



Keyboard/Mouse/Monitor  
SharingSwitch



## User's Manual

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SV831SUN



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# ***Introduction***

## **Overview**

The SV831SUN, 8 Port StarView KVM switch, represents another addition of reliable KVM switches from StarTech.com. It allows one user to control up to 64 SUN computers with one keyboard, mouse and monitor.

Each SUN computer is connected to the StarView by only two cables, one for the keyboard/mouse and the other for the VGA monitor. Automatic keyboard and mouse simulation technology ensures trouble-free SUN computer boot-up and seamless switching among SUN computers. Selecting a SUN computer is as easy as pressing pushbuttons or hot key commands. Easy-to-use automatic scan ability catches system failure early.

The SV831SUN builds on StarTech.com's proven success with the PS/2 StarView line, including hot plug-and-play, hot configurability, reliable switching and ease of use. This pure SUN KVM switch is the most cost-effective solution for contemporary server room management. Now, save space, eliminate extra costly peripherals, enhance control and improve the manageability of your IT data center with the SV831SUN.

## Features

- Manage 8 SUN computers with 1 keyboard, mouse and monitor
- Hot plug-and-play
- Select a SUN computer by front panel push buttons or hot key commands
- Hi resolution 1920 x 1440
- Auto Scan for easy monitoring
- 19" rack mountable
- Two-tier cascadable
- Audible buzzer for switching configuration
- Dual colour LEDs for each SUN computer

## Configurations

Connect a SUN keyboard, a SUN mouse and monitor directly to the *Master's* **CONSOLE** port. Then, connect multiple sets of mini DIN8 cables and monitor cables to the "PC x" ports of the StarView, as shown in figure 1.

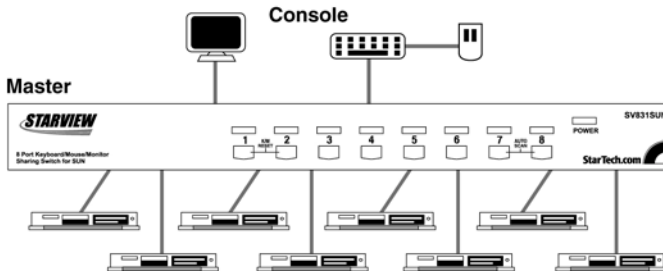


Figure 1: SV831SUN StarView configuration

## Cascade (Master/Slave) Configuration

You can connect a second level of one or more StarViews to "PC 1"~"PC 8" ports of a *Master* unit. Cascade configuration expands system ability allowing you to select computers connected to the *Master* or *Slaves*. There is only one *Master*, which has a mouse, a keyboard and a monitor connected to its **CONSOLE** port directly operated by a user.

Once connected, StarViews automatically configure themselves to either *Master* or *Slave*. *Slaves* of different StarView models can be mixed in cascade configuration.

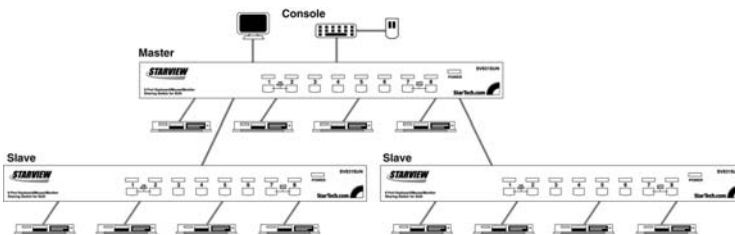


Figure 2: A cascade StarView configuration

Throughout this manual, **Master** is the StarView that has a physical keyboard, mouse and monitor connected to its **CONSOLE** port. **Slave** is a StarView that has its **CONSOLE** port connected to a **Master's** "PC x" port. **Slave** only exists in cascade configuration.

## Change Configuration while Running

Devices (computers or StarViews) at any 'PC x' port can be changed at any time after initial power up. If you change any one of the "PC 1" to "PC 8" ports connection from a computer to a Slave or vice versa, or replace the devices of a port; *the new Slave must be turned off before it is connected to the Master. Before unplugging the cable from a computer, you should issue a STOP-A command for that computer, unplug the cables, re-arrange connection, plug the cables back to the computer, issue a GO command for that computer and resume normal operation*

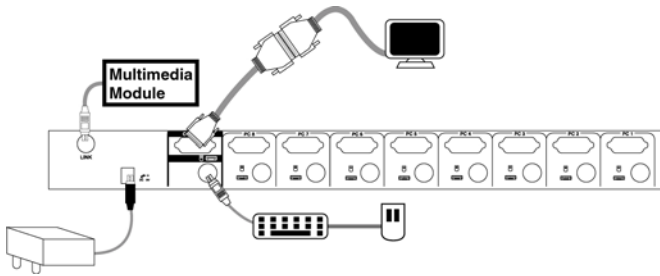
## Installation

Make sure all computers and StarViews are powered down during installation.

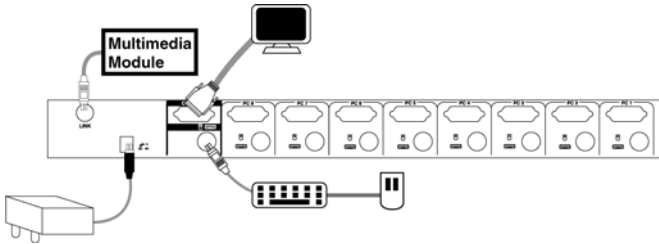
### Console Connection

**Monitor:** A SUN monitor with either 13W3 or HDB15 connector can be connected to the CONSOLE as shown in figure 3 and 4.  
A regular VGA monitor with HDB15 connector may also be connected to the CONSOLE as shown in figure 4.

**Keyboard and mouse:** A SUN keyboard and a SUN mouse should be connected to the CONSOLE as shown in figure 3 and 4.



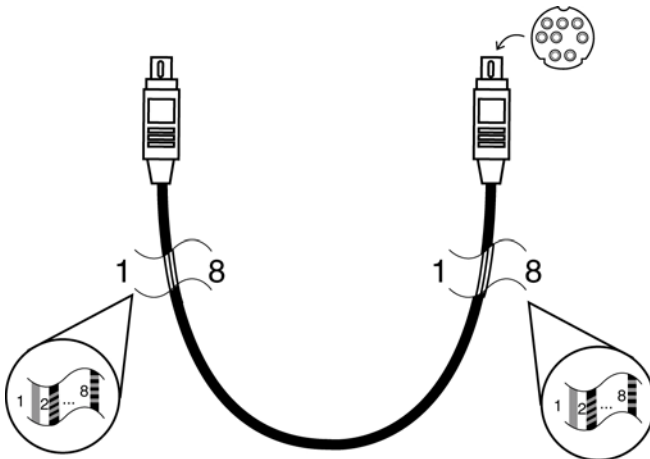
*Figure 3: Master console connection  
for monitor with 13W3 connector*



*Figure 4: Master console connection  
for monitor with HDB15 connector*

## Computer Connection

Each SUN computer is connected to the StarView with one straight through (1-1, 2-2, 3-3... 8-8) mini DIN8 cable (as shown in figure 5) and one male-to-male HDB15 VGA cable.



*Figure 5: Straight through 1-to-1 mini DIN8 cable*

For SUN computers using a 13W3 connector for monitor connection, a **13W3-to-HDB15** adapter is required for such computer's monitor port as shown in figure 6.

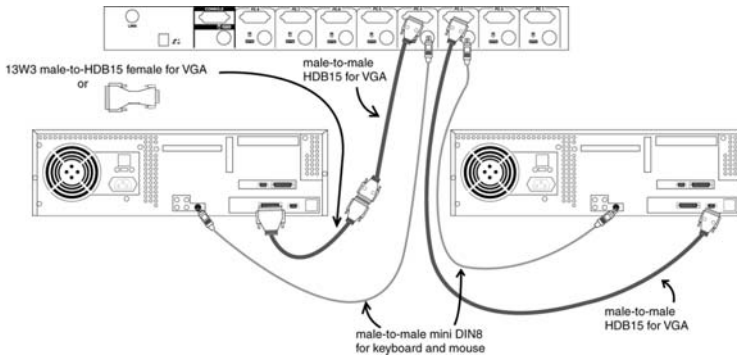


Figure 6: Adapter and monitor connection

## Initial Power-Up

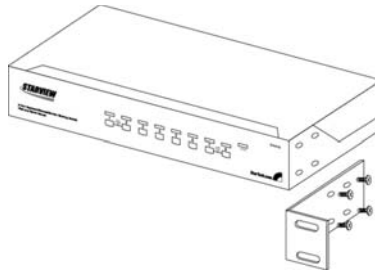
**Make sure all computers and StarViews are powered down during installation. You must power up the Master StarView before turning on any other devices.**

- ▶ For single StarView configuration:
  - 1) Apply a power adapter to the Master.
  - 2) Turn on computers.
- ▶ For cascade StarView configuration:
  - 1) Apply a power adapter to the Master.
  - 2) Apply power adapters to all Slaves.
  - 3) Turn on computers.

Note: You may hot plug additional powered-down computer and Slave without turning any existing StarView or computer off after initial power up.

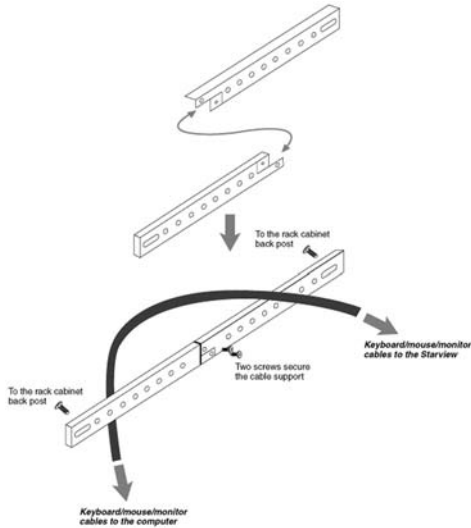
## 19" Rackmount Accessories

Figure 7 shows how to attach optional mounting brackets to the StarView unit for standard 19-inch rack cabinet.



*Figure 7: Attaching rack mount bracket*

Figure 8 shows how to assemble rack cable support then screw it to the back and inside the rack cabinet vertical post.



*Figure 8: Assembling rack cable support*

Now, route the keyboard, mouse and monitor cable over the cable support bar. Then, use plastic ties to bundle the cables in pairs through the holes on the bar for each computer.

## Operation

### Front Panel Push Buttons

You may select a computer by pressing the front panel push button directly by issuing hot-key commands. The front panel indicator changes to reflect the computer port selected (red) and whether the port is connected to a powered computer (green). The indicator flashes red when it is in *Auto Scan* mode.

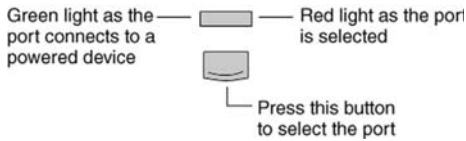


Figure 9: Front panel indicator

#### ■ AUTO SCAN

StarView provides an easy to use feature to start *Auto Scanning*. You can press down both the front-panel number **7** and **8** buttons for 2 seconds to start Auto Scanning.

## Hot-key commands

Hot-key command is a short keyboard sequence to select a computer, to activate computer scan, etc. StarView interprets keystrokes for hot-keys all the time. A hot-key sequence starts with two left <CTRL> keystrokes followed by one or two more keystrokes. A built-in buzzer generates a high-pitch beep for correct hot-key command; otherwise, one low-pitch beep for error and the bad key sequence will not be forwarded to the selected computer.

■ To select a computer by hot-key command, you must know its channel address, which is determined by the StarView connection. For a computer connected to a *Master*, its address is represented by the PC port label (1~8 or A~H). For a computer connected to a *Slave*, two characters represent its address. The first character is the channel address of the *Master* unit (1~8) and the second one is the channel address of the *Slave* (1~8 or A~H). Please note that only *Master's* 'PC 1' ~'PC 8' ports can be connected to a *Slave*.

Left **Ctrl** + left **Ctrl** + **7**

Selects a computer connected to port 7 of the *Master*.

Left **Ctrl** + left **Ctrl** + **6** + **3**

Selects a computer connected to port 3 of a *Slave* connected to port 6 of the *Master*.

■ To start *Auto Scan*, automatically scan power-on computers one by one at a fixed interval:

left **Ctrl** + left **Ctrl** + **F 1**

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

■ To adjust *Scan Rate* which sets the duration before switching to the next computer in *Auto Scan*:

left **Ctrl** + left **Ctrl** + **F3**

The StarView sends one to four beeps indicating scan interval of **3**, **8**, **15** and **30** seconds respectively.

### ■ *Audio Stick*

An optional multimedia module can be LINKed to the back of each StarView for selecting microphone and stereo speaker signals. There are two options for *Audio Stick*: **ON** and **Off**. When set to '**On**', audio selection follows computer selection. When set to '**Off**', audio selection stops following computer selection. It is useful if you want to listen to a particular computer's audio signal while operating other computers.

left **Ctrl** + left **Ctrl** + **F5**

The StarView generates 1 or 2 beeps corresponding to **On** and **Off** respectively.

### ■ Return to the previously selected computer

This is used to toggle back and forth between the currently selected computer and the previously selected one. It is handy if there are two computers of great interest requiring your attention

Left **Ctrl** + left **Ctrl** + **F7**

**Note:** If you issue an incorrect hot key command the StarView sends out a warning with one long beep followed by a short one.

## Appendices

### Specifications:

Specifications	
# of Console ports	1
# of SUN computer ports	8
Keyboard/mouse supported	<i>SUN (type 4, 5, 6)</i>
VGA bandwidth	180 MHz
VGA resolution	1920 x 1440
Computer power status LED	8
Computer selected LED	8
Front push buttons	8
Scan interval	3, 8, 15, 30 seconds
VGA connectors to SUN	<i>HDB15 x 8</i>
Keyboard/mouse to SUN	<i>Mini DIN8 x 8</i>
Console connector for VGA	<i>HDB15 x 1</i>
Console connector for keyboard/mouse	<i>Mini DIN8 x 1</i>
Weight	4.8 kgs
Power Supply	DC 9V 500mA
Dimension (mm)	44 x 436 x 180
(in)	1.7 x 17.1 x 7.0

## Troubleshooting:

*Ensure that all cables are well seated. Check that keyboard/mouse cables are not swapped. Label and bundle the cables for each computer to avoid confusion when connected to the StarView.*

### **Symptom    Possible causes    Recommended solutions**

Keyboard and mouse do not work	Incorrect mini DIN8 cable	Use only straight through, 1-to-1, 2-to-2,...8-to-8 mini DIN 8 cables
VGA image is fuzzy or not very clear	Poor quality VGA cable	Most VGA problems come from poor quality VGA cables. Please use UL-2919 rated VGA cables for video connection, because those cable use coaxial wires for R/G/B signals.
An LCD monitor is connected to the Console port, but nothing is on the monitor when certain SUN computers are selected	When a SUN computer power up, it communicates with the VGA devices, and LCD is not available on power up sequence; therefore, the SUN sets its VGA resolution to a default which is not in applicable for some LCD monitors	When booting up a SUN computer, wait till the boot-up process is finished before selecting a different computer.
Keyboard or mouse does not work from time to time	The switch is low on operating power	Be sure the power adapter is properly connected
Hot-key command is not effective	Incorrect hot-key sequence	To select a computer connected to the Master: three keystrokes are necessary. To select a computer connected to a Slave: four key strokes are necessary
Cascade unit does not work	Incorrect power up sequence	Turn on the Master then the Slave switches
There is no VGA output after connecting a 13W3-to-HDB15 adapter to a computer	Incorrect 13W3-to-HDB15 pin assignment	Use only the adapter specifically designed for SUN computers

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