# How to control up to 32 USB computers with one USB keyboard, USB mouse & VGA monitor

- High quality construction.
- Features NTI's patented true autoboot USB switching all attached USB PCs, MACs and SUNs can be booted simultaneously.
- Compatible with USB-enabled PCs.
- Compatible with SUN T1000, SUN 1000, SUN V210, SUN Fire<sup>TM</sup> V240, SUN Fire V20z, and other USB-enabled SUN computers.
- Compatible with MAC G4/G5 and Xserve. Supports MAC soft (keyboard) power-on.
- Crisp and clear 2048x1536 video resolution.
- Fully compliant with USB standards (1.0, 1.1).
- USB MAC and SUN start-up keys are supported.
- SUN extra keys are emulated on USB keyboards with Windows keyboard layouts.
- Available with audio or RS232 control options.
- Supports international keyboard layouts in auto-detection mode.



#### **UNIMUX-USBV-80RS (Front & Back)**

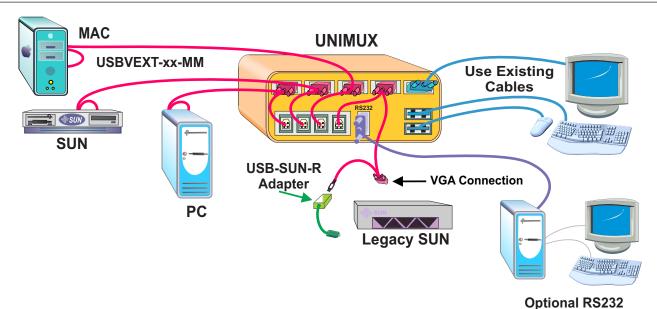
World's Only True 16/32-port USB KVM Switch

The UNIMUX<sup>TM</sup> USB KVM switch allows a user to control up to 32 USB computers with one USB keyboard, USB mouse and VGA monitor. Dedicated internal microprocessors emulate keyboard & mouse presence to each attached CPU 100% of the time so all computers boot error-free.

### Cascade to add ports to your switch

- Cascade 4, 8 or 16-port UNIMUX switches off a single master switch to control up to 1,024 computers as if from one switch.
- Cascaded switches use computer/video ports and the remote port on the master switch.

### **Configuration and Cable Illustration**





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Control

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# **USB KVM Switch: 2, 4, 8, 16 and 32-Port**

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# **Specifications**

#### **Hosts**

- Female 15-pin HD and female USB Type B connectors.
- Supports USB-enabled PC, SUN and MAC computers with VGA video.
- Multiplatform support: Windows 2000/XP/Vista/Server
- 2000/2003/2008, Solaris, Linux, FreeBSD, and MAC OS
  0/10
- Any legacy PS/2 or SUN computer can be connected by using a USB-PS2-R or USB-SUN-R adapter.

#### **Monitor**

- Crisp and clear resolution up to 2048x1536.
- Female 15 pin HD connectors.
- A multiscan VGA monitor is required to display the different video outputs from different platforms.
- Bandwidth is 150 MHz.

#### **Devices**

- Female USB Type A connectors.
- Compatible with most USB keyboards and mice, including wireless.
- Keyboard and mouse are hot-pluggable.
- Supports two USB devices directly connected.
- Supports up to eight USB devices (keyboards and mice only) using USB hubs (not included).

#### **Power**

- 110 or 220 VAC at 50 or 60 Hz via AC adapter for 2-, 4-, 16-, and 32-port models.
- 110 or 220 VAC at 50 or 60 Hz via IEC connector for 4-port with RS232 option and 8-port models.

#### **Environmental**

- Operating temperature: 32°F to 100°F (0°C to 38°C).
- Storage temperature: -20°F to 140°F (-30°C to 60°C).
- Operating and Storage Relative Humidity: 17 to 90% non-condensing RH.

## **Regulatory Approvals**

- CE, RoHS
  - CE available on all models except UNIMUX-USBV-2.

Power Consumption					
NTI Part #	Power (W)	NTI Part #	Power (W)		
UNIMUX-USBV-2	5	UNIMUX-USBV-40	5		
UNIMUX-USBV-80	10	UNIMUX-USBV-160	15		
UNIMUX-USBV-32O	15				

MTBF						
NTI Part #	MTBF (hrs)	NTI Part #	MTBF (hrs)			
UNIMUX-USBV-2	73,280	UNIMUX-USBV-40	75,190			
UNIMUX-USBV-80	60,900	UNIMUX-USBV-160	39,250			
UNIMUX-USBV-320	39,250					



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## **Built-in Control Methods**

### Keyboard

 Use the keyboard to command the switch box to select ports or configure the SCAN delay.

### **Front Panel Interface**

- Touch a button and be connected to a computer, or change modes of operation.
- LEDs indicate currently selected port and mode of operation.

### On Screen Display (OSD)

- Select computers by name with the On Screen Display (OSD) option.
  Not available on the 2-port switch.
- Use keyboard or mouse to operate the switch from menus superimposed onto the monitor.
- Shows names of computers on cascaded switches up to 152 ports.
- Names can be up to 12 characters long.
- Power status of each computer is displayed.
- View usage statistics power-on cycles and hours of usage.
- Helps screens assists users with the OSD.
- Modify the size and position of the OSD.
- OSD is built into the switch-no need to install additional hardware or software.
- OS and software-independent.

### **Security**

- Advanced security included with OSD option.
- Each user password can be up to 13 characters long, and each switch can store up to 63 users.
- Administrator can enable or disable all security features and select which computers each user can access.
- Once security is enabled, a user or administrator must login in order to access any of the computers connected to the switch.

## PS/2 to USB and SUN to USB Adapters



#### USB-PS2-R

- The USB-PS2-R adapter connects a legacy PS/2 computer to an NTI USB KVM switch.
- Two female USB Type A and two male 6-pin miniDIN connectors.
- One-meter male USB Type A to male USB Type B cable is included.
- Dimensions WxDxH (in): 2.4x4x1.1.



### **USB-SUN-R**

- The USB-SUN-R adapter connects a legacy SUN computer to an NTI USB KVM switch.
- Two female USB Type A and one male 8-pin miniDIN connectors.
- One-meter male USB Type A to male USB Type B cable is included.
- Dimensions WxDxH (in): 2x3.7x1.1

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## **Optional**

#### **RS232 Control**

- Control:
  - Female DB9 connector.
  - Baud rate 300 through 9600, DIP switch selectable.
  - Use DIP switches to address up to 15 units, all of which can be daisy-chained and controlled by one serial port.
  - Seven segment displays show what input is connected to each output.
- Commands
  - RS causes switch to reset so that IN1 connects to OUT1, IN2 connects to OUT2.
  - CS causes one INx/OUTx connection to occur.
  - CA causes all inputs to connect to specified output.
  - RO reads what input is connected to specified output.
  - RU reads size of matrix, reports number of inputs and number of outputs on specified switch.

## PS/2 to USB Adapter

- The USB-PS2-R adapter connects a legacy PS/2 computer to an NTI USB KVM switch.
- Two female USB Type A and two male 6-pin miniDIN connectors.
- One-meter male USB Type A to male USB Type B cable is included.
- Dimensions WxDxH (in): 2.4x4x1.1

### PS/2 to USB Adapter

- The USB-SUN-R adapter connects a legacy SUN computer to an NTI USB KVM switch.
- Two female USB Type A and one male 8-pin miniDIN connectors.
- One-meter male USB Type A to male USB Type B cable is included.
- Dimensions WxDxH (in): 2x3.7x1.1

#### Audio

- 3.5mm stereo audio jacks for inputs and output.
- Maximum input/output levels: 4Vp-p (line level).
- Input impedance: 10k Ohms.
- Output impedance: 32 Ohms.
- Signal-to-Noise Ration (SNR): 87 dBA
- Frequency Response: 20 Hz to 20 kHz, ±0.5 dB.
- Total Harmonic Distortion + Noise: 0.02% at 1kHz.
- Requires powered speakers or headphones.
- CD quality audio output.

USB KVM Switch Models						
NTI Part #	# of CPUs (x)	Desktop Size WxDxH (in)	Rack Units	Rack Size WxDxH (in)		
UNIMUX-USBV-2	2	5.2x4.2x1.6	NA	NA		
UNIMUX-USBV-2R	2	NA	1RU	19x10x1.75		
UNIMUX-USBV-40	4	13.3x5.9x1.75 (without supplied rackmount kit)	1RU	19x5.9x1.75 (with supplied rackmount kit)		
UNIMUX-USBV-80	4	13.3x5.9x1.75 (without supplied rackmount kit)	1RU	19x5.9x1.75 (with supplied rackmount kit)		
UNIMUX-USBV-160	16	NA	2RU	19x10x3.5		
UNIMUX-USBV-32O	32	NA	4RU	19x10x7		
UNIMUX-USBV-40-RS	4	13.3x5.9x1.75 (without supplied rackmount kit)	1RU	19x5.9x1.75 (with supplied rackmount kit)		
UNIMUX-USBV-80-RS	8	13.3x5.9x1.75 (without supplied rackmount kit)	1RU	19x5.9x1.75 (with supplied rackmount kit)		
UNIMUX-USBV-40-A	4	13.3x5.9x1.75 (without supplied rackmount kit)	1RU	19x5.9x1.75 (with supplied rackmount kit)		

# **Ordering Specifications**

This example explains the NTI part number by breaking it down into the available options. When ordering, choose the options that you require.

Universal Serial Bus Version Number of Ports

Standard Conrol Method

Audio

Optional

Mount Enclosure

t Control Method

Optional

Only available on

2-port switch

Optional Rack

y RS = RS232

UNIMUX - USBV

"x" = 2, 4, 8, 16, 32 O = OSD

Not available on 2-port switch

A = Audio Not available on 2-port switch

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