

User Manual

ROLINE Smart KVM Extender, USB

14.01.3249



Features

- Connects the **Computer Unit** and **Console (Station) Unit** via Category 5e UTP cable
- Remotely locates the keyboard, mouse and monitor up to 150m from a computer
- Supports either USB Console or PS/2 Console for flexible choice
- Video compensation can be adjusted by **Hotkey** to ensure the optimum signal quality for any length of cable within the limit.
- Synchronize the video resolution between the attached computers via hotkeys
- Easy to get and install the standard cable at lower cost
- Simple indication makes operation user-friendly
- Locates the computer away from your desk and work area, saving you valuable space
- Allows two users to share one or two computers both in local and remote areas.
- Applicable for one console to manage two computers locally and remotely
- Beeps confirmation for key control makes the operation easier and cross-checked
- Compatible with XGA, VGA, and SVGA

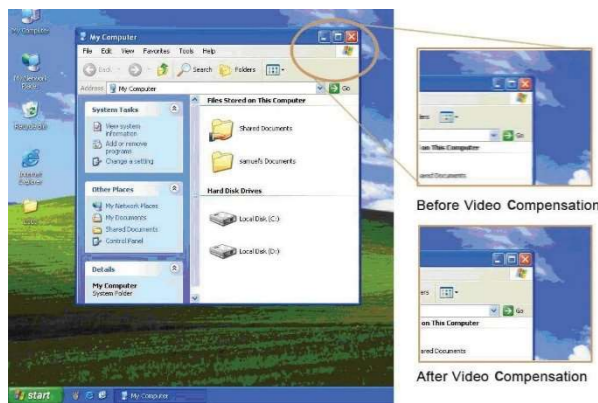
Operation

A keyboard and mouse must be connected to the Console (Station) Unit. And then the system conducts the emulation for local computer which can be controlled remotely. On the other hand, it is not necessary to use keyboard, mouse and monitor if you don't want to control the computer locally.

Video Compensation

Before operating, you may like to conduct the Video Compensation first. In this case, the hotkeys are used to adjust the Equalization on the Remote Unit to get optimum video signal for various cable lengths. There are five segments of various lengths of CAT 5 cables that can be chosen from. To achieve the best visibility, please refer to the chapter of "Console Unit Hotkeys Control" to adjust the video compensation

First, assure that the length of the CAT 5 cable you use. Then, use the hotkeys to adjust the video compensation. You can press **Ctrl** twice [+ **E**] and **F11** keys followed, and the different beeps indicate the setup of the cable length respectively. Please refer to Operation of Hotkey Control.

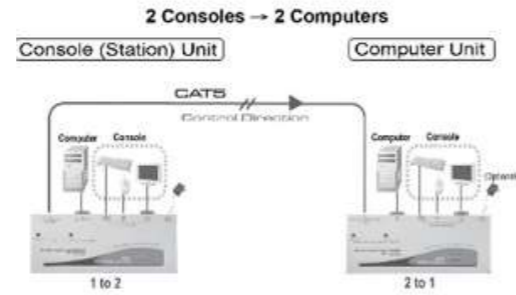


Packing Checklist

- KVM Extender **Console (Station) Unit** x 1
- KVM Extender **Computer Unit** x 1
- Power Adapter x 1
- User Manual x 1
- Foot Pad x 2 sets
- KVM Cable x 2

Installation

Connection Patterns



NOTE : In standard mode press **Ctrl** twice , and **F11** keys followed
 In compatibility mode press **Ctrl** twice , **E** and **F11** keys followed
 [To switch to different mode, please press **Ctrl** + **Ctrl** + **Alt+E** (**Alt+E** : hold **Alt** and press **E**)]

LED Indicators

The LEDs on the **KVM Extender** are showing the latest status which indicates the linking, communication, and control situation between **Computer Unit** and **Console (Station) Unit**.

Console (Station) Unit

LED Status	Control Description
Remote: Off, Local: On	Console Unit controls its local PC.
Remote: On, Local: Off	Console Unit is remotely taking control of the Computer Unit . In this mode, there are two statuses as follows: 1. The Computer Unit is now taking control of the system if the 3 LEDs (Num, Caps and Scroll Lock) on the keyboard are flashing. 2. The system is waiting for Console Unit or Computer Unit to take control if the 3 LEDs (Num, Caps and Scroll Lock) on the keyboard are not flashing.
Status (Remote): On	The Console Unit remotely controls the Computer Unit

Table 2.1: LED - Control indication for **Console Unit**

Power Up LED Status

LED Indicators
Local: On

Table 2.2: The Initial status and indication is displayed when **KVM Extender** is powered up

Local: The LED of Local is "On". In this mode, the system is being controlled by the **Computer Unit**. In this case, the **Console (Station) Unit** can learn this status from the flashing of 3 LEDs (**Num**, **Caps** and **Scroll Lock**) on the keyboard.

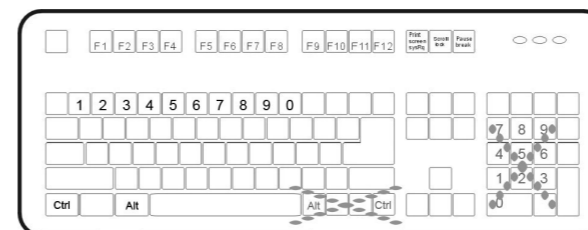
Remote: The LED of Remote is "On". In this mode, the system is remotely controlled by the **Console (Station) Unit**.

Hotkey Control

Hotkey command is a short keyboard sequence to select a computer, to activate computer scan, and so forth. The **KVM Extender** interprets keystrokes for hotkeys all the time. A hotkey sequence starts with two left **Ctrl** keystrokes followed by one or two more keystrokes. A built-in buzzer generates a high-pitched beep for correct hotkey command, while one short and one long beep is sounded for wrong commands. Thus, the bad key commands will not be forwarded to the selected modes.

There is an unique Hotkey command of **Ctrl** + **Ctrl** + **Alt+E** you should be well aware of when the **KVM Extenders** are connected to other **KVM Switches**.

To switch to this mode, press left **Ctrl** twice, hold **Alt** and press **E** key (press both keys simultaneously). This function is used to prevent from misunderstanding once the system is connected to **KVM Switches**. Thus, the user can choose either the control mode of **KVM Extender** or the number of computers connected to the **KVM Switches**.



Computer Unit

LED Status	Control Description
Remote: Off, Local: On	Computer Unit controls its local PC or KVM switches . In this mode, the Console Unit can not take control of the Computer Unit remotely.
Remote: On, Local: Off	Console Unit is remotely taking control of the Computer Unit
Remote/Local Flashes alternately (Auto Mode)	The system is waiting for Console Unit or Computer Unit to take control.

Table 3.1: LED - Control indication for **Computer Unit**

Power Up LED Status

LED Indicators
Local/remote: Flashes alternately

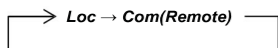
Table 3.2: The Initial status and indication is displayed when **KVM Extender** is powered up

Push Button: Switch to the control status

There is a button on the panel of **Computer Unit** and **Console (Station)Unit** respectively, which can be pushed (switched) in sequence to select the operation modes.

Button on Console (Station) Unit

The button on the panel of **Console (Station) Unit** can be pushed (switched) in sequence to select the following two modes:

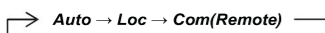


Local: The LED of Local is "On". In this mode, the system controls its local computer.

Remote: The LED of Remote is "On". In this mode, the system remotely controls the **Computer Unit**.

Button on Computer Unit

While pressing the button, there are three modes can be chosen from and its sequence indicates as follows:



Auto: 1. In this mode, the Remote and Local LEDs are flashing alternately.
2. The system is now waiting to take control of either from **Computer Unit** or from **Console (Station) Unit**. Once the keyboard or mouse of **Computer Unit** is active, the LED of Local is on and the LED of Remote is off. This status indicates that the **Computer Unit** is now taking control of the system and vice versa for **Console (Station) Unit**. In this case, the latch time period of 5, 15, 30, or 60 seconds is offered to allow the **Computer Unit** or **Console (Station) Unit** to take control again if the latch time is due and the status returns to the "Auto" mode.

In "Auto" mode, whenever the **keyboard, mouse buttons** or **scroll wheel** of mouse is activated, the Unit (**Computer Unit** or **Console Unit**) immediately takes control of the system.

----- Console (Station) Unit Hotkeys Control






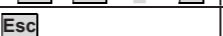
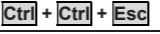




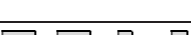

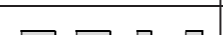
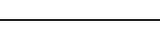
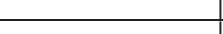

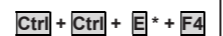






Console Unit Hotkey Commands		Function Description
Standard Command (without  optional)	Compatibility Mode (With  optional) (Add  if a KVM Switch cascaded)	
		Mode selection in Sequence Toggles console control between Local Computer and Remote Computer
 		Escape from hotkey mode
		Cascading status selection Two beeps: Enables Compatibility Mode so that the KVM extender will work with a KVM switch that also uses a  hotkey sequence. One beep: Disables Compatibility Mode
		Local mode selection Switches control to local computer
		Remote mode selection Switches control to remote computer(input allowed only if the Computer Unit is in Remote or Auto mode)
		Keyboard speed selection Adjusts the typematic rate of keyboard; the KVM Extender generates 1 to 4 beeps corresponding to 6, 12, 20, and 30 characters/sec respectively. (for PS/2** only)
		Video compensation adjustment Adjusts the video compensation, the KVM Extender generates 1 to 5 beeps corresponding to the cable lengths of 0-30, 30-60, 60-90, 90-120 & 120-150 meters, respectively.
		Mouse resynchronized Mouse resynchronized (for PS/2 only)
 + 4 digits	 + 4 digits	Video synchronization*** (USB Console model only) Prevent the video resolution setting from exceeding the capability of the connected display (require CPU reboot); the following options for video resolution are available for selecting: Input 4 digits with 1007 for resolution of 1024 x 0768 1210 for resolution of 1280 x 1024 1612 for resolution of 1600 x 1200 : 1912 for resolution of 1920 x 1200 1914 for resolution of 1920 x 1440 2011 for resolution of 2048 x 1152

Table 4: Hotkey control for Console (Station) Unit

NOTE: Special hotkey  +  +  +  : Enables the KVM extender to link with port E (the 13th port of a KVM switch cascaded) under the Compatibility Mode enabled.

* In the case of cascading the KVM Switch please add  key

** The keyboard speed selection function is applicable for PS/2 models only

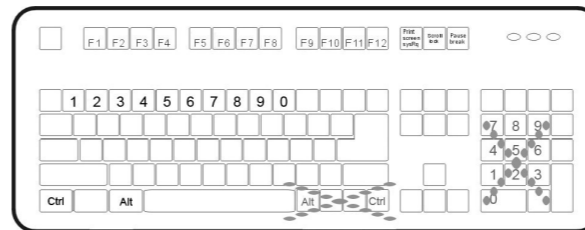
Beeps corresponding to video compensation

 +  +  + 

Beep sounds	UTP Cable Length
1 beep	0~100 feet (0~30 meters)
2 beeps	100~200 feet (30~60 meters)
3 beeps	200~300 feet (60~90 meters)
4 beeps	300~400 feet (90~120 meters)
5 beeps	400~500 feet (120~150 meters)

*** By default, the Video Synchronization setting between the Console Unit and Computer Unit will follow the Console Unit setting after reboot. The following options for video resolution are available for selecting:

4 digits	Resolution	4 digits	Resolution
10 07	1024 x 768	16 12	1600 x 1200
12 08	1280 x 800	16 10	1680 x 1050
12 10	1280 x 1024	19 10	1920 x 1080
13 07	1360 x 768	19 12	1920 x 1200
14 09	1440 x 900	19 14	1920 x 1440
14 10	1440 x 1050	20 11	2048 x 1152
16 09	1600 x 900		



-----Computer Unit Hotkeys Control




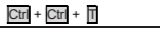
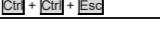

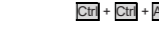





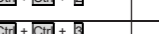

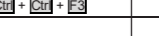
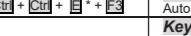
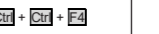
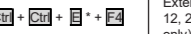
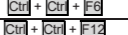


Computer Unit Hotkey Commands		Function Description
Standard Command (without  optional)	Compatibility Mode (with  optional) (Add  if a KVM Switch cascaded)	
		Mode selection in sequence Toggle switch selects Auto-Loc-Rem mode Escape from hotkey mode
		Cascading status selection Two beeps: Enables Compatibility Mode so that the KVM extender will work with a KVM switch that also uses a  hotkey sequence. One beep: Disables Compatibility Mode
		Local mode selection Local Mode: Allows the user at local computer exclusive access to the system; remote access from computer at Station Unit is disabled.
		Remote mode selection Remote Mode: Allows the remote user at Console Unit exclusive access to the computer at Computer Unit; access to the computer from the Computer Unit is disabled.
		Auto mode selection Latch time selection: 5, 15, 30, 60 seconds
		Keyboard speed selection Adjust the typematic rate of keyboard; the KVM Extender generates 1 to 4 beeps corresponding to 6, 12, 20, and 30 characters/sec respectively. (for PS/2** only)
		Privacy setting Remote Mode: Allows the remote user at Console Unit exclusive access to the computer at Computer Unit; access to the computer from the Computer Unit is disabled.
		Mouse resynchronization (for PS/2 only)
 + 4 digits	 + 4 digits	Video synchronization (USB Console model only) Prevent the video resolution setting from exceeding the capability of the connected display (require CPU reboot); the following options for video resolution are available for selecting: Input 4 digits with 1007 for resolution of 1024 x 0768 1210 for resolution of 1280 x 1024 1612 for resolution of 1600 x 1200 : 1912 for resolution of 1920 x 1200 1914 for resolution of 1920 x 1440 2011 for resolution of 2048 x 1152

Table 5: Hotkey control for Computer Unit

NOTE: Special hotkey  +  +  +  : Enables the KVM extender to link with port E (the 13th port of a KVM switch cascaded) under the Compatibility Mode enabled.

***NOTE:** In the case of cascading the KVM Switch please add  key




****NOTE:** The keyboard speed selection function is applicable for PS/2 models only




*****NOTE:** In privacy setting item by repeating the hotkey commands the KVM Extender generates 1 to 3 beeps. Please take notice of the **Computer Unit** LED. There are two statuses as follows:

A. Computer Unit in Local mode




(Remote LED: Off, Local LED: On)
One beep: Reset to Factory Default.
Two or three beeps: Disable the Computer Unit output video signal.

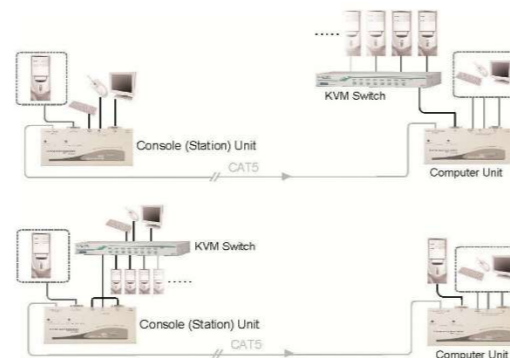
B. Computer Unit in Auto mode

(Remote / Local LED flashes alternately)
One beep: Reset to Factory Default
Two beeps: By triggering keyboard / mouse the user can disable the Computer Unit output video signal temporarily. (The Computer Unit user protects his privacy for 5,15,30,60 seconds. See Table 5:  +  + )
Three beeps: By triggering keyboard / mouse the Console Unit or Computer Unit users can disable the output video signal temporarily. (The users protect his privacy for 5,15,30,60 seconds as well)

- 
- Hold  and press  key (press both keys simultaneously).
- Mouse resynchronization:
- When the mouse can not work normally, conduct this function, and synchronize it with your system.

-----Cascade Configuration

The KVM Extender can be connected to the **KVM Switch** in compliance with the "Cascade Configuration". In this case, there are some connection patterns which may be conducted in certain situations. However, to prevent from any conflict via hotkey commands among the connections, the  key is added and followed behind the  + , which will enable you to manage the KVM Extender straightly. Moreover, please refer to the "Notice of Cascade Connection" below for better management of your system.



Notice of Cascade Connection

1. The external power source is required to supply enough power to the **Computer Unit of KVM Extender** when connecting to the **KVM Switch**. In this case, you can purchase optional power adapter DC9V, 600mA from your local dealers.
2. To prevent from wrong keystrokes of control keys, for **Console (Station) Unit of KVM Extender**, the parameters such as Cable Length, Keyboard Speed, Push Button Control should be set up in advance before connecting to the **KVM Switch**.

-----Appendix

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take corrective actions.