Rose technical support

Using USB computers with Rose KVM switches

How do I connect USB ?
We have made a cable that converts PS/2 to USB. This cable has a DB25 connector on one end and VGA and USB connectors on the other end. The DB25 end connects to the CPU port of any Rose product with the Rose style composite keyboard-video-mouse DB25 connector.

The video end is VGA HD15 but can be connected to an adapter for compatibility with Sun 13W3 video, Apple DB15 video, or other video connectors. The USB end is the standard USB connector on all computers.

Figure 1. Rose USB cable

For which lengths is the cable available ?
You can get it in 5', 10', 20', 35', 50', 75', and 100'. USB normally has a length restriction of 3-5 meters, but we have overcome this distance limitation in the cable.

Do I need to configure my switch ?
Yes and no. When the cable is first connected to a Rose KVM switch, the USB cable sends power-on initialization signals. The Rose product accepts these signals and configures itself and everything works properly. The standard keyboard protocol though is dynamic and if you power off the Rose KVM switch, this information is lost and the switch and cable will not communicate properly. So the switch configuration must be saved with the proper setting to prevent this problem.

You should configure your Rose KVM switch for PC mode 3, however latest firmware for the UltraMatrix and UltraView Pro have additional settings for USB-PC and USB-Sun. In most cases PC mode 3 will work correctly, but these settings should be used instead, for future compatibility and for support of Japanese and Korean keyboards.

Figure 2 shows the most recent OSD computer configuration page of a PC-platform UltraMatrix or UltraView Pro switch. Note the settings of USB-PC and USB-Sun. You should choose one of these when connecting a USB cable.

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Configure Computer

    Computer name    Keyboard Mouse
 1 Computer     1    PC2      PS2          PC1
 2 Computer     2    PC2      PS2          PC2
 3 Computer     3    PC2      PS2          PC3
 4 Computer     4    PC2      PS2          USB-PC
 5 Computer     5    PC2      PS2          USB-Sun
 6 Computer     6    PC2      PS2
 7 Computer     7    PC2      PS2
 8 Computer     8    PC2      PS2
 9 Computer     9    PC2      PS2
10 Computer    10    PC2      PS2
11 Computer    11    PC2      PS2
12 Computer    12    PC2      PS2
13 Computer    13    PC2      PS2
14 Computer    14    PC2      PS2
15 Computer    15    PC2      PS2
16 Computer    16    PC2      PS2

 Use page up and page down keys to configure more computers
 Type of computer, for PCs this is the computer's keyboard mode
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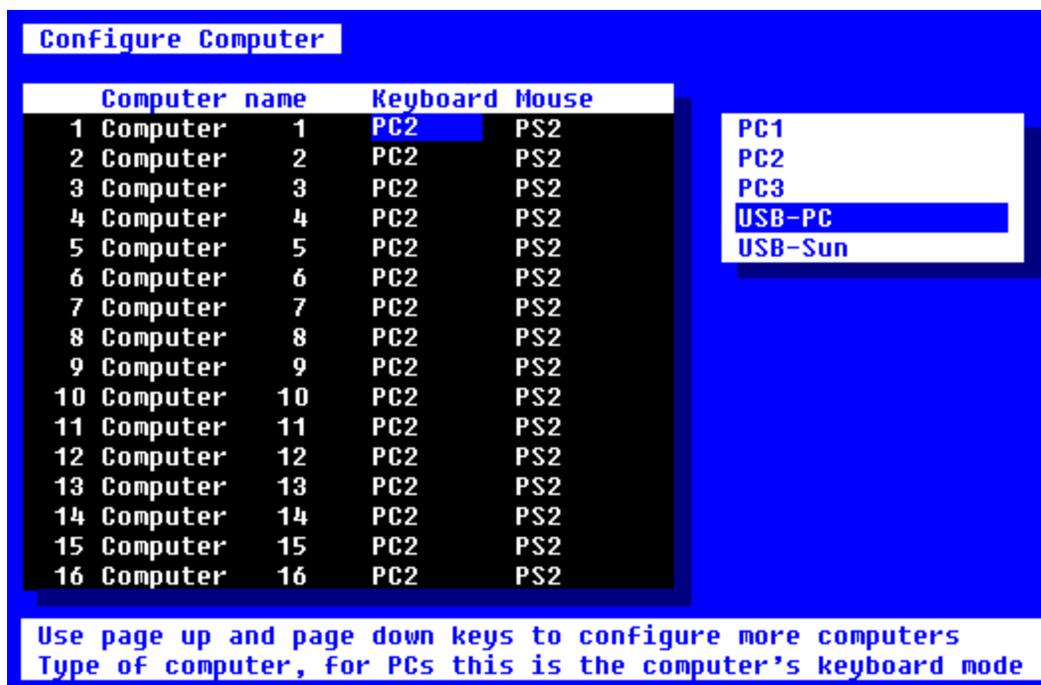
Figure 2. UltraMatrix or UltraView Pro PC-platform computer configuration page

If your Rose KVM switch does not have an OSD or does not have a USB setting, you should configure the product's keyboard mode to 3, 11, or 12. Mode 11 or 12 only exist if your KVM switch is an UltraView Pro, ServeView Pro, or MultiVideo and has been upgraded to version UP18 or greater. In this case, mode 11 and 12 correspond to the USB-PC and USB-Sun settings. If your switch is not in this category, then use mode 3.

To configure the keyboard mode, switch to the computer with the USB cable and type Left-Control M n Enter, where n = 3, 11, or 12. This configures that computer port for the mode specified. Use Left-Control K to save the setting. This sends the keep command and stores the setting in non-volatile memory. So if you power off the KVM switch then it will power up in the correct mode.

Do I need a different USB cable for each country ?
Not any more. USB cable revision 19 and later is now universal and the cable gets its configuration from either the UltraMatrix switch with firmware revision MX21D or higher or the UltraView Pro switch revision UPP18A or higher. Also see Rose USB cable revision history for more information. Prior to version 19 the cable had to be individual for each country in order for the international ISO8859-1 or Asian characters to work properly. A suffix on the cable indicated the country for which the cable would work. No suffix indicated the cable was for the USA.

Why is there a separate setting for PC and Sun USB on some products ?
Even though USB was supposed to be a universal standard, there are some subtle differences between the PC and Sun implementations. This is really only necessary for Japanese and Korean keyboards and PC mode 3, USB-PC, and USB-Sun will work the same for all US implementations. One of the only differences is that when set for USB-PC or USB-Sun, the port's keyboard mode can not be dynamically changed from keyboard mode 3 to

keyboard mode 2, this will prevent some potential issues of un-configuring the port if you temporarily switched ports between a USB computer and a standard PC.

Which computers does this work on ?
We have tried to test it on all major platforms. This includes PCs with operating systems of 98, ME, 2000, and XP. NT and 95 were not so good with USB, so we really did not test with those computers. We have tested with Sun Blade and have customer reports that it works with Sunfire. We have tested with Mac G3 and G4 and OS9 and OS10. We were experiencing some boot-up problems with the Mac G4 and OS 9 in cable revisions prior to UC19. This issue has been resolved in USB cable rev 20 and later, please see Rose USB cable and Apple computers for more information.

Everything was working fine and now some of the keys are wrong
You probably have not saved the keyboard mode 3 or USB-PC/USB-Sun configuration of the switch, you powered off the switch, and the switch has reverted to keyboard mode 2, which is the factory default setting. If you unplug the USB cable from the computer and plug it back in or configure the switch for keyboard mode 3 then correct operation will be restored. To prevent this in the future, save the setting of keyboard mode 3 for the switch with the keep command or the OSD (on-screen-display) save operation. Re-read the section above on configuring your KVM switch.

My cable doesn't look exactly like the picture
Initial cables are using metal shells on the HD15 connector. Molded tooling is not in production yet. We are working to complete this.

Can I put this cable on the keyboard side of the switch ?
No, not at this time. It really doesn't gain you any additional functionality. We are considering this for future implementation though.

Which Rose products is this compatible with ?
This includes UltraMatrix, UltraView, ServeView, Vista, UltraLink, ClassView, MultiStation, ViewLink, and any other Rose product with the Rose style composite keyboard-video-mouse DB25 connector.