# MKD6XXXC

Rackmount KVM Console Drawers Integrated Cat6 KVM Switch 3 Type User Consoles

## **User Manual**

Integrated Cat6 KVM for LCD Console Drawers

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#### Legal Information

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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.
  - $\hfill\square$  Repair or attempted repair by anyone not authorized by us.
  - □ Any damage of the product due to shipment.
  - □ Removal or installation of the product.
  - $\hfill\square$  Causes external to the product, such as electric power fluctuation or failure.
  - $\hfill\square$  Use of supplies or parts not meeting our specifications.
  - $\Box$  Normal wear and tear.
  - $\hfill\square$  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.

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## 16-Port Cat6 IP KVM



## 32-Port Cat6 IP KVM



## < 1.2 > KVM Port & Cat6 Dongle Connection

#### Cat6 IP KVM



#### **Cat6 Dongle**

Resolution Support	Frequency (Hz)
1920 x 1200	60
1920 x 1080	60
1600 x 1200	60
1440 x 900	60
1280 x 1024	60
1024 x 768	60 / 70 / 75



#### **IP Console**

Resolution Support	Frequency (Hz)
1920 x 1080	60
1920 x 1200	60
1600 x 1200	60
1280 x 1024	60
1024 x 768	60

## < 1.4 > KVM Cascade

- Cascade up to 8 levels, 256 servers
- Cascading multiple KVM with CD6-CBC cascade cable.



Cascaded KVMs from level 2 to 8 must be the models of KC801 / KC1601 / KC3201.

When multiple Cat6 KVMs cascade together, the master KVM at level 1 will take all control of other Expansion KVM switches (e.g. level 2 to 8).





#### CD6-CBC

6ft Combo KVM cascade cable

## < 1.5 > Specifications

Cat6 IP KVM				
KVM Port				
Number of ports :	8, 16 or 32			
Connector :	RJ-45			
Connectivity :	DVI-D / VGA connector dongle Cat6 / Cat5 cable	e up to 40 meters (132 feet) via		
Local Console :	Nil for LCD console drawer ve	ersion		
IP Remote Console				
Connector :	RJ45 Ethernet			
User management :	15-user login, 1 x active user			
Network protocol :	DHCP / BOOTP / DNS			
Security :	TLS 1.3, AES, LDAP, Active D	irectory (AD), HTTP(s)		
Browser :	Chrome, Firefox, Edge, etc.			
Resolution support :	16: 9 - max. 1920 x 1080			
	16:10 - max. 1920 x 1200			
	4: 3 - max. 1600 x 1200			
Expansion :	Up to 256 servers by 8-level c	ascade		
Compatibility				
Hardware :	HP / IBM / Dell PC, Server and Blade Server SUN / Mac			
OS Support :	Windows / Linux / Unix / Mac OS			
Power				
Input :	Auto sensing 100 to 240VAC, 50 / 60 Hz			
Option DC :	12V / 24V / 48V / 125V DC inp	put		
Consumption :	Max. 19W			
■ Compliance				
EMC :	FCC & CE			
Safety :	CE / LVD & UKCA			
Environment :	RoHS3 & REACH / WEEE			
Environmental Temperature :	<b>Operating</b> 0 to 55°C degree	Storage / Non-operating -20 to 60°C degree		
Humidity :	10~90%, non-condensing	5~90%, non-condensing		
Altitude :	16,000 ft	40,000 ft		
Shock :	-	10G acceleration (11ms duration)		
Vibration :	-	10~300Hz 0.5G RMS random vibration		

## < Part 2 > Cat6 2-Console KVM < 2.1 > Package Contents

	KVM Rear Kit back	1
	The power of the KVM rear kit may be changed to external power design based on the LCD console drawer series and model.	
•	Receiver box for remote console x 1	
•	Power adapter w/ power cord ( for receiver ) x 1	
•	CE-6 6ft Combo KVM cable for receiver box x 1	
		,

## 8-Port Cat6 2-Console KVM



Power

## 16-Port Cat6 2-Console KVM



## 32-Port Cat6 2-Console KVM



## < 2.2 > KVM Port & Cat6 Dongle Connection

## Cat6 2-Console KVM



#### Cat6 Dongle

Resolution Support	Frequency (Hz)
1920 x 1200	60
1920 x 1080	60
1600 x 1200	60
1440 x 900	60
1280 x 1024	60
1024 x 768	60 / 70 / 75

## < 2.3 > Remote Console Connection



#### **Remote Console**

Resolution Support	Frequency (Hz)	Max. Cat6 Cable Length ( M )
1920 x 1080	60	50
1920 x 1200	60	50
1600 x 1200	60	100
1440 x 900	60	100
1280 x 1024	60	150
1024 x 768	60 / 70 / 75	150

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

#### Cat6 2-Console KVM



The receiver provides a hotkey function for remote console. Please refer to P.19



## < 2.4 > KVM Cascade

- Cascade up to 8 levels, 256 servers
- Cascading multiple KVM with CD6-CBC cascade cable.

Cascaded KVMs from level 2 to 8 must be the models of KC801 / KC1601 / KC3201.

When multiple Cat6 KVMs cascade together, the master KVM at level 1 will take all control of other Expansion KVM switches (e.g. level 2 to 8).





## CD6-CBC

6ft Combo KVM cascade cable 

## < 2.5 > Specifications

Cat6 2-Console KVM				
KVM Port				
Number of ports :	8, 16 or 32			
Connector :	RJ-45			
Connectivity :	DVI-D / VGA connector dongle	e up to 40 meters (132 feet) via		
	Cat6 / Cat5 cable			
Local Console :	Nil for LCD console drawer ve	rsion		
Remote Console				
Connector :	1 x DB 15-pin, VGA			
Input device :	2 x USB type A for keyboard &	mouse		
Remote I/O :	RJ45 via Cat5 / Cat5e / Cat6 o	cable up to 500 feet		
Compensation :	Auto adjust for cable length			
Resolution support :	4: 3 - max. 1600 x 1200			
	16: 9 - max. 1920 x 1080			
	16:10 - max. 1920 x 1200			
Expansion:	Up to 256 servers by 8-level c	ascade		
Compatibility				
Hardware :	HP / IBM / Dell PC, Server and Blade Server			
	SUN / Mac			
OS Support :	Windows / Linux / Unix / Mac OS			
Power	)wer			
Input :	Auto sensing 100 to 240VAC, 50 / 60 Hz			
Option DC :	12V / 24V / 48V / 125V DC inp	put		
Consumption :	umption : Max. 14W			
Compliance				
EMC :	FCC & CE			
Safety :	CE / LVD & UKCA			
Environment :	RoHS3 & REACH / WEEE			
Environmental	Operating	Storage / Non-operating		
Temperature :	0 to 55°C degree	-20 to 60°C degree		
Humidity :	10~90%, non-condensing	5~90%, non-condensing		
Altitude :	16,000 ft	40,000 ft		
Shock :	-	10G acceleration (11ms duration)		
Vibration :	-	10~300Hz 0.5G RMS random vibration		



## 8-Port Cat6 KVM



#### 16-Port Cat6 KVM



## 32-Port Cat6 KVM



## < 3.2 > KVM Port & Cat6 Dongle Connection

#### Cat6 KVM



## Cat6 Dongle

Resolution Support	Frequency (Hz)
1920 x 1200	60
1920 x 1080	60
1600 x 1200	60
1440 x 900	60
1280 x 1024	60
1024 x 768	60 / 70 / 75

## < 3.3 > KVM Cascade

- Cascade up to 8 levels, 256 servers
- Cascading multiple KVM with CD6-CBC cascade cable.



Cascaded KVMs from level 2 to 8 must be the models of KC801 / KC1601 / KC3201.

When multiple Cat6 KVMs cascade together, the master KVM at level 1 will take all control of other Expansion KVM switches (e.g. level 2 to 8).





#### CD6-CBC

■ 6ft Combo KVM cascade cable

## < 3.4 > Specifications

		Cat6 KVN	1	
	KVM Port			
	Number of ports :	8, 16 or 32		
	Connector :	RJ-45		
	Connectivity :	DVI-D / VGA connector dongle up to 40 meters (132 feet) via		
		Cat6 / Cat5 cable		
	Local Console :	Nil for LCD console drawer ve	ersion	
	Management			
	Multilingual OSD :	English, France, German, Spa Japanese	anish, Italian, Russian, Simplified Chinese,	
	Hotkey combination :	Scroll-lock, Cap-lock, Num-loc	Cap-lock, Num-lock, Alt, Ctrl & Win	
	Security :	Password enable & disable, u	p to 8 users profile for port access	
	PC Selection :	Front button, OSD menu & ho	tkey	
	Expansion:	Up to 256 servers by 8-level cascade		
Compatibility				
	Hardware :	HP / IBM / Dell PC, Server and Blade Server		
	OS Support :	SUN / Mac Windows / Linux / Unix / N	/lac OS	
	Power			
	Input :	Auto sensing 100 to 240VAC, 50 / 60 Hz		
	Option DC :	12V / 24V / 48V / 125V DC input		
	Consumption :	Max. 11W		
	Compliance			
	EMC :	EMC : FCC & CE		
	Safety :	CE / LVD & UKCA		
	Environment :	RoHS3 & REACH / WEEE		
	Environmental	Operating	Storage / Non-operating	
	Temperature :	0 to 55°C degree	-20 to 60°C degree	
	Humidity :	10~90%, non-condensing	5~90%, non-condensing	
	Altitude :	16,000 ft	40,000 ft	
	Shock :	-	10G acceleration (11ms duration)	
	Vibration :	-	10~300Hz 0.5G RMS random vibration	

## < Part 4 > Usage < 4.1 > 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



## < 4.2 > 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

## < 4.3 > KVM OSD

#### Cat6 KVM Usage

OSD Menu	PORT NAME		
	BANK : 1       F1 : MENU         01☆       SYSTEM       01<         02☆       SYSTEM       02         03☆       SYSTEM       03         04☆       SYSTEM       03         04☆       SYSTEM       04         05☆       SYSTEM       05         10☆       SYSTEM       06         05☆       SYSTEM       07         BANK SELECT       00		
OSD operation	USER : SUPERVISOR SCAN TIME : 10 SEC FW1V3		
	The PC is powered on		
next to the system name	The PC is selected		
<u>F1</u>	Access F1 MAIN MENU		
<u>F2</u>	Logout the OSD menu		
<u>F3</u>	Previous menu		
Esc	Cancel / Quit		
Enter	Complete / Switch to selected port		
<u></u>	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		
	08 OSD MOUSE		
1 LANGUAGE	E OSD language change		
2 PORT NAME EDIT	Define port name		
03 PORT SEARCH	Quick searching by port name		
4 USER SECURITY	Change password		
5 ACCESS LIST	ACCESS LIST Define user access authority		
6 HOTKEY	Change hotkey		
7 TIME SETTINGS	Modify scan display time interval		
	Modify OSD mouse speed		

## < 4.4 > KVM Hotkey & Remote Console Hotkey

Local / IP Remote 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	

Activate auto-scan mode for connected
servers
*Press any key to exit the auto-scan mode
Reset all the KVM settings to factory
default
*Except User Security settings
Disable and enable password security
*Default security is ON
To enable / disable the screen saving func-
tion and 10 minutes auto-logout
*Default the screen saving is OFF

#### **Remarks:**

- Example of "Scroll Lock + Scroll Lock + Bank no. + Port no."
  - Bank No. : 1 to 8
  - Port No.: 01 to 32
  - e.g. Bank 1 Port 4 : Scroll Lock + Scroll Lock + 1 + 0 + 4
  - e.g. Bank 2 Port 16 : Scroll Lock + Scroll Lock + 2 + 1 + 6
- You must press the hotkey within 2 seconds
- A beep sound will be heard for successful entering
- The numeric keypad is not supported, while in OSD screen, the arrow keys, PgUp, PgDn, and Enter keys are supports

Cat6 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