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Black Box Corporation.

BLACK BOX®
NETWORK SERVICES

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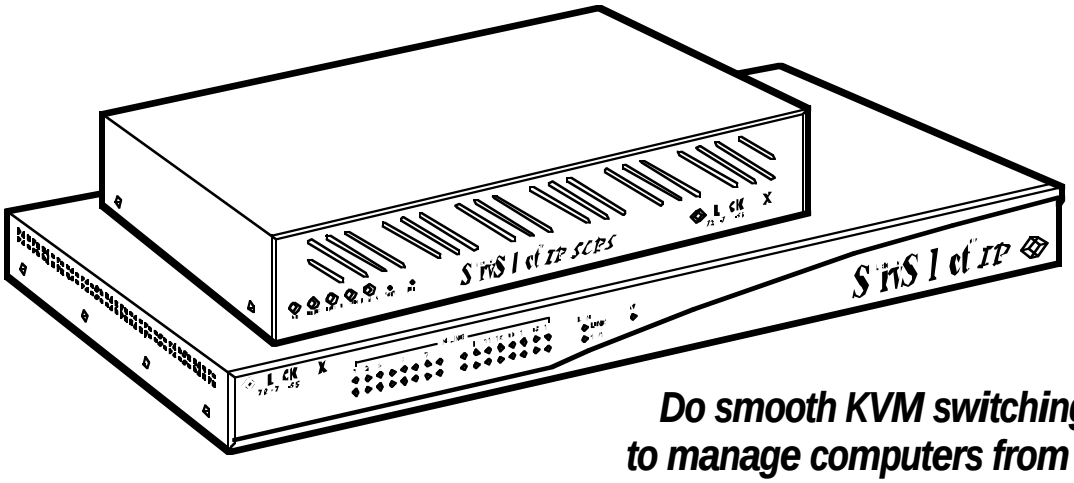
SERVSELECT IP AND SERVSELECT IP SCPS



Do smooth KVM switching over IP to manage computers from anywhere.

Key Features

- ***Choose IP-based or non-IP-based multiplatform KVM switching for global server control.***
- ***Supports one local user and one or two remote users at the same time.***
- ***Uses CAT5 cabling to connect to as many as 16 computer CPUs.***
- ***CPUs can be PS/2, USB, or Sun compatible.***
- ***Supports resolutions up to 1600 x 1280 for the local user or 1280 x 1024 for remote users.***

The servers go down. They call you. You drive into work, sit down at a keyboard/video/mouse (KVM)-switch user station, and send a simple set of commands to reboot the system. You drive home. So much for your other evening or weekend plans...

Sound familiar? Ever wonder why no one's managed to work out KVM-switch technology that would let you manage your servers from home—or, for that matter, from anywhere you need to be?

That technology is here at last. The ServSelect™ converts video, keyboard, and mouse data into IP packets and sends it down the hall or across the globe to logged-in users running a copy of the ServSelect IP's included software.

We offer two ServSelect IP models and two ServSelect IP SCPS models.

Both of the ServSelect IP models support one local analogue user station. However, one model (product code KV120A for the 120-VAC version or KV120E for the 230-VAC version) supports only one connection at a time to a remote digital user station. The other model (KV121A and KV121E) supports two simultaneous remote digital connections.

Each ServSelect IP has sixteen RJ-45 CPU ports from which you can run CAT5 cables to the locations of your computer CPUs and other devices. At the device end, the CAT5 cables connect to the CPUs through Server Access Modules (SAMs) that plug directly into the CPUs' keyboard, video, and mouse ports.

To remotely and securely manage the non-IP ports of any server, choose the ServSelect IP SCPS. It works with the non-IP ports of any server (email, FTP, Web, etc.) or data centre device (router, firewall, switch, etc.) by converting character-based serial data to standard IP traffic. The SCPS models concentrate the separate console connections of these elements into a single non-blocked high-speed network link under complete administrative control.

And the SCPS is operating system independent, so it can control virtually any hardware platform or OS that supports remote serial management (such as Linux, UNIX®, Sun Solaris®, and Windows servers).

SNMP management features and MIB-II traps and alarms alert administraters to user additions, logins, logouts, authentication failures, and the status of application image upgrades in process with the SCPS.

Even though the IP models don't have SNMP management, configuration and security is still simple. SAMs (used with the ServSelect IP models only—KV120A and KV121A) are available for IBM® PS/2® (KV125A), USB (KV126A), and Sun® (KV127A) models. (The Sun model is designed for VGA video; legacy Sun video will require an adapter.) All models have built-in memory that retains the assigned name and/or ID number of the attached server. This simplifies configuration (the system can rediscover the device names if computers are moved around) and enhances security (people can't gain unauthorised access by swapping cables). SAMs are powered directly by the CPU and provide "Keep Alive" mouse and keyboard verification even if the ServSelect IP isn't powered.

Control the IP via a local analogue monitor, keyboard, and mouse. These plug directly into the back of the ServSelect IP. The top video resolution and refresh rate at this station is 1600 x 1280 at 75 Hz.

Remote digital users reach the system through IP connections to the 10BASE-T or 100BASE-T Ethernet LAN to which the ServSelect IP or IP SCPS is attached. The top resolution and refresh rate at these stations is 1280 x 1024 at 75 Hz.

No special software or drivers are required on the switched computers, but to access the ServSelect IP system, digital users need to connect from a Windows based PC running a copy of the included software.

User PCs can be located anywhere they can make a valid Internet IP connection. This means that the ServSelect IP can be configured on a separate network from your other devices, allowing access to your servers even if your main application's network is down.

The ServSelect IP 's software is a cross-platform management application; see the list of compatible operating systems in the User Controls specification. It allows remote users to view video output from, and exercise keyboard/mouse control over, the ServSelect IP and all attached servers. The software supports secure authentication, data transfers, and username/password storage.

Because it has a browser interface for navigation with an intuitive split-screen display, the software gives users a single point of access for your entire system. While running it, they can configure or manage the ServSelect IP or launch a video session to a system server. Multiple servers can be accessed by each remote user; each CPU's video appears in a separate pane.

To keep your ServSwitch current, you'll need to upgrade. The ServSelect IP has a dedicated serial port for firmware upgrades. It also comes with mounting hardware if you want to put it in a standard 19" equipment rack.

If you need to control more than sixteen IBM compatible CPUs, you can create a cascaded system by attaching ServSwitch Multi Z8s (KV158A for the 120-VAC model, KV158AE for the 230-VAC model) to your ServSelect IP. Just run CAT5 cable to the Z8 and attach a SAM to its user-port connectors, the same way you would attach a CPU. Run ServSelect cables (EHN056) from the Z8 to the additional CPUs, and they'll be accessible to the local user or to remote users in the same way a directly attached CPU would be.

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

Recognise any of these situations?

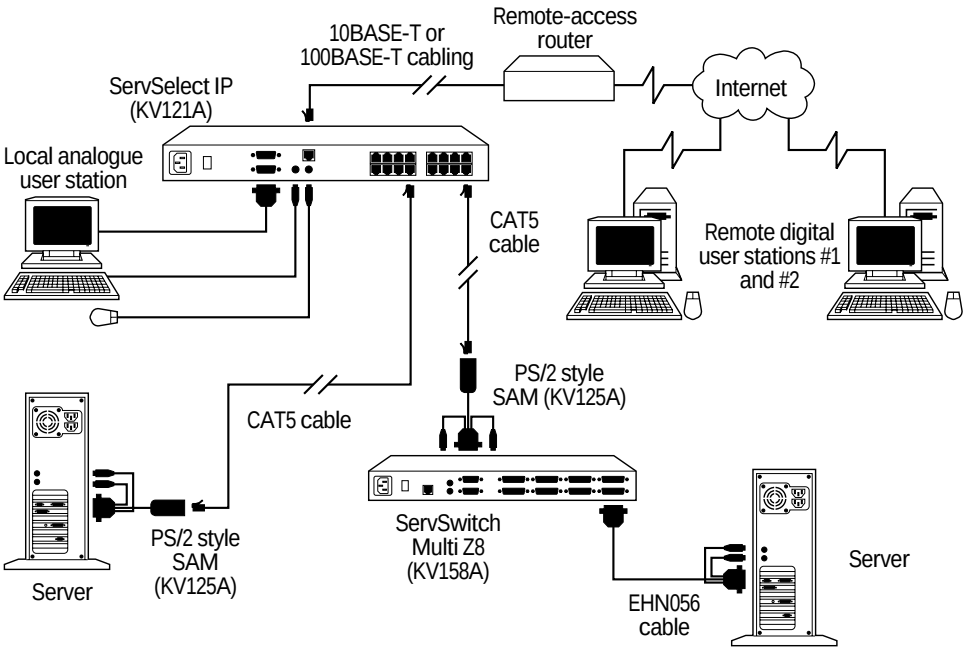
- You wait more than 30 minutes to get through to a vendor's tech support.
- The so-called "tech" can't help you or gives you the wrong answer.
- You don't have a purchase order number and the tech refuses to help you.

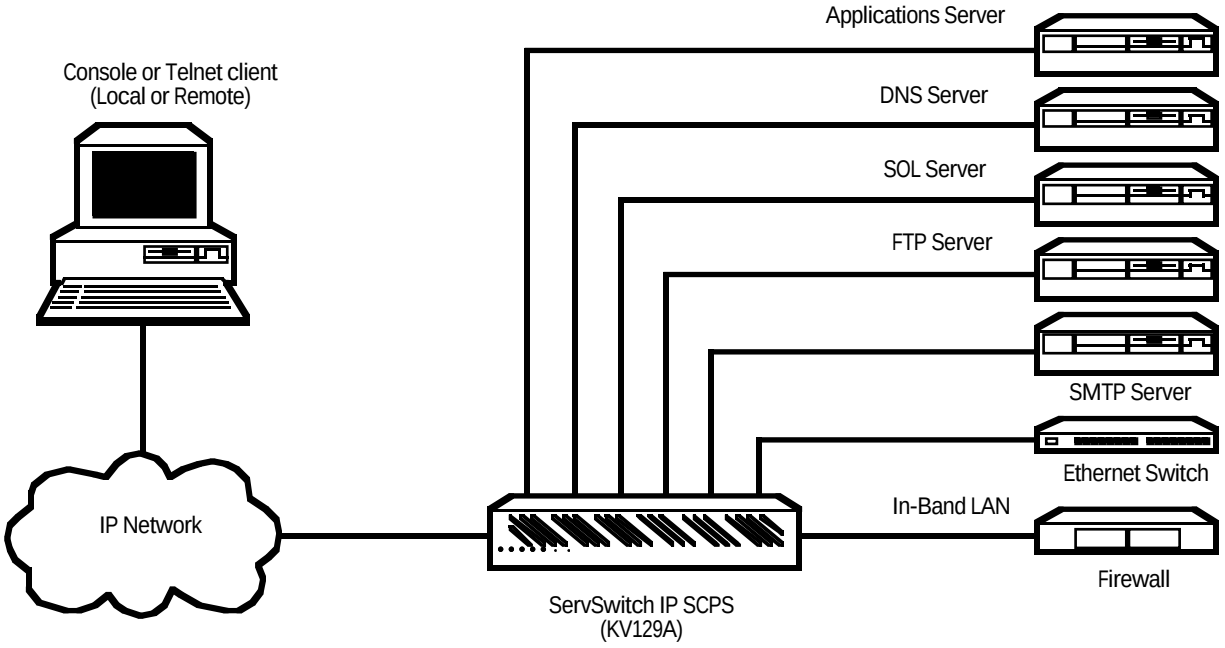
According to a survey by Data Communications magazine, 90% of network managers surveyed say that getting the technical support they need is extremely important when choosing a vendor. But even though network managers pay anywhere from 10 to 20% of their overall purchase price for a basic service and 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.

Keep your computers behind locked doors—even the computers that aren't directly on your LAN—and exercise keyboard and mouse control from wherever you happen to be.





Specifications

Compliance:
- EMI/RFI: CE (EN55022 Class A, EN55024, EN61000-3-3); FCC Part 15 Subpart B Class A, IC Class/classe A; VCCI Class A;
- Electrical safety: IEC950, EN60950, UL® 1950/60950 third edition, CSA C22.2 No. 950

Standards:
- Video: VGA, SVGA, XGA, XGA-2; supports Plug and Play DDC2B;
- LAN: IEEE 802.3 Ethernet and IEEE 802.3u Fast Ethernet

Maximum Distance:
- KVM:
  - 32.8 ft. (10 m) of CAT5 cabling from ServSelect IP to any attached CPU or Z8;
  - 50 ft. (15.2 m) of total cabling between local analogue user station and any attached CPU or Z8;
- Serial: 50 ft. (15.2 m) to attached device;
- LAN: 328 ft. (100 m) to the next device

Video Characteristics:
- Maximum resolution and refresh rate:
  - To local user station: 1600 x 1280 at 75 Hz;
  - To remote user stations: 1280 x 1024 at 75 Hz;
- Sync: Separate horizontal and vertical

User Controls:
- Included software (runs on Windows NT® 4.0 Workstation or Server SP6a; Windows® 2000 Workstation or Server SP2, Windows XP Home and Professional, or version 7.1 or higher of RedHat® Linux®;
- (1) Rear-mounted rocker switch for power

Interfaces:
- CAT5 to SAMs and CPUs: Proprietary composite of VGA video and IBM PS/2 keyboard and mouse;
- Video to local analogue monitor: VGA;
- Analogue keyboard and mouse (to local user station): IBM PS/2 compatible;
- LAN: 10BASE-T/100BASE-T;
- Serial: EIA/TIA RS-232 pinned as TIA-574 (IBM PS/2 compatible)

Connectors: KV120A, KV121A: All rear-mounted:
- (16) RJ-45 female to SAMs and CPUs;
- (1) HD15 female to local monitor;
- (2) 6-pin mini-DIN female to local keyboard and mouse;
- (1) RJ-45 female to LAN;
- (1) DB9 female to serial port or device;

KV129A: All rear-mounted:
- (8) RJ-45 serial female to CPUs;
- (1) HD15 female to local monitor;
- (2) 6-pin mini-DIN female to local keyboard and mouse;
- (1) RJ-45 female to LAN;
- (1) DB9 female to serial port or device;

KV119A: All rear-mounted:
- (16) RJ-45 serial female to CPUs;
- (1) HD15 female to local monitor;
- (2) 6-pin mini-DIN female to local keyboard and mouse;
- (1) RJ-45 female to LAN;
- (1) DB9 female to serial port or device

Indicators:
- Front-mounted LEDs:
  - (2) for each CPU port: (1) for CPU power, (1) for CPU selection;
  - (1) for LAN link integrity;
  - (1) for LAN data rate (10/100 Mbps);
  - (1) for device power

Temperature Tolerance:
- Operating: 50 to 122˚F (10 to 50ºC);
- Storage: -4 to +140˚F (-20 to +60˚C)

Humidity Tolerance:
- Operating: 20 to 80% noncondensing;
- Storage: 5 to 95% noncondensing

Thermal Dissipation: 92 BTU/hr.

Airflow Through Chassis: 8 cfm (0.2 m^3/min.)

Power: From AC outlet through detachable power cord to rear-mounted IEC 320 male inlet:
- Input: 100 to 240 VAC, 50 to 60 Hz (autosensing) at up to 1 amp (40 W maximum input power);
- Consumption: 25 W output power

Size: KV120A, KV121A: 1.75"H (1U) x 17"W x 11"D (4.4 x 43.2 x 27.9 cm);
KV129A, KV119A: 1.75"H (1U) x 8.75"W x 8"D (4.4 x 22.2 x 20.3 cm)

Weight: KV120A, KV121A: 8 lb. (3.6 kg); KV129A: 3 lb. (1.4 kg); KV119A: 5 lb. (2.3 kg)

Ordering Information

ITEM	CODE
ServSelect IP	
For one analogue user and one digital user	
120-VAC	KV120A
230-VAC	KV120E
For one analogue user and two digital users	
120-VAC	KV121A
230-VAC	KV121E
To connect to PS/2, USB, or Sun servers via the ServSelect IP, order…	
ServSelect IP Server Access Modules (SAMs)	
PS/2 style ([1] HD15 male, [2] 6-pin mini-DIN male)	KV125A
USB style ([1] HD15 male, [1] USB Type A male)	KV126A
Sun VGA style ([1] HD15 male, [1] 8-pin mini-DIN male)	KV127A
Adapter for legacy Sun video (HD15 female to 13W3 male)	ACD002
You might also need cables…	
RJ-45 (8-Wire) Modular Cables, Cross-Pinned	
4-ft. (1.2-m)	EL08M-04
7-ft. (2.1-m)	EL08M-07
14-ft. (4.3-m)	EL08M-14
25-ft. (7.6-m)	EL08M-25
For non-IP port management, choose…	
ServSelect IP SCPS	
8-Port	KV129A
16-Port	KV119A
To mount the ServSelect SCPS in a rack, order…	
ServSelect SCPS Rackmount Kit	RMK19I
For compatible connections, choose…	
ServSelect IP SCPS Adapters	
8-Wire RJ-45 to DB25 Male (DTE)	FA260
8-Wire RJ-45 to DB25 Female (DTE)	FA261
8-Wire RJ-45 to DB25 Male (DCE)	FA262
8-Wire RJ-45 to DB25 Female (DCE)	FA263
8-Wire RJ-45 to DB9 Male (Emulates PC at Serial Port)	FA264
8-Wire RJ-45 to DB9 Female (Connects to PC at Serial Port)	FA265
You might also need…	
CAT5 UTP to LAN or for KVM links to SAMs and CPUs (24-AWG stranded, 4-pair, PVC)	
Unterminated bulk cable, 250 ft. (76.2 m)	EVNSL05A-0250
Terminated patch cable (molded RJ-45 male to male, TIA-568B, straight-through-pinned, specify length)	EVNSL25
For cascading, choose…	
ServSwitch Multi Z8	
120-VAC	KV158A
230-VAC	KV158AE
ServSelect Cable (to attach CPUs to the Z8), 8-ft. (2.4-m)	EHN056-0008
Protect your equipment from surges with…	
Data-Line Surge Protectors	
Keyboard and mouse (6-pin mini-DIN female to male)	SP519A-R2
10/100BASE-T (RJ-45 female to male)	SP512A-R3
RS-232 (DB9 male to female)	SP361A-R2

Call Black Box Tech Support for help determining your best options for AC-power protection.