# 2, 4 - Port Desktop USB Keyboard Mouse Synchronizer

# <u>User</u> <u>Manual</u>

# Statement

**Interference Statement of Federal Communications Commission (FCC)**

This product has been tested and certified to meet the requirements of the FCC Specification Class B digital equipment and the details of Section 15 of the FCC Specification. However, these regulations are to use the equipment in a commercial environment without harmful interference and to provide effective protection. This equipment will generate and radiate electromagnetic waves, so if it is not

installed and used in accordance with the provisions of this manual, it may cause interference to wireless communication equipment. However, there is no guarantee that interference will not occur in special installations. If the opening or closing of the equipment will cause interference from radio and TV reception, users should try the following contents to reduce interference.

◆ Change the direction and move the receiving antenna.
◆ Increase the distance between the equipment and the receiver.
◆ Connect the equipment to the circuit outlet (not the interface to which the receiver is connected).
◆ Ask your dealer and experienced radio/television technician for help.

**FCC Warning:** Changes and modifications to the equipment that are not made by the responsible qualified party will result in the user losing the right to operate the equipment.
**CE Warning:** This product is a Class B product. In the home environment, the product may cause radio interference, and users may need to take appropriate measures to prevent it.

# RoHS

This product is RoHS compliant.

# User Considerations

The manufacturer has the right to modify and change the information, documents and specification tables contained in the manual without prior notice. The manufacturer will not warrant, express, imply or legally declare its contents or specifically deny its marketability and applicability for special purposes. The same applies to any sold and licensed manufacturer's software described in this manual. If any defects in the software program are found after purchase, the Purchaser (and non-manufacturers, their distributors or their purchasers) will be required to bear all necessary services, maintenance costs and any accidental or indirect damages caused by the software defects. The manufacturer is not responsible for any radio and/or television interference caused by unauthorized adjustment of this equipment, and the user must correct the interference himself.

If the operating voltage setting is not correctly selected before operation, the manufacturer will not be responsible for any damage caused.
**Make sure that the voltage is set correctly before use.**

## Product Model Description:

| Model | Configuration Description |
|-------|---------------------------|
| KM-201 | Two controlled end ports USB-B ports, two control end ports USB-A, support hot key switching and panel button switching control. |
| KM-401 | Four controlled end ports USB-B ports, two control end ports USB-A, support hot key switching and panel button switching control. |

Package content

The USB button and mouse synchronizer package includes the following contents:

- 1 USB keyboard and mouse synchronizer host

- Connect two cables (KM-201 optional)

- Four connecting cables (KM-41 optional)

- 1 User Manual or CD (optional)

- 1 Warranty card

Check and make sure that all parts are present and not damaged in transit. If you encounter problems, please contact your dealer.

In order to prevent damage to the machine or the device connected to the machine, please read this manual carefully and follow the instructions for installation and operation.

---

* Since the publication of this manual, there may be new product features. Please visit our website to download the latest version of the user manual.

---

# Contents

# About this Manual

This manual will assist you to use the product functions effectively, including the installation, setting and operation of the equipment.　You can know the contents of this manual from the following contents:

Chapter 1 Introduction - This chapter introduces the USB button and mouse synchronizer system, including its functions, features and advantages, and describes the front and rear panel components.

Chapter 2 Hardware Installation - This chapter describes how to install the product.

Chapter 3 Basic Operations - Describes the basic operation concepts of the USB button and mouse synchronizer.

Chapter 4 Keyboard Port Operations - describes keyboard hotkey combination operations and Settings.

Appendix - Provides the specification sheet and other technical information about the USB button and mouse synchronizer.

# Explanation of Common Terms

| Symbols | Represent text information that should be entered |
|---|---|
| 【】 | The brackets indicate the key you want to enter. For example, 【Enter】means that the Enter key is pressed. For keys that need to be entered at the same time, they are placed in the same brackets, and the keys are connected by plus signs. For example: 【Ctrl+Alt】 |
| 1. | The number indicates the serial number of the actual operation step. |
| ◆ | Rhombus indicates that information is provided for reference, but are independent of the operation steps. |
| ● | The origin symbol represents the classification sub-item information and is independent of the operation step. |

# Product Information

To find information about our KVM products and how to use them effectively, you can contact our website or authorized distributors for more contact information

.

# Chapter I Introduction

## Product Introduction

As a USB keyboard and mouse synchronizer, the 2 4-port USB keyboard and mouse synchronizer allows users to access a single or simultaneous access to 2/4 computers from a single USB keyboard and USB mouse control terminal. The synchronizer is simple and fast to install. If the cable is inserted into the correct port, there is no need for software setting and installation program Desktop small design, metal shell, easy to install and display, to provide users with a variety of USB devices to switch the operation, save desktop space, is the ideal choice for SOHO office and other multimedia applications

## Product Characteristics

◆ 2.4-port USB2.0 button and mouse synchronizer

◆ A single USB control terminal controls 2 or 4 computers and USB peripherals

◆ Built-in USB2.0 hub, compatible with the USB2.0 protocol specification

◆ The keyboard hotkey switch function and the device panel key switch function are available

◆ Support for various operating systems on multiple platforms

◆ The BIOS level hardware connection, no need to install drivers and control software

◆ Offers a variety of hot keys selection and setting function, convenient for the user to set hotkeys $\omega$ depending on the situation

## Operating System

◆ Operating systems supported by remote users' computers include Windows XP and above
◆ The operating systems supported by the server connected to the switcher are shown in the following table:

| Operating System | | Version |
|---|---|---|
| Windows | | Windows 2000/XP/2003/2008/Vista/7/10 |
| Linux | RedHat | 9.0 or higher |
| | SuSE | 10/11. 1 or higher |

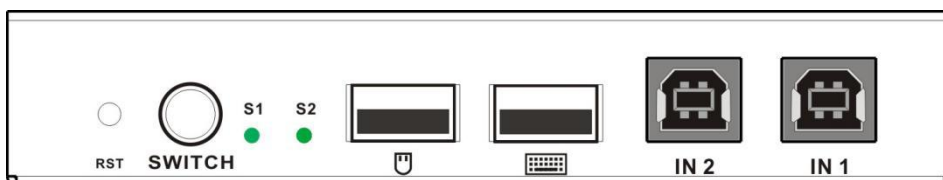|       | Debian   | 3.1/4.0                        |
|-------|----------|--------------------------------|
|       | Ubuntu   | 7.04/7.10                      |
| UNIX  | AIX      | 4.3 or higher                  |
|       | FreeBSD  | 5.5 or high                    |
|       | Sun Solaris | 8 or high                   |
| Mac   |          | OS 9.0 to 10.6 (Snow Leopard)  |
| Novell | Netware | 6.0 or high                    |

# Components
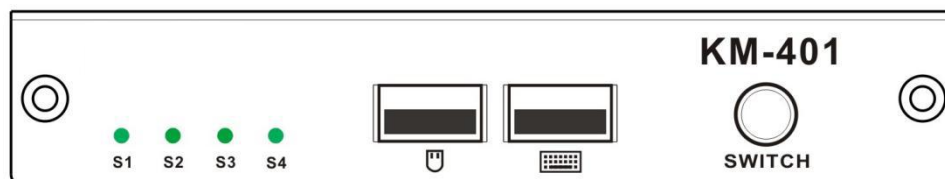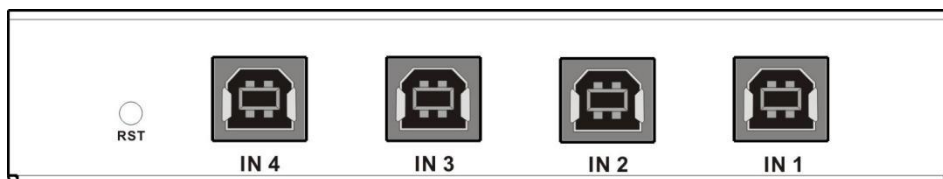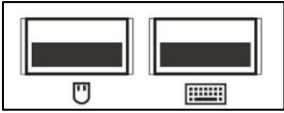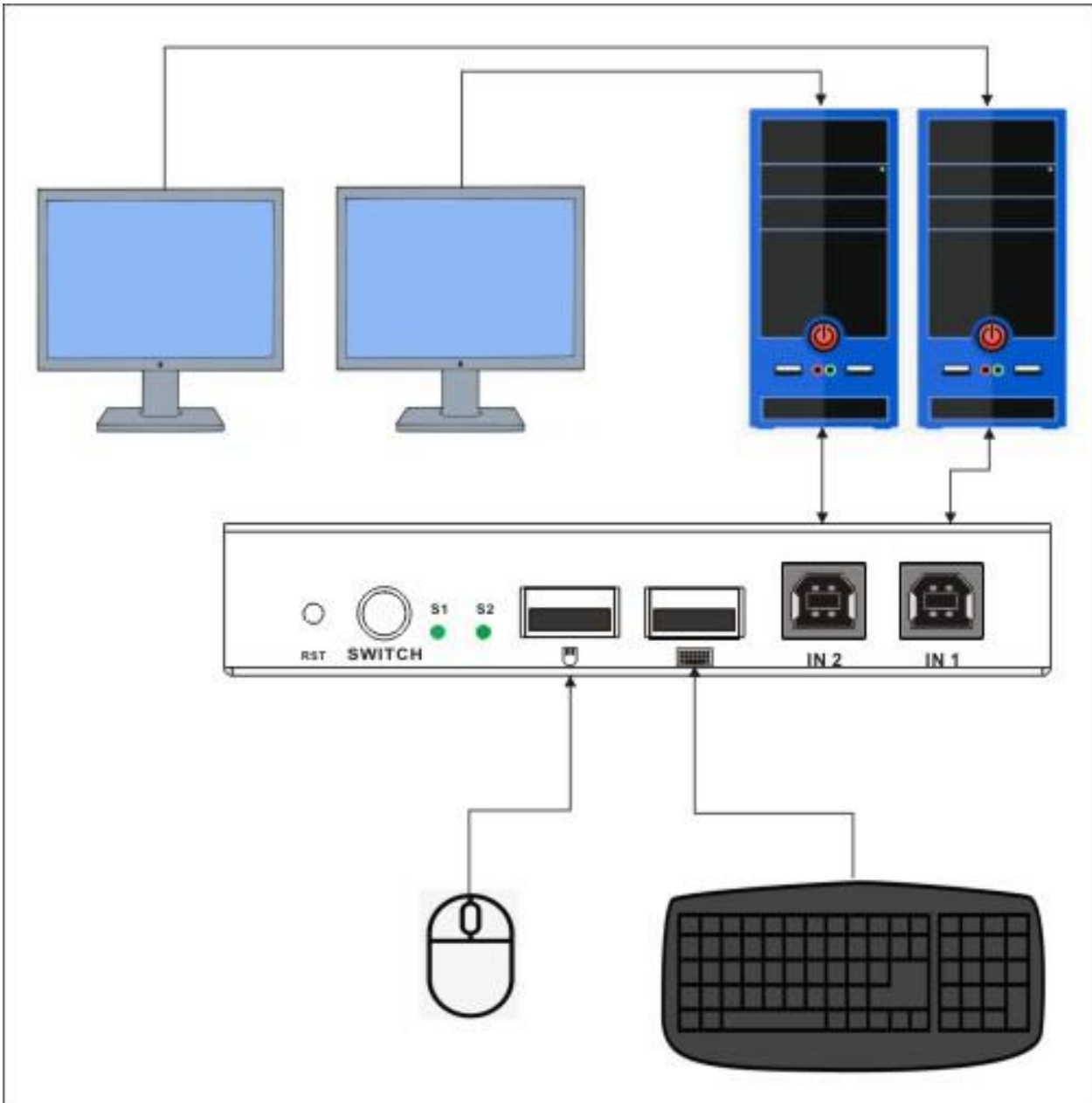
## View

### KM-201



### KM-401

Control end USB-A port, connected to the keyboard and mouse

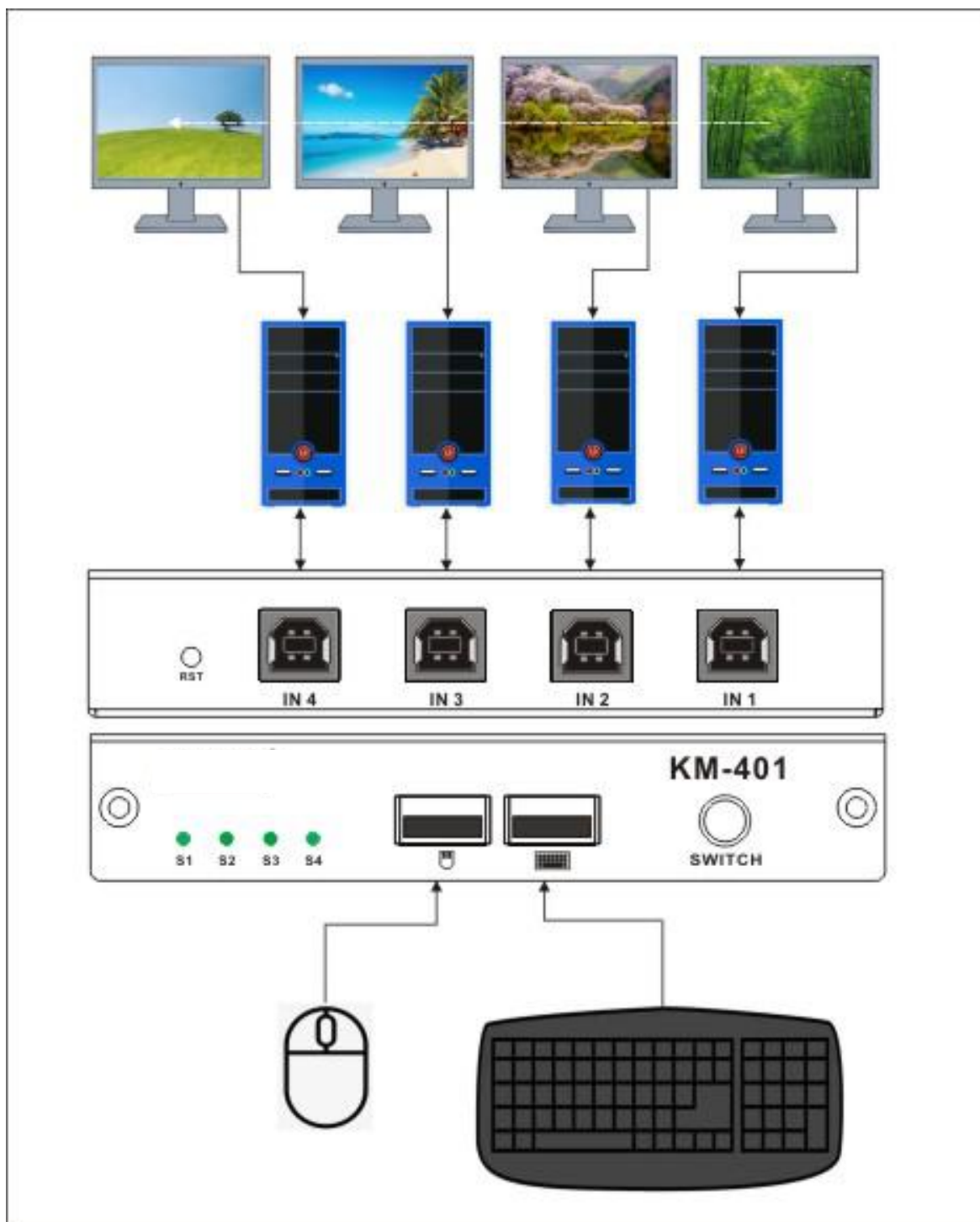Controlled end USB-B interface, connected to the computer

# Connection View:

## Function View

### Left and right through the screen



Default hotkey: [CTL] + [SHIFT] + [F12] to turn on/off the mouse left and right through the screen function, slide the mouse to the current desktop left and right border automatically through to the next port, and can operate the keyboard and mouse in this port normally.

## Up and down through the Screen
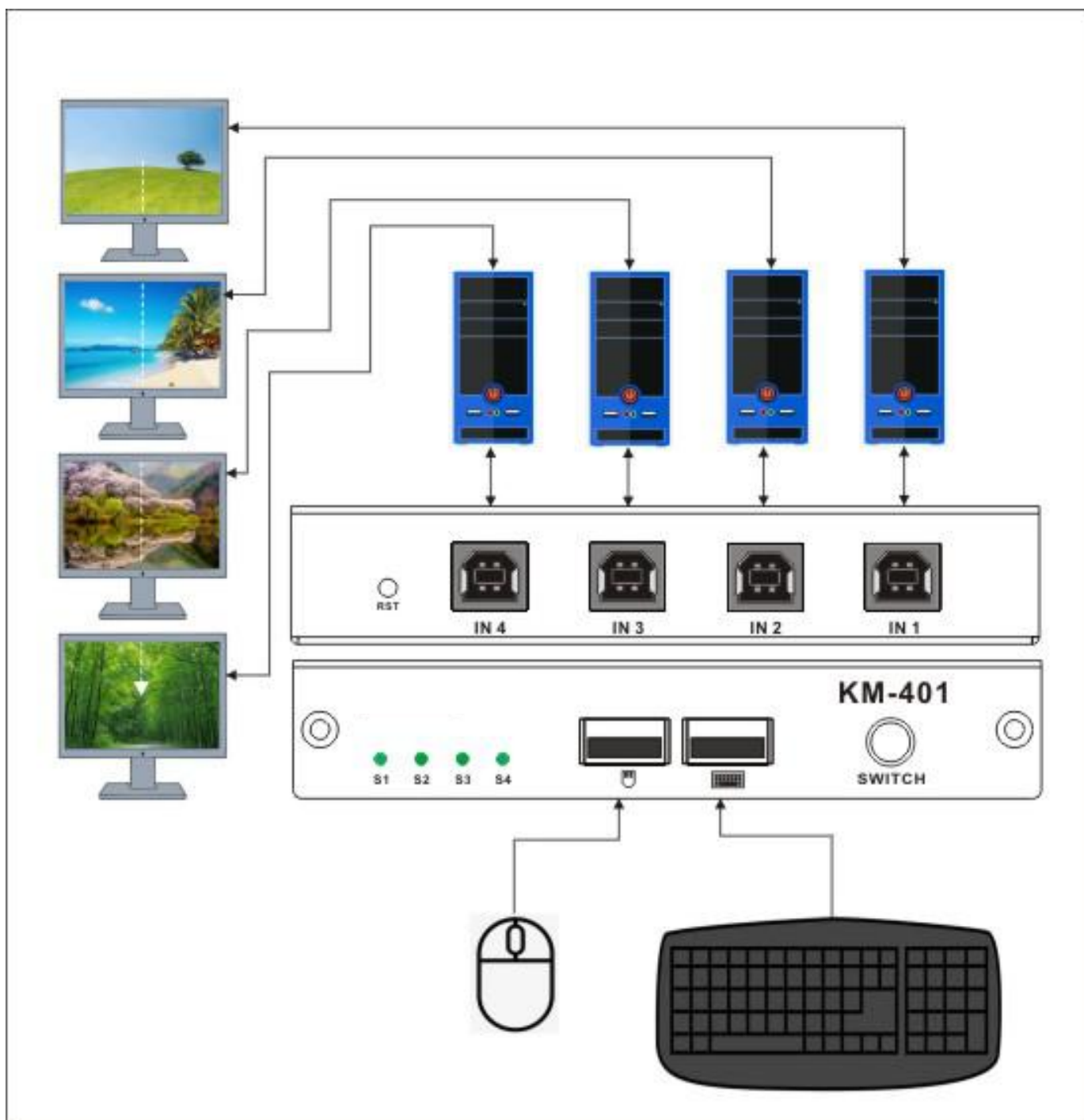


Default hotkey: [CTL] + [SHIFT] + [F10] to turn on/off the mouse up and down through the screen function, slide the mouse to the current desktop up and down the border automatically through to the next port, and can operate the keyboard and mouse in this port normally.

## Keyboard and mouse synchronization
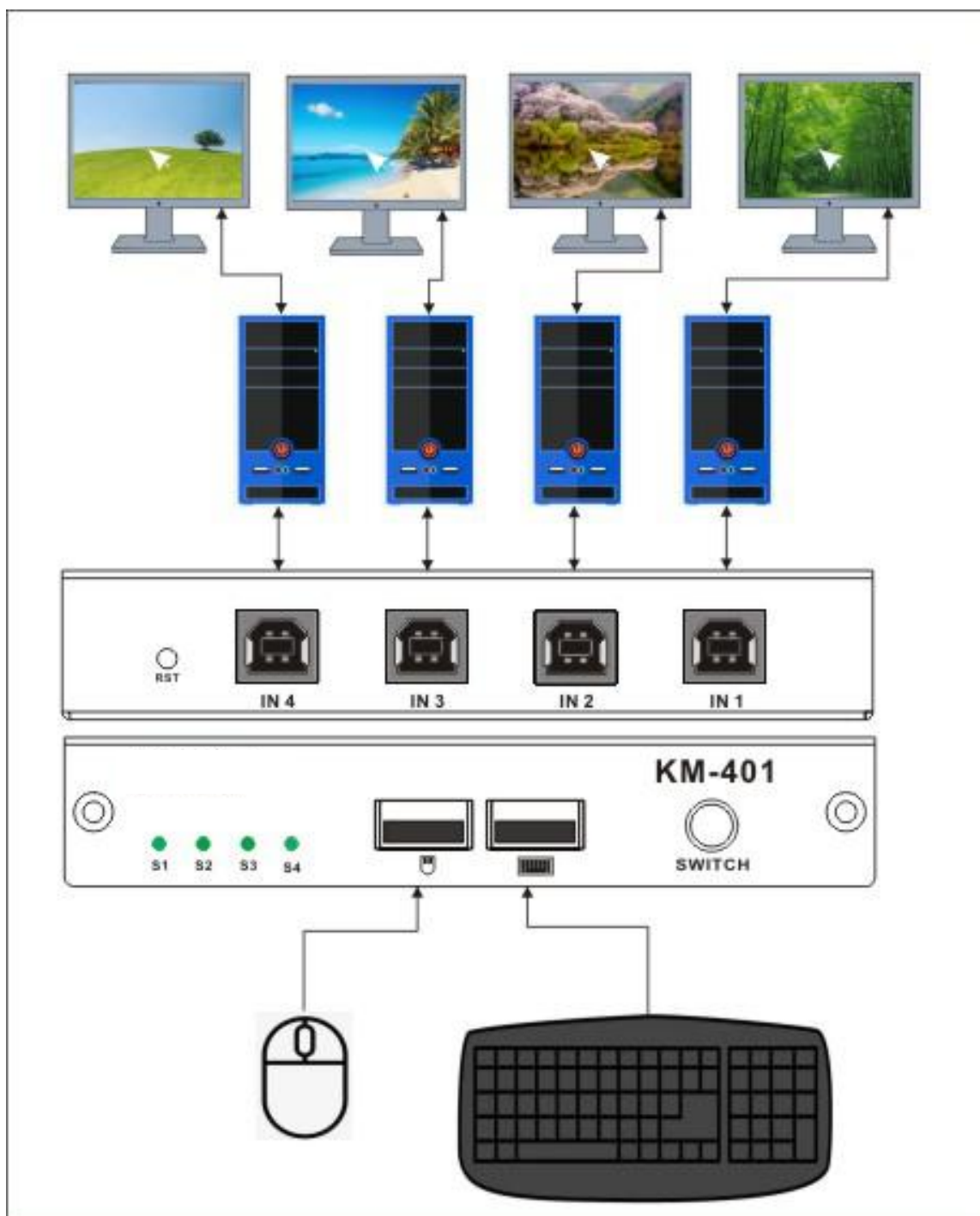


Default hotkeys [CTL] + [SHIFT] + [0] to open/close the keypad synchronization function, the function opens all controlled ports keypad can be operated at the same time to use.

# Chapter II Hardware Installation

## Stacking and Installation

The synchronizer can be placed on any suitable surface and is sufficient to safely support the equipment plus the weight of the additional connection wire; Make sure that the plane is clean and there is no other debris that may affect the ventilation and normal operation of the synchronizer.

To install a 2/4-port desktop synchronizer device, follow these steps:

1. Insert the USB keyboard and mouse into the USB control port on the device.

2. Connect a USB-B cable to the corresponding port on the controlled terminal.

3. Connect the other end of the cable to the USB port on the corresponding computer

4. The product is powered by an external USB port. The synchronizer can work when the computer is turned on.

5. Power on your computer.

# Chapter III Basic Operations

## Describe

Synchronizer access to connect to the computer in two ways: the combination of hot keys on the USB keyboard to switch operation or manual switch operation using the device's keys.

# Manual switching mode

The user only needs to press the corresponding button on the synchronizer. The buzzer will play an announcement indicating that the port is successfully switched. The USB signal of the corresponding port is switched to the corresponding local port.

# Keypad combination hotkey switching mode

You can use the keyboard connected to the USB port on the synchronizer to combine hot keys. For details, see the following sections.

# Power off and restart

If it is necessary to power off the device, perform the following operations before powering it back on:

1. Unplug all the computer data cables connected to the synchronizer.

2. Wait 10 seconds (if a power supply is available) and reinsert the power adapter cable to the synchronizer.

3. Then connect the computer data line and turn on the computer power.

# Chapter IV Keyboard Port Operations

## Describe

**The desktop synchronizer products provide a large number of simple hotkey operations, so that you can easily set the synchronizer or complete the port switch selection function through the keyboard**

**. Hotkey combination**

This series of products provides four combinations of hotkeys for users to select and set. The default hotkeys are [CTL] + [CTL] to switch to the next online port, and [CTL] + [SHIFT] + [1] or [2] [3] [4] to switch to the specified port. The following table shows the description of four hotkey combinations. Please refer to the Settings when using them:

1. In [CTL] + [SHIFT] mode, press Ctrl+ SHIFT, then release, and quickly press the function key

| Hotkey combination | Instructions |
|---|---|
| 【CTL】+【CTL】 | Switch to the next device port |
| 【CTL】+【SHIFT】+【1】或【2】【3】【4】 | Switch to the computer corresponding to ports [1] [2] [3] [4] |
| 【CTL】+【SHIFT】+【→】或【↓】 | Switch to the next computer |
| 【CTL】+【SHIFT】+【←】或【↑】 | Switch to the previous computer |
| 【CTL】+【SHIFT】+【B】 | The buzzer is turned on or off |
| 【CTL】+【SHIFT】+【S】 | The default mode is 5 seconds. Press ESC to exit |
| 【CTL】+【SHIFT】+【S】+【N】 | Set the interval for automatic switchover and press ESC to exit |
| 【CTL】+【SHIFT】+【F12】 | Enable/disable the left-right screen penetration function. When the mouse moves to the left and right edges of the current desktop, it automatically penetrates to the next port |
| 【CTL】+【SHIFT】+【F10】 | Enable/disable the function of moving the mouse up and down the screen. When the mouse moves to the lower edge of the current desktop, it automatically penetrates to the next port |
| 【CTL】+【SHIFT】+【0】 | Enable the button and mouse synchronization function to synchronize operation of all controlled ports |
| 【CTL】+【SHIFT】+【SCROLL】 | Switch to the [SCROLL] + [SCROLL] hotkey combination mode |
| 【CTL】+【SHIFT】+【NUM】 | Switch to the [NUM] + [NUM] hotkey combination mode |
| 【CTL】+【SHIFT】+【CAPS】 | Switch to the [CAPS] + [CAPS] hotkey combination mode |

1. 【SCROLL】+【SCROLL】model

| Hotkey combination | Instructions |
|---|---|

| | |
|---|---|
| 【SCROLL】+【SCROLL】+【1】或【2】【3】【4】 | Switch to the computer corresponding to ports [1] [2] [3] [4] |
| 【SCROLL】+【SCROLL】+【→】或【↓】 | Switch to the next computer |
| 【SCROLL】+【SCROLL】+【←】或【↑】 | Switch to the previous computer |
| 【SCROLL】+【SCROLL】+【B】 | The buzzer is turned on or off |
| 【SCROLL】+【SCROLL】+【S】 | The default mode is 5 seconds. Press ESC to exit |
| 【SCROLL】+【SCROLL】+【S】+【N】 | Set the interval for automatic switchover and press ESC to exit |
| 【SCROLL】+【SCROLL】+【F12】 | Enable/disable the left-right screen penetration function. When the mouse moves to the left and right edges of the current desktop, it automatically penetrates to the next port |
| 【SCROLL】+【SCROLL】+【F10】 | Enable/disable the function of moving the mouse up and down the screen. When the mouse moves to the lower edge of the current desktop, it automatically penetrates to the next port |
| 【SCROLL】+【SCROLL】+【0】 | Enable the button and mouse synchronization function to synchronize operation of all controlled ports |
| 【SCROLL】+【SCROLL】+【CTL】 | Switch to the [CTL] + [SHIFT] hotkey combination mode |
| 【SCROLL】+【SCROLL】+【NUM】 | Switch to the [NUM] + [NUM] hotkey combination mode |
| 【SCROLL】+【SCROLL】+【CAPS】 | Switch to the [CAPS] + [CAPS] hotkey combination mode |

2.  【NUM】+【NUM】model

| Hotkey combination | Instructions |
|---|---|
| 【NUM】+【NUM】+【1】或【2】【3】【4】 | Switch to the computer corresponding to ports [1] [2] [3] [4] |
| 【NUM】+【NUM】+【→】或【↓】 | Switch to the next computer |
| 【NUM】+【NUM】+【←】或【↑】 | Switch to the previous computer |
| 【NUM】+【NUM】+【B】 | The buzzer is turned on or off |
| 【NUM】+【NUM】+【S】 | The default mode is 5 seconds. Press ESC to exit |
| 【NUM】+【NUM】+【S】+【N】 | Set the interval for automatic switchover and press ESC to exit |
| 【NUM】+【NUM】+【F12】 | Enable/disable the left-right screen penetration function. When the mouse moves to the left and right edges of the current desktop, it automatically penetrates to the next port |
| 【NUM】+【NUM】+【F10】 | Enable/disable the function of moving the mouse up and down the screen. When the mouse moves to the lower edge of the current desktop, it automatically penetrates to the next port |
| 【NUM】+【NUM】+【0】 | Enable the button and mouse synchronization function to synchronize operation of all controlled ports |
| 【NUM】+【NUM】+【SCROLL】 | Switch to the [SCROLL] + [SCROLL] hotkey combination mode |
| 【NUM】+【NUM】+【CTL】 | Switch to the [CTL] + [SHIFT] hotkey combination mode |
| 【NUM】+【NUM】+【CAPS】 | Switch to the [CAPS] + [CAPS] hotkey combination mode |

3.  【CAPS】+【CAPS】model

| Hotkey combination | Instructions |
|---|---|
| 【CAPS】+【CAPS】+【1】或【2】【3】【4】 | Switch to the computer corresponding to ports [1] [2] [3] [4] |
| 【CAPS】+【CAPS】+【→】或【↓】 | Switch to the next computer |
| 【CAPS】+【CAPS】+【←】或【↑】 | Switch to the previous computer |
| 【CAPS】+【CAPS】+【B】 | The buzzer is turned on or off |
| 【CAPS】+【CAPS】+【S】 | The default mode is 5 seconds. Press ESC to exit |
| 【CAPS】+【CAPS】+【S】+【N】 | Set the interval for automatic switch over and press ESC to exit |
| 【CAPS】+【CAPS】+【F12】 | Enable/disable the left-right screen penetration function. When the mouse moves to the left and right edges of the current desktop, it automatically penetrates to the next port |
| 【CAPS】+【CAPS】+【F10】 | Enable/disable the function of moving the mouse up and down the screen. When the mouse moves to the lower edge of the current desktop, it automatically penetrates to the next port |
| 【CAPS】+【CAPS】+【0】 | Enable the button and mouse synchronization function to synchronize operation of all controlled ports |
| 【CAPS】+【CAPS】+【SCROLL】 | Switch to the [SCROLL] + [SCROLL] hotkey combination mode |
| 【CAPS】+【CAPS】+【NUM】 | Switch to the [NUM] + [NUM] hotkey combination mode |
| 【CAPS】+【CAPS】+【CTL】 | Switch to the [CTL] + [SHIFT] hotkey combination mode |

Note: 1. The detection time for each hotkey code is 5 seconds. If you press [CTL] for the first time and then press [CTL] for another 5 seconds, then this key combination will be invalid.

2. In the combination key, [N] represents the number key [1] ---- [9]. The number of seconds of the time interval can be set, as shown in the following table:

| Automatically switch the time interval | |
|---|---|
| N | Second |
| 1 | 5 |
| 2 | 10 |
| 3 | 15 |
| 4 | 20 |
| 5 | 25 |
| 6 | 30 |
| 7 | 35 |
| 8 | 40 |
| 9 | 60 |

3.After the screen penetration mode is enabled, the USB on the controlled end will be re-enumerated. The keyboard and mouse can be used after a while.

# Appendix

## Safety Instructions

## General

◆ This product is for indoor use only.

◆ Please read all the instructions and use them for future reference.

◆ Follow all warnings and instructions on the equipment.

◆ Do not place this equipment on any unstable plane (such as carts, shelves, tables, etc.). If this equipment falls, it will be built.
Into serious damage.

◆ Do not use this equipment near water.

◆ Do not place this equipment next to or above the radiator or heating equipment.

◆ The enclosure of this equipment is equipped with slots for heat dissipation and ventilation. In order to prevent overheating during operation, do not block or cover the openings.

◆ This equipment should not be placed on a soft surface (such as bed, sofa, blanket, etc.), which will block the fan opening, nor should it be placed in a sealed environment unless proper ventilation has been provided.

◆ Do not spill any liquid on the equipment.

◆ Before cleaning, the power supply of this equipment must be unplugged from the socket on the wall. Please do not use any liquid or foam wiping agent, please use wet cloth for cleaning.

◆ Please use this equipment according to the power type on the label. If you are not sure whether the power type is available, please contact your distributor or local power company.

◆ This equipment is designed and applied to IT power distribution system with 100V ~ 230V phase-to-phase voltage.

◆ In order to prevent damage to your equipment, it is very important for all equipment to be properly grounded.

◆ Do not place anything on the power cord or connection line, and arrange the wiring path of the power cord and connection line to avoid tripping over it.

◆ If the equipment uses an extension line, ensure that the total power of all products using the line does not exceed the current carrying capacity of the line. Ensure that the total current of all products plugged into wall sockets does not exceed 15A.

◆ Please select equipment such as sudden wave suppressor, regulator or uninterruptible power system (UPS) to help prevent your system from experiencing sudden and instantaneous increase and decrease of power.

◆ Please properly fix the connecting wire and power cord of the system to ensure that nothing presses on the cable.

◆ Do not insert anything into the machine through the slots in the housing, which may come into contact with dangerous voltage points or cause short circuit of parts and lead to the risk of fire or electric shock.

◆ Please do not try to repair this equipment by yourself, please find qualified service personnel to

obtain support services.

◆ If any of the following circumstances occur, please unplug the power supply of this equipment from the wall socket and hand it over to qualified service personnel for repair.

- Damaged or worn power cord or plug
- Liquid is sprinkled into the equipment
- The equipment was drenched by rain and water
- The equipment has fallen or the enclosure has been damaged
- The functions of this equipment have obviously changed
- After following the operation instructions, the equipment cannot operate normally

◆ Only the control functions covered in the operation instructions are adjusted, and other improper operations may cause damage, so that more extensive operations by qualified personnel are required to repair.

# Product Specification

| Functions | | | KM-201 | KM-401 |
|---|---|---|---|---|
| Number of computer connections | | | 2 | 4 |
| Switch Mode | | | panel keys, hotkeys, | |
| Connector | Control Port | Keyboard | 1 x USB Type A female head | |
| | | Mouse | 1 x USB Type A female head | |
| | Computer port | Keyboard Mouse | 2 x USB-B  female head | 4 x USB-B  female head |
| Switch over switch | Connection Port Selection | | 1 x Light touch button | |
| | Reset | | 1 x Light touch button | |
| LED indicator | Computer Select Port | | 2 x green | 4 x green |
| Analog mode | Keyboard and mouse | | USB | |
| Default shortcut hotkey | | | CTL+SHIFT model | |
| Operating environment | Operating temperature | | 0-50℃ | |
| | Storage Temperature | | -20-60℃ | |
| | Humidity | | 0-80% RH, no coagulation | |
| Body Attribute | Chassis | | Metals | |
| | Product Size | | 125*63*23mm | |
| | Weight | | 0.2Kg | 0.24Kg |

# Warranty Conditions

The maximum compensation borne by the Company shall not exceed the amount paid by the customer for the product. In addition, the Company does not bear the direct, indirect, special, accidental or consequential damages caused by the use of this product or the CD and documents attached to this product.

The Company will not warrant, express, imply or legally declare the contents and purposes of this document, and specifically deny its quality, performance, marketability or applicability for special purposes.

Distributors reserve the right to modify or upgrade equipment or documents, and are not obliged to notify any individual or individual of the contents of the modification or upgrade. For further enquiries, please contact the distributor.