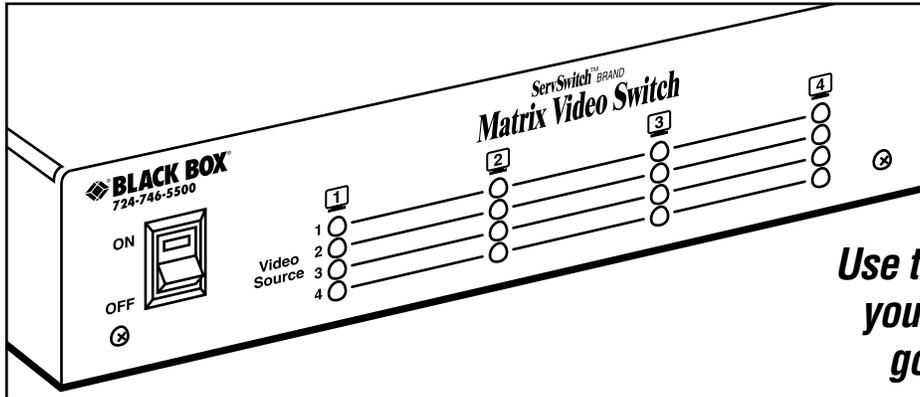


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BLACK BOX[®]

NETWORK SERVICES

SERVSWITCH[™] BRAND MATRIX VIDEO SWITCH



Use this Video Switch to send your video where it needs to go at the touch of a button.

Key Features

- ▶ **4 x 4 video switching.**
- ▶ **Enough bandwidth to handle 1600 x 1280 resolution at 85 Hz.**
- ▶ **Press four buttons on the included serial keypad to switch any input to any output.**
- ▶ **Has universal power supply—can be used almost anywhere.**
- ▶ **Designed for VGA, but can support almost any kind of video with the right cabling.**
- ▶ **Can drive video as far as 150 ft. (45 m).**
- ▶ **Front-panel LEDs make it easy to figure out where video is going.**

If you have several sources of video that you'd like to display at different places at different times, here are a few things *not* to do:

1. Don't settle for static, expensive dedicated video feeds.
2. Don't swap video cables by hand.
3. Don't subject your video devices to ugly and potentially damaging mechanical video switching.
4. Don't pay for extra switching (keyboard, mouse, etc.) that you don't need.

What *should* you do? Consider a ServSwitch[™] Brand Matrix Video Switch. You can use it to electronically switch the video signals coming from as many as four source devices among as many as four destination devices. In the standard application, computer CPUs will be the sources and computer monitors will be the destinations. But with the proper cabling and signal conversion (and as long as the destination devices can handle it), almost any video device can be involved—TVs, VCRs, cameras,

projectors, DVD players, etc.

This is because the Switch can handle almost any kind of video synchronization: RGBHV (as used in VGA, SVGA, and other types of computer video), RGBS (as used in NTSC and PAL TV signals), and RGSB ("sync on green"). It has a vast amount of bandwidth—enough to carry video at resolutions up to 1600 x 1280 at refresh rates up to 85 Hz. All of its inputs and outputs are buffered, so you always get the sharpest possible images. To top it off, it can drive those signals as far as 150 ft. (45 m)!

The ServSwitch[™] Brand Matrix Video Switch can be controlled in either of two ways. For one, it comes with a standard serial numeric keypad, powered by the Switch, that plugs into the Switch's rear panel. Press the keypad buttons in the sequence *output–decimal point–input–Enter key* to make a switch. For example, press [3].[1][Enter] to switch the input from CPU #1 to output to monitor #3. If you press zero for the input number, the

output channel will be blanked (the Switch won't send it any video signal). If you press the asterisk key for the output number, the input channel will be broadcast to all outputs.

The Switch's LEDs will always show you which output channel is receiving which input. Anyone who can interpret these LEDs and press a few buttons can use the Switch!

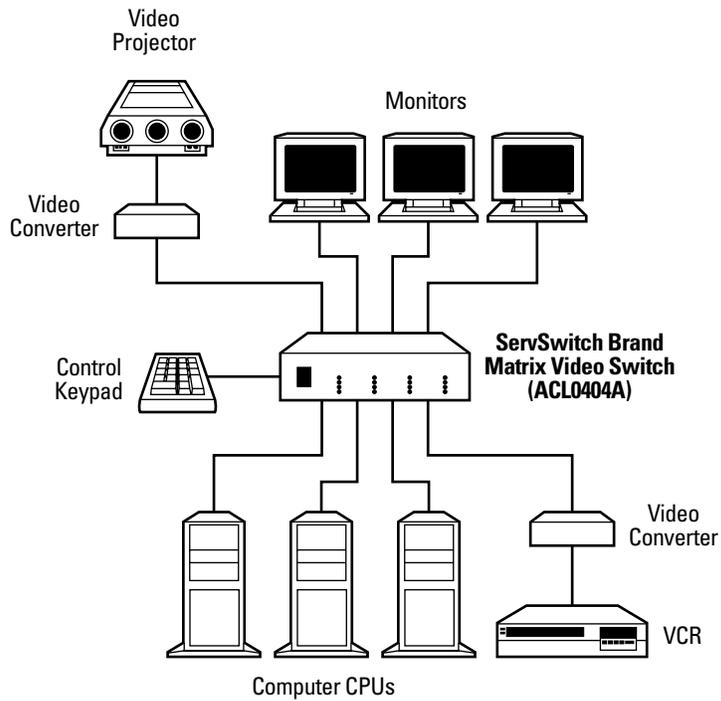
The keypad's cable is 6 ft. (1.8 m) long, but you can use DB9 extension cable (not included) to extend your "roaming radius" out to RS-232's maximum distance of 50 ft. (15.2 m).

The other way to control the Switch is by attaching a PC or other serial device that can send the Switch the ASCII characters or hex codes equivalent to the keypad keypresses. In this way, switching can be automatically controlled for displays, demos, and so on.

The Switch has a universal power supply; with the proper input cord, you can plug it in just about anywhere in the world.



Direct any of your video output to different locations for display, recording, broadcasting—you name it!



Specifications

Cable Required: To attach a computer as a video source: Video-extension cable such as our EVNPS05-MM

Compliance: CE; FCC Part 15 Subpart J Class A, IC Class/classe A

Standards: VGA, SVGA, XGA, or XGA-2 video

Interfaces: Video: VGA; Serial: EIA/TIA RS-232, pinned according to TIA-574, DTE

Supported Video Types: RGBHV (VGA, SVGA, XGA, or XGA-2), RGBS, or RGsB ("sync on green")

Resolution and Refresh Rate: Up to 1600 x 1280 noninterlaced at up to 85 Hz

Video Coupling: DC

Video Level: 0.7 volts peak-to-peak

Video Gain: 1-to-1

Serial Characteristics:
Transmission protocol: Asynchronous;
Data rate: 1200 bps, fixed;
Data format: 8 data bits, no parity, and 1 or more stop bits (fixed)

Maximum Distance: Up to 150 ft. (45.7 m) of total cable length from attached CPU/input device to attached monitor/output device

User Controls:
(1) Front-mounted rocker switch for power;
Switching commands (ASCII "make" and "break" codes from PC or included serial keypad)

Indicators: (16) Front-mounted LEDs to show video connections

Connectors:
On Switch itself:
(8) HD15 female for video: (4) to CPUs' video ports (or other sources), (4) to monitors (or other destinations);
(1) DB9 male for serial;
(1) 5-pin DIN female for power;
On power-supply transformer:
(1) IEC male inlet for power

Maximum Altitude: 10,000 ft. (3048 m)

Temperature Tolerance:
Operating: 32 to 122°F (0 to 50°C);
Storage: -40 to +185°F (-40 to +85°C)

Humidity Tolerance: Up to 95% noncondensing

Enclosure: Steel

MTBF: 300,000 hours (calculated estimate)

Power:
From utility-power (mains) outlet, through included detachable output cord and external universal power supply:
Input: 100 to 250 VAC at 50 to 60 Hz (autosensing);
Output: +5 VDC at 1 A, +12 VDC at 0.5 A, and -12 VDC at 0.5 A;
Consumption: 5 VA (5 watts) maximum

Size: 2.3"H x 8.3"W x 5.3"D (5.9 x 21.1 x 13.5 cm)

Weight:
Net:
Switch itself: 2.2 lb. (1 kg);
Keypad: 1 lb. (0.5 kg);
Power supply: 3 lb. (1.4 kg);
Shipping: 7 lb. (3.2 kg)

The complete package

- The ServSwitch Brand Matrix Video Switch.
- Its 18-key serial keypad. This is just like the keypad on a standard computer keyboard and has an attached 6-ft. (1.8-m) cable for attachment to the Switch.
- Its autosensing power supply.
- Its manual.



Ordering Information

ITEM

CODE

ServSwitch™ Brand Matrix Video SwitchACL0404A

You might also need:

CAUTION: If you use adapters or converters to attach non-VGA equipment, *all* destination devices must be capable of handling the video signals from *all* source devices. For example, driving high-end workstation video to a monitor whose maximum refresh rate is too low could result in oversyncing and damaging the monitor.

VGA Video-Extension Cable (HD15 male to HD15 male, specify length)EVNPS05-MM
Video to VGA Portable (converts NTSC/PAL to VGA up to 1280 x 1024 at 60 Hz)AC328A
VGA to Video Portable II (converts VGA up to 1024 x 768 at 75 Hz to NTSC/PAL).....AC325A-R2
Mac® to VGA Video Adapter (DB15 male to HD15 female).....EVMA22
Sun® to VGA Video Adapter (13W3 male to HD15 female).....FA8500SUN
SGI™ to VGA Video Adapter (13W3 male to HD15 female).....FA8500SGI
Universal Generic Video Adapter (five BNC male to HD15 female, handles any sync arrangement).....EYRGBS4-0006
DB9 Extension Cable (DB9 male to DB9 female, specify length).....EDN12H-MF
DB9 RS-232 Data-Line Surge Protector.....SP361A-R2

Call us about UPSes and AC-power surge protection; we'll help you determine the best equipment for your application.

Why Buy From Black Box? Exceptional Value. Exceptional Tech Support. Period.

Recognize any of these situations?

- You wait more than 30 minutes to get through to a vendor's tech support.
- The so-called "tech" can't help you or gives you the wrong answer.

- You don't have a purchase order number and the tech refuses to help you.
- It's 9 p. m. and you need help, but your vendor's tech support line is closed.

According to a survey by Data Communications™ magazine, 90% of network managers surveyed say that getting the

technical support they need is extremely important when choosing a vendor. But even though network managers pay anywhere from 10 to 20% of their overall purchase price for a basic service and support contract, the technical support and service they receive falls far short of their expectations—and certainly isn't worth what they paid.

At Black Box, we guarantee the best value and the best support. You can even consult our Technical Support Experts before you buy if you need help selecting just the right component for your application.

Don't waste time and money—call Black Box today.

