TESmert TESmart

User 4x2 Dual Monitor KVM Switch

Manual

HKS0402A1U

To Enjoy Smart

HKS0402A1U

English

English

Preface

It's our great honor that you have chosen the dual monitor KVM Switch produced by our company, Tesla Elec Technology Co.,Ltd. In this user manual, you will learn how to operate and use this product. Please read this user manual comprehensively before use. If you have any questions, comments or suggestions, please contact us via the following email:
support@tesmart.com.

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Address of Manufacture

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Xiawei Industrial Zone, Zhangkengjing Road,
Guanlan Street,
Longhua District, Shenzhen City,
Guangdong Province, China

Contents

1. Safety Tips and Warnings

Tips: Please read the safety tips and warnings for dual monitor KVM Switch comprehensively before use. Use this produce in accordance with its instructions, safety tips and warnings to prevent unnecessary damage to the product and potential dangers to users.

⚠ Keep the product away from water.

⚠ Clean the product with dry cloth.

⚠ Use the product in accordance with its instructions and do not block its vents.

⚠ Keep the product away from ignition sources, such as heat sinks, heat accumulators, stovepipes and other heat production settings (including audio amplifiers).

⚠ Do not touch the product and the power cord with wet hands so as to lower the risk of electric shock and damage to the product. Do not let the product get wet or become damp.

⚠ Unplug the power supply of this product in thunderstorm days or when it has been not used for a long time.

⚠ Do not expose this product and its battery to open fire or overheating environment. Dispose the waste battery in accordance with instructions.

⚠ Users shall not remove and repair the product without authorization.

2. Battery Description
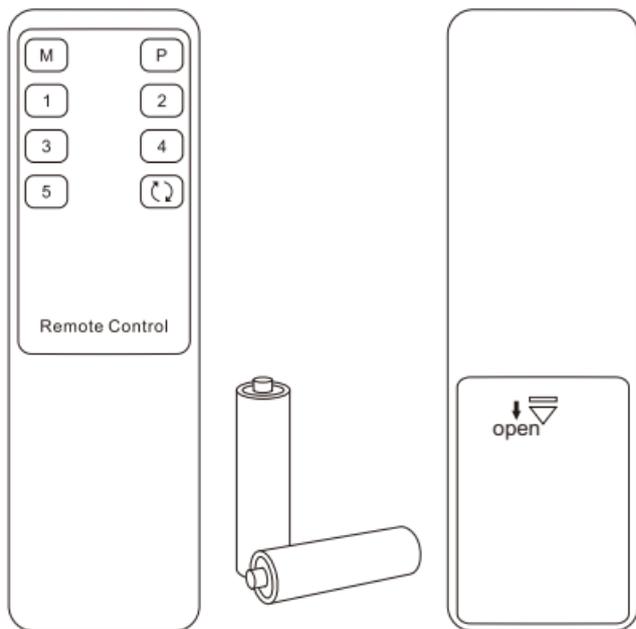
Tips: By default, the remote control is not equipped with batteries, due to the safety requirements of some express companies. Install AAA dry cells before use.

Caution: Improper disposal of the lithium battery may cause an explosion. Do not throw the battery into fire. Keep the battery away from children. Dispose the waste battery in accordance with local regulations.

3. 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.

4. Preface

Dear Users,

4x2 HDMI Dual Monitor KVM Switch can easily integrate cross-platform computer devices and greatly simplify the devices management. Support managing a dual-display multimedia workstation. If you connect 2 video ports of the same PC to 1 group of input ports on the KVM, you will realize 2-screen extended display or copy display. It has the same effect as connecting the PC directly to 2 displays. The KVM also supports displaying different PCs on 2 monitors. At the same time, with EDID emulators in each input port, it can keep PCs always having correct display information.

With 2 display modes to meet your different display needs. It also supports free combination switching, which simplifies your usage. Support using USB 2.0 devices and USB keyboard and mouse. The keyboard and mouse pass through mode greatly improves the KM compatibility.

Tips: If you need to control more computers or conduct more complex and professional switching, you can also choose other products of our company. For more details, please visit our official website: www.tesmart.com.

5. Features

- Using 2 monitors, 1 set of keyboard and mouse to control 2 computers
- Support resolution up to 3840x2160@60Hz 4:4:4
- HDMI 2.0 compliant
- HDCP 2.2 compliant
- Support 2 display modes
- Support Unix/Windows/ Debian/ Ubuntu/Fedora/ MacOS X/ Raspbian/ Ubuntu for Raspberry Pi and other Linux based systems
- With extra USB 2.0 port, it is possible to connect bar code scanner, USB hard device or other USB device
- Support hot plug, disconnect or connect devices to the KVM at any time without turning off PC
- With EDID emulators in each input port, it can keep PCs always having correct display information (This function is supported only in display mode 1)
- Support IR signals, front panel button and keyboard hot keys to control the KVM to switch input ports
- Support keyboard and mouse pass through mode to improve mouse and keyboard compatibility

6. Packing List

- 1 * 4x2 HDMI Dual Monitor KVM Switch
- 2 * KVM Cables
- 2 * HDMI Cables
- 1 * IR Remote Control
- 1 * DC 12V Power Adapter
- 1 * User Manual

Tips: After receipt of the product, please check the packing list carefully to make sure that no components have been lost and no damage to the product has been caused during transportation. If you have any problem, please contact us at any time.

7. Panel Description

7.1 Panel Description

2-Way Dual Monitor KVM

Online   Select IR
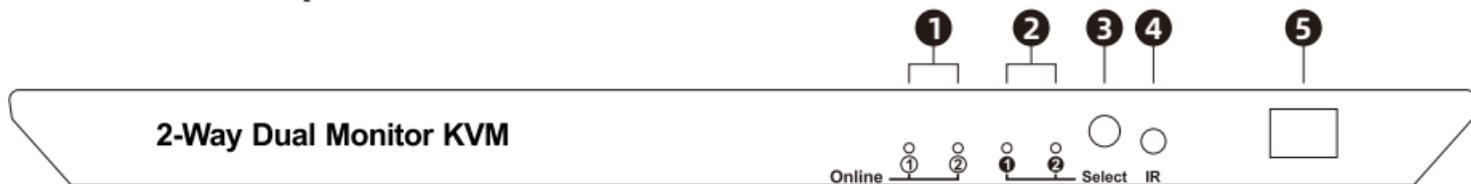
| ID	Name	Function	ID	Name	Function
1	USB connection status indicators	LEDs will be lit (blue) if the KVM's USB ports are connected to the computers' USB ports.	2	Input selection status indicators	The corresponding LEDs will be lit (blue) to indicate the current selected computer device.
3	Input selection button	Select input sources.	4	IR receiver	Receive IR remote signal.
5	Power switch	Turn on or turn off power supply.			
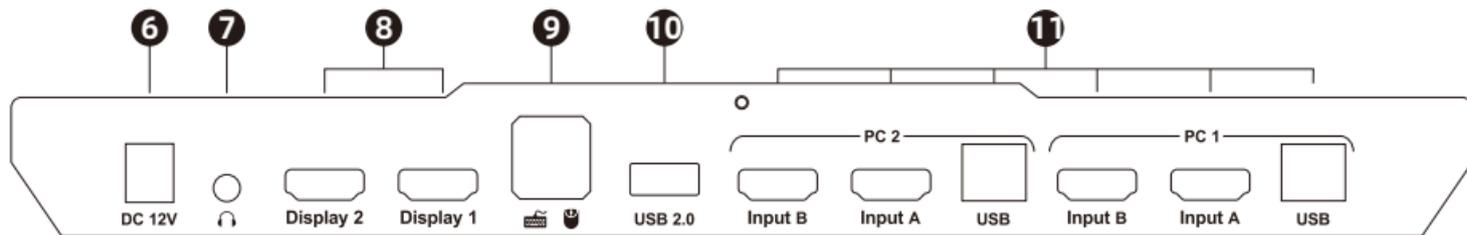
ID	Name	Function
6	DC 12V	12V DC power supply.
7	L/R audio output	Analog audio output, connect to speaker.
8	HDMI outputs	Connect to 2 HDMI displays for video output.
9	Keyboard and mouse input	For USB keyboard and mouse input.
10	Standard USB 2.0 port	Connect to USB 2.0 device.
11	KVM input port group	Each group contains 2 video ports (HDMI on the left) and 1 USB port (USB-A on the right). Connect the ports to corresponding input devices for signal input.

8. Connection Description

8.1 Connection Diagram

UHD Monitor B   UHD Monitor A   PC 2   PC 1

HDMI Cable

USB-A to USB-B Cable

DC 12V   Display 2   Display 1   USB 2.0   **PC 2** Input B   Input A   USB   **PC 1** Input B   Input A   USB

Speaker   Keyboard Mouse   Barcode Scanner   USB drive   Printer
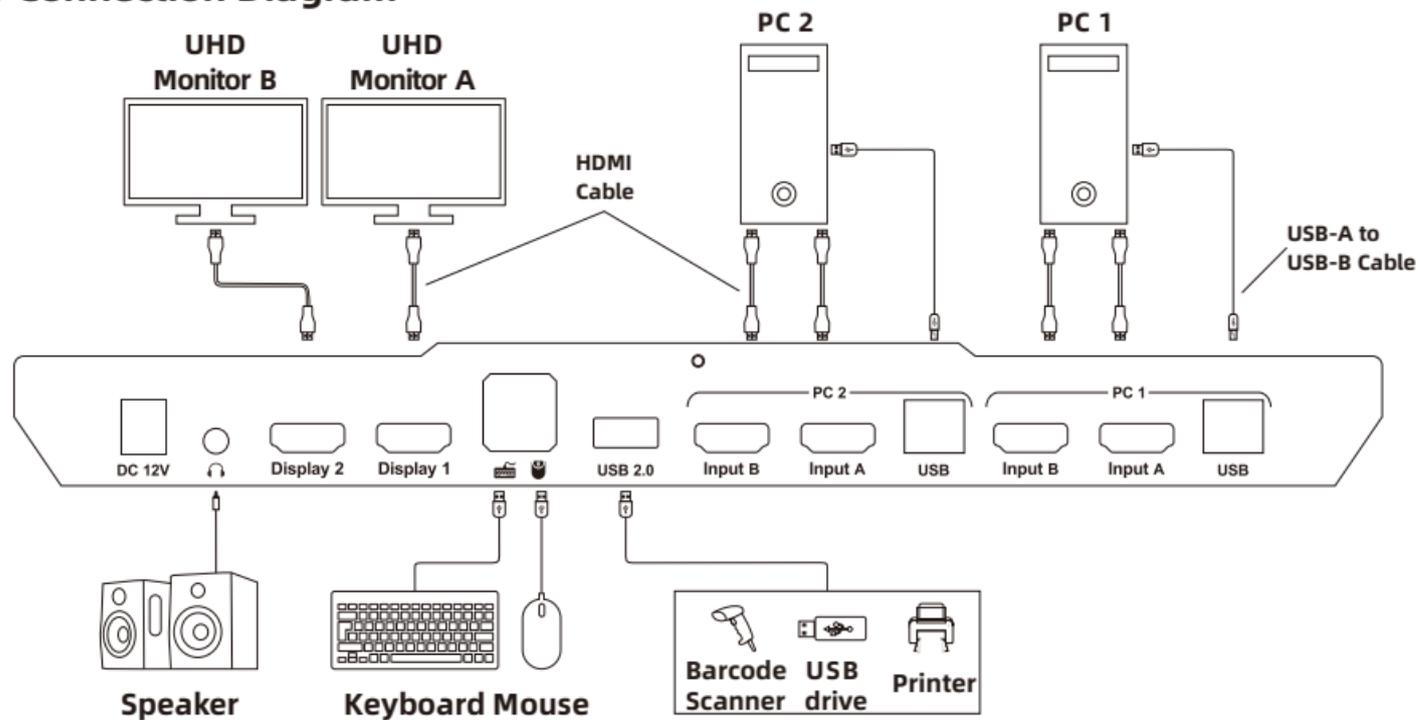
8.2 Connection Preparation

- Take into consideration all devices required to be connected and prepare a workbench large enough before the connection.
- Lay out the cables properly to facilitate the layout of power supply as a lot of power sockets and plug boards will be adopted in connection.
- Prepare different sticker labels to mark cables as a lot of cables will be adopted in connection.

| HDMI | HDMI | USB Type-A | USB Type-B |

(HDMI Cable + USB Type A to B Cable)
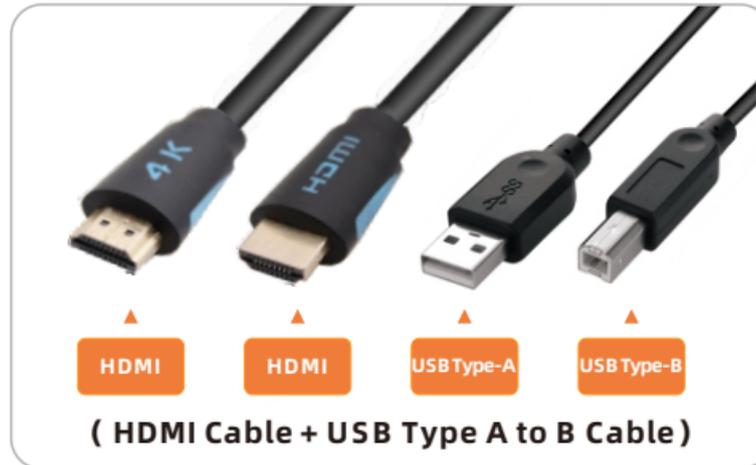
8.3 Connection Steps

1. Connect PC1 with 1 KVM cable and 1 HDMI cable, use HDMI end to connect PC1 to the corresponding HDMI ports group on the KVM, use USB-A end to connect each PC and USB-B end to connect the KVM. Connect PC2 in the same way.

2. Connect external mouse and keyboard to KVM's keyboard and mouse input port.
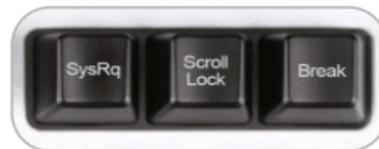
Tips: For the normal service of hotkeys, we recommend you use the full-key external keyboard with a separate [Scroll Lock] key (as shown above).

3. Connect USB 2.0 device to KVM's standard USB 2.0 port.

4. Connect KVM's HDMI output ports to 2 HDMI displays with 2 HDMI cables.

5. Connect external audio device to KVM's L/R out port.
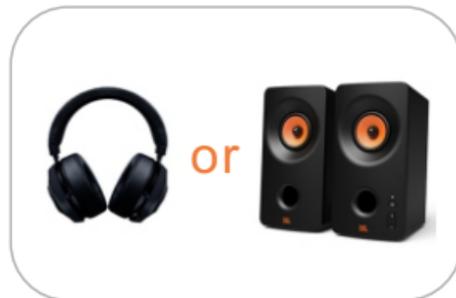
6. Connect the power cable to KVM's DC 12V port and plug it to a power socket.

7. By now, the connection has been completed. Turn on the power supply and the KVM Switch will begin to work.

8.4 KVM Workbench

A workbench with 4x2 HDMI Dual Monitor KVM Switch successfully connected is shown as below:

9. Function Description

9.1 Display Mode Description

The 4x2 HDMI dual monitor KVM Switch support 2 display modes. You can choose to implement 2-screen extended display or duplicate display or display different PCs on 2 monitors.

Display Mode 1: Display the same PC

**Duplicate displays**   **Extend displays**
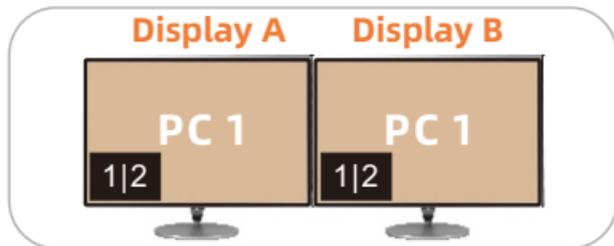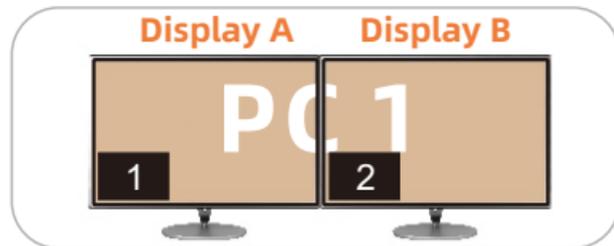
Tips: 1. You can set the duplicate or extend displays in the Display Settings of the current selected PC.

2. Only when 2 video ports of the same PC are connected to Input A and Input B of a group of input ports at the same time, can duplication or expansion of two screens be realized.

Display Mode 2: Display the different PCs

Display mode 2 also supports swapping the images of 2 monitors.

Display A	Display B
PC 1	PC 2
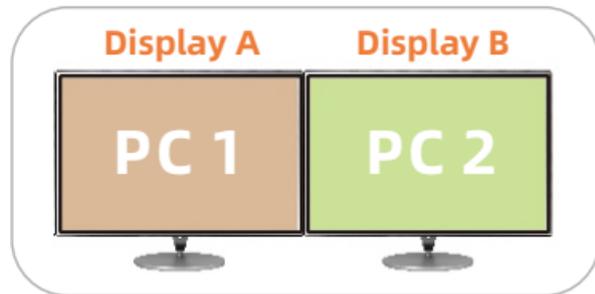
Tips: 1. Please refer to Page 20 for how to switch to display mode 2 and swap images.
2. The 2 monitors will not swap the image when the maximum resolutions supported by them are different.
3. The EDID emulator function is not support in display mode 2.

When different PCs are displayed on different monitors, you can double-click the **Right-[Alt]** on the keyboard connected to the KVM to switch the focus between different PCs.

10. Operation Method

10.1 Front Panel Button Switching Method

The 4x2 HDMI Dual Monitor KVM Switch can switch to any input devices at any time with front panel keypad, IR remote control, keyboard hot keys and mouse wheel switch mode. You can choose your favorite switching method according to your personal needs and habits.

→ Switch the input devices by pressing the button **[Select]** on the front panel of the KVM Switch. For example, press **[Select]** until you see the ② LED is lit. That means you have selected PC2 as input.

Tips: 1. The 'Online' LEDs will be lit if the USB ports on KVM are well connected to and recognized by PC. 'Select' LEDs indicate the current selected computer.
2. The front panel can only switch between PC1 and PC2. For how to switch to display mode 2 please refer to the next two pages.

10.2 IR Remote Control
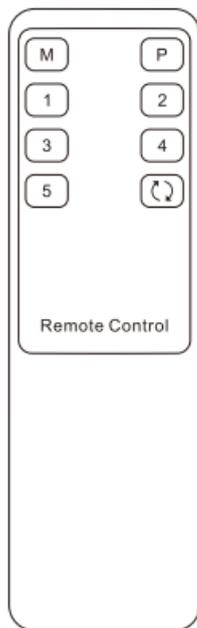
Key	Display Mode 1	Display Mode 2
M	Cyclically select PC 1 and PC 2	Switch to display mode 1
P	Switch to display mode 2	Swap the desktops of 2 monitors
1	Switch to PC 1	Keyboard and mouse focus on the desktop of PC 1
2	Switch to PC 2	Keyboard and mouse focus on the desktop of PC 2

Tips: 1. Unspecified buttons at above are non-functional.
2. Both 'Select' LEDs will be lit if the KVM is on the display mode

10.3 Keyboard Hot Keys

→ Use external keyboard hot keys to switch the input source or set up some other functions..

Tips: The keyboard hot keys can only work with external keyboard correctly connected to the keyboard and mouse input port of the KVM. For the use of hot keys, we recommend you use an external keyboard with a separate **[Scroll Lock]** key.

After press **[Scroll Lock]** key twice within 2 seconds then please enter the commands within 3 seconds and the KVM will execute the corresponding commands.

Select previous input port:
[Scroll Lock]→[Scroll Lock]→[PgUp]

Scroll Lock → Scroll Lock → PgUp

Select next input port:
[Scroll Lock]→[Scroll Lock]→[PgDn]

Scroll Lock → Scroll Lock → PgDn

Select port by port number(i.e. display mode 1):
[Scroll Lock]→[Scroll Lock]→[1]~[2]

Scroll Lock → Scroll Lock → 1 ~ 2

Switch to display mode 2:

Keyboard and mouse focus on the desktop of
PC 1 in display mode 2:
[Scroll Lock]→[Scroll Lock]→[3]

`Scroll Lock` → `Scroll Lock` → `3`

Keyboard and mouse focus on the desktop of
PC 2 in display mode 2 (i.e. swap imaes):
[Scroll Lock]→[Scroll Lock]→[4]

`Scroll Lock` → `Scroll Lock` → `4`

Switch focus in display mode 2:
[Right-Alt]→[Right-Alt]

`Right Alt` → `Right Alt`

Disable or enable buzzer sound:
[Scroll Lock] →[Scroll Lock] →[F11]

`Scroll Lock` → `Scroll Lock` → `F11`

Tips: The default setting of buzzer sound is enabled. Repeat this step to disable or enable buzzer sound.

11. Change Hot Key Combinations

There are two kinds of trigger hot keys in this product, the default is [Scroll Lock] key, and the alternative is the [Right-Ctrl] key. If [Scroll Lock] Key has been used for other functions, you can switch the hot key to [Right-Ctrl] by:

Method 1:
→ 10 seconds after powering on the KVM, press and keep holding the [Select] button on the front panel until you hear the buzzer is beeping, the control hot key are switched**.**

Method 2:
→ Press [Scroll Lock]→[Scroll Lock]→[F1], and you will switch the control hot key to [Right-Ctrl].

Switch to [Right-Ctrl] **Switch to [Scroll Lock]**
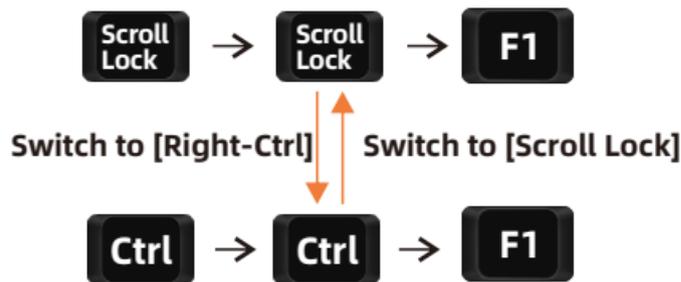
→ Vice verse, Press [Right-Ctrl]→[Right-Ctrl]→[F1], and you will switch the control hot key to [Scroll Lock].

12. Pass Through Mode Description

12.1 Introduction of Pass through mode

Pass through mode is a built-in function of KVM, which is able to improve keyboard and mouse compatibility and enhance user experience. In the pass through mode, the keyboard and mouse are equivalent to directly connecting to the computer. At this time, you can use more keyboard and mouse functions and special functions that are not supported by traditional KVM.

Tips: The current version does not support keyboard and mouse connection via Bluetooth.

12.2 Keyboard and Mouse Compatible Model List

Tips: The following list is from the most representative models of keyboard and mouse that have been tested in the laboratory, mainly from manufacturers with a high market share.

Brand	Model	Brand	Model	Brand	Model	Brand	Model
Aigo	WQ-641	Logitech	G510	Logitech	Marble Mouse	RAPOO	X220
Dell	KB212-B	Logitech	G710	Logitech	Mk540	RAZER	RZ01-0145
Dell	KB522	Logitech	G910	Logitech	Mx1100	RAZER	RC30-021203
Logitech	G105	Logitech	K400PLUS	Logitech	Mx518	Corsair	K55
Logitech	G500S	Logitech	K845	Microsoft	Wireless Desktop 2000	Corsair	K70LUX

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