ROLINE KVM Switch, 1 User - 4 PCs, DisplayPort, with USB Hub

14.01.3329

User Manual

Please read this manual thoroughly and follow the **Installation** Procedures to prevent any damage to the KVM switch or any connecting device.

➢ *The final specifications are actual product based.*
➢ *Features and functions may be added or changed since the manual was written.*
➢ *To prevent damages to your installation, it is important that all devices are properly grounded.*

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Introduction

Overview

DisplayPort KVM Switch (14.01.3329) with hotkey control, fully compatible with USB specification, is the combination of USB KVM switch and USB peripherals sharing device. The DisplayPort display supports the resolution up to UXGA (1600 x 1200), WUXGA (1920 x 1200), Full HD (1920 x 1080p), WQXGA (2560 x 1600). You can easily operate 4 PCs from a single set of USB keyboard, USB mouse, and monitor, saving you space, time, equipment and money. Its peripheral sharing function enables you to share more USB peripherals among all computers. Users can switch between 4 media sources and enjoy the output on one single DisplayPort display.

The installation is easy as you have to conenct an USB A-B cable between thw computers and the KVM switch. Computer selecting can be done by pressing the front panel button. The built-in USB hub ensures smooth switching from one computer to the other. The KVM switch provides the easiest way to manage multiple computers with USB interface and share USB peripherals among computers. It simply reduces redundant cables and encourages a neat and tidy working environment.

Features

- Supports DisplayPort Display
- Supports USB Console
- Support Video Single Link with the resolution up to UXGA (1600 x 1200), WUXGA (1920 x 1200), Full HD (1920 x 1080p), WQXGA (2560 x 1600)
- 4 computers share up to 3 different USB peripherals (Keyboard, Mouse + USB Device)
- Screw-free design, streamlined form factor for new all digital desktop monitors
- Unique Tracking System enables the USB devices to operate independently
- Front panel push buttons for easy computer selection
- No drivers needed for keyboard and mouse operation
- Support keyboard and mouse plug-n-play
- Buzzer sound for computer switching confirmation

■ Hotkey functions allows easily computer access
■ Selectable Scan Time interval
■ No software required
■ Supports Windows and Mac host systems

System Requirements

Console side
■ One DisplayPort monitor
■ One USB Keyboard
■ One USB mouse

Computer side
Each USB-enabled computer must be connected to the unit by

■ One DisplayPort cable for monitor, as shown.

■ One USB cable with Type-A and Type-B plug for USB devices, as shown.

Installation
■ Prior to installation, please power off all devices that will be connected to this system.
■ Ensure that all devices you will connect are properly grounded.
■ Place cables away from fluorescent lights, air conditioners, and machines that are likely to generate electrical noise.

PC BIOS Notice
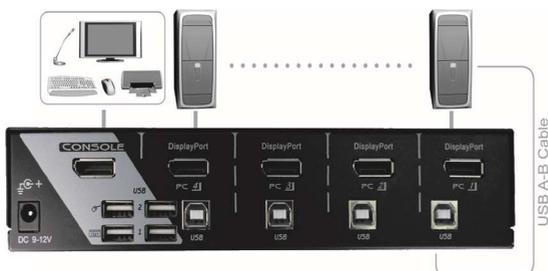*The following BIOS setup changes are necessary for PC users and **not** necessary for Mac users:*
1.   In STANDARD CMOS, set HALT ON ERROR to ALL BUT KEYBOARD.

2.   In PNP AND PCI SETUP, set PNP OS INSTALLED to YES and set USB IRQ to ENABLED.

Note: 14.01.3329 is applicable for USB keyboard and mouse switching from one computer to the other. If you plan to share other peripherals such as a CCD camera, printer or scanner, it is required to shut down the driver of the computer before switching to another computer. Because port switching is equivalent to unplugging the USB cable from one computer and plugging it to another one, some USB drivers check attached USB peripherals all the time and do not support plug-n-play function.

Console Connection

Plug one monitor into the Console's Video port, a USB keyboard into the keyboard icon marked USB port on the Console, and a USB mouse into Console's USB peripheral ports. If needed, plug an USB peripheral (such as a USB printer) into the other USB peripheral port on the Console side as shown below.

Computer Connection

Use a male-to-male cable to connect both video ports on the computer and the unit's **PC**.

Use an USB A-B Cable to connect the unit's **USB** port (B connector, square connector) and the USB port on the corresponding computer (A connector, flat connector) as shown below.

Note: male-to-male DP Cable for Video
One USB patch for both keyboard and mouse

Operations

Front Panel

LED Indicators
The LED turned green when the connected computer is powered-on.
Its corresponding LED illuminated red when a connected computer is
selected.

Push Button
Each button on the front panel associates with a connected computer
for selection.

Auto Scan
The system automatically scans through the powered-on computers in
sequence with a fixed interval (see *Scan Time* below). The Auto Scan

can be activated or aborted through the hotkey command (see "Hotkey Commands" in the following section).
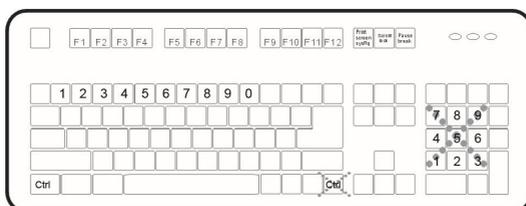
Scan Time

Four options available for users to set the duration of Scan Time, it Includes 3, 8, 15 and 30 seconds (see "Hotkey Commands" in the following section).

Note: *Scan Time is set to 3 seconds as default after blackout or reboot.*

Hotkey Commands

A Hotkey command is a short keyboard sequence for selecting a computer, activating computer scan, etc. KVM Switch interprets keystrokes for **Ctrl** hotkeys all the time. A hotkey sequence starts with two left keystrokes (successively **in 0.2 seconds**) followed by one or two more keystrokes. A built-in buzzer generates a high-pitch beep for correct hotkey command; otherwise, one low-pitch beep generated for error and the bad key sequence will not be forwarded to the selected computer.

NOTE: Press and hold *Left* **Shift** and press **Num Lock** twice, then release **Shift** followed by pressing left **Ctrl** once, which will enable / disable the hotkey function.

☐ To select a computer:

    (Example: Selects the computer at port 1.)

        Press *Left* **Ctrl** + Press *Left* **Ctrl** + Press **1**

    (Example: Selects the computer at port 2.)

        Press *Left* **Ctrl** + Press *Left* **Ctrl** + Press **2**

NOTE: Do not use the keypad on the right of the keyboard.

☐ To start *Auto Scan*:

> Press *Left* `Ctrl` + Press *Left* `Ctrl` + Press `F1`

To abort the *Auto Scan*:

> Press the L*eft* `Ctrl` + Press *Left* `Ctrl`

When *Auto Scan* detects any keyboard or mouse activity, it suspends the scanning till the activity stops; it then resumes with the next computer in sequence. The length of the *Auto Scan* interval (*Scan Rate)* is adjustable, see below.

☐ *Manual Scan* allows users to manually switch back and forth between powered-on computers.

> Press *Left* `Ctrl` + Press *Left* `Ctrl` + Press `F2`

To select the previous or the next computer, press ☐ or ☐ in sequence. To abort the *Manual Scan:*

> Press any other key

☐ To adjust *Scan Rate*, set the duration of scan time before switching to the next computer: Press *Left* `Ctrl` + Press *Left* `Ctrl` + Press `F3`

The KVM Switch generates 1 to 4 beeps indicating duration of scan time for *3*, *8*, *15* and *30* seconds respectively.

☐ *USB-Port Rule*

There are two options for the USB peripheral port setting on the Console side:

When set to **'ON'**, the USB peripheral port follows computer selection.

When set to **'OFF'**, the USB peripheral port stops to follow computer selection.

USB 1: pressing the hotkey below to turn ON/OFF the USB-Port Rule Press *Left* `Ctrl` + Press *Left* `Ctrl` + Press `F7`

USB 2: pressing the hotkey below to turn ON/OFF the USB-Port Rule

> Press *Left* `Ctrl` + Press *Left* `Ctrl` + Press `F8`

Force the USB peripheral port following and staying with the currently selected computer by pressing the following hotkey

> Press *Left* `Ctrl` + Press *Left* `Ctrl` + Press `U`

> **NOTE**: Please make sure that linking procedure of USB device has been accomplished before switching to the next computer.

Alternative Hotkey Commands

In addition to the *Left* **Ctrl** + *Left* **Ctrl** hotkeys, there are two alternatives for hotkey commands.

1. For the following operations, users may press **Scroll Lock** twice instead of pressing *Left* **Ctrl** twice.

☐ To select a computer:

Press **Scroll Lock** + Press **Scroll Lock** + Press **1**
(Example: Select the computer at port 1.)

Press **Scroll Lock** + Press **Scroll Lock** + Press **2**
(Example: Select the computer at port 2.)
NOTE: Do not use the keypad on the right of the keyboard.

2. For those keyboards do not have or support **Scroll Lock**, please press and HOLD the *Left* **Shift** and press **Num Lock** twice instead of pressing *Left* **Ctrl** twice.

☐ To select a computer:

Hold *Left* **Shift** + Press **Num Lock** + Press **Num Lock** then release shift + Press **1**
(Example: Select the computer at port 1.)
Hold *Left* **Shift** + Press **Num Lock** + Press **Num Lock** then release shift + Press **2**
(Example: Select the computer at port 2.)
NOTE: Do not use the keypad on the right of the keyboard.

Rack Mount Kit

The figure below shows how to attach optional mounting brackets and cable that support the unit for standard 19-inch rack cabinet.

To the rack cabinet
back post

To the rack cabinet
back post

Two screws secure
the cable support.

USB or monitor
cables to the switch

USB or monitor
cables to a computer

Appendix

Specifications

Specification		14.01.3329
Console Port		1
Computer Port		4
Front panel push button		4
Hot plug-and-play		Yes
Automatic scan interval		3, 8, 15, 30 seconds
Cable Length (Max)		3M(10ft) for USB
Computer ON-LINE LED		4
Computer Selected LED		4
Computer Interface	KB	USB Type B x 4
	MS	
	Monitor	DisplayPort female x 4
Console Interface	KB	USB Type A x 4
	MS	
	Monitor	DisplayPort female x 1
Hot Key		Yes
Resolution		2560 x 1600
DDC2B Support		Yes
H x W x D (mm) (in.) size		44 x 220 x 130 1.7 x 8.7 x 5.1 Compact

Troubleshooting

Ensure that all cables are well seated and labeled associated with each computer to avoid confusion when connected to the unit.

The unit has built-in power protection that works automatically when needed. When it works, USB communication halts and the only way to restart the unit properly is to remove all power sources (USB patch cables and power adapter), wait a few seconds, apply power sources and start again.

Symptom, Cause, Solution

Symptom	*Cause*	*Solution*
Keyboard or mouse does not work	☐ In Auto Scan, keyboard and mouse are not operable. ☐ Too many keyboards or mouse drivers installed.	☐ Press push button to select a computer, then use the keyboard and mouse. ☐ Remove ALL unnecessary keyboards and mouse drivers.
Newly installed USB device does not work.	☐ Improper device driver. ☐ Device consumes too much power. ☐ Device consumes too much power instantaneously. ☐ Improper device initialization. ☐ When the unit works with self-power, i.e., no power supply is added, it supports max. 100mA, as per USB specification.	☐ Re-install device driver. ☐ The device should be self-powered, add a power adapter to the device. ☐ If the device does not provide power jack, add a power adapter with DC5V of less than 1A current rating to the unit. ☐ Be sure the USB cable is well seated to ensure communication. ☐ Remove all power sources to the unit by unplugging all USB A-B cables and the power adapter; then start all over again. ☐ Select the computer by push button, restart the computer and try again.

Computer hangs up while switching computer.	☐ Device initialization takes too much time.	☐ Wait at least 5 seconds before computer switching to ensure proper USB communication. ☐ Turn off device driver (not keyboard or mouse) before computer switching.
Auto Scan does not switch PC automatically and the unit beeps	☐ All PCs are off or only one PC is turned on. Scan mode works for power-on computers only.	☐ Turn computers on.

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Package Contents

4-Port **KVM Switch** (14.01.3329)	x 1
User's manual	x 1
Rubber foot pad	x 1 set