Micronet®

Faster and Easier Networks

User Manual

USB KVM Switch

Model No.: SP212D/SP214D

Certificates

FCC

This equipment has been tested and found to comply with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference

(2) This device must accept any interference received including interference that may cause undesired operation.

CE

This equipment is in compliance with the requirements of the following regulations: EN 55 022: CLASS B

Contents

Chapter 1   Introduction

1.1 Overview

The **SP212D/SP214D** is a 2/4-port Slim Palmtop USB KVM Switch
with *optional* audio and microphone switching function. It allows you
to access, control, boot and reboot multiple USB-enabled computers.
The independent audio/mic switching function allows an
uninterrupted audio experience on a same connected computer even
when you switch to another computer.

For Windows and Mac platforms, it provides an innovative and easy-
to-use **KVM Switcher Software** -- a small windows client application
to facilitate your KVM switching operations such as PC selection and
hotkey sequence programming, auto scan, auto scan delay time
programming, independent/simultaneous audio & PC switching, etc.

1.2 System Requirements

- Operation system should be DOS, Windows 95/98/SE,
  Windows ME/2000/XP, Linux, MacOS, etc

1.3 Features

- 2/4-port Slim Palmtop KVM Switch with Audio&Mic and 2/4 x detachable USB KVM & 2/4 x Audio/Mic Cables
- USB console support for USB keyboard and mouse
- Audio and Microphone switching for uninterrupted multimedia experience across multi-platforms.
- USB 1.1 Specification compliant
- Independent/simultaneous switching of both PC and audio/mic channel
- Multi-platform support for PCs and Macintosh G3/G4 MAC, iMAC [For port switching on Mac, you should only use the face-panel button]
- Hot-plugging PCs for maintenance without powering down the KVM Switch or PCs
- Windows-based Switching Software client for easy switching
- User definable hotkeys
- Additional universal port switching hotkey – ScrollLock + ScrollLock – for PC platform.
- Channel selection by push button, keyboard hotkeys and Win-based Switching Software Client
- LED indicators for easy status monitoring
- High VGA resolution 2048 x 1536
- USB interface power

1.4 Package Contents

SP212D

- ● 2-port KVM Switch
- ● User manual
- ● 2 * KVM cable
- ● Manual & Utility CD

SP214D

- ● 4-port KVM Switch
- ● User manual
- ● 4 * KVM cable
- ● 4 * Audio cable
- ● Manual & Utility CD

Chapter 2   Installation

2.1 Hardware Installation

1. Make sure that all computers are connected to the KVM Switch and their peripherals are in power-off state.
2. Connect the shared USB keyboard, mouse and monitor to the KVM switch.
3. Connect the shared speaker set and microphone to the KVM switch (SP214D only).
4. Connect each of your computers to the KVM switch, using appropriate KVM and/or Audio/Mic cables.
5. The KVM Switch should be automatically power-on with computers connected.
6. Power up the connected computers one by one then the keyboard and mouse will be recognized. Now, the KVM switch can work normally.

   ✐Some older computers with USB interface might need to manually enable the USB option in the BIOS settings before you can use any USB devices. If your USB interface does not work, please check the USB option in the BIOS.

If you use Windows 95/98/SE or Mac OS and has not yet installed a USB mouse on your computer, there might be an error message telling you that mouse is not detected and prompting you to decide whether to ignore the same message in the future, and yet you will find there is no mouse movement to disable this message….So it is suggested that you should installed your USB mouse on your computer first, before connecting it to this KVM Switch.
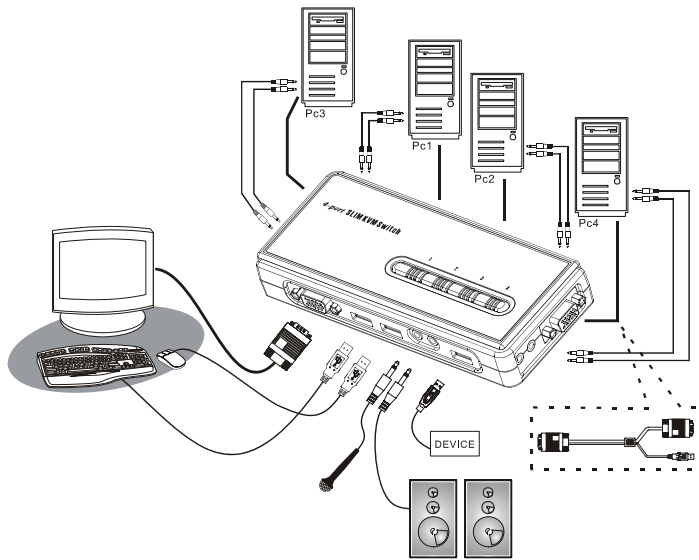
SP214D Configuration Diagram

2.2 Install KVM Switcher

1. Insert the companion CD into your CD drive, and the Autorun
   screen will pop up. (If the Autorun feature has not been enabled
   on your computer. Just find the Autorun.exe on the CDROM and
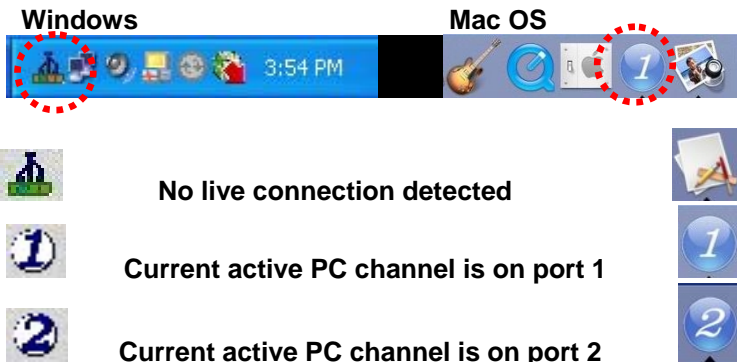   double-click it to start).

2. For Windows/Mac: Just click the "**Software Installation for
   Window/Mac**" to start installation.
   (If the Mac version software does not start, you should then copy
   it to your local Hard disk on Mac).

3. Follow the instructions to completion. If the instillation is
   complete, you will see a KVM Switcher icon on the system tray
   of your desktop.

4. Right-click to evoke the operation menu, and double-click to evoke the configuration box.

💡 The Windows switcher software is recommended for use on Windows 98 SE or later. The Mac switcher software is recommended for use on Mac OS 10.4 [Tiger].

Windows   **Mac OS**

No live connection detected	
Current active PC channel is on port 1	
Current active PC channel is on port 2	

💡 The KVM Switcher Software supports both the Windows and the Mac OS operating systems.

For other OS platforms such as Linux, you can still use the keyboard hotkey - **ScrLk + ScrLK** - to switch PC. However, this switching hotkey is not available on non-PC platform such as MacOS.

Chapter 3   Operation

This KVM switch provides three ways to control your KVM Switch for PC and Audio/Mic channel selection:

>   (1) the face-panel push buttons,
>
>   (2) the hotkey sequences, or
>
>   (3) the KVM Switcher Software.

3.1 Face-panel buttons

The face-panel button allows you a direct control over KVM switching operation. Simply press the button to switch to the corresponding PC port (and audio/mic channel, if binding is enabled). By default, PC port switching and audio/mic port switching are bound together, unless you specify the audio to be fixed a specific port.

> 💡 You can use the face-panel button to switch to an empty port that is not connected with any computer. Normally, if you use keyboard hotkeys or the KVM Switcher software, you will not be able to switch to an empty port.

3.2 Keyboard hotkeys

3.2.1. User-definable hotkeys for PC selection:

Hotkey sequence = **Ctrl - Alt - [command key]**[*]

*** Please refer to next section for keys that are qualified to be used as a command key

Note that these 3 keys should be pressed and held together. And it is upon the release of all three keys, the switching action will be executed.

3.2.2. Universal hotkey for switching to next port:

Universal Hotkey sequence = **ScrLk + ScrLk**

*** For other operating systems on PC such as Linux, you can still use this special hotkey to facilitate PC switching. This special hotkey is not available for Mac.

Both the universal hotkey, ScrLk + ScrLk and the user-definable hotkey, Ctrl - Alt - [command key] WILL NOT allow you to switch to an empty port that is not connected with any computer. To force your KVM to switch to an empty port, just press the face-panel button to switch.

✒Each keystroke within a hotkey sequence should be pressed within 2 seconds. Otherwise, the hotkey sequence will not be validated.

✒After port switching, you have to wait till the KVM Switcher icon shows forth the target port before you can perform next switching again.

✒All the hotkeys are only functional after your PCs are booting into the OS. If you want to switch PC in the BIOS/preboot stage, press the face-panel button to switch.

### 3.2.3. KVM Switcher Software (only for Windows platform)

In addition to PC switching, the KVM Switcher Software also allows you more advanced functions such as described in the next section….

3.3 Switch to PC x by Operation Menu

Right-click the KVM Switcher icon to evoke the operation menu,
then select whichever PC that is available for switching. Once
you select a PC channel, it will immediately switch to that PC.

Note: the unconnected port(s) or the active port will be grayed-
out and hence non-selectable.

Windows :
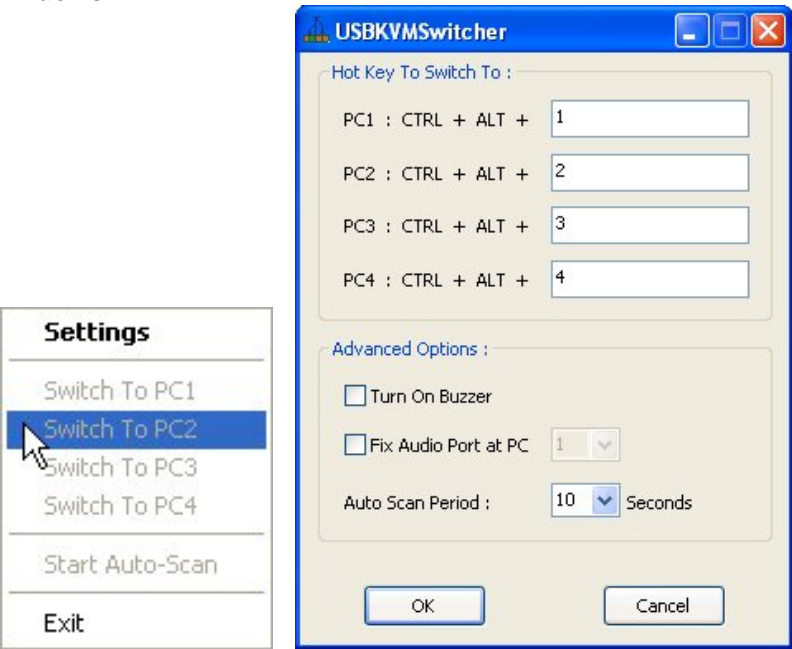
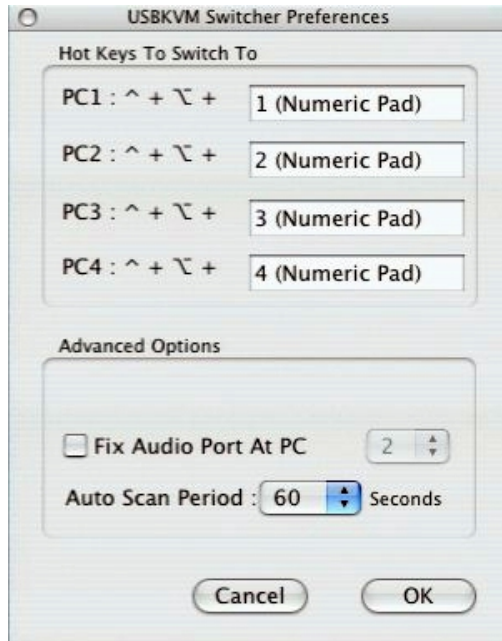**Operation Menu**   **Configuration Dialog Box**

Mac OS:
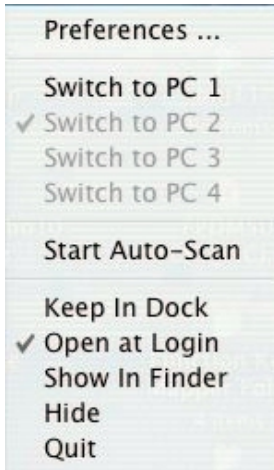
Operation Menu   **Configuration Dialog Box**

3.3.1 Switch to PC x by Keyboard Hotkeys

Hit the hotkey according to your current hotkey definition:

Hotkey sequence = **Ctrl - Alt - [command key]***

***   The factory default hotkey setting is Ctrl + Alt + 1/2/3/4 for

PC 1/2/3/4. You can also use ScrLk + ScrLk to switch PC.

☀️ Note that these 3 keys should be pressed and held together. And it is upon the release of all three keys, the switching action will be executed.

3.3.2. Start Auto-scan

Right-click the KVM Switcher icon to evoke the operation menu, then select **Start Auto-Scan** to activate auto-scan.

3.3.3. Stop Auto-scan

(While auto-scan) Right-click the KVM Switcher icon to evoke the operation menu, then select **Stop Auto-Scan** to de-activate auto-scan. Or you can press any button on the face-panel to stop the action.

3.3.4. KVM Switcher configuration

Right-click the KVM Switcher icon and select Settings or double-click the icon to bring up the configuration dialog box.

3.4 Define Hotkey commands

You can specify the command key as you like by typing it in. For example, you can specify the hotkey for switching to PC 1 as **CTRL - ALT - A** by typing an A (not case-sensitive) in the editable field.

Hotkey   Sequence = **CTRL - ALT - [command key]***

***   The command key is user-definable via the configuration

dialog box

✎ Please note that if you intend to modify the command key,

you have to modify them on each and every of the

connected computers, since the hotkey setting is stored

within each connected computer.

💡 Except those control keys such as **Alt**, **Ctrl**, **Shift**, **CAPS**,

Tab, **Esc** and those functions keys and edit keys, all other

keys on the keyboard, including those number keys on the

number pad, are all other keys qualified to be used as

hotkey command keys. In addition to the software KVM

Switching by the operation menu and the user-defined

hotkeys, you can always use the universal hotkey for PC

switching – **ScrLk + ScrLk**

3.5 Turn On Buzzer
(optional feature, not available on this model)

This is feature is not available on this model. [Check this option

to turn on the buzzer sound]

3.6 Fix Audio Port at PC x

Check this option and then select the PC to fix the audio/mic channel to the selected PC. Once this option is checked, the audio/mic channel will be fixed and become non-switchable.

3.7 Auto Scan Period

Select the Autoscan period from 10 ~ 60 seconds with an increment of 5 seconds. The Autoscan period is the time your KVM Switch will wait before switching to next PC.

Glossary

Cascade

A connected series of devices or images. It often implies that the second and subsequent device takes over after the previous one is used up. For example, cascading tapes in a dual-tape backup system means the second tape is written after the first one is full. In a PC, a second IRQ chip is cascaded to the first, doubling the number of interrupts.

Daisy chain

Connected in series, one after the other. Transmitted signals go to the first device, then to the second and so on.

DB-9 connector (officially the DE-9)

The male was widely used as the first serial port on PCs (COM1) as well as other communications devices.

Female connector

A plug or socket that contains receptacles. The male counterpart contains pins.

Hot key

A user-defined key sequence that executes a command or causes the operating system to switch to another program. In DOS systems, for example, you can use hot keys to open memory-resident programs (TSRs). In Windows environments, you can often press a hot key to execute common commands. For example, Ctrl +C usually copies the selected objects.

Liquid Crystal Display (LCD)

A display technology that uses rod-shaped molecules (liquid crystals) that flow like liquid and bend light. Unenergized, the crystals direct light through two polarizing filters, allowing a natural background color to show. When energized, they redirect the light to be absorbed in one of the polarizers, causing the dark appearance of crossed polarizers to show. The more the molecules are twisted, the better the contrast and viewing angle.

On-Screen Display (OSD)

An on-screen control panel for adjusting monitors and TVs. The OSD is used for contrast, brightness, horizontal and vertical positioning and other monitor adjustments.

Picture Element (pixle)

Short for Picture Element, a pixel is a single point in a graphic image. Graphics monitors display pictures by dividing the display screen into thousands (or millions) of pixels, arranged in rows and columns. The pixels are so close together that they appear

connected.

PS/2 connector

A 6-pin Mini-DIN plug and socket used to connect a keyboard and mouse to a computer. First introduced on IBM´s PS/2 desktop PC, the port was later used by everybody else, first on laptops, then on desktops.

Resolution

The degree of sharpness of a displayed or printed character or image. On screen, resolution is expressed as a matrix of dots. For example, the VGA resolution of 640x480 means 640 dots (pixels) across each of the 480 lines. Sometimes the number of colors are added to the spec; for example, 640x480x16 or 640x480x256. The same resolution looks sharper on a small screen than a larger one.

TFT LCD

Widely used for all LCD applications today (laptop and desktop computers, home theater, etc.). Known as "active matrix" displays, transistors are built into each pixel within the screen. For example, a 640x480 color VGA screen requires 921,600 transistors; one for each red, green and blue dot. Provides a sharp, clear image with good contrast and eliminates submarining. Fabrication costs were originally higher than passive matrix, which caused both types to be used in the early days of laptop flat panels. Active matrix displays use a 90º (TN) twist. Also called "thin film transistor LCD" (TFT LCD).

Universal Serial Bus (USB)

An external bus standard that supports data transfer rates of 12 Mbps. A single USB port can be used to connect up to 127 peripheral devices, such as mice, modems, and keyboards. USB also supports Plug-and-Play installation and hot plugging.