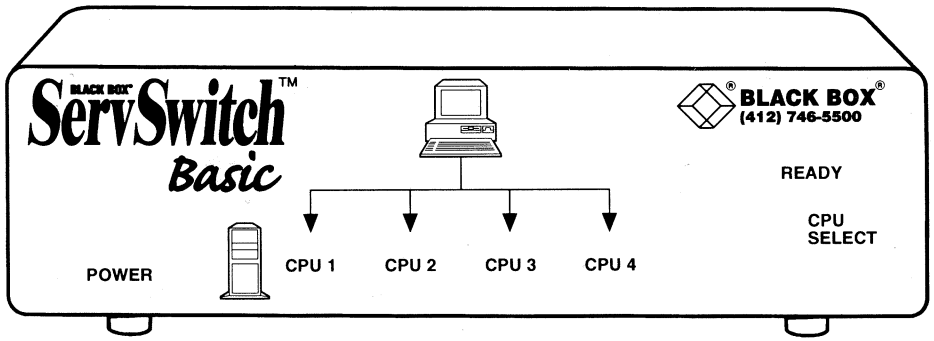
Black Box Corporation
The Source for Connectivity®

MARCH 1997
SW623A
SW624A

Serve Switch Basic KVM Switch



SCAN MODE ON KBRD

STRICTLY P/C
NO MAC DEC SUN SGI IBM THINKPAD

CUSTOMER SUPPORT INFORMATION

Call our Technical Support Specialists to discuss your application.
For 24-hour technical support: Call **(412) 746-5500** or Fax: **1-800-321-0746**
To order: Call **(412) 746-5500** 7:00 A.M. to 8:00 P.M. EST
Mail order: **Black Box Corporation**, P.O. Box 12800, Pittsburgh, PA 15241

FEDERAL COMMUNICATIONS COMMISSION and CANADIAN DEPARTMENT OF COMMUNICATIONS RADIO FREQUENCY INTERFERENCE STATEMENT

Class A Digital Device. This equipment has been tested and found to comply with the limits for a class A computing device pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. This equipment generates, uses, and can radiate radio frequency energy, and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. If this equipment does cause harmful interference to radio or telephone reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult an experienced radio/TV technician for help.

Caution:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

To meet FCC requirements, shielded cables and power cords are required to connect this device to a personal computer or other Class A certified device.

This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de classe A prescrites dans le Réglement sur le brouillage radioélectrique publié par le ministére des Communications du Canada.

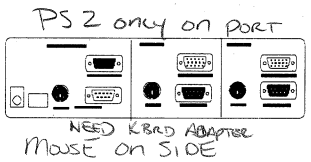
NORMAS OFICIALES MEXICANAS (NOM)
ELECTRICAL SAFETY STATEMENT

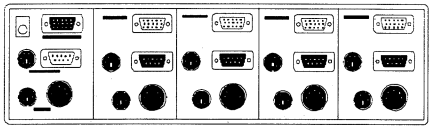
INSTRUCCIONES DE SEGURIDAD

1. Todas las instrucciones de seguridad y operación deberán ser leídas antes de que el aparato eléctrico sea operado.
2. Las instrucciones de seguridad y operación deberán ser guardadas para referencia futura.
3. Todas las advertencias en el aparato eléctrico y en sus instrucciones de operación deben ser respetadas.
4. Todas las instrucciones de operación y uso deben ser seguidas.
5. El aparato eléctrico no deberá ser usado cerca del agua—por ejemplo, cerca de la tina de baño, lavabo, sótano mojado o cerca de una alberca, etc.
6. El aparato eléctrico debe ser usado únicamente con carritos o pedestales que sean recomendados por el fabricante.
7. El aparato eléctrico debe ser montado a la pared o al techo sólo como sea recomendado por el fabricante.
8. Servicio—El usuario no debe intentar dar servicio al equipo eléctrico más allá a lo descrito en las instrucciones de operación. Todo otro servicio deberá ser referido a personal de servicio calificado.
9. El aparato eléctrico debe ser situado de tal manera que su posición no interfiera au uso. La colocación del aparato eléctrico sobre una cama, sofá, alfombra o superficie similar puede bloquea la ventilación, no se debe colocar en libreros o gabinetes que impidan el flujo de aire por los orificios de ventilación.
10. El equipo eléctrico deber ser situado fuera del alacance de fuentes de calor como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que producen calor.
11. El aparato eléctrico deberá ser connectado a una fuente de poder sólo del tipo descrito en el instructivo de operación, o como se indique en el aparato.
12. Precaución debe ser tomada de tal manera que la tierra fisica y la polarización del equipo no sea eliminada.
13. Los cables de la fuente de poder deben ser guiados de tal manera que no sean pisados ni pellizcados por objetos colocados sobre o contra ellos, poniendo particular atención a los contactos y receptáculos donde salen del aparato.
14. El equipo eléctrico debe ser limpiado únicamente de acuerdo a las recomendaciones del fabricante.
15. En caso de existir, una antena externa deberá ser localizada lejos de las lineas de energia.
16. El cable de corriente deberá ser desconectado del cuando el equipo no sea usado por un largo periodo de tiempo.
17. Cuidado debe ser tomado de tal manera que objectos liquidos no sean derramados sobre la cubierta u orificios de ventilación.
18. Servicio por personal calificado deberá ser provisto cuando:
    A: El cable de poder o el contacto ha sido dañado; u
    B: Objectos han caído o líquido ha sido derramado dentro del aparato; o
    C: El aparato ha sido expuesto a la lluvia; o
    D: El aparato parece no operar normalmente o muestra un cambio en su desempeño; o
    E: El aparato ha sido tirado o su cubierta ha sido dañada.

Quick Installation

1) Connect the keyboard, monitor and mouse to the leftmost or shaded connector set on the back of the ServSwitch Basic. If connecting both serial and PS/2 style computers to your ServSwitch Basic, both types of mice must be attached.
2) Connect the keyboard, monitor and mouse ports of the PC's to the ServSwitch Basic using the proper keyboard, monitor and mouse cables.
3) Plug the power adapter into the ServSwitch Basic and the other end to a proper power source.
4) Turn on the ServSwitch Basic and your systems.

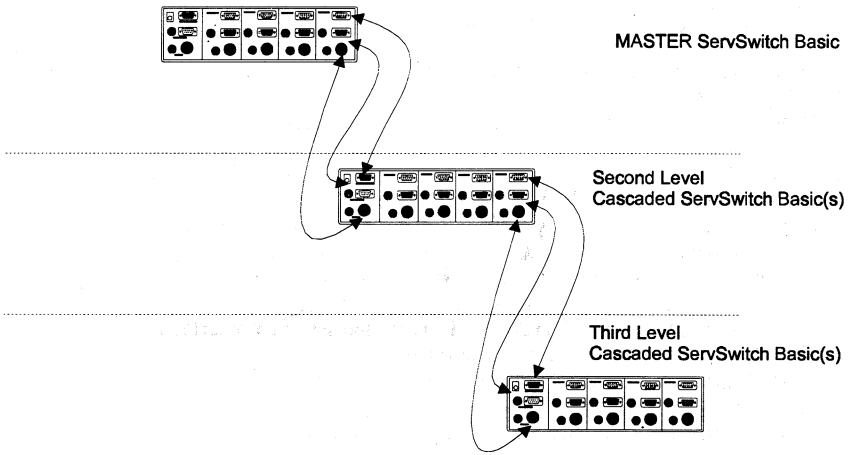




Cascading the ServSwitch Basic to a Two or Three Level Setup:
NOT RECOMMENDED

This requires two or more ServSwitch Basic units.

1) Set DIP switch number 4 to ON on the MASTER (first level) ServSwitch Basic and to OFF on all other units. The MASTER unit is the unit to which your monitor, keyboard and mouse are directly connected.
2) Connect the keyboard, monitor and mouse to the leftmost or shaded connector set on the back of the MASTER ServSwitch Basic.
3) Connect the leftmost or shaded keyboard, monitor and mouse ports of all the second level ServSwitch Basic units to the MASTER unit using the proper keyboard, monitor and mouse cables. To connect third level units, connect the keyboard, monitor and mouse to the leftmost or shaded area of



the third level units to the second level units. Second and third level ServSwitch Basic units must be cascaded using the 5 DIN keyboard ports.

4) Connect the keyboard, monitor and mouse ports of the CPUs to the second or third level ServSwitch Basic units using the proper keyboard, monitor and mouse cables. CPUs can also be connected to unused ports of the MASTER ServSwitch Basic as well.
5) Plug the power adapters into the ServSwitch Basic units and the other end to a proper power source.
6) Turn on the ServSwitch Basic and your systems.

Configuration

DIP switch number				Function
1	2	3	4	Scan Time
On	On		On	3 seconds
Off	On		On	10 seconds
On	Off		On	20 seconds
Off	Off		On	40 seconds

Note: DIP switch 3 is unused
DIP switch 4 is always on, unless the unit is cascaded

Operation

The ServSwitch Basic can operate in 3 distinct modes of operation: Manual mode, Scan mode, and Previous/Next mode. Manual mode is the default mode of operation for the ServSwitch Basic. The unit allows you to control any connected CPU as if your keyboard, monitor and mouse were directly attached to it.

Manual Mode Operation:

1) Using the front panel button:
To select a CPU using the front panel button, you must press the button repetitively until the CPU LED is lit on the CPU you wish to control. If you have cascaded ServSwitch Basics, you will have to select the cascade port on the MASTER unit, then press the button on the second level ServSwitch Basic until the proper CPU is selected.

2) Using the keyboard to switch CPUs:
To select a CPU using the console keyboard, there is a special HOT KEY sequence that must be followed.

This sequence is as follows:

1) Press the **Alt, Ctrl,** and **Shift** keys simultaneously.
2) Release them all.
3) Press the corresponding port number for the CPU you wish to select. ie. 4
4) Release the number key.
5) Press and release the **Enter** key. The ServSwitch Basic should beep once as it switches to the selected CPU.

To select a second or third level CPU in a cascaded setup, you must enter two or three digits in step 3, one for the MASTER unit, and one for each of the second and third level ServSwitch Basics.

Example 1: A two level setup: **Alt Ctrl Shift, 1 3, Enter**, would select the 3rd CPU on the second level ServSwitch Basic cascaded from port 1 of the MASTER unit.

Example 2: A three level setup: **Alt Ctrl Shift, 1 3 2, Enter**, would select the 2nd CPU on the third level ServSwitch Basic cascaded from port 3 of the second level ServSwitch Basic that is connected to port 1 of the master unit.

Note: Keyboard selecting of CPU's must be done in a quick, fluent fashion.

Scan Mode Operation

Scan mode scans through all CPUs one by one and displays the video for a period of time set by the DIP switches on the back of the unit.

To start scan mode use the HOT KEYS as follows **Alt Ctrl Shift, 0, Enter**.

To stop scan mode press the spacebar.

DIP switch number				Function
1	2	3	4	Scan Time
On	On		On	3 seconds
Off	On		On	10 seconds
On	Off		On	20 seconds
Off	Off		On	40 seconds

Note: DIP switch 3 is unused
DIP switch 4 is always ON, unless the unit is cascaded then it is OFF.

Previous/Next Mode Operation

Previous/Next mode is similar to scan mode, only the user controls the rate and direction of the scan using the left and right keyboard shift keys. To activate it, use the HOT KEY sequence, **Alt Ctrl Shift, 9, Enter**. The *left* Shift key selects the previous CPU. The *right* Shift key selects the next CPU. To stop the Previous/Next mode, hit the spacebar.

Specifications

Function	Specification
Power Consumption	DC 9V 600mA
Keyboard Connector	5-pin DIN or 6-pin mini-DIN
Mouse Connector	9-pin D type Male/Female
PS/2 Mouse Connector	6-pin mini-DIN Female
Monitor Connector	15-pin D Type Female/Male
Enclosure	Metal
Weight	2650g
Dimensions (LxWxH)	254 x 180 x 82 (mm)

Trouble-Shooting

Problem	Cause	Solution
The HOT KEYS of the first stage ServSwitch Basic do not function	Incorrect DIP switch settings	Set the first stage ServSwitch Basic DIP switch 4 to ON, all other cascaded units OFF
Press HOT KEYS but get no response	The ServSwitch Basic is operating in Scan mode or Previous/Next mode	Press the spacebar to exit these modes before giving HOT KEY commands
	The selected port connects to a computer which is turned off	Change the port selection to a running computer
	Improper keyboard reset	Unplug, then plug the keyboard back in to the unit
	Improper ServSwitch Basic reset	Turn off all ServSwitch Basics, wait for 5 seconds, and turn them on
		Turn off all computers wait 5 seconds, and turn them on.

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