



瑞众科技
RUIZHONG TECHNOLOGY

LCD KVM SWITCH

4/8/16 port

User Manual



CE FC RoHS

ISO9001-2015 Certification

CONTENTS

1	PRODUCT CHARACTERISTICS.....	3
1.1	KVM TRAIT.....	3
1.2	KVM PACKAGING CONTENT.....	3
2	HARDWARE SUMMARY.....	3
2.2	FRONT PANEL LIGHT NUMBER AND PUSH-BUTTONS.....	4
2.3	CRESSET.....	4
2.4	PORT DEBUGGING SELECTION.....	4
2.5	REAR-PANEL PORT.....	5
3	KVM HARDWARE INSTALLATION.....	5
4	BUTTON AMD HOTKEY OPERATION.....	7
4.1	CONTROL THE KVM IN MULTIPLE WAYS.....	7
4.2	OSD PARAMETER SETUP.....	7
4.3	OSD FUNCTION SETUP EXPLANATION	7
4.3.1	OSD HOMEPAGE	7
4.3.2	OSD SUBPAGE.....	8
4.3.3	PORT PAGE.....	9
4.3.4	THE PASSWORD LOGIN WINDOW.....	9
4.4	OSD STEP EDIT.....	9
4.4.1	PORT NAME EDIT.....	10
4.4.2	PASSWORD EDITING.....	10
4.4.3	HOT-KEY OPTIONS.....	11
4.4.4	SCAN SETUP.....	12
4.4.5	LCD ENERGY-SAVING SETUP.....	13
4.4.6	RESET.....	13
5	DDC FUNCTION.....	13
6	TROUBLESHOOT IT.....	14
7	LCD KVM SERIES OF PARAMETERS.....	16
8	CERTIFICATION.....	18

KVM ABSTRACT:

LCD Combo KVM Switcher (hereinafter referred to as KVM Switcher) can be controlled by the connected server or computer by the local controller. The LCD KVM switch is controlled by the local control end, screen menu, password security, hot key control, buttons and automatic scanning control. This KVM switch can fully simulate the simultaneous computer keyboard and mouse signal.

1: Product characteristics:

- ◆ 4/8/16 PORT KVM Switcher
- ◆ Support for a local control terminal
- ◆ Support Microsoft Windows, Netware Unix With Linux ,Kirin system
- ◆ No software required: you can easily select your computer through on-screen menus, buttons, or hotkeys
- ◆ Multiple hotkey combinations are available (Scroll-Lock/ Caps-Lock/ Num-Lock/ OSD KVM), To switch the computer ports with other control functions, so the hotkey function can be used in various types of keyboards can also prevent the hot key from having duplicate problems
- ◆ Supports two levels of password security protection
- ◆ Provides an ACL (allow control list) security feature that can store up to eight separate control lists
- ◆ Hotplug: You can add or remove connected computers without shutting down the KVM switcher or the computer
- ◆ Support display plug and play
- ◆ Keyboard state is restored when switching computers.

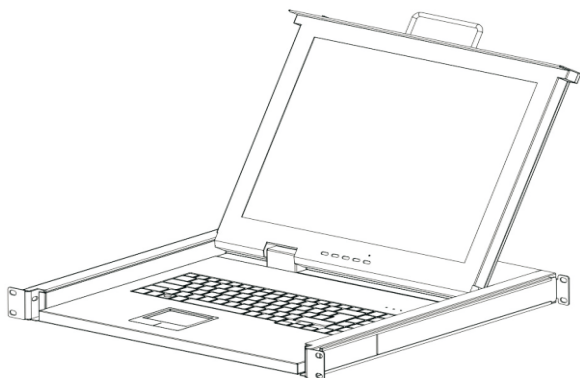
1.1: Packaging content:

- ◆ 1 x LCD KVM Host
- ◆ 1 x AC TO DC Adapter (Built-in Power Cancell)
- ◆ 2 x Mounting bracket
- ◆ 1 x Warranty card
- ◆ 1 x Qualified card
- ◆ 1 x AC Power line

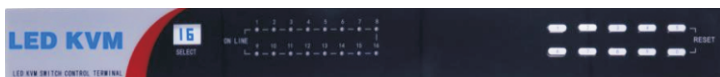
If any of the above items is missing or damaged, please contact your vendor.

2: LCD KVM Hardware summary :

2.1: LCD KVM Elevation drawing:



2.2: KVM Signal lights and buttons:



2.3 The Port status displays the light number:

Cresset	color	state	The narrative
SELECT	Blove	Digital display	The digital display indicates the online current port
ON LINE	Blove	Long bright	Indicates the computer to connect to this port
		Flashing	Indicates that this port is already selected

2.4 Port shortcut key debug selection :

- * KVM OSD Interface debugging and selection port:
Hotkey to enter the OSD interface, using the keyboard number key 01 (0 + 1 Combination) TO 16(1+ 6 Combination) , Quickly select ports for editing and current server operations.

* The front panel button provides you with the desired port operation to select below:

Model	Button	The narrative
KVM-04	01-04	Port key01 (0+1)16(1+6) Digital combination, when the key combination, the effective combination time is 1 second
KVM-08	01-08	
KVM-016	01-16	
	RESET	Support for the system reset

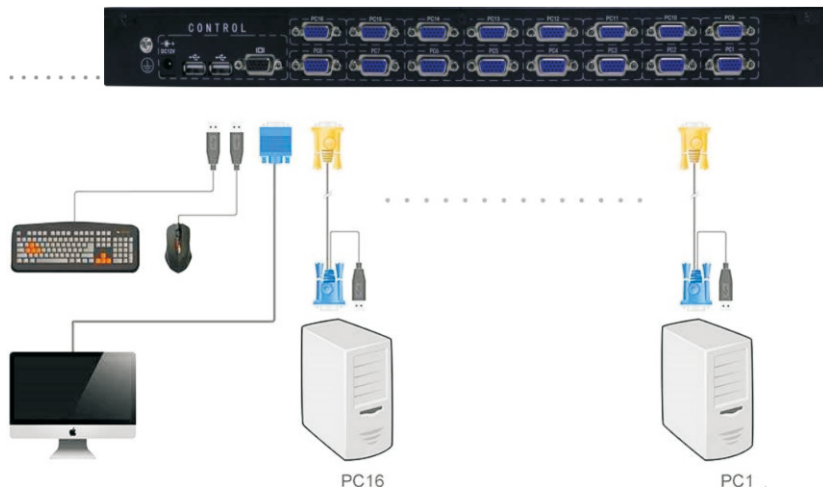
* Note: Under the operation of OSD and password login interface, the port selection button on the front panel is invalid.

2.5: Rear-panel port:



3: KVM Hardware installation:

3.1: Connect the display screen to the local control terminal of KVM back panel HDDB15 female head port. Connect the keyboard to one of the USB ports and the mouse to the other.



3.1.1: 2-in-1 VGA wire rod, one end is HDDB15 male connecting head, the other end is two connecting heads



3.1.2: If connecting to USB computer, please use 2-in-1 VGA wire to connect to KVM controlled port and computer side. 2 in-1 VGA wire rod is HDDB15 male connection head at one end and two connection heads at the other end. Please connect one of the connection headers to the controlled end port and connect the two connection headers to the VGA and USB ports of the computer. This single USB port communicates keyboard and mouse signals. This works with standard HID(human machine interface device) without the need for additional drivers.

3.1.3: Please make sure you have connected the wires correctly. You can check the color of the keyboard and mouse connector to make sure that the keyboard and mouse cable are connected to the correct port.

3.1.4: Connect the power supply to KVM and connect the other end to the power socket. Now you can see the lights come on and you can hear a beep

3.1.5: Turn on display and computer. The first computer will be displayed on the screen. You can check whether the mouse and keyboard can work properly after the system is turned on. If it works, press the port selection button to select the next port and confirm whether it works as well. If any errors occur, recheck that all wires are properly connected before using the Troubleshooting section of this manual.

3.1.6: When switching servers, there is about 1-2 seconds to rearrange the image signal and resynchronize the mouse and keyboard signals. This is part of the normal operating procedure to ensure that proper synchronization can be established between the control side and the server to which it is connected.

3.1.7: When you turn on the KVM power, if the security mechanism function is enabled (the default is off), it will prompt a login window for you to enter your account and password. You need to be authenticated before you can begin to control this KVM.

Please note: when the computer is starting the process, do not switch the computer port (for example: do not press the KVM switch port selection button or hot button), and if the PS2 interface to the computer, the computer needs to connect to the computer or reboot the system, heavy each computer will communicate with the keyboard and the mouse. If you switch the computer port of this KVM at this time, you may cause an error between the computer or keyboard or mouse.

4: KVM key OSD hotkey setting operation:

4.1: KVM Control in many ways:

- 4.1.1: Use the front panel button of this KVM Switch
- 4.1.2: Use the menu (on-screen display menu)
- 4.1.3: Use the hotkey instruction through the control end keyboard

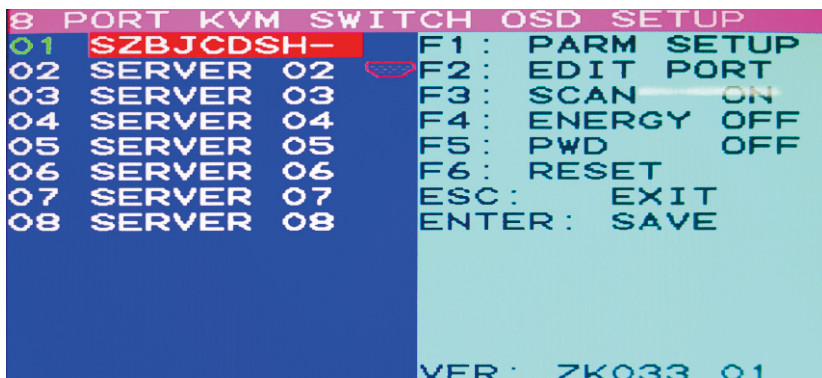
4.2: The hotkey enters the OSD setup interface:

You can easily control the KVM switcher through a simple hot key instruction. To send instructions to the KVM switcher, you must press the hot key (by default, CAPS LOCK) twice in 2 seconds. You will hear a beep to confirm that you are in hotkey OSD mode.

The default hotkey is **Caps Lock**, But you can change the hotkey to make it easier for your application. Selectable keyboard hotkeys (KVM OSD; Num LOCK. Scroll LOCK)

4.3: KVM OSD Function setup explanation

4.3.1: KVM OSD Main interface:



Order key	Main menu	Function
F1	PARAM SETUP	Function parameter settings
F2	PORT EDIT	Edit the port name
F3	SCAN OFF	Scan the switch
F4	ENERGY OFF	LCD Power switch
F5	PWD OFF	Password setting switch
F6	RESET	KVM System Reset
ESC	EXIT	OSD Exit
ENTER	SAVE	OSD Parameter Save To Exit

4.3.2: KVM OSD Deputy interface:



	Option	Function
1	PWD SETUP	8 Bit password setting
2	HOTKEY SETUP	OSD Hotkey keyboard function key Settings
3	SCAN TIME	Scan time Setup
4	ENERGY TIME	LCD KVM Power saving time setting

4.3.3: KVM Port display:



	Display the information	Function
1	KVM PORT:01	Displays port 1 online
2	SERVER01	Client edit port name can be displayed

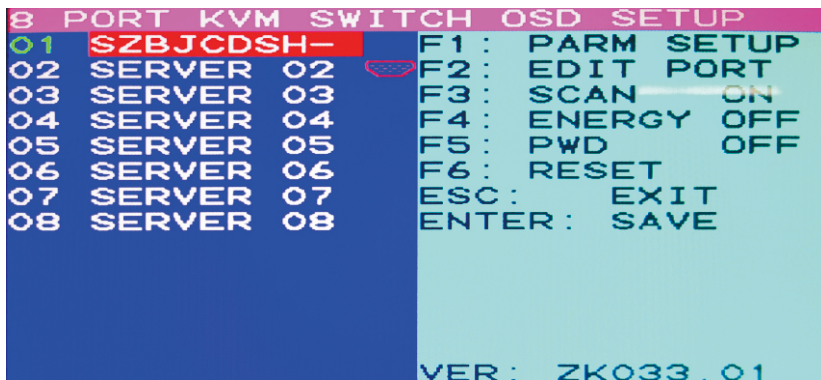
4.3.4: KVM The Password Login window:



	Display the information	Function
1	KVM PWD:	KVM Password:
2	*****	8 digits (Default Setup:00000000)

4.4: KVM OSD Setup instructions:

4.4.1: Port Server custom editing:



In the KVM OSD home page interface, press the F2 keyboard function key Edit Port to enter the PORT bar that the user needs to change. The PORT supports upper and lower case letters and numbers. If displaying capital letters, hold down the Shift key first, then select the corresponding letters. Edit the port number in turn, and press the up and down cursor keys or the number shortcut keys to select the corresponding port for editing. After finishing editing, return to the main page OSD interface and press Enter to save and exit automatically. Entering the OSD menu again and selecting the corresponding port will show the user edit server number.

4.4.2: KVM User password settings:



Press F1 on the OSD home page to enter the OSD parameter setting page, and select the first item: PwD ESTUP, Enter, the default is 8 0's in the red box below, first press the left cursor key of the keyboard to delete them one by one, the user will prepare the 8-digit password which is easy to remember frequently, then enter, return to the OSD interface of the home page, select and click the function key F5 PwD OFF password switch function on the keyboard. Change to ON Press Enter to save and exit automatically. When KVM is power off and reset and restarted, the display screen will display the PWD window of KVM. In the password protected state of KVM, the manual button and port indicator light on the panel keys cannot be used and the information display can be displayed. Enter the correct 8-digit password edited by the user in the password dialog window and all functions of KVM can be operated normally. Change ON to OFF by repeating F5 ON the OSD home page. Enter to save and exit. Password function is OFF.

Password missing and misoperation, resulting in access to the KVM system, try the initial password 8 0. Unable to log in the system due to password error, please contact the dealer engineer.

4.4.3: KVM OSD Hot-key options:



Press F1 on the OSD home page to enter the OSD parameter setting page, and select Item 2: CAPS LOCK, NUM LOCK, SCROLL LOCK, KVM OSD, CAPS LOCK, NUM LOCK, SCROLL LOCK, KVM OSD Users can edit the required hotkey functions according to their actual use and preferences and select Enter. ESC will return to the OSD interface of the home page. Press Enter to save and then enter the OSD interface again. Note that the "KVM OSD" option should be very careful, and

you need a dedicated keyboard to support this feature. The keyboard does not support this option, making KVM unusable. Processing results unplug the first port VGA signal, KVM power again, OSD main interface will automatically pop up. Go to the OSD Settings and select the OSD hotkey as another key

4.4.4: KVM Port Server scan time settings:



Press F1 on the OSD home page to enter the OSD parameter setting page, select the third item: Scan Time, enter, and the default is 20 seconds in the red box below. Press the left cursor key to delete the default TIME and change it to the SCAN touring TIME required by the user, which supports 255 seconds at most. After editing, enter, and return to the OSD interface F3 on the home page: “Select Scan On” press Enter to start the function. The KVM switcher will start the countdown. The countdown will be set according to this time and the port will be scanned automatically. Note: If the port is not connected to the computer or server, skip the scan. This time interval ranges from 10 to 255 seconds. Turn OFF the scanning function. Select Scan Off on the main interface of OSD (F3) and then the function will be turned OFF

4.4.5: KVM The display automatically closes the time setting:



Press F1 on the OSD home page to enter the OSD parameter setting page, and select Item 4: Press the left cursor key to delete it and change it to the automatic closing TIME required by the customer, which can be up to 12 hours. Enter after editing the required TIME, and return to the home page of OSD interface F4 to open the ENERGY saving function. Select "ON", press enter to save and exit automatically. This KVM switcher will be set according to this time. If the customer forgets to turn off the LCD screen after maintaining the machine room, KVM will automatically turn off the LCD screen power supply within the specified time. Achieve energy saving and long life of LCD use. Screen wake up, hit any key mouse can wake up the screen display. To disable this setting, repeat F4 ON the OSD home page and change ON to OFF.

4.4.6: KVM OSD System reset :

If abnormalities occur in the use of KVM, which will affect the use of functions, you can enter the OSD home page, press the keyboard F6 RESET, KVM will restart the system and automatically restore all functions of KVM.

5: DDC Function

This KVM switcher supports DDC (Display Data Channel). DDC is VESA (image electronic standards association), which sets the standard means of communication between display screens and graphics cards. With DDC, the display can tell the display card its properties, such as the highest resolution and

color depth. The graphics card will then use this information to ensure that the computer can display through the correct item.

FYA: The DDC function of KVM will dynamically detect and copy the DDC data to the local control terminal, and this information will be provided to each port so that the computer can correctly access this information.

6: Troubleshoot it:

Please make sure that all the wires are connected. The wire can be marked with the corresponding computer name and number to prevent confusion.

- 6.1 The front key of the KVM switcher has no light display and no function of the key.
- ◆ In the KVM password login state, the front key panel does not have any display, until the keyboard enters the password login, the front key panel can display and operate normally
 - ◆ When entering the main interface state of KVM OSD, it can only be displayed on the current port. The front manual key panel cannot select other ports to display.
 - ◆ Please make sure the power supply is connected to the KVM switcher. If there is still no light display, please do a soft boot (press the reset button on the front panel of KVM) to restart the KVM switcher.
- 6.2 When the computer is turned on, but the keyboard and mouse are not working.
- ◆ Please make sure that your keyboard and mouse directly connected to this computer can work properly.
 - ◆ Make sure the USB cable is connected and then restart the computer.
 - ◆ Do not press any key on the keyboard while the selected computer is starting up. Otherwise, it may result in keyboard error on the computer side or failure of keyboard detection.
 - ◆ Try using a different keyboard, but use the 101 / 102 / 104 key keyboard.
 - ◆ When switching ports, avoid moving the mouse or pressing any mouse key.
 - ◆ Press the Reset button on the KVM front panel (the 0+5 combination button) to restart the KVM switcher.
- 6.3 The display screen has no video signal.
- ◆ Connect your display directly to the server to confirm whether it can be displayed normally.
 - ◆ Please check that all connectors are properly connected.
 - ◆ Please make sure the power supply is connected to the KVM switcher.

- ◆ Use the hotkey and space bar to call out the on-screen menu and confirm that the ports are selected and connected to the server.
 - ◆ Look at the next item to make sure the computer's VGA output resolution matches the display resolution.
- 6.4 The computer's VGA resolution doesn't match the resolution of the display screen.
- ◆ Make sure the VGA resolution is normal when the display is connected directly to the computer.
 - ◆ Please turn off the computer and wait a while before turning it on again. Note that when the computer is turned on, an attempt will be made to get the connected display resolution again. So when the computer is turned on, please make sure that the display screen and KVM are turned on.
 - ◆ The DDC function of KVM will dynamically test and copy the DDC to the local control end, and this information will be provided to each port so that the computer can correctly access this information.
 - ◆ When you want to change the display, please turn off the KVM switcher first. Then connect to the new display to the KVM switcher and turn on the display again. You must turn on the display before the KVM switcher is turned on so that the KVM switcher can detect the display and transmit the Settings to the computer.
 - ◆ The recommended boot sequence is: display KVM switcher computer.
- 6.5 Forget the OSD menu log-in password.
- ◆ Try the default password first 8个0。
 - ◆ If you forget your changed password, please contact your local vendor.

7: LCD KVM Series of parameters:

Port connector	USB&PS2/VGA
Port number	4/8/16
Control Port Type	USB/VGA
The longest cable	1.8-10 米
Resolution output	1920 x 1440
port select	Menus, hotkeys, buttons
HOTKEY	Multiple hot keys : (Scroll-Lock/ Caps-Lock/ Num-Lock/ KVM OSD)
Auto-scan time	10 ~ 255 Secs
keyboard	USB&PS2 Jotter 104 Key, mechanical life :1000000
mouse	PS2 Laptop touchpad
KVM Cascade connection	256 One servers KVM-16 port
LCD Display parameters	Display specification: 15" /15.6" /17" /17.3" /18.5" /19" /21.5"
	Display scale: 4:3; 16:9
	Display type : XVGA----FHD TFT LCD
	Display brightness: 300-----1000
	Display contrast: 1000:1(TYP)
	Display resolution: 1024*768-----1920*1080 HD
	Display color: 16.7M
	Display backlight: LED , Work for 30-40,000 hours
	Display pixel pixels: See the appendix "A" Display view: See the appendix "A"
Power supply type	DC12V Adapte
power input	AC100-240V , 50/6HZ , DC12V 3.33A.
Model structure	1U 19" Rack-type,
Material	Aluminum alloy + electrolytic plate
Color	Black sprinkles (color can be customized)
power	19W
Working humidity	0~80%, No condensation
Working temperature	0 ~ 60 ° C
Save the temperature	-20 ~ 60 ° C
Gross weight	17-20KG
Model size (mm)	Appendix A

Appendix A: Model corresponding table:

Model size: MM	Model Display Resolution:
KVM15" Size: 445 x440 x 44	Show: 1024*768 60/75HZ
KVM15.6" Size: 445 x440 x 44	Show: 1920*1024 60HZ
KVM17" Size: 445 x520 x 44	Show: 1280*1024 60/75HZ
KVM17.3" Size: 445 x475 x 44	Show: 1920*1080 60HZ
KVM19" Size: 445 x585 x 44	Show: 1280*1024 60/75HZ
KVM18.5" Size: 445 x530 x 44	Show: 1366*768 60/75HZ
KVM21.5" Size: 445 x668 x 44	Show: 1920*1080 60HZ
KVM18.5"HD Size: 445 x530 x 44	Show: 1920*1080 60HZ
KVM23.8"HD Size: 445 x705 x 44	Show: 1920*1080 60HZ
Display:	Display pixel point: MM
15"	305*203 4:3 Pixel: 0.264*0.264
15.6"	346*194 16:9 Pixel: 0.180*0.180
17"	338*269 4:3 Pixel: 0.264*0.264
17.3"	380*215 16:9 Pixel: 0.198*0.198
19"	377*300 4:3 Pixel: 0.293*0.293
18.5" HD	408*230 16:9 Pixel: 0.213*0.213
18.5"	408*230 16:9 Pixel: 0.299*0.299

8 : Certification

FCC

This device has been tested and complies with FCC specification Part 15. The operation meets the following two conditions:

- (1) This device does not cause harmful interference.
- (2) This device must accept any interference reception, including abnormal operation that may result from the interference.

CE

This device complies with the following specifications: EN 60950-1: 2011+A2

Statement :

Industrial products are Class A products which may cause radio interference in the living environment, in which case practical action against such interference may be required.

**Please read the instructions carefully before using the product,
please keep the instructions properly for reference**

