user to input again.

To switch to other BANK, move highlight bar to "BANK", press [Enter], input bank number, and then press [Enter] to switch to the specified bank. If the bank is invalid, it will remind the user to input again.

Note: When keying name, if there is a matching name, the matched name will appear on the screen, just press [Enter] to switch to that port.

To return to main menu, press [Esc].

F2 SCAN:

The SCAN function can automatically scan from current selected port, the scan interval can be set by users. When scanning, a small window on the screen indicates the current port number. Press [Space] to stop scanning, and the KVM switches to the port last scanned.

F3 LIST:

The LIST function lets you broaden or narrow the scope of which ports the OSD displays on the main screen.

Many of the OSD functions only operate on the computers that have been selected for listing on the main screen with this function. The choices and their meanings are given in the table below:

Choice	Meaning
ALL	Lists all of the ports on the installation.
QVIEW	Lists only the ports that have been selected as Quick View Ports.
POWERED ON	Lists only the ports that have their attached computers powered on.
POWERED ON + QVIEW	Lists only the ports that have their attached computers powered on and have been selected as Quick View Ports.
QVIEW + NAME	Lists only the ports that have been selected as Quick View Ports and have name.
NAME	Lists only the ports that have names

Move the highlight bar to the choice you want, then press [enter]. An icon appears before the choice to indicate that it is the currently selected one.

After you make your choice and press [Enter], you return to the OSD main screen with the newly formulated list displayed.

F4 QV:

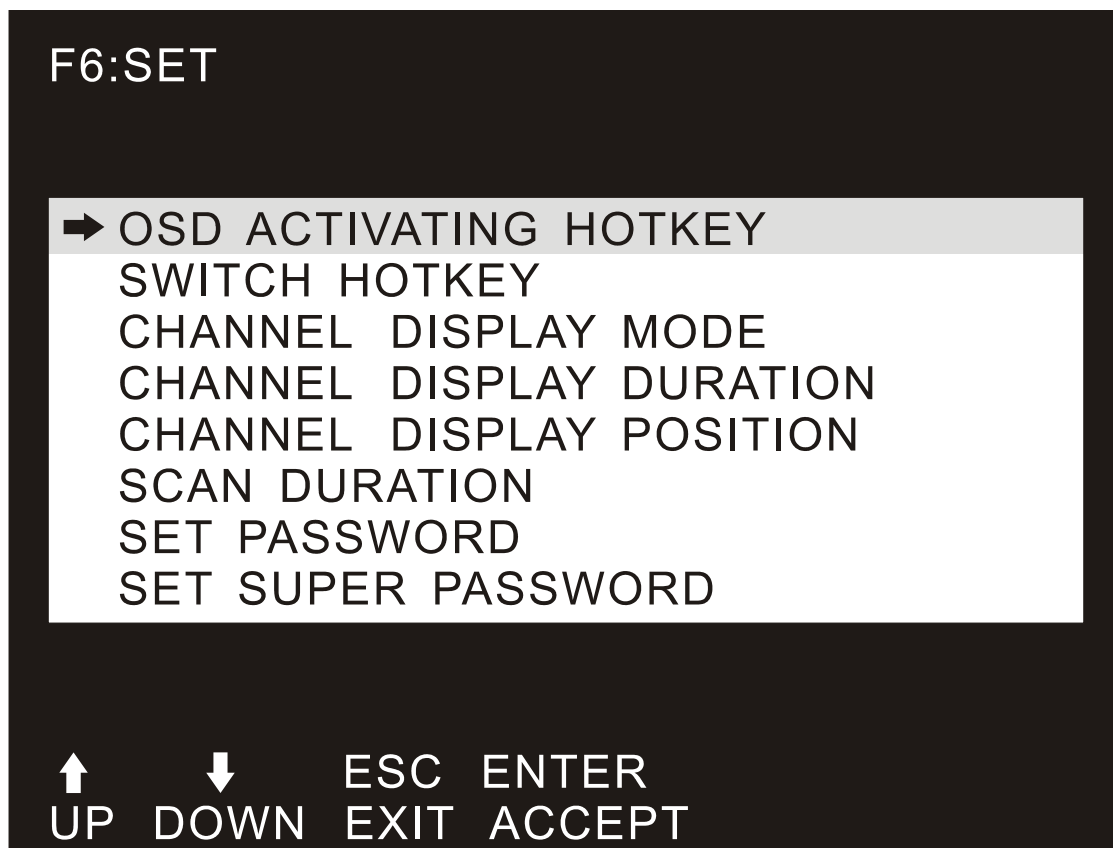
QV function can select port as Quick View. Move the highlight bar to a port, press [F4], an icon of up triangle appears. Press [F4] again, the icon disappears.

F5 EDIT:

EDIT function creates or edits the name of a port. Press [F5], a pink edit box will appear on the screen. Input name, and then press [Enter], the port is set a name and it will also appear on the screen.

F6 SET:

SET function settings can be set to the administrator and the user to set the OSD menu. The related functions and user rights related settings, such as management settings login password, display mode, switch hotkey adjustment and so on.

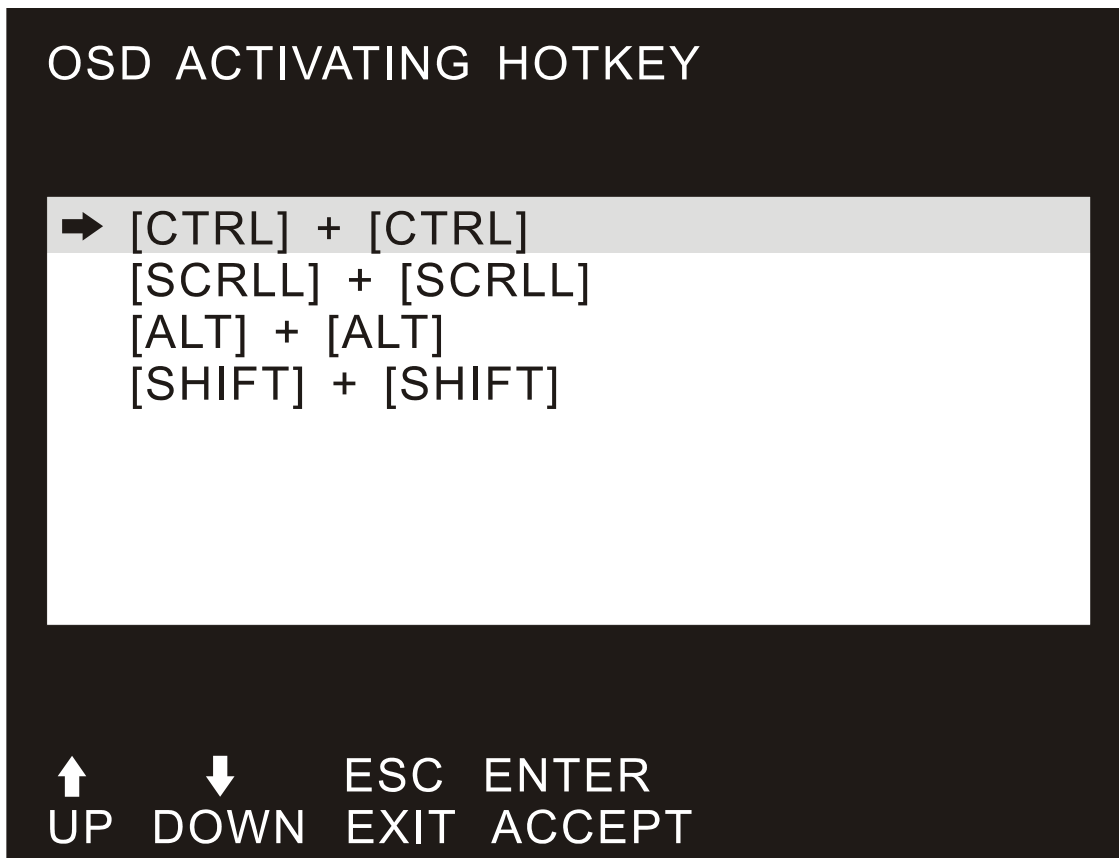


To change your settings

1. Move the highlight bar to an option; press [Enter] to enter a setting option.
2. After selecting an item, the sub-menu and the further options provided will appear. To select it, double-click the mouse or move the selection column to the option, and then press the [Enter] key, an icon will appear. Select the option before to indicate that the item has been selected. The settings are described in the following table:

Settings	Function
OSD ACTIVATING HOTKEY	OSD Menu Activates hotkey combination selection settings
SWITCH HOTKEY	KVM port switch hot-key combination selection setting
CHANNEL DISPLAY MODE	Port display mode selection
CHANNEL DISPLAY DURATION	Select the Port form to display the Dwell Time setting
CHANNEL DISPLAY POSITION	Select the port form display location settings
SCAN DURATION	Port scan dwell time setting
SET PASSWORD	User login password settings
SET SUPER PASSWORD	The administrator login password settings
CLEAR THE NAME LIST	Clear the port name setting
RESTORE DEFAULT VALUE	Reset
LOCK CONSOLE	OSD Menu Password Login Function settings

OSD ACTIVATING HOTKEY



It provides you with four hotkey combinations:

You can use the keyboard [↑] [↓] to move cursor to select, and then press [Enter] key to save. **The default is to use [ALT] [ALT] as the OSD menu start hotkey.**

SWITCH HOTKEY:

It provides you with four hotkey combinations:

[SCROLL] [SCROLL] [NUM] [CTRL] [CTRL] [NUM] [ALT] [ALT] [NUM] [SHIFT] [SHIFT]
[NUM]

You can use the keyboard [↑] [↓] to move cursor to select, and then press [Enter] key to save. **The default is to use [SHIFT] [SHIFT] [NUM] as the switch hotkey.**

[NUM] is the numeric keypad of the keyboard. The valid numeric range is [01] - [16].

SWITCH HOTKEY

➔ [SCROLL] + [SCROLL] + [NUM]
[CTRL] + [CTRL] + [NUM]
[ALT] + [ALT] + [NUM]
[SHIFT] + [SHIFT] + [NUM]

↑ ↓ ESC ENTER
UP DOWN EXIT ACCEPT

CHANNEL DISPLAY MODE:

This function provides three different port display modes: PN + NAME port serial number and port name, PN only show port serial number, NAME only show port name. You can adjust according to the actual needs of choice, the initial default PN + NAME mode.

CHANNEL DISPLAY DURATION:

Time the tip window last.

Options are following:

- 3 SECOND The tip window lasts for 3seconds
- ALWAYS ON The tip window always on the screen

Move the highlight bar to an option and press [Enter] to select it.

CHANNEL DISPLAY POSITION:

Position of the tip window.

A small blue window appears on the screen. Use arrow key to move it, and then press [Enter] to specify the position.

SCAN DURATION:

Duration for scanning one port.

Options are 3 seconds, 5 seconds, 10 seconds, 15 seconds, 20 seconds, 30 seconds, 40 seconds, and 60 seconds. Move the highlight bar to an option and press [Enter] to select it.

OSD ACTIVATING HOTKEY: Select OSD activating hotkey

- [Ctrl] [Ctrl] Set hotkey as [Ctrl] [Ctrl]
- [Scroll] [Scroll] Set hotkey as [Scroll] [Scroll]
- [Shift] [Shift] Set hotkey as [Shift] [Shift]
- [Alt] [Alt] Set hotkey as [Alt] [Alt]

Move the highlight bar to an option and press [Enter] to select it.

SET PASSWORD: Set new password.

First enter old password, then enter new password and confirm it. The new password is set. If error occurs, the screen will remind users.

CLEAR THE NAME LIST:

Clear the names of port list. You need to enter password to clear the names of port list.

RESTORE DEFAULT VALUE:

Restore settings to default value.

You need to enter password to restore settings to default value.

Note: The user password will also be cleared, and the factory password will not.

LOCK CONSOLE:

Lock the console. You cannot switch or scan after you lock the console (including switch by push button on the panel or OSD). You need to enter password to set.

Note: After locking the console, you can also unlock the console by this option. It also needs password verification.

TROUBLESHOOTING:

Symptom	Possible Cause	Action
Keyboard and/or mouse not responding.	No connection to the computer.	Check the cable from the switch to the computer to make sure it is properly connected.
	KVM switch needs to be reset.	Press reset button on the rear panel.
OSD menu no display.	Power supply problem.	Plug power adapter to supply enough power.

SPECIFICATION:

Function		DS-23200-2	DS-23300-2	
Computer Connections	Direct	8	16	
	Cascade(Max)	128	256	
CPU Port Selection		OSD Menu, Front Panel Hot-Key, Hot-key, Remote Control IP (Optional)		
Connector	Console Connectors	Video	1 x VGA DB15 Female Blue	
		Keyboard	1 x USB Type A Female, 1 x PS2 Female (Purple)	
		Mouse	1 x USB Type A Female, 1 x PS2 Female (Green)	
	Computer Connectors	Video/Keyboard/Mouse	8 x VGA DB15 Female (Blue)	16 x VGA DB15 Female (Blue)
	Power		1 x DC	
	IP Module Network Interface		1 x RJ45	

Toggle Switch	Connection Port Selection	8 x Button	16 x Button
	KVM Reset	1 x Semi-embedded keys	
	IP Module Reset	1 x Semi-embedded keys	
	IP Module Default	1 x Semi-embedded keys	
LEDs	Computer Selection Port	8 x Green	16 x Green
	On Line	8 x Red	16 x Red
	IP Module Network Interface	1 x Green, 1 x Orange	
Analog Mode	Keyboard, Mouse	USB, PS2	
Video resolution (Max)		1920 x 1200 @ 60HZ Local & Remote	
Scan time interval		3, 5, 10, 15, 20, 30, 40, 60s (3s by default)	
Operating Environment	Operating temperature	-10°C~50°C	
	Storage temperature	-20°C~60°C	
	Humidity	0-80%RH, No Condensation	
Physical Properties	Housing	Metal	
	Size	432 x 155 x 44 mm	
	Weight	1.82KG	

SAFE GUIDE:

- Please follow the directions below when installing, using and maintaining it in order to guarantee the device to work well
- When installing and operating the device, please make sure proper power supply first, and then do other operations after it is initialized
- As signal and power transfer need custom cable, please use matched cable, unmatched cable may cause system work improperly or even damage the device
- Keep airy during operating to prevent high temperature
- Keep the device away from working long in wet environment to prevent short circuit
- Please do not open the device without permission of professionals

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