TESmart HKS401-P23

TESmart USB 3.0 HDMI KVM Switch User Manual

Model: HKS401-P23
Brand: TESmart

Introduction

The TESmart USB 3.0 HDMI KVM Switch is designed to efficiently manage multiple computers using a single set of keyboard, mouse, and monitor. This device is ideal for home and office setups, gaming consoles, and streaming devices, offering seamless switching between up to four computers. It supports high-resolution displays and provides fast data transfer capabilities, enhancing productivity and simplifying your workspace.

The TESmart USB 3.0 HDMI KVM Switch, shown with its four included KVM cables.

Key Features

- **4-Port HDMI KVM Switch:** Connects up to four desktops or laptops to one keyboard, mouse, and monitor.
- **USB 3.0 Connectivity:** Features an integrated USB 3.0 port for high-speed data transfer up to 5Gbp/s (10 times faster than USB 2.0) and device charging. Allows sharing of USB peripherals like printers, scanners, webcams, and hard drives.
- **Integrated Audio:** Supports L/R audio output and microphone input for comprehensive communication.
- **Ultra HD 4K@60Hz Resolution:** Supports resolutions up to 3840x2160 (4K) @60Hz, 3440x1440@100Hz, 2560x1440@120Hz, and is downward compatible. Supports 3D, HDR10, HDCP2.2, and Dolby Vision.
- **EDID Emulators:** Built-in EDID emulators in each input port ensure computers receive correct display information, preventing display setting changes during switching.
- **Seamless Switching:** Offers zero latency keyboard and mouse switching for a smooth user experience.

- **Multiple Switching Options:** Switch between inputs using the IR remote control (AAA batteries not included), front panel buttons, hotkeys, or mouse wheel.
- **High Compatibility:** Compatible with a wide range of wired, wireless (2.4G receiver), mechanical, and gaming keyboards and mice. (Note: Does not support wireless Bluetooth K&M).
- **Hot Plug Support:** Allows adding or removing devices without powering off the KVM switch or connected devices.
- **Wide OS Compatibility:** Supports Unix, Windows, Debian, Ubuntu, Fedora, Mac OS X, Raspbian, Ubuntu for Raspberry Pi, and other Linux-based systems.

Setup Guide

The TESmart KVM Switch is designed for plug-and-play operation, requiring no software installation. Follow these steps to set up your KVM switch:

1. **Connect Monitor:** Connect your monitor to the HDMI Output port on the KVM switch using an HDMI cable.
2. **Connect Computers:** For each computer (up to 4), connect one end of the provided KVM cable (HDMI + USB 3.0) to the computer's HDMI output and a USB 3.0 port. Connect the other end to a corresponding Input (Input 1-4) and USB (USB 1-4) port on the KVM switch.
3. **Connect Keyboard & Mouse:** Plug your keyboard and mouse into the dedicated USB ports on the KVM switch (typically marked with keyboard and mouse icons).
4. **Connect Peripherals:** Utilize the additional USB 3.0 ports (SS) on the front or back of the KVM switch to connect other USB peripherals such as printers, scanners, or external hard drives.
5. **Connect Audio Devices:** If desired, connect your headset or speakers to the L/R audio output and microphone input jacks on the KVM switch.
6. **Power On:** Connect the DC 12V power adapter to the KVM switch and plug it into a power outlet.

A visual guide illustrating the connection points for the monitor, keyboard, mouse, computers, and other peripherals to the KVM switch.

Detailed view of the HDMI and USB connections on the KVM switch, showing how to streamline your multi-display setup.

Operating Instructions

Switching Between Computers

The TESmart KVM Switch offers several convenient methods for switching between connected computers:

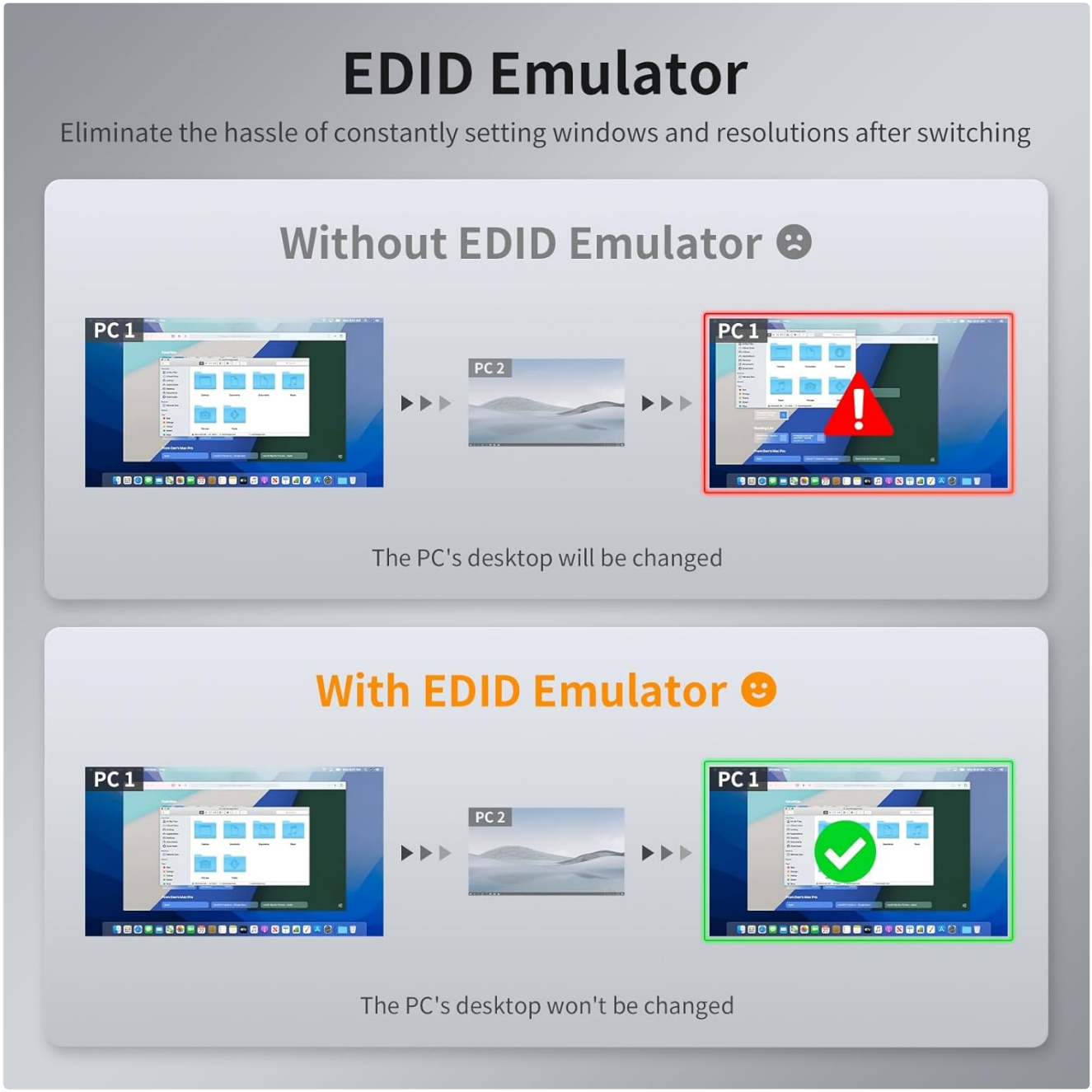
- **Front Panel Buttons:** Press the 'Select' buttons on the front panel of the KVM switch to cycle through the connected inputs (1-4).
- **Hotkey Switching:** Use keyboard hotkeys for quick switching. Typically, this involves pressing the 'Scroll Lock' key twice, followed by 'PgUp', 'PgDown', or the number corresponding to the input (1, 2, 3, or 4). Note that hotkeys usually work with the top row numbers, not the number pad.
- **IR Remote Control:** Use the included IR remote control to select the desired input. Ensure the remote has AAA batteries installed (not included).

- **Mouse Wheel Switching:** Some configurations may allow switching by double-clicking the middle mouse button (scroll wheel).

Visual representation of the various one-touch switching options available for the KVM switch.

EDID Emulation

The KVM switch features EDID emulators for each input port. This technology ensures that your computers always receive the correct display information, preventing issues like resolution changes or window rearrangement when switching between inputs. This provides a consistent and stable display experience.



An illustration demonstrating how the EDID emulator prevents desktop changes when switching between PCs, ensuring a seamless transition.

USB 3.0 Functionality

The integrated USB 3.0 port allows for high-speed data transfer and can be used for charging devices like smartphones. It also enables sharing of various USB peripherals among the connected computers, including printers, scanners, webcams, and external hard drives, significantly expanding your workstation's capabilities.

Detailed view of the USB 3.0 port and the microphone/audio output jacks on the KVM switch, highlighting their functions.

Keyboard and Mouse Compatibility

The KVM switch is designed with an upgraded pass-through mode to ensure wide compatibility with various keyboard and mouse types, including common, wireless (with 2.4G receiver), multimedia, and mechanical keyboards and mice. This ensures that your preferred input devices function correctly across all connected systems.

An overview of the different types of keyboards and mice compatible with the KVM switch, including common, wireless, multimedia, and mechanical models.

Maintenance

To ensure the longevity and optimal performance of your TESmart KVM Switch, follow these simple maintenance guidelines:

- **Cleaning:** Regularly wipe the exterior of the KVM switch with a soft, dry cloth to remove dust and debris. Avoid using liquid cleaners or abrasive materials.
- **Ventilation:** Ensure the KVM switch is placed in a well-ventilated area to prevent overheating. Do not block any ventilation openings.
- **Cable Management:** Keep cables organized and untangled to prevent strain on ports and ensure proper airflow.
- **Storage:** If storing the device for an extended period, disconnect all cables and store it in a cool, dry place away from direct sunlight and extreme temperatures.

Troubleshooting

If you encounter issues with your TESmart KVM Switch, refer to the following common problems and their solutions:

- **No Display or Black/Green Screens After Switching:**
  - Ensure all HDMI and USB cables are securely connected to both the KVM switch and the computers/monitor.
  - Try using a different HDMI output port on your computer or a different converter/adapter combination if you are using one (e.g., USB-C to HDMI adapter).
  - Power cycle the KVM switch and the connected computers.
- **Keyboard Skipping Characters or Not Registering Inputs:**
  - Ensure your keyboard is plugged into the dedicated keyboard USB port on the KVM switch.
  - If using a mechanical keyboard or one with high power requirements, try connecting it through a powered external USB hub before plugging it into the KVM switch.
  - Verify that the keyboard is not a wireless Bluetooth model, as these are not supported.
- **USB Pass-Through Functionality Issues (e.g., USB headset not detected):**
  - If a peripheral connected to a USB port on your keyboard (pass-through) is not detected, try plugging the peripheral directly into one of the available USB 3.0 ports on the KVM switch itself.
- **Switching Delay:**
  - While the KVM switch aims for seamless switching, a slight delay (approximately 3 seconds) may occur during the transition between inputs. This is normal operation.
- **Remote Control Not Working:**
  - Ensure AAA batteries are correctly inserted into the IR remote control.
  - Point the remote directly at the IR receiver on the KVM switch.
  - Check for any obstructions between the remote and the KVM switch.

Specifications

Attribute	Value
Product Dimensions	11.81 x 4.33 x 1.18 inches; 1.01 Pounds
Item Model Number	HKS401-P23
Manufacturer	TESmart
Brand	TESmart
Operation Mode	ON-OFF
Current Rating	2 Amps

Attribute	Value
Operating Voltage	12 Volts (DC)
Connector Type	Plug In
Circuit Type	4-way
Actuator Type	Push Button

Packing List

The TESmart KVM Switch kit includes the following items:

- 1x 4x1 HDMI KVM Switch
- 4x 5ft KVM Cables (HDMI + USB 3.0)
- 1x IR Remote Control
- 1x DC 12V Power Adapter
- 1x User Manual (this document)

Warranty and Support

Your TESmart KVM Switch comes with a 1-year warranty from the date of purchase. For technical assistance or support, please refer to the official user manual PDF available online or contact TESmart customer service. TESmart also offers 24/7 tech support for its products.
For additional information or to download the official User Manual PDF, please visit:TESmart User Manual PDF