

dedicated KVM switch and rackmount screen technology

# **User Manual**





Crystal Image Technologies, Inc. 800-542-2489

sales@rackmountsales.com

#### Legal Information

First English printing, October 2002

Information in this document has been carefully checked for accuracy; however, no guarantee is given to the correctness of the contents. The information in this document is subject to change without notice. We are not liable for any injury or loss that results from the use of this equipment.

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

- Unplug equipment before cleaning. Don't use liquid or spray detergent; use a moist cloth.
- Keep equipment away from excessive humidity and heat. Preferably, keep it in an air-conditioned environment with temperatures not exceeding 40° Celsius (104° Fahrenheit).
- When installing, place the equipment on a sturdy, level surface to prevent it from accidentally falling and causing damage to other equipment or injury to persons nearby.
- When the equipment is in an open position, do not cover, block or in any way obstruct the gap between it and the power supply. Proper air convection is necessary to keep it from overheating.
- Arrange the equipment's power cord in such a way that others won't trip or fall over it.
- If you are using a power cord that didn't ship with the equipment, ensure that it is rated for the voltage and current labeled on the equipment's electrical ratings label. The voltage rating on the cord should be higher than the one listed on the equipment's ratings label.
- Observe all precautions and warnings attached to the equipment.
- If you don't intend on using the equipment for a long time, disconnect it from the power outlet to prevent being damaged by transient over-voltage.
- Keep all liquids away from the equipment to minimize the risk of accidental spillage. Liquid spilled on to the power supply or on other hardware may cause damage, fire or electrical shock.
- Only qualified service personnel should open the chassis. Opening it yourself could damage the equipment and invalidate its warranty.
- If any part of the equipment becomes damaged or stops functioning, have it checked by qualified service personnel.

#### What the warranty does not cover

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

#### **Regulatory Notices Federal Communications Commission (FCC)**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

Any changes or modifications made to this equipment may void the user's authority to operate this equipment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-position or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

# Contents

# < Part 1 > Matrix DB-15 IP KVM

M-IP824	
M-IP1624	
ntents	P.1
onnection	P.2
Local console connection	P.3 - 4
etting	P.5 - 6
de	P.7
ns	P.8
	_

### < Part 2 > Matrix DB-15 KVM

M-802	M-803	M-804
M-1602	M-1603	M-1604
Package co	ontents	
KVM port c	onnection	
Remote & I	Local console	connection
KVM Casca	ade	
Specification	ons	

### < Part 3 > Usage

3.1	KVM Button	P.17
3.2	Password	P.18
3.3	KVM OSD	P.19
3.4	KVM Hotkey & Remote Console Hotkey	P.20

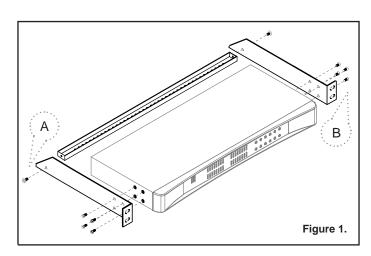
### **Before Installation**

- It is very important to mount the equipment in a suitable cabinet or on a stable surface.
- Make sure the place has a good ventilation, is out of direct sunlight, away from sources of excessive dust, dirt, heat, water, moisture and vibration.

### Unpacking

The equipment comes with the standard parts shown in package content. Check and make sure they are included and in good condition. If anything is missing, or damaged, contact the supplier immediately.

### Installation for standalone KVM



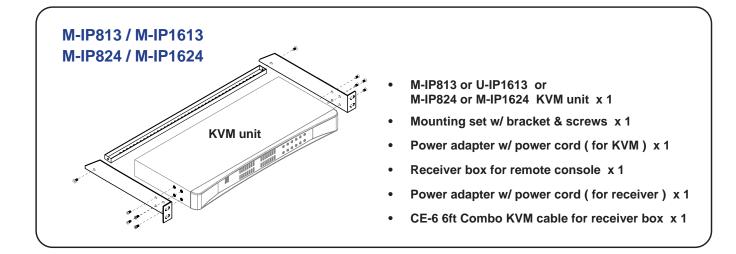




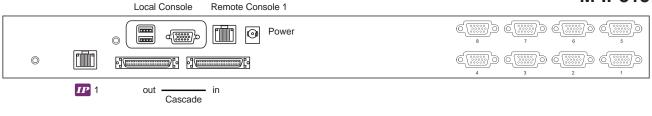
■ Install each bracket using screws provided shown in **Figure 1.** 

Fix the KVM into the rack

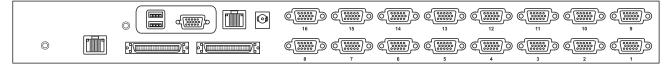




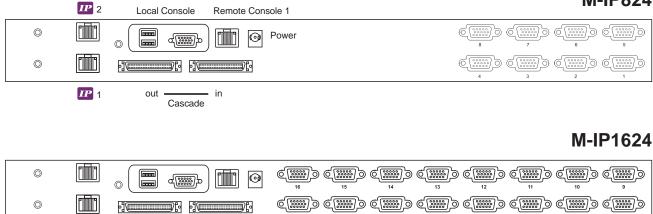
#### **M-IP813**



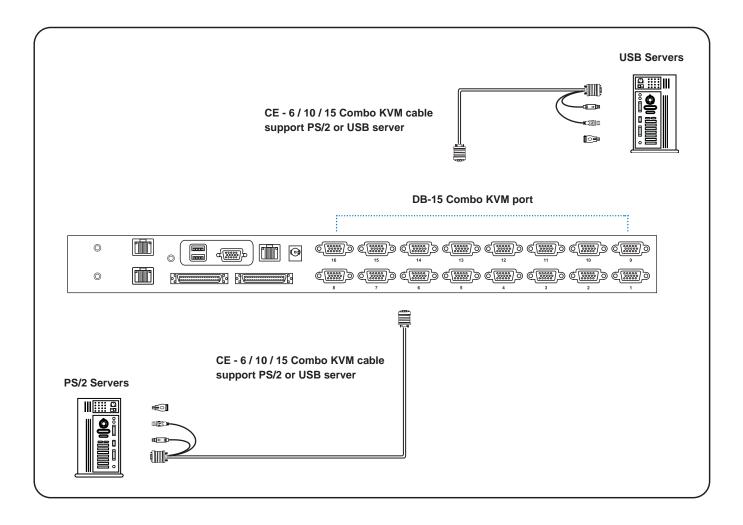
### M-IP1613



### **M-IP824**



### < 1.2 > KVM port connection



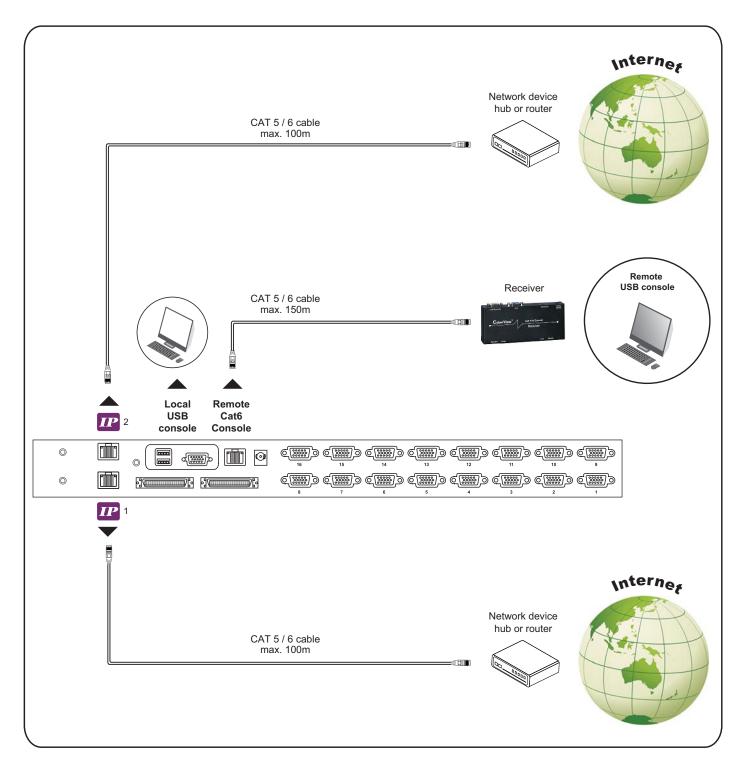
### CE-6 / CE-10 / CE-15

- 6 / 10 / 15 ft Combo KVM cable
- Support PS/2 or USB server

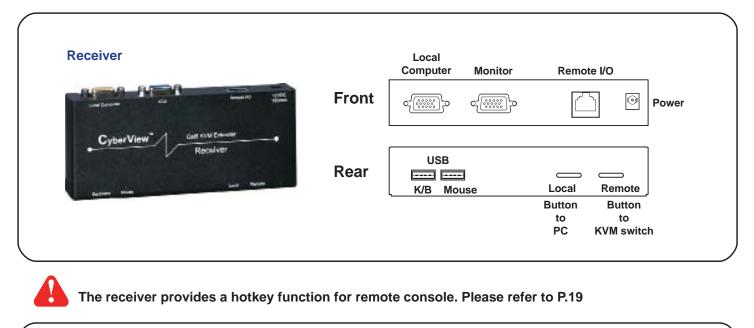


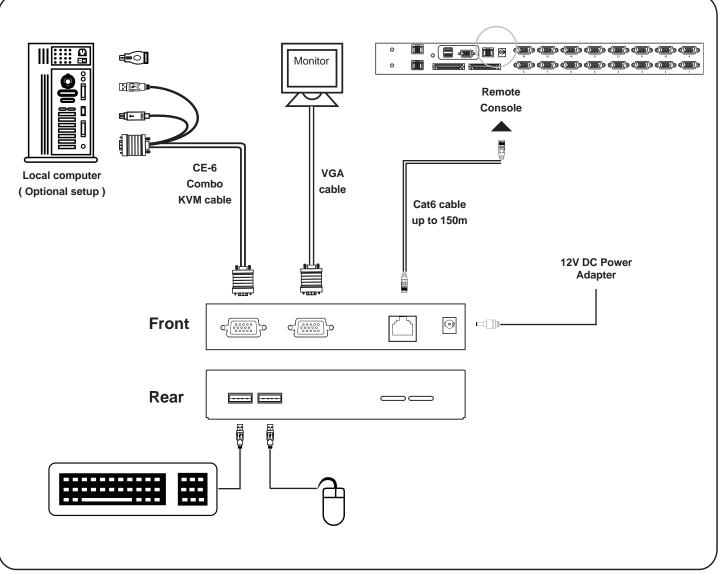
### < 1.3 > IP, Remote & Local console connection

#### Matrix DB-15 IP KVM



### How to use a receiver to connect a remote console





### < 1.4 > IP console setting

After the cable connection, please take the following steps to configure the IP KVM :

1. Download IPKVMsetup.exe from the link:

www.austin-hughes.com/support/utilities/cyberview/IPKVMsetup.exe

2. Double click IPKVMsetup.exe to configure the IP KVM by device setup as below.

Device		Network Configuration	
Device MAC address	C8:EE:08:00:00:7E	IP auto configuration	None
	Refresh Devices	IP address	192.168.1.22
Device Type		Subnet mask	255.255.255.0
Enable WLAN Config	uration (WLAN Devices only)	Gateway	0.0.0.0
Authentication		Wireless LAN Configuration	1
Super user login		Wireless LAN ESSID	×
Super user password	?		Enable WEP encryption
New super user password		Wireless LAN WEP Key	
New password (confirm)		Query Device	Setup Device
		ОК	Cancel Help

- 3. Click Refresh Device to search the connected IP KVM
- 4. Select the M.A.C. address, which you want to setup, then click Query Device
- 5. Enter Super user login. The default is super
- 6. Enter Super user password. The default is pass
- 7. Enter the new super user password
- 8. Re-enter the new password

9. Change the desired IP address / Subnet mask / Gateway, then click Setup Device to confirm the setting to IP KVM

- 10. The default address is as below:--
- The single IP KVM model, such as M-IP1613 http://192.168.1.22
- The dual IP KVM model, such as M-IP1624 http://192.168.1.22 (for 1st IP)

http://192.168.1.23 (for 2nd IP)

- 11. Open Internet Explorer (I.E.), version 6.0 or above
- 12. Enter the IP KVM address into the address bar
  - For Single IP http://192.168.1.22

- For Dual IP - http://192.168.1.22 ( for 1st IP ) http://192.168.1.23 ( for 2nd IP )

13. Enter username ( default is super ) Password ( default is pass )

Authenticat	e Username and Password !
Username	
Password	
	Login

14. After successful login to IP KVM, the user will enter the main page of IP KVM



The setting is enough for intranet. If the users access KVM GUI via internet, please ask MIS for assistance and download IP KVM user manual from the link : www.austin-hughes.com/support/usermanual/cyberview/UM-CV-IP.pdf

### **Java Security Issue**

### Att

#### Attention

Due to the changes from Java security, customer may facing the "JAVA Block" message while accessing the remote console over IP.



If it said so, here is the workaround solution :

Customer can use the "Exception Site list" feature to run the applications blocked by security setting. Adding the URL of the blocked application to the Exception Site list allows it to run with some warnings.

Steps to Add URLs to the Exception Site list :

- Go to the Java Control Panel (On Windows Click Start and then Configure Java )
- Click on the Security tab
- Click on the Edit Site List button
- Click Add in the Exception Site List window
- Click in the empty field under the Location field to enter the URL (URL should begin with http:// or https://)

🚨 Java Control Panel 👘 👘 🔤	🛓 Exception Site List
Ceneral Update Java Security Advanced	Applications launched from the sites listed below will be allowed to run after the appropriate security prompts.
☑ Enable Java content in the browser	Locetion
<ul> <li>Security level for applications not on the Exception Site list</li> <li>Very High - Only Java applications identified by a certificate from a trusted authority are allowed to run, and only if the certificate can be verified as not revoked.</li> <li>High - Java applications identified by a certificate from a trusted authority are allowed to run, even if the revocation status of the certificate cannot be verified.</li> </ul>	FILE and HTTP protocols are considered a security risk. We recommend using HTTPS sites where available.      OK Cancel
Exception Site List Applications launched from the sites listed below will be allowed to run after the appropriate security prompts. http://192.168.1.22/ Edit Site List Restore Security Prompts Manage Certificates	Security Warning         Do you want to run this application?         Image: Security Warning         Publisher:       UNOROWN         Location:       http://192.160.1.22         Running this application may be a security risk         Risk:       This application may be a security risk         Risk:       This application will run with urrestricted access which may put your computer and personal information atrisk. The information provided is unreliable or unknown so it is recommended not to run this application unless you are femiler with its source gover information         Select the box below, then click Run to start the application         [2] (accept therefore any want to run this application)

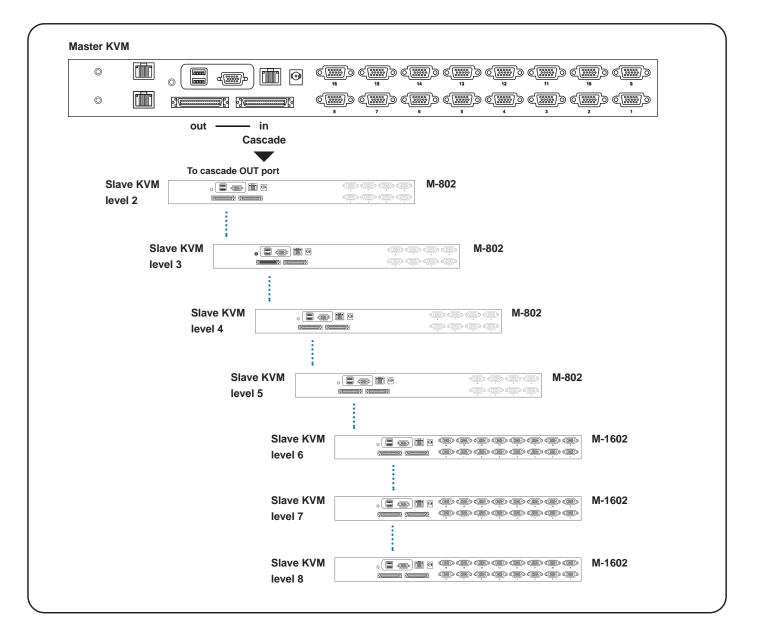
### < 1.5 > KVM Cascade

- Cascade up to 8 levels, 240 servers
- Cascading multiple KVM with CMC-8 cascade cable.

Cascaded KVMs from level 2 to 8 must be the models of M-802 / M-1602 or MU-1602 / MU-3202.

When multiple matrix KVMs cascade together, the master KVM at level 1 will take all control of other slave KVM switches (e.g. level 2 to 8).

The slave matrix KVM will be as a port expansion module of the master matrix KVM, the original remote console on slave KVM will be sacrificed and disabled.



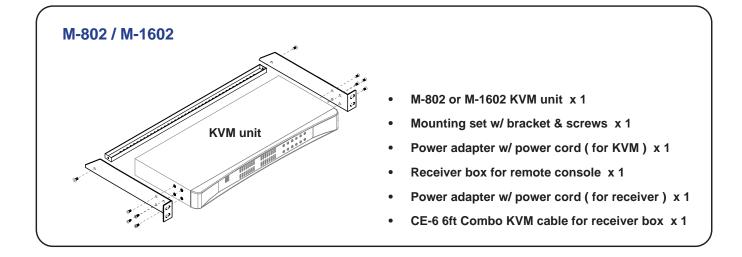


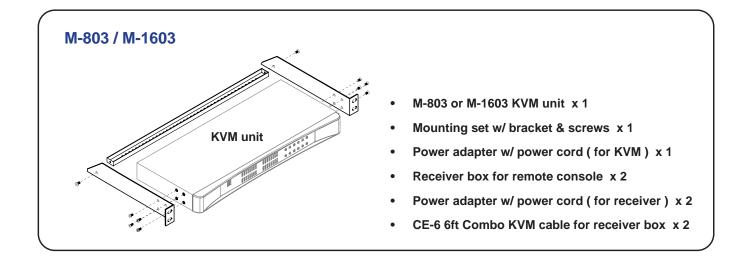
### CMC-8

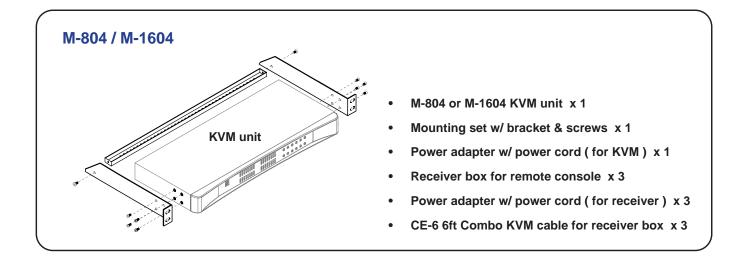
8ft Matrix KVM cascade cable

# < 1.6 > Specifications

	M-IP813	M-IP824	
	M-IP1613	M-IP1624	
KVM Port			
Number of ports:	8 or 16		
Connector:	DB-15 combo connector		
Connectivity:	Combo 4-in-1 KVM cable		
	up to 6, 10 & 15 feet		
Local Console			
Monitor port:	1 x DB-15 VGA ( Up to 1920	x 1080 / 1920 x 1200 )	
Keyboard & mouse port:	2 x USB type connector for k	eyboard & mouse	
Cat6 Remote Console			
Number of remote port:	1		
Monitor port:	DB15-pin VGA, up to 1600 x	1200	
Keyboard & mouse port:	2 x USB type connector for k	eyboard & mouse	
Remote I/O:	RJ45 via Cat5 / Cat5e / Cat6	cable up to 500 feet	
IP Remote Console			
Number of IP console:	1 for M-IP813 / M-IP1613 2 for M-IP824 / M-IP1624		
User management:	15-user login, 1 x active user		
Browser:	Internet Explorer, Firefox, Sa	fari	
Security:	SSL v3, RSA, AES, HTTP / H	ITTPs, CSR	
IP Access:	RJ45 Ethernet per IP console	e	
Expansion:	Up to 240 servers by 8-level	cascade	
Compatibility			
Multi-platform:	Mix PCs, SUN and Mac G3	/ G4 Mac / iMac	
Support:	Windows 7 / Vista / 2003 / X	P, Linux, Unix	
Power			
Input:	AC power adapter		
Consumption:	Max. 48 Watt, Standby 5 Wa	tt	
Regulatory			
Safety:	cUL, FCC & CE certified		
Environment:	RoHS2 & REACH compliant		
Environmental			
Operating:	0 to 50°C		
Storage:	-5 to 60°C		
Relative humidity:	90%, non-condensing		
Shock:	50G peak acceleration (11ms, half-sine wave)		
Vibration:	58~100Hz / 0.98G (11ms / cy	vcle)	
Product Information			
Dimension (W x D x H):	443 x 171 x 44 mm / 17.4 x	6.7 x 1.73 inch	
Net weight:	3 kg / 6.5 lb		
Packing Information			
Dimension (W x D x H):	500 x 400 x 90 mm / 19.7 x	15.7 x 3.5 inch	
Gross weight:	5 kg / 11 lb		

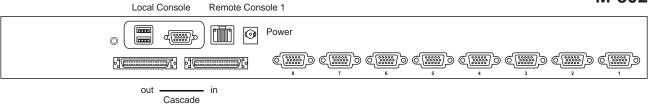




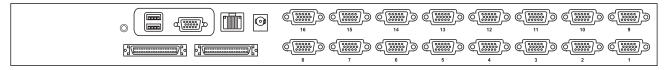


#### Matrix DB-15 KVM

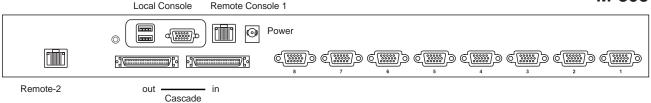




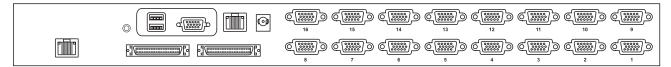
#### M-1602



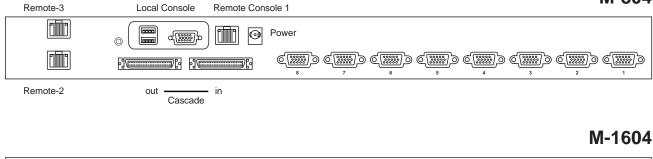
#### **M-803**



#### M-1603

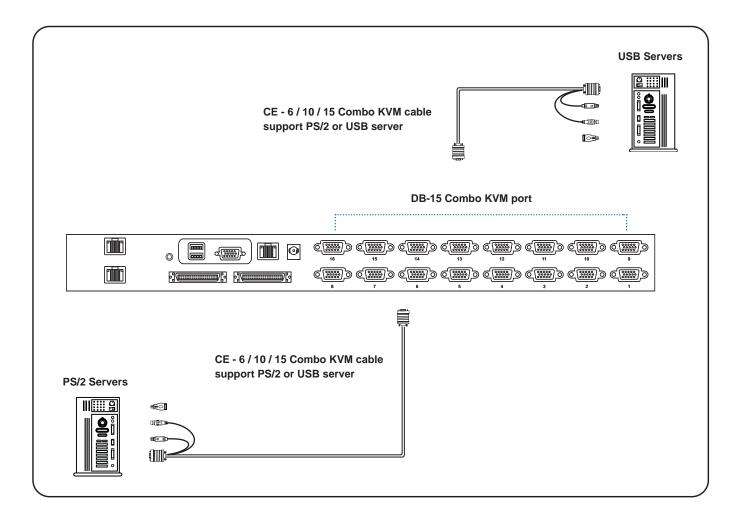


#### **M-804**



	C	) C) C	) ( ) )
		) ( <u></u> ) (	

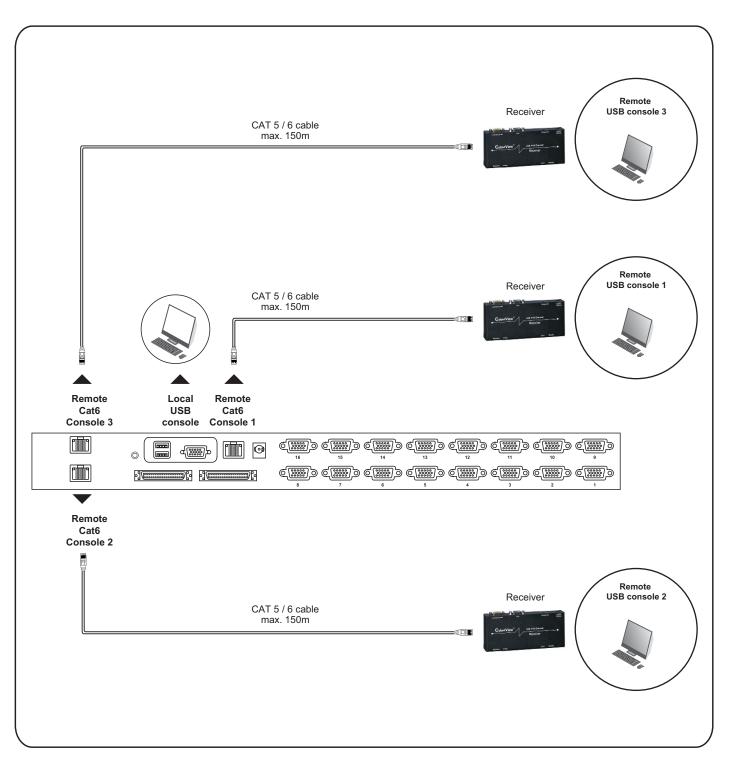
# < 2.2 > KVM port connection



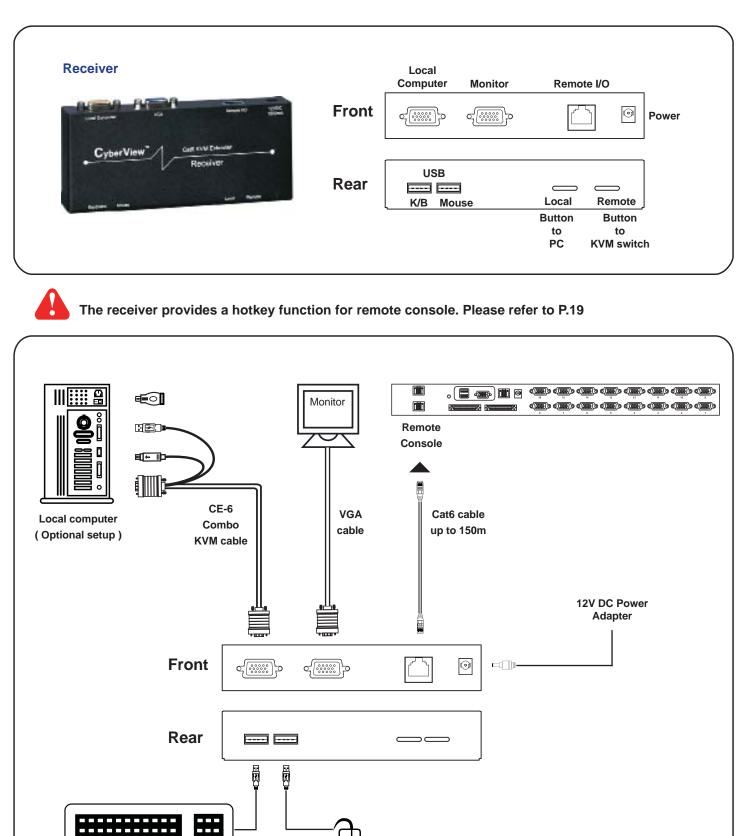
### CE-6 / CE-10 / CE-15

- 6 / 10 / 15 ft Combo KVM cable
- Support PS/2 or USB server





### How to use a receiver to connect a remote console



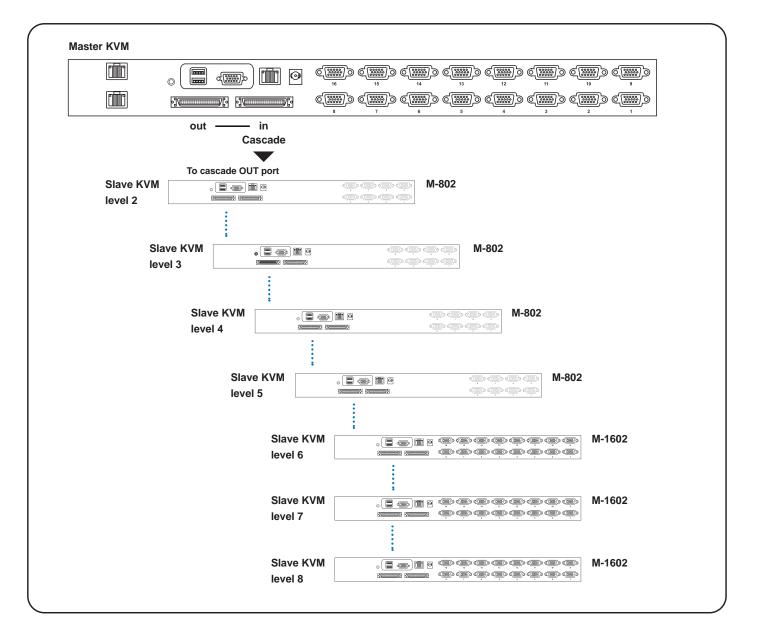
### < 2.4 > KVM Cascade

- Cascade up to 8 levels, 240 servers
- Cascading multiple KVM with CMC-8 cascade cable.

Cascaded KVMs from level 2 to 8 must be the models of M-802 / M-1602 or MU-1602 / MU-3202.

When multiple matrix KVMs cascade together, the master KVM at level 1 will take all control of other slave KVM switches (e.g. level 2 to 8).

The slave matrix KVM will be as a port expansion module of the master matrix KVM, the original remote console on slave KVM will be sacrificed and disabled.





### CMC-8

8ft Matrix KVM cascade cable

## < 2.5 > Specifications

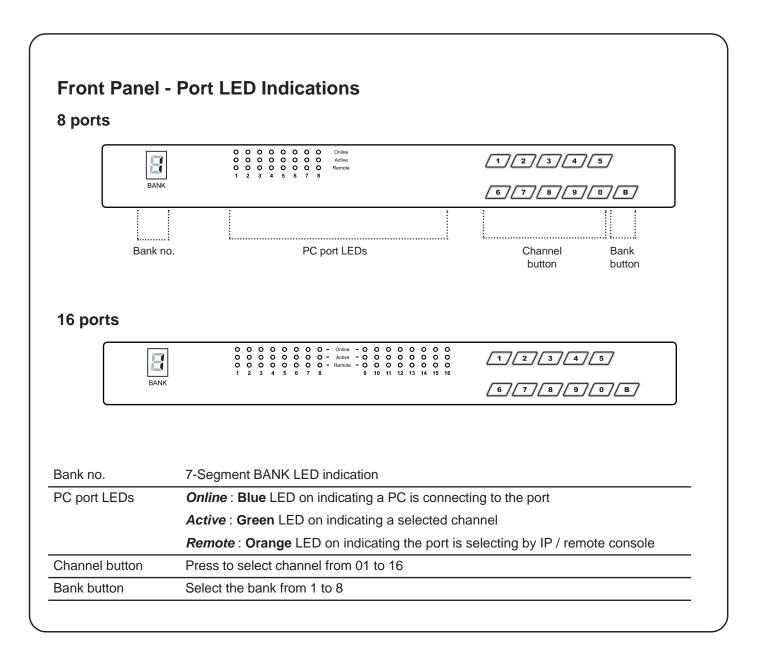
	M-802	M-803	M-804
	<b>M-1602</b>	M-1603	M-1604
KVM Port			
Number of ports:	8 or 16		
Connector:	DB-15 com	bo connector	
Connectivity:	Combo 4-in	-1 KVM cable	
	up to 6, 10	& 15 feet	
Local Console			
Monitor port:	1 x DB-15 \	/GA ( Up to 1920 x	1080 / 1920 x 1200 )
Keyboard & mouse po	rt: 2 x USB typ	e connector for key	vboard & mouse
Cat6 Remote Consol	e		
Number of remote por	t: 1 for M-802	/ M-1602	
	2 for M-803	/ M-1603	
	3 for M-804	/ M-1604	
Monitor port:	DB15-pin V	GA, up to 1600 x 12	200
Keyboard & mouse po	rt: 2 x USB typ	e connector for key	/board & mouse
Remote I/O:	RJ45 via Ca	at5 / Cat5e / Cat6 c	able up to 500 feet
Expansion:	Up to 240 s	ervers by 8-level ca	ascade
Compatibility			
Multi-platform:	Mix PCs, S	UN and Mac G3 / G	64 Mac / iMac
Support:	Windows 7	/ Vista / 2003 / XP,	Linux, Unix
Power			
Input:	AC power a	dapter	
Consumption:	Max. 48 Wa	att, Standby 5 Watt	
Regulatory			
Safety:	cUL, FCC 8	& CE certified	
Environment:	RoHS2 & R	EACH compliant	
Environmental			
Operating:	0 to 50°C		
Storage:	-5 to 60°C		
Relative humidity:	90%, non-c	ondensing	
Shock:		cceleration (11ms,	half-sine wave)
Vibration:	•	0.98G (11ms / cyc	,
Product Information			
Dimension (W x D x H	): 443 x 171 x	x 44 mm / 17.4 x 6	.7 x 1.73 inch
Net weight:	3 kg / 6.5		
Packing Information	-		
Dimension (W x D x H	): 500 x 400 x	x 90 mm / 19.7 x 1	5.7 x 3.5 inch
Gross weight:	5 kg / 11 l		

### Part 3. Usage

### 3.1 KVM Button

### **Power ON**

- Turn off all servers and KVM switches
- Make sure all cables / connectors are properly connected
- Recommend Power ON sequence is monitor, KVM switch finally computer



### 3.2 Password

The password is enabled by default, the default password is "00000000" eight zeros (**Do not use** "**0**" on number pad)

#### Enable password

- 1. Press the KVM hotkey Scroll Lock + Scroll Lock + U
- 2. Logout the KVM by pressing the hotkey Scroll Lock + Scroll Lock + P
- 3. In SUPERVISOR level, enter "00000000" eight zeros in user name & password field (Do not use "0" on number pad)
- In USER level, press Space bar + Enter in user name & password field Remark: Automatic logout after 10 minutes of inactivity

#### Set your own user name & password

- 1. Login the KVM in SUPERVISOR level by pressing "00000000" eight zeros in user name & password field
- 2. Call KVM OSD menu by pressing the KVM hotkey Scroll Lock + Scroll Lock + Space Bar
- 3. Press **F1** to the MAIN MENU
- 4. Select "USER SECURITY"
- 5. Set password in SUPERVISOR & USER level
  - a. In the left-top row "S" (SUPERVISOR), press Enter to set your own user name & password
  - b. In the row 1 to 8 (USER), press Enter to set your own user name & password
- 6. Press Enter to save the setting or press Esc to cancel the editing without any change
  - Remark: a. Blank has underscore, while SPACE doesn't have
    - b. Press any alphanumeric key to move to next input item. SPACE is treated as a valid character

#### ■ Change your password

- 1. Login the KVM in SUPERVISOR level by pressing your own user name & password
- 2. Call KVM OSD menu by pressing the KVM hotkey Scroll Lock + Scroll Lock + Space Bar
- 3. Press F1 to the MAIN MENU
- 4. Select "USER SECURITY"
- 5. Change password in SUPERVISOR & USER level
  - a. In the left-top row "S" (SUPERVISOR), press Enter to change your user name & password
  - b. In the row 1 to 8 (USER), press Enter to change your user name & password
- 6. Press Enter to save the setting or press Esc to cancel the editing without any change

Remark: a. Blank has underscore, while SPACE doesn't have

b. Press any alphanumeric key to move to next input item. SPACE is treated as a valid character

#### Disable your password

- 1. Press the KVM hotkey Scroll Lock + Scroll Lock + U
- 2. Logout the KVM by pressing the KVM hotkey Scroll Lock + Scroll Lock + P
- 3. You don't need user name & password to access the KVM OSD menu

#### Forget your password

Please contact your supplier for further support

#### Remark:

- You must press the KVM hotkey within 2 seconds
- A beep sound will be heard for successful entering KVM hotkey

### 3.3 KVM OSD

OSD Menu	PORT NAME		
	BANK:1       F1:MENU         01☆       SYSTEM       01         02☆       SYSTEM       02         03☆       SYSTEM       03         04☆       SYSTEM       04         05☆       SYSTEM       05         1/↓       SELECT         06☆       SYSTEM       06         07☆       SYSTEM       07         BANK SELECT       06		
OSD operation	08☆ SYSTEM 08 USER : SUPERVISOR SCAN TIME : 10 SEC FW1V3		
next to the system name	The PC is powered on		
next to the system name	The PC is selected		
F1	Access F1 MAIN MENU		
F2	Logout the OSD menu		
F3	Previous menu		
Esc	Cancel / Quit		
Enter	Complete / Switch to selected port		
<b>↑</b> /₩	Switch to previous or next port		
PgUp/PgDn	Switch to previous bank or next bank		
1/2/3/4	Display port 01 ~ 08 / 09 ~ 16 / 17 ~ 24 / 25 ~ 32 Remark: Display port 17 ~ 32 for 32 port model only		

1 Main Menu	MAIN MENU 🖘 X	
	SELECT OPTION :	
	01 LANGUAGE	
	02 PORT NAME EDIT 03 PORT SEARCH	
	04 USER SECURITY	
	05 ACCESS LIST	
	06 HOTKEY 07 TIME SETTINGS	
	08 OSD MOUSE	
1 LANGUAGE	OSD language change	
2 PORT NAME EDIT	Define port name	
03 PORT SEARCH	Quick searching by port name	
04 USER SECURITY	Change password	
05 ACCESS LIST	Define user access authority	
06 HOTKEY	Change hotkey	
7 TIME SETTINGS	Modify scan display time interval	
08 OSD MOUSE	Modify OSD mouse speed	

# 3.4 KVM Hotkey & Remote Console Hotkey Matrix DB-15 KVM Usage

Local Console Hotkey	Function
Scroll Lock + Scroll Lock + Space Bar	Calling OSD menu
Right-button mouse + Esc	Calling OSD menu
Scroll Lock + Scroll Lock +	Switch to previous port
Scroll Lock + Scroll Lock +	Switch to next port
Scroll Lock + Scroll Lock + PgUp / PgDn	Switch to previous bank or next bank
Scroll Lock + Scroll Lock + Bank no. + Port no.	Switch to specific port
Scroll Lock + Scroll Lock + B	Turn the buzzer ON and OFF * Default the buzzer is ON
Scroll Lock + Scroll Lock + P	Logout the KVM if password security is ON. Show up the status windows
Advance hotkeys (for Supervisor login on	ly)
Scroll Lock + Scroll Lock + S	Activate auto-scan mode for connected servers *Press any key to exit the auto-scan mode
Scroll Lock + Scroll Lock + R	Reset all the KVM settings to factory default *Except User Security settings
Scroll Lock + Scroll Lock + U	Disable and enable password security *Default security is ON
Scroll Lock + Scroll Lock + L	To enable / disable the screen saving function and 10 minutes auto-logout *Default the screen saving is OFF
<ul> <li>Remarks: Example of "Scroll Lock + Scroll Lock</li> <li>Bank No. : 1 to 8</li> <li>Port No. : 01 to 16</li> <li>e.g. Bank 1 Port 4 : Scroll Lock + S</li> <li>e.g. Bank 2 Port 16 : Scroll Lock +</li> <li>You must press the hotkey within 2 second</li> <li>A beep sound will be heard for successful</li> <li>The numeric keypad is not supported, whit PgDn, and Enter keys are supports</li> </ul>	<b>Scroll Lock + 1 + 0 + 4</b> Scroll Lock + 2 + 1 + 6 ds entering

Remote Console Hotkey	Function
Scroll Lock + Scroll Lock + C	Toggle switch between remote & local port
Scroll Lock + Scroll Lock + Q	Turn the buzzer ON & OFF *Default the buzzer is ON
Scroll Lock + Scroll Lock + S	Activate auto-scan mode for remote & local port *The scan time interval is 5 seconds
Scroll Lock + Scroll Lock + A	Auto-adjust the video signal