

16X1 HDMI KVM SWITCH

# USER MANUAL

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HDMI • KVM



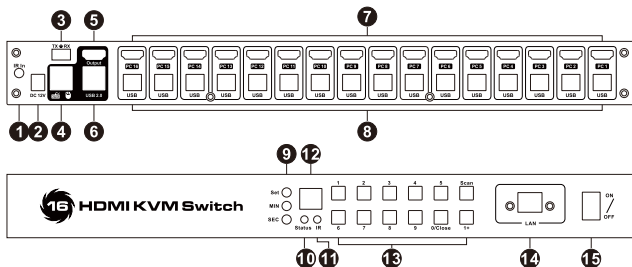
## Features :

- Using only 1 set of keyboard and mouse to control 16 PCs
- Support resolution up to 4K@60Hz 4:4:4
- Support Unix/Windows/Debian/Ubuntu/Fedora/Mac OS X/Raspbian/Ubuntu for Raspberry Pi and other Linux based systems
- With EDID emulator in each input port, keep PCs always having correct display information
- Support hot plug, connect or disconnect devices to the KVM at any time without turning off devices
- Support front panel buttons, IR signals, keyboard hotkeys, RS232 serial commands or IP commands to control the KVM switch
- Support extra USB2.0 port, make it possible to connect bar code scanner, USB hard drive or other USB devices to KVM
- Support DVI-D single link sources and displays with the use of HDMI-to-DVI adapters
- Auto input detect and switch

## Packing List :

- 1\*16X1 HDMI KVM Switch
- 1\*DC 12V Power adapter
- 1\*IR Remote control
- 1\*IR Receiver cable
- 1\*3 Pins connector(For RS232)
- 2\*Rack-ears
- 1\*User manual

## Panel Descriptions :

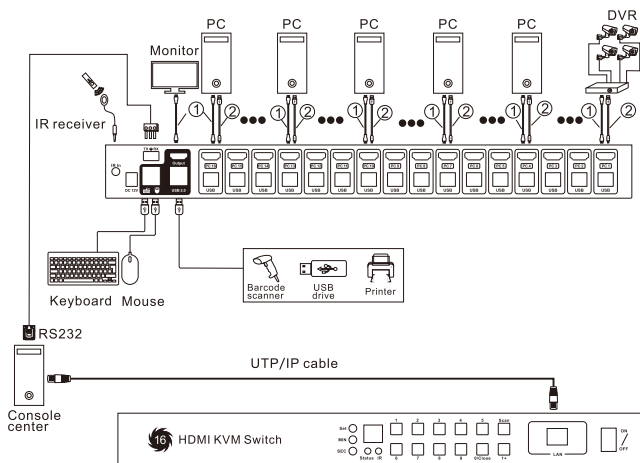


ID	Name	Description
1	IR In	Connect IR receiver extension cable to this port, then it is able to use IR control even the KVM switch is installed in a rack
2	DC 12V	12V DC power supply
3	RS232 port	Connect this port to any control termination, then it is able to select the input sources by sending RS232 commands
4	Keyboard and mouse input	For USB keyboard and mouse input, including wireless keyboard and mouse
5	HDMI output	Connect to HDMI display

ID	Name	Description
6	USB 2.0 port	For USB 2.0 devices, for example printers, USB hard disk, barcode scanner, touch pad etc
7	HDMI inputs	Connect to HDMI input source
8	USB data port	Connect to computer by USB Type A to Type B cable
9	Auto scan time interval settings	<p><b>[MIN]</b>: Press <b>[MIN]</b> to loop between 0~59 minutes</p> <p><b>[SEC]</b>: Press <b>[SEC]</b> to loop between 0~59 seconds</p> <p><b>[Set]</b>: After setting minutes and seconds, press button <b>[Set]</b> to enter final scan time interval setting</p>
10	Status LED	<p>Red: Turn off auto scanning mode</p> <p>Green: Turn on auto scanning mode</p>
11	IR receiver	Receive IR signal
12	LED display	Display current selected input port
13	Keypad	<p><b>[1~9]</b>: Press button <b>[1]~[8]</b> to directly select input 1~9</p> <p><b>[0/Close]</b>: Press this button to turn on or off the LED display and monitor</p> <p><b>[1+]</b>: Press <b>[1+]</b>, then press <b>[0/Close]</b>, <b>[1]~[6]</b> within 2 seconds to select input 10~16</p> <p><b>[Scan]</b>: Press this button to start or stop automatically scanning between input 1 to input 16. The interval time can be set by <b>[Set]</b>, <b>[MIN]</b>, <b>[SEC]</b> as described above</p>

ID	Name	Description
14	LAN port	By connecting to the LAN through this port, you can use the terminal device in the same LAN to send TCP/IP commands to control the switching of input port
15	Power switch	Turn on or off the power supply

## Connection Diagram :



**Note:** ① HDMI cable      ② USB type A to USB type B cable

## **Basic Operation :**

### **1. Port selection**

#### **1.1 Use front panel keypad**

Directly press button [1]~[9] to select input ports 1~9, press [1+], then [0/Close], [1]~[6] to select input port 10~16.

#### **1.2 Use IR remote control**

- (1). Press [1/A], then wait about 2 seconds to select input port 1.
- (2). Press [2/B], [3/C]~[9/I] directly to select input port 2~9.
- (3). Press [1/A], then press [0],[1/A]...[6/F] within 2 seconds to select input 10-16.

#### **1.3 Use keyboard hot keys**

- (1). Press keyboard key [Scroll lock] two times, then press [1] and wait about 2 seconds to select input 1.
- (2). Press keyboard key [Scroll lock] two times then press [2]~[9] within 2 seconds to directly select input ports 2~9.
- (3). Press keyboard key [Scroll lock] two times, press [1] and then press [0]~[6] within 2 seconds to select input ports 10~16.
- (4). Press keyboard [Scroll lock] key two times then press [Page Up] / [Page Down] to select previous or next port.

## 2. Mute/ unmute buzzer

### 2.1 IR remote control

Press button [ ≡ ] on remote control to mute or unmute buzzer.

### 2.2 Keyboard hot keys

Press keyboard [Scroll lock] key two times then [F11] to mute or unmute buzzer.

## 3. Turn on/off auto scanning mode

### 3.1 Front panel key pad

KVM will automatically loop among all the powered on input sources with a specified time interval, press [Scan] again to stop auto scanning.

### 3.2 IR remote control

Press [P] button to start auto scanning, then the KVM will automatically loop among all the powered on input sources with a specified time interval, press [P] again to stop auto scanning.

### 3.3 Keyboard hot keys

Press keyboard [Scroll lock] key two times then press [Space] key within 2 seconds to start auto scanning, the KVM will automatically loop among all the powered on input sources with a specified time interval, press [Esc] to stop auto scanning.

## 4. Setup time interval of auto scanning mode

Press front panel button [MIN] to loop between 0~59



minutes.

Press front panel button [SEC] to loop between 0~59 seconds.

After setting minutes and seconds, press button [Set] to enter final scan time interval setting.

## 5. The use of mouse gesture switching

Press keyboard key [Scroll lock] two times, then press [F12] key within 2 seconds to turn on or turn off mouse gesture switching.

When mouse gesture switching mode is on, move mouse pointer to hit left or right bound of the screen within 1 second, the KVM will switch to previous or next input source.

## 6. Turn on/off auto input detection

Press button [M] on remote control to turn on/off the auto input detection.

### **Auto input detection and switch mode on:**

When plug new HDMI input source to the 16 ports switch or power on the HDMI input source, the HDMI switch will automatically select the input port that is connected to this input source.

When unplug or power off the HDMI input source, the 16 ports switch will switch to the input port which is last plug in or last powered on HDMI input source.

### **Auto input detection and switch mode off:**

When plug new HDMI input source to the 16 ports switch or power on the HDMI input source, the HDMI switch would not do anything, also not when unplug or power off HDMI input source.

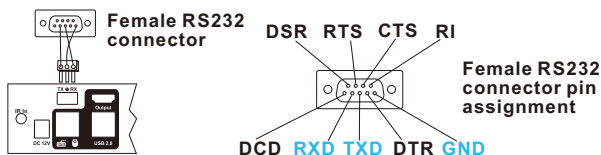
## Use of RS232 and LAN port :

The RS232 and LAN ports are used for selecting input source only, could not transfer keyboard and mouse data or even the video and audio, this is a redundant design for some special application when you want to switch the input sources by a termination control devices. Normally you could switch the input source by front panel keypad, IR remote control or keyboard hot keys.

**For the software application packages or the API document for the RS232 and LAN port please contact with our sales. (Only for windows system)**

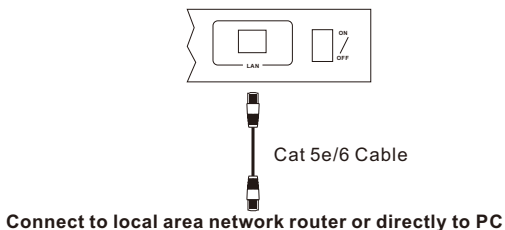
### 1. Connect RS232 port

Follow below diagram to connect the standard 9 pin RS232 port to the 3 pins connector which is included in package, then plug the connector to the KVM 'TX  $\frac{1}{2}$  RX' port.

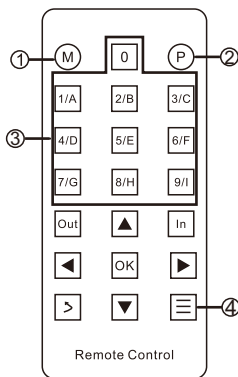


## 2. Connect LAN port

Follow below diagram to connect the LAN port to local area network router or directly to PC with Cat5e/6 UTP cable.



## IR Remote Control:



- ① — Turn on/off auto input detection

When plug new HDMI input source to the 16 ports switch or power on the HDMI input source, the HDMI switch will automatically select the input port that is connected to this input source. press [M] again to stop auto input detection

② — Turn on/off auto scanning mode

Switch will automatically switch among all the powered on input sources within the specified time interval, press [P] again to stop auto scanning

③ — Select input port

Press [1/A], [2/B], [3/C] ... [9/I] to select input 1-9  
Press [1/A], then press [0], [1/A] ... [6/F] within 2 seconds to select input 10-16

④ — Mute/ unmute buzzer

**Note:** 1. Other buttons are invalid.

2. The battery slot on the back of remote control is equipped with an insulation splice. Remove it when you use it and reinsert it into the remote control after use to extend battery life.

3. Battery model: CR2025.

## **Warranty Information :**

We warrant this product as free of defects in material and workmanship for a period of one (1) year from the date of shipment.

If during the period of warranty this product proves defective under normal use, we will repair or replace this product, provided that this product has not been subjected to mechanical, electrical, or other abuse or modifications. If it fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for six (6) months from the day of reshipment to the buyer.