DXchip KVM8401B

DXchip 8K HDMI 2.1 KVM Switch User Manual

Model: KVM8401B
Brand: DXchip

1. Introduction

The DXchip 8K HDMI 2.1 KVM Switch is designed to streamline your workspace by allowing you to control up to four computers using a single monitor, keyboard, and mouse. This device supports high-resolution video output up to 8K@60Hz or 4K@144Hz, ensuring a crystal-clear display for both work and gaming. With its integrated USB 3.0 ports, you can share additional USB peripherals like printers, scanners, or USB drives among the connected computers, enhancing efficiency and reducing cable clutter.

2. Package Contents

Please verify that all items listed below are included in your package:

- 1 x DXchip 8K HDMI 2.1 KVM Switch (Model: KVM8401B)
- 4 x USB 3.0 Cables
- 1 x 12V Power Adapter
- 1 x Wired Remote Control (1.5M)
- 1 x User Manual

Figure 2.1: Contents included in the product package.

If any items are missing or damaged, please contact customer support immediately.

3. Product Overview and Features

The DXchip KVM Switch is engineered for high performance and user convenience. Key features include:

- **HDMI 2.1 Connectivity:** Supports resolutions up to 8K@60Hz and 4K@144Hz, backward compatible with lower resolutions.
- **4-in-1-out Design:** Connects up to four computers to a single monitor and a shared set of USB peripherals.
- **USB 3.0 Ports:** Four USB 3.0 ports offer data transfer speeds up to 5Gbps, 10 times faster than USB 2.0, for connecting keyboards, mice, printers, and other USB devices.
- **EDID Emulation:** Features an embedded EDID chip to maintain display settings and window layouts when switching between computers, preventing screen re-arrangement.
- **Multiple Switching Methods:** Easily switch between connected computers using the front panel buttons or the

included wired desktop controller.

- **External 12V Power:** Ensures stable operation, especially when using high-power consumption USB devices.

Figure 3.1: The DXchip 8K HDMI 2.1 KVM Switch.

Figure 3.2: Example setup showing 4 PCs sharing 1 monitor and 4 USB 3.0 devices.

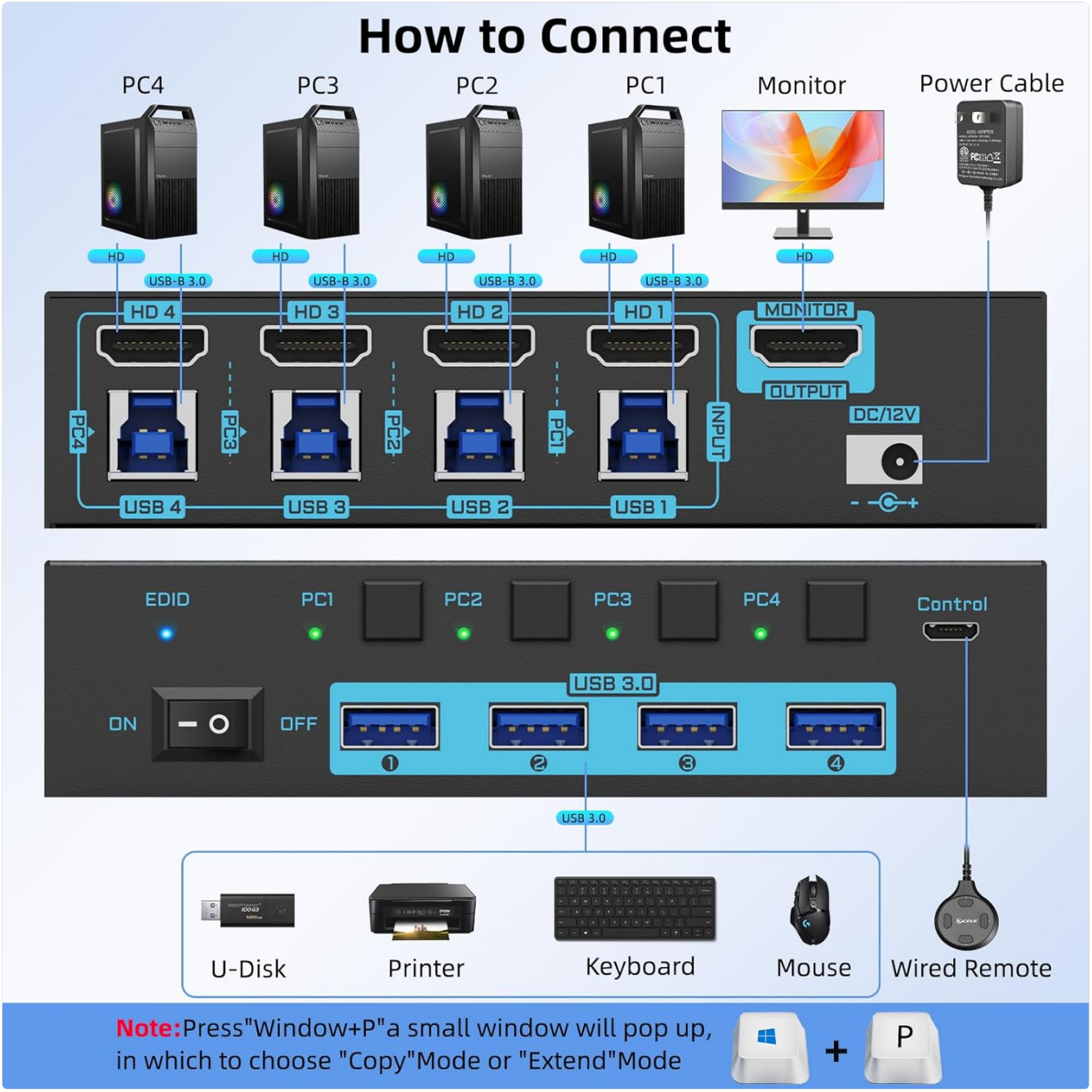

Figure 3.3: High-resolution display capabilities of the KVM switch.

Figure 3.4: USB 3.0 ports offering ultra-fast 5Gbps transfer rates.

4. Setup Guide

Follow these steps to properly set up your KVM switch:

1. **Power Off Devices:** Before making any connections, ensure all computers and the monitor are powered off.
2. **Connect Monitor:** Connect your monitor to the 'MONITOR OUTPUT' HDMI port on the KVM switch using a high-quality HDMI 2.1 cable.
3. **Connect Computers (HDMI):** For each computer (PC1, PC2, PC3, PC4), connect an HDMI cable from the computer's HDMI output to the corresponding 'HD Input' port (HD1, HD2, HD3, HD4) on the KVM switch.
4. **Connect Computers (USB):** For each computer, connect one of the included USB 3.0 A-to-B cables from a USB 3.0 port on your computer to the corresponding 'USB Input' port (USB 1, USB 2, USB 3, USB 4) on the KVM switch. This connection is crucial for keyboard, mouse, and other USB peripheral sharing.

5. **Connect Peripherals:** Plug your keyboard, mouse, and any other USB 3.0 devices (e.g., printer, U-disk) into the 'USB 3.0' ports on the front panel of the KVM switch.
6. **Connect Wired Remote:** If desired, plug the wired remote control into the 'Control' port on the KVM switch.
7. **Connect Power Adapter:** Plug the 12V power adapter into the 'DC/12V' port on the KVM switch, then connect it to a power outlet.
8. **Power On:** Power on the KVM switch using the ON/OFF switch, then power on your monitor and computers.

Important Note: To achieve optimal performance, especially for 8K@60Hz or 4K@144Hz resolutions, ensure all HDMI cables used are certified HDMI 2.1 and do not exceed 1.5 meters in length. The final resolution depends on the capabilities of your graphics cards, monitors, and the quality of your HDMI cables and adapters.

Figure 4.1: Connection diagram for the KVM switch.

5. Operating Instructions

The KVM switch offers two convenient methods for switching between connected computers:

5.1 Switching Methods

- **Panel Button Switching:** Press the corresponding 'PC1', 'PC2', 'PC3', or 'PC4' button on the front panel of the KVM switch to select the desired computer. The LED indicator above the button will illuminate to show the active PC.
- **Wired Desktop Controller:** Use the included wired remote control to switch between computers. Simply press the button on the remote to cycle through the connected PCs. This is ideal for setups where the KVM unit is not easily accessible.

Figure 5.1: Two ways to switch between computers.

5.2 EDID Emulation

The KVM switch features an EDID emulator to ensure consistent display settings and prevent window rearrangement when switching inputs. You can activate or deactivate this function:

- **To Toggle EDID:** Press and hold the 'PC1' button on the KVM switch for 3 seconds. The EDID LED indicator will change state (ON/OFF) to confirm the change.
- **EDID ON:** When EDID emulation is active, the KVM switch will store the display's EDID information, ensuring that your

computer perceives the monitor as continuously connected, thus maintaining window layouts and resolutions when switching.

- **EDID OFF:** When EDID emulation is off, the computer may detect a display change upon switching, potentially causing window rearrangement. This setting might be useful for specific troubleshooting scenarios.

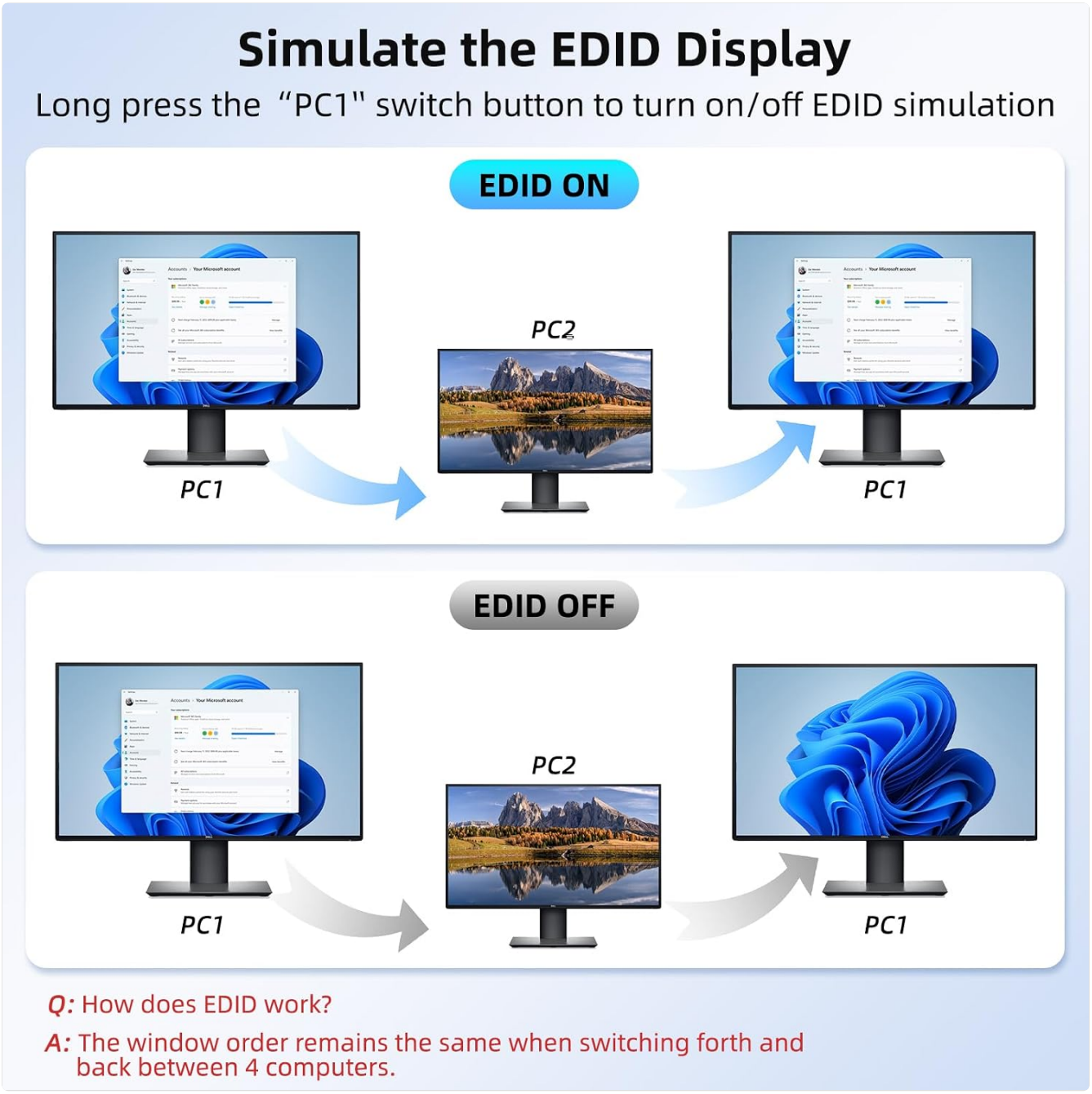

Figure 5.2: EDID emulation functionality.

6. Specifications

Feature	Specification
Model Number	KVM8401B
Product Dimensions	3.94 x 3.15 x 1.18 inches

Feature	Specification
Weight	1.7 Pounds
Video Interface	HDMI 2.1
Max Resolution	8K@60Hz / 4K@144Hz
USB Interface	USB 3.0
USB Transfer Rate	Up to 5Gbps
Switching Methods	Panel Button, Wired Remote
Power Supply	DC 12V
Compatibility	Windows, XP, Mac OS (Driver-free)

7. Troubleshooting

If you encounter issues with your KVM switch, please refer to the following common problems and solutions:

- **No Display or Flickering Screen:**
  - Ensure all HDMI cables are securely connected and are certified HDMI 2.1.
  - Verify that HDMI cable lengths do not exceed 1.5 meters, especially for high resolutions (8K/4K). Longer or lower-quality cables can cause signal degradation.
  - Try toggling the EDID emulation function (press and hold 'PC1' button for 3 seconds) to see if it resolves the issue.
  - Check your computer's display settings to ensure the correct resolution and refresh rate are selected and supported by your monitor and KVM.
- **USB Devices (Keyboard/Mouse) Not Working:**
  - Confirm that the USB 3.0 A-to-B cables are connected from each PC to the corresponding USB input port on the KVM switch. This is a common oversight.
  - Ensure the KVM switch is receiving adequate power from the 12V power adapter.
  - Try connecting the USB device directly to the computer to confirm it functions independently.
- **KVM Not Responding to Switching Commands:**
  - Ensure the KVM switch is powered on.
  - If using the wired remote, ensure it is securely plugged into the 'Control' port.
  - Try restarting the KVM switch by pressing the ON/OFF button.
- **Window Layout Changes After Switching:**
  - Activate the EDID emulation function by pressing and holding the 'PC1' button for 3 seconds until the EDID LED is ON. This should help maintain window positions.

If these steps do not resolve your issue, please contact DXchip customer support for further assistance.

8. Maintenance

To ensure the longevity and optimal performance of your DXchip KVM switch, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the KVM switch. Do not use liquid cleaners or aerosols, as they may damage the device.
- **Environment:** Keep the KVM switch in a cool, dry place, away from direct sunlight, excessive heat, and moisture. Ensure adequate ventilation around the unit.
- **Handling:** Avoid dropping or subjecting the device to strong impacts. Handle cables carefully to prevent damage to connectors.
- **Power:** Always use the provided 12V power adapter. Disconnect power during electrical storms or when unused for long periods.

9. Warranty and Support

DXchip provides a **12-month warranty** for this product, covering manufacturing defects and malfunctions under normal use. Additionally, we offer **lifetime technical support** to assist you with any questions or issues you may encounter.
For warranty claims, technical assistance, or any other inquiries, please contact our customer support team through the platform where you purchased the product or visit the official DXchip website for contact information. Please have your product model number (KVM8401B) and purchase details ready when contacting support.