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Thank you for purchasing a BLACK BOX® ServSwitch™ Brand KVM-switch accessory! We appreciate your business, and we think you'll appreciate the many ways that your upgraded ServSwitch keyboard/video/mouse switch will save you money, time, and effort.

That's because our ServSwitch family is all about breaking away from the traditional, expensive model of computer management. You know, the one-size-fits-all-even-if-it-doesn't model that says, "One computer gets one user station, no more, no less." Why not a single user station (monitor, keyboard, and mouse) for multiple computers—even computers of different platforms? Why not a pair of user stations, each of which can control multiple computers? Why not multiple user stations for the same computer?

With our ServSwitch products, there's no reason why not. We carry a broad line of robust solutions for all these applications. Do you have just two PCs, and need an economical alternative to keeping two monitors, keyboards, and mice on your desk? Or do you need to share dozens of computers, including a mix of IBM® PC, RS/6000®, Apple® Macintosh®, Sun Microsystems®, and SGI® compatibles among multiple users with different access levels? Does your switch have to sit solidly on a worktable and use regular everyday cables? Or does it have to be mounted in an equipment rack and use convenient many-to-one cables? No matter how large or small your setup is, no matter how simple or how complex, we're confident we have a ServSwitch system that's just right for you.


The ServSwitch™ family from Black Box—the one-stop answer for all your KVM-switching needs!

*

This manual will tell you all about your new User Interface Card with On-Screen Display for ServSwitch Multi™, including how to install, operate, and troubleshoot it. For an introduction to the Card itself, see **Chapter 1**. The User Interface Card with On-Screen Display product code covered in this manual is:

KV2550C-R3

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This equipment generates, uses, and can radiate radio-frequency energy, and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

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

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 Industry Canada.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique publié par Industrie 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 su 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 alcance de fuentes de calor como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que producen calor.
11. El aparato eléctrico deberá ser conectado 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 física 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 líneas de energía.
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 objetos líquidos 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: Objetos 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.

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1. Introduction

1.1 General Overview

With the ServSwitch Multi™ system (the KV150 through KV170 series of product codes), multiple users at your site can operate sets of IBM® PC compatible or RISC System/6000® (RS/6000®), Apple® Macintosh®, Sun Microsystems®, Silicon Graphics® (SGI®), or Hewlett-Packard® (HP®) computers at the same time. Each ServSwitch Multi supports different types of external connections through a variety of plug-in cards.

One of these types of plug-in cards is the User Interface Card with On-Screen Display, our product code KV2550C-R3. It is one of the components through which you will attach each of your sets of console (user-station) equipment.

Chapter 2 of this manual tells you how to install these Cards and how to attach their associated User Cables and peripheral equipment; **Chapter 4** tells you how to operate its on-screen display and security features.

1.2 The Card and User Cable Illustrated

Except for the local console on each Base Unit, you will need one User Interface Card for each console you plan to attach to a ServSwitch Multi. The User Interface Card with On-Screen Display, shown in Figure 1-1, has an HD62 (high-density 62-pin D-subminiature) female connector that functions as a single composite interface for all I/O to and from the attached console.

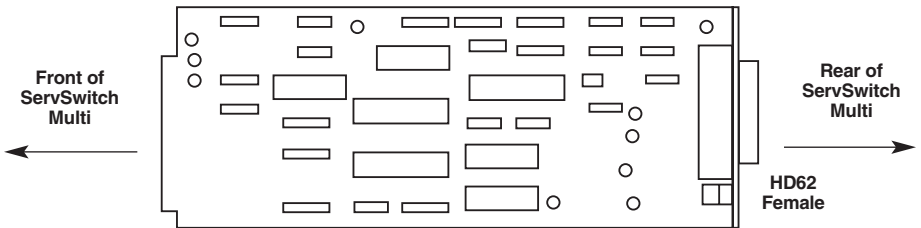


Figure 1-1. The User Interface Card with On-Screen Display.

You will run a one-foot (0.3-m) or ten-foot (3-m) User Cable, like the one shown in Figure 1-2, from the User Interface Card to the attached user station.

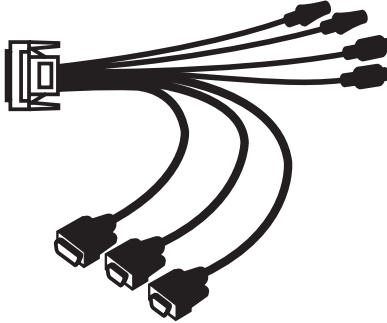


Figure 1-2. User Cable (KV2450 shown).

2. Installation

2.1 Installing the Card

To install a User Interface Card with On-Screen Display (product code KV2550C-R3) in a ServSwitch Multi chassis, take these steps:

1. Position the Multi chassis so that its rear panel is facing you, as shown in Figure 2-1 on the next page. Choose an available slot. In most cases, any slot that is covered with a blank (connectorless) panel will be available. However, note that on the Base Unit (KV150A-R2) and MX (KV155A), the local-console module on the far left end of the Switch's rear panel *is* covered by a blank panel but *is not* an available slot; no ServSwitch Multi Card of any type can be installed in that slot. On the Base Unit, remember that the option slot (the slot just to the right of the local-console module, which has no corresponding front-panel LED or pushbutton) *is* an available slot and should host a User Interface Card, Expansion Card, etc., rather than a CPU Interface Card.
2. Once you've chosen the slot, write down the letter of the corresponding channel in the "Channel" field of this Card's record in a copy of the User Interface Cards pages of the System-Configuration Chart (see the "Configuration Charts" appendix in your ServSwitch Multi manual). At this time you should also write down what appears on the Card's label (just to the right of the HD62 connector if you look at the connector from the rear) in the Chart's "Card-Label Information" field, and (if the ServSwitch Multi unit is part of a cascaded system) you should write down the Switch's address in the "Switch Address" field as well.
3. Remove the panel covering the available slot by unscrewing the two Phillips-head screws that hold it in place. (Save these screws; you'll be replacing them momentarily.)

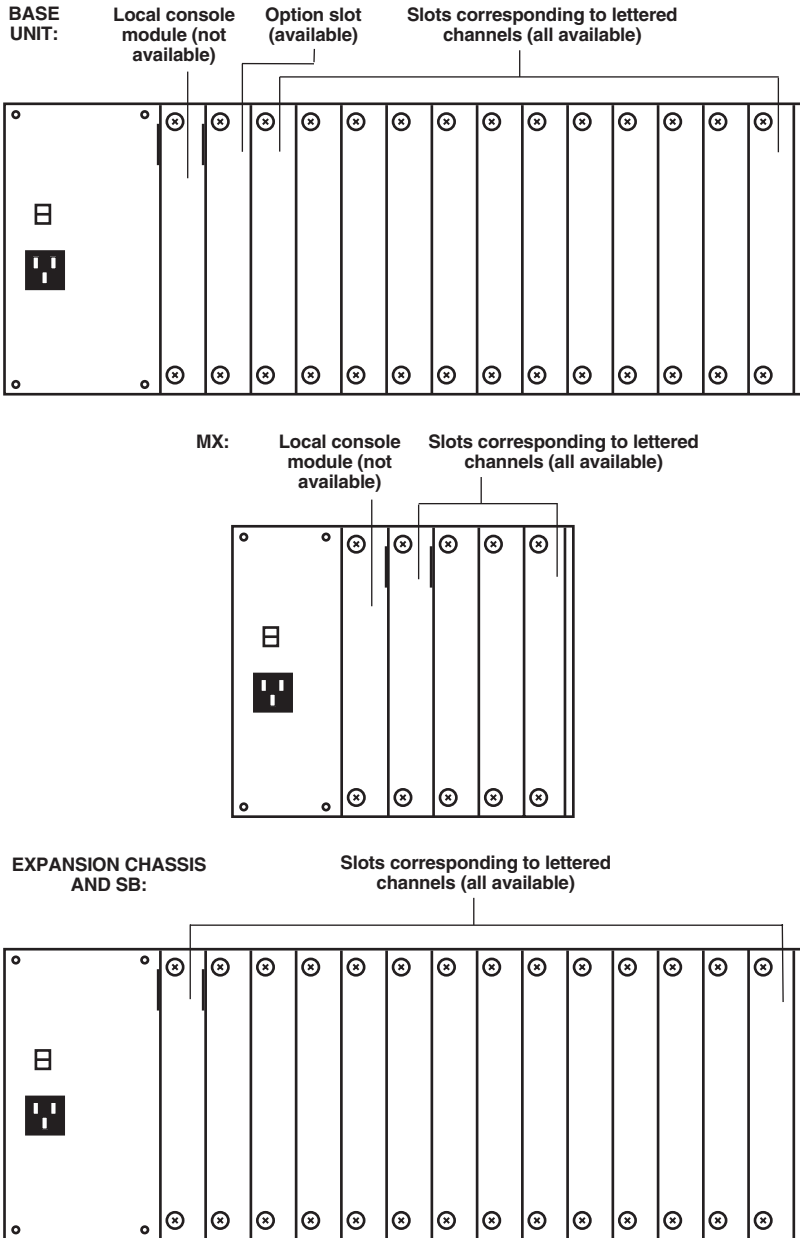


Figure 2-1. The ServSwitch Multi rear panels (as shipped from the factory).

4. If you look into the open slot on the Switch, you will see “guide tracks” that the top and bottom of the Card should slide along when you install it. Slide the User Interface Card gently into the slot along these tracks, until the Card’s HD62 connector lines up flush with the back of the unit, as shown in Figure 2-2.

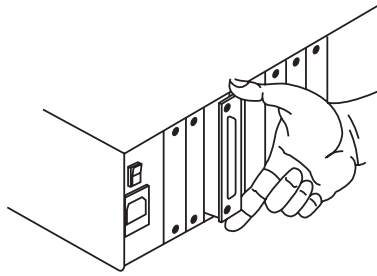


Figure 2-2. Inserting a User Interface Card in the Switch.

5. Secure the Card in the Switch with the screws you removed in step 3. Retighten the screws completely, but do *not* overtighten them.

Repeat the above procedure for every User Interface Card with On-Screen Display in your system.

2.2 Connecting the User Cables and Console Equipment

To connect your console equipment to the User Interface Card with On-Screen Display, you'll need an appropriate User Cable. These cables are 1 foot (0.3 m), 10 feet (3 m), or 20 feet (6.1 m) long and have an HD62 male connector on one end. They have different numbers of connectors on the other end, depending on the options you ordered (see Table 2-1 on the next page and the corresponding subsections on the following pages). In order to connect a non-multisync monitor, you'll also need a special adapter; see **Section 2.2.4**.

Things to be aware of when you make User Cable connections of any type:

- As you attach the console equipment to each User Interface Card, finish filling out the Card's record in the System Configuration Chart (see the "Configuration Charts" appendix in your ServSwitch Multi manual).
- The Cable's audio-strand connectors are very similar to each other, but the microphone strand has a blue band around it so that you can tell the two apart.
- Similarly, on some versions of the Cable, the mouse-strand connector is the same as the connector on the keyboard strand or serial-device strand. On these Cable versions, the mouse strand has a yellow band around it so you can tell it apart.
- Some speakers, headphones, and microphones have plugs and jacks different from the type that the ServSwitch Multi's audio cables are designed for. If this is the situation with your audio equipment, you will need adapters to connect your equipment to the ServSwitch Multi system. These adapters are commonly available; call your local electronics-supply store for more information.
- For serial connections, if you want to connect an Apple device or a serial device with a connector other than a DB9 female, see the "Making Nonstandard Serial Connections" appendix in your ServSwitch Multi manual.

Table 2-1. Product codes for User Cables.

Platform	Product Codes			
	1' (0.3-m) Standard	1' (0.3-m) w/ Audio	10' (3-m) w/ Audio	20' (6-m) w/ Audio
IBM PS/2 or PC/AT (Section 2.2.1)	KV2505	KV2515	KV2545	KV2585
Apple Macintosh (Section 2.2.2)	KV2700	KV2710	KV2740	N/A
Sun Microsystems (Section 2.2.3)	KV2800	KV2810	KV2840	KV2880

2.2.1 FOR IBM STYLE KEYBOARD AND MOUSE PORTS

If you are using an IBM PS/2® or PC/AT® style keyboard and a PS/2 or serial mouse, the User Cable you'll need will be labeled KV2505, KV2515, KV2545, or KV2585 depending on the options you ordered (see Table 2-1 on the previous page). The cable will have these console-end connectors:

**KV2505 cable
will have:**



**HD15 female
to VGA monitor**



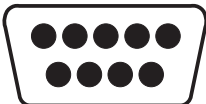
**5-pin DIN female
to PC/AT keyboard**



**6-pin mini-DIN female
to PS/2 keyboard**



**6-pin mini-DIN female
to PS/2 mouse
(yellow band)**



DB9 M to serial mouse

**KV2515, KV2545, and KV2585 cables
will have:**



**HD15 female
to VGA monitor**



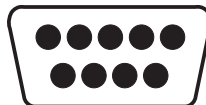
**5-pin DIN female
to PC/AT keyboard**



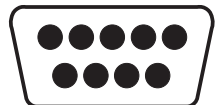
**6-pin mini-DIN F
to PS/2 keyboard**



**6-pin mini-DIN F
to PS/2 mouse
(yellow band)**



**DB9 male
to serial mouse
(yellow band)**



**DB9 male
to other
serial device**



**3.5-mm F (mono)
to microphone
(blue band)**



**3.5-mm F (stereo)
to speakers
or headphones**

USER INTERFACE CARD W/ ON-SCREEN DISPLAY FOR SERVSWITCH MULTI™

To install your cabling and IBM type console equipment, first plug the User Cable's HD62 connector into the matching connector on the User Interface Card. When you're sure the connection is firmly seated, secure it by tightening the associated thumbscrews.

Now plug the cables from your PS/2 style keyboard, your PS/2 or serial mouse, and your VGA monitor into the matching connectors on the User Cable. (You might be able to use your non-multisync RS/6000, SGI, or HP monitor instead; see **Section 2.2.4.**) If the User Cable is an audio type, it will have three additional connectors: two 3.5-mm jacks for a mono microphone and stereo speakers or headphones, and a DB9 male connector for a serial device. Attach any appropriate equipment as desired.

2.2.2 FOR APPLE MACINTOSH STYLE KEYBOARD AND MOUSE PORTS

If you are using an Apple Macintosh style (ADB™, Apple Desktop Bus™) keyboard and an ADB or RS-232 mouse, the User Cable you'll need will be labeled KV2700, KV2710, or KV2740 depending on the options you ordered (see Table 2-1 on page 14; the audio cable comes in 1-ft. [0.3-m] and 10-ft. [3-m] lengths only). The cable will have these console-end connectors:

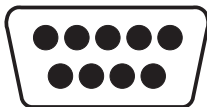
**KV2700 cable
will have:**



**HD15 female
to multisync monitor**



**4-pin mini-DIN female
to ADB keyboard
and mouse**



**DB9 male
to serial mouse**

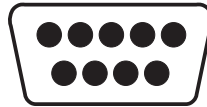
**KV2710 and KV2740 cables
will have:**



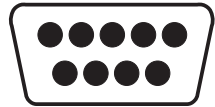
**HD15 female
to multisync
monitor**



**4-pin mini-DIN F
to ADB keyboard
and mouse**



**DB9 male
to serial mouse
(yellow band)**



**DB9 male
to other
serial device**



**3.5-mm F (mono)
to microphone
(blue band)**



**3.5-mm F (stereo)
to speakers
or headphones**

To install your cabling and Mac® type console equipment, first plug the User Cable's HD62 connector into the matching connector on the User Interface Card. When you're sure the connection is firmly seated, secure it by tightening the associated thumbscrews.

Now plug the cables from your ADB keyboard and mouse and from your multisync monitor into the matching connectors on the User Cable. (In a multiplatform application, you'll *have to* plug a PC-type RS-232 serial mouse into the Cable's serial-mouse connector and use that instead of the ADB mouse. This is

because one-button Apple mice can't perform all of the functions of two- or three-button mice. Also, note that the stock cable is designed to connect to a multisync monitor rather than an Apple monitor; a multisync monitor will be necessary in most situations, because most people who have Apple computers in their system have PCs as well. However, if your Mac monitor is capable of syncing to and displaying the video output of all of your computers, you can use the KV16MAC adapter to connect it to the system; see **Section 2.2.4.**)

If the User Cable is an audio type, it will have three additional connectors: two 3.5-mm jacks for a mono microphone and stereo speakers or headphones, and a DB9 male connector for an RS-232 serial device. Attach any appropriate equipment as desired.

2.2.3 FOR SUN MICROSYSTEMS STYLE KEYBOARD AND MOUSE PORTS

If you are using a Sun Microsystems style keyboard and mouse, the User Cable you'll need will be labeled KV2800, KV2810, KV2840, or KV2880 depending on the options you ordered (see Table 2-1 on page 14). The cable will have these console-end connectors:

KV2800 cable will have:



HD15 female to multisync monitor

KV2810, KV2840, and KV2880 cables will have:



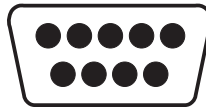
HD15 female to multisync monitor



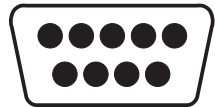
8-pin mini-DIN F to Sun keyboard and mouse



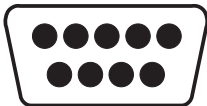
8-pin mini-DIN female to Sun keyboard and mouse



DB9 male to serial mouse (yellow band)



DB9 male to other serial device



DB9 male to serial mouse



3.5-mm F (mono) to microphone (blue band)



3.5-mm F (stereo) to speakers or headphones

To install your cabling and console equipment at each Sun® type secondary console, first plug the User Cable's HD62 connector into the matching connector on the User Interface Card. When you're sure the connection is firmly seated, secure it by tightening the associated thumbscrews.

Now plug the cables from your Sun keyboard, your Sun or serial mouse, and your multisync monitor into the matching connectors on the User Cable. (Note that the stock cable is designed to connect to a multisync monitor rather than a Sun monitor; a multisync monitor will be necessary in most situations, because most people who have Sun computers in their system have PCs as well. However, if

your Sun monitor is capable of syncing to and displaying the video output of all of your computers, you can use the KV16SUN adapter to connect it to the system; see **Section 2.2.4.**)

If the User Cable is a multimedia type, it will have three additional connectors: two 3.5-mm jacks for a mono microphone and stereo speakers or headphones, and a DB9 male connector for a serial device. Attach any appropriate equipment as desired.

2.2.4 CONNECTING NON-MULTISYNC MONITORS

Most ServSwitch Multi applications that involve more than one hardware platform will require multisync monitors for all user stations, because PC, Mac, and Sun computers typically use sets of resolutions and refresh rates that differ greatly from one another. But if all of your computers are from the same platform, or if your platform-dedicated non-multisync monitor is nonetheless able to handle the video output of all your computers, we offer various adapters that will let you connect your monitor to the ServSwitch Multi. (Be aware that, in order to use a UICD's on-screen display with a non-multisync monitor, you'll probably have to change the display's default synchronization. See **Section 4.5**.)

To use a Mac monitor: Connect your user equipment as directed in **Section 2.2.2**, with this exception: Plug the HD15 male side of a KV16MAC adapter into the HD15 female end of the video strand of your KV27x0 cable, then plug the DB15 male end of your Mac monitor's input cable into the adapter's DB15 female side.

To use a Sun monitor: Connect your user equipment as directed in **Section 2.2.3**, with this exception: Plug the HD15 male side of a KV16SUN adapter into the HD15 female end of the video strand of your KV28x0 cable, then plug the 13W3 male end of your Sun monitor's input cable into the adapter's 13W3 female side.

To use an RS/6000 monitor with 13W3 connectors, an RS/6000 or other monitor with 3C3 connectors, an SGI monitor, or an HP or other monitor with three BNC connectors: Connect your user equipment as directed in **Section 2.2.1**, with this exception: Plug the HD15 male side of the appropriate adapter into the HD15 female end of the video strand of your KV25x5 cable, then plug the monitor cable into the adapter's female side:

- KV16RS6-1 for RS/6000 (HD15 M to 13W3 F);
- KV163C3-1 for RS/6000 etc. (HD15 M to 3C3 F);
- KV16SGI-1 for SGI (HD15 M to 13W3 F); or
- KV16BNC for HP etc. (HD15 M to triple BNC F).

2.2.5 CONNECTING DUAL MONITORS

If your computer supports dual video outputs (dual monitors), you can use the User Interface Card with On-Screen Display to run video to the second monitor through the ServSwitch Multi. You must be logged on as the administrator (see **Section 4.1.2**) to configure this option (see **Sections 4.3.1.A** and **4.4.3.H**). Here are the ServSwitch Multi components that you'll need:

- Two Autosensing CPU Interface Cards (KV2000C), one to handle the computer's primary video stream and one to handle the secondary video. These Cards must be installed side by side in the Switch chassis, with the Card that will be handling the secondary video having the higher address. For example, if the computer's primary video output is going to a CPU Card installed in channel 1B, the CPU Card handling the secondary video *must* be installed in channel 1C. For directions on installing CPU Interface Cards, see the "Installing CPU Interface Cards" section of your ServSwitch Multi manual.
- One User Interface Card with On-Screen Display (KV2550C-R3) to send output to the primary monitor and one Universal User Interface Card (UUIIC, KV2500C) to send output to the secondary monitor. These two Cards don't have to be next to each other, but they should be installed in the same Switch chassis. For directions on installing User Interface Cards, see **Chapter 2** of this manual (these instructions apply to UUIICs as well).
- Two each of the appropriate Server Cables and User Cables for your platform and application.
- If you're running PC type Server Cable (KV20xx or KV20xx-R2; see the "Connecting Server Cables" section of your ServSwitch Multi manual) between the computer's secondary video output and the secondary CPU-Interface Card, you'll also need a Loopback Mouse Adapter (product code KV16LOOP). This Adapter makes it possible for the ServSwitch Multi to recognize the secondary video connection as a valid CPU channel.

Once you have the Cards installed, here's how to make the dual monitor connections (refer to Figure 2-3 on the next page):

1. Use your first Server Cable to connect your computer to the primary CPU Interface Card as you would connect any other computer (see the "Connecting Server Cables" section of your ServSwitch Multi manual), but make sure you attach the Server Cable to the computer's primary video-output port.
2. Run your second Server Cable from the computer's secondary video-output port to the second CPU Interface Card: Attach the Cable's HD44 male end to the Card's HD44 female port, but at the computer end, attach only one strand of the Cable—the one that plugs into the secondary video port—to the computer. (If the cable is a KV20xx or KV20xx-R2 PC type, attach the Loopback Mouse Adapter to the mouse strand of this cable.)

3. Run your first User Cable from your UICD to your primary monitor and other user equipment as you would connect any other user station (see **Chapter 2**).
4. Run your second User Cable from your UUIC to the secondary monitor: Attach the Cable's HD62 male end to the Card's HD62 female port, then plug the secondary monitor's video-input cable into the video strand at the other end of the cable; leave all of the other strands unattached.

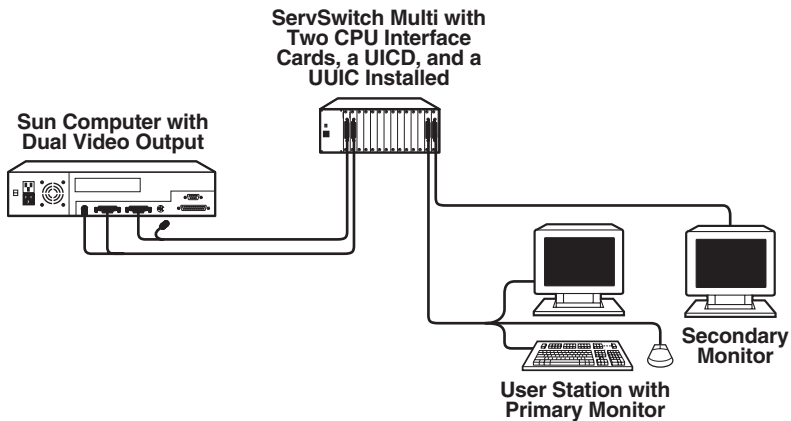


Figure 2-3. A Dual-Monitor ServSwitch Multi system.

Once you have all of the components of your entire ServSwitch Multi system installed, you will need to use the UICD to enable the dual-monitor setup. Here's how to do so:

1. If you haven't yet added the dual-monitor computer to the Switch's on-screen configuration records, follow the instructions for doing so in **Section 4.3.1.A**. If you *have* previously entered the computer into the on-screen configuration, follow the instructions for editing that computer's record in **Section 4.3.1.B**. In either case, when you reach the "Dual Video" feature, press the space bar to enable it.
2. Enter the Administrator-Controls Menu (see **Section 4.4**) and select the "System Configuration" option. Page down and highlight the "Dual Monitor Support Card Address" field (see **Section 4.4.3.H**). Enter the address of the UUIC that the secondary monitor is attached to. Until you enter a value in this field, dual-monitor support is still disabled regardless of what you did in step 1.

3. Starting Operation

3.1 Checking the Channel LED(s)

When you are finished with installation, check the front-panel LED(s) of the ServSwitch Multi user channel corresponding to the User Interface Card that you've just installed:

Base Unit or MX:	Expansion Chassis or SB:		
	Green LED	Amber LED	
OFF	OFF	N/A	The User Interface Card is not installed correctly.
ON	ON	N/A	The User Interface Card is installed correctly and operating normally.
BLINKING	BLINKING	N/A	The User Interface Card is installed correctly and operating in Command Mode (see the "Basic Operation" section of your ServSwitch Multi manual).

If the appropriate LED is ON, showing that the new Card is working, you can operate the ServSwitch Multi as normal. For more information on doing so, including descriptions of the Switch's many operating functions and keyboard commands, see the "Operation" chapter of your ServSwitch Multi manual.

3.2 If You Have Difficulty

If you have difficulty installing the User Interface Card with On-Screen Display, or if you notice something wrong when you try to operate your ServSwitch Multi system after installing the Card, try to find an entry for the problem in the "Common Problems" section of your ServSwitch Multi manual and take the steps recommended there. If you don't see any entry that might apply to the trouble you're having, or if none of the recommended actions solve the problem, see **Chapter 5** of this manual or the "Calling Black Box" and "Shipping and Packaging" sections of the ServSwitch Multi manual.

4. Using the On-Screen Display

4.1 Display Overview

4.1.1 FEATURES

The User Interface Card with On-Screen Display (“UICD” for short) adds on-screen menus and other advanced features to the ServSwitch Multi. With the UICD’s on-screen displays, you can quickly and easily identify the servers attached to the ServSwitch Multi and select ones to interact with. Name your servers for easy recognition, then select them from a pop-up menu. You can keep the name of your currently selected server on screen at all times, or for just the first few seconds after you make a new selection. With other control features, you can manage your scanning and broadcast operations on-screen as well.

You can define as many as 32 user profiles for each UICD. Use the Card’s advanced bi-level security-setup features to configure and control server access for each defined user in the system. The administrator has full access privileges; other users have viewing, viewing/editing, or full viewing/editing/power-control access to each attached server.

For additional security, you can turn on the UICD’s inactivity-logout feature. When this is turned on for a given console, once a period of user inactivity (from 1 to 60 minutes—see **Section 4.3.2.A**) elapses, that user’s currently selected channel is deselected and his or her monitor screen goes blank. The user must log in again to regain system access.

4.1.2 LOGGING IN AND OUT OF THE SYSTEM

To log into the ServSwitch Multi’s on-screen display system from its User Login screen, enter your assigned user name and password (or, if you’re the system administrator, your administrator name and password—see **Section 4.3.2.A**).

When you are finished working with the Switch, activate the on-screen display (if it isn’t already active) and press the [F10] key. The User Login screen will appear again. That’s all there is to it; you or any other user will have to log back in to continue working on the system.

4.1.3 KEYPAD INTERPRETATION

While you are working with the UICD's on-screen display system, you can choose how the Card interprets the numeric keys in the keypad section of your keyboard by turning Num Lock ON or OFF:

- While Num Lock is ON, keypad keys [1] through [9] are normally interpreted as numbers but are interpreted as cursor-movement (arrow) keys while you press and hold [Shift].
- While Num Lock is OFF, keypad keys [1] through [9] are normally interpreted as cursor-movement (arrow) keys, but are interpreted as numbers while you press and hold [Shift].

In addition, in any situation in which keys [1] through [9] are being interpreted as arrow keys, the [0] (zero) key is interpreted as [Ins] (insert). (The keypad behaves slightly differently when you use it to set up the ID window; see **Section 4.3.1.D**.)

4.2 The On-Screen Menus

The UICD's on-screen display consists of four main windows: the Channel-List Menu, the User-List Menu (for the administrator only), the User/Administrator-Controls Menu, and the Command-Line-Entry Window. To access the Channel-List Menu, press either [Ctrl] (control) key on the shared keyboard twice within one second; press [Alt] + [Tab] to cycle through the remaining menus. While you're in the on-screen display system, you can press [F1] at any time for context-sensitive help.

Certain menus and commands within the on-screen display are only available if you're logged in as the system administrator. Any options that can only be used by system administrators will be covered in **Sections 4.3** and **4.4**. The rest of **Section 4.2** deals with menus and options that can be accessed by all system users.

4.2.1 THE CHANNEL-LIST MENU

Once you have logged into the ServSwitch Multi's on-screen display system, the Channel-List Menu (shown in Figure 4-1 on the next page) is the first menu displayed. After login, you may activate the Channel-List Menu by pressing either of the keyboard's [Ctrl] keys twice within one second. This menu lists all named computer channels in your system with their ServSwitch Multi channel addresses and access status. The administrator will always have full access to every server; for full descriptions of all of the administrator's options at the Channel-List Menu, see **Section 4.3**. Individual user profiles will have varying degrees of access, determined by the system administrator. Only the channels that are included in a user's profile will be listed. (See **Section 4.4** for more details.)

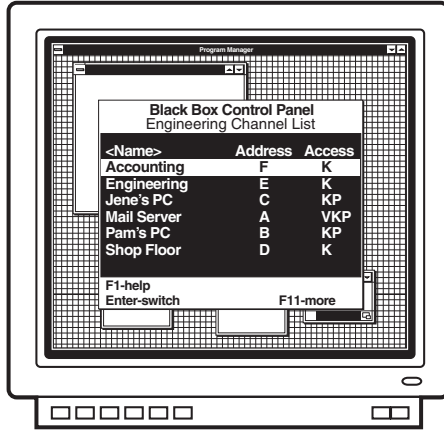


Figure 4-1. The Channel-List Menu.

This menu shows the name of, ServSwitch Multi address of, and individual access privileges for, each server. (Access privileges are shown as “V,” “K,” and “P”—see Table 4-3 at the end of **Section 4.3.2**.) Use the keyboard’s up- and down-arrow keys and the page-up and page-down keys to select a channel. You can move immediately to the top or bottom of the list with the [Home] and [End] keys. Press [Enter] to switch to your selected channel. To exit the on-screen display without changing channels, press [Esc].

The white bar at the bottom of the menu lists all of the available menu options; use the [F11] key on the shared keyboard to scroll through them (see Table 4-1 on the next page for the user options; see Table 4-2 following **Section 4.3.1.D** for the administrator options).

To switch to a channel normally, simply highlight that channel and press [Enter]. To switch to a channel in Privacy Mode (see the “Privacy Mode” section of your ServSwitch Multi manual), highlight that channel and press [Alt] and [Enter] at the same time. If the system is unable to switch you to that channel, a window that says “Unable to select channel” will appear, followed by one of these messages:

- Reason: Channel did not respond
This means that the channel does not exist or has nothing attached to it.
- Reason: Switch blocked, all links in use
This means that the channel is on another chassis and other users are already using all available expansion-cable links to that chassis.
- Reason: Switch blocked, all video paths in use
This means that other users are already using all of the available video-signal pathways in that channel’s chassis.

To sort the channel list by name, press the [+] key *on the keypad* of the shared keyboard while the Channel-List Menu is on screen. To sort the list by address, press the keypad's [-] key. (The [+] and [-] keys on the top row of the keyboard will not be recognized.) The "<" and ">" symbols will bracket the Menu's "Name" or "Address" heading to show which of the two characteristics the list is currently sorted on.

You can also search the channel list. These searches will be based on sort order: If the list is currently sorted by Name, you can search the names, or if the list is currently sorted by Address, you can search the addresses. To perform a search, bring up the Channel-List Menu and sort the entries as desired. Next type the first letter or number of the name or address you want to search for, then the second, and so on. For example, if the list were sorted by name, typing "M" would move the cursor to the names that begin with the letter "M"; proceeding to type an "A" would move the cursor to the names that begin with "MA"; and you could continue adding characters until you reached your desired entry.

Table 4-1. Keypress-driven options available to all users at the Channel-List Menu.

Press This Key Sequence...	...To Do This
[F1]	Get context-sensitive help.
[F10]	Log out of the ServSwitch Multi system. The user-login screen will appear; you must log back in to the system to continue operation.
[F11]	See more options.
[Enter]	Switch to the highlighted channel.
[Alt] + [Enter]	Switch to the highlighted channel in privacy mode. For more information on privacy mode, refer to the "Privacy Mode" section of your ServSwitch Multi manual.
[Alt] + [Tab]	Cycle through the available menus.

4.2.2 THE USER-LIST MENU (ADMINISTRATOR ONLY)

The administrator can access the User-List Menu by pressing [Ctrl] twice, then [Alt] + [Tab]. This menu displays the names, timeouts (in minutes), and password statuses of all system users. (The timeout is the number of minutes a station can remain inactive before the user is automatically logged out of the ServSwitch Multi system.)

This menu only appears if you are the system administrator. For descriptions of the options available in this menu, see **Section 4.3.2**.

4.2.3 THE USER/ADMINISTRATOR-CONTROLS MENU

You can access this menu (shown as the User-Controls Menu in Figure 4-2) by pressing the [Ctrl] key twice, then pressing [Alt] + [Tab]. (System administrators will have to press [Alt] + [Tab] twice, because they have to bypass the User-List Menu—see **Section 4.2.2**.) If you are logged in as a user, you will see this menu as the User-Controls Menu; it will have the four options “Scanning,” “Menu Activation,” “Switch Alt. User Module,” and “Control Alt. User Module” that are described in the following subsections. If you are logged on as the system administrator, you will see the expanded options of the Administrator-Controls Menu instead (see **Section 4.4**).

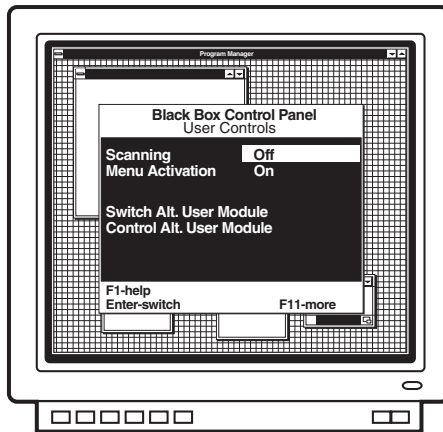


Figure 4-2. The User-Controls Menu.

4.2.3.A Scanning

To activate scanning through the User-Controls Menu (which you can also do through keyboard commands—see the “Channel Scanning” section of your ServSwitch Multi manual), first highlight the “Scanning” option. Then use the space bar to cycle through the available scanning options: “Off,” “By address,” and “By name.” Press [Enter] to select your desired choice.

4.2.3.B Menu Activation

To enable or disable the activation of the on-screen display system with any of the normal preprogrammed key sequences ([Ctrl] twice, [Alt] twice, or [Shift] twice), first highlight the “Menu Activation” option. Then press the space bar to toggle between “On” (activation enabled) and “Off” (activation disabled). Press [Enter] to select your desired choice. Be aware that if you disable normal menu activation, the only way to get back into the on-screen display system is to press the <CM> Command Mode hotkey sequence (see the “Keystroke Notation” and “Choosing an Alternate Hotkey” sections in the ServSwitch Multi manual) to bring up the Command-Line Entry Window (see **Section 4.2.4** of this manual); from there pressing [Alt] + [Tab] will cycle through the other menu screens as normal.

4.2.3.C Switch Alt. User Module

To remotely switch another User Interface Card—which can be a UUIC or UICD—to a specific channel, take these steps:

1. Highlight the “Switch Alt. User Module” option in the User-Controls Menu and press [Enter].
2. Enter the chassis address of the remote User Interface Card.
3. If the remote User Interface Card that you want to switch is a UICD, enter the administrator password for that Card. If the remote module is a UUIC or local-console module, leave this field blank.
4. Enter the chassis address for the computer channel you want the remote User Interface Card to switch to.
5. If the remote User Interface Card is a UICD, use the space bar to cycle through the access options. Select the access you want the remote Card to have when the computer is selected. If the remote Card is a UUIC or local-console module, this field is not applicable.
6. Press [Enter] to accept your selections. The remote Card will now switch to the designated computer channel.

4.2.3.D Control Alt. User Module

To remotely enter a command for another User Interface Card—which can be a UUIC or UICD—take these steps:

1. Highlight the “Control Alt. User Module” option in the User-Controls Menu and press Enter.
2. Enter the chassis address of the remote User Interface Card.
3. If the remote User Interface Card is a UICD, enter the administrator password for this module. If the remote module is an UUIC or local-console module, leave this field blank.
4. Enter the command you want the remote User Interface Card to execute.
5. Press [Enter] to accept your selections. The remote User Interface Card will now process the command just as if it had been entered locally.

4.2.4 THE COMMAND-LINE-ENTRY WINDOW

You can access the Command-Line-Entry Window (shown in Figure 4-3) by pressing the [Ctrl] key twice, then pressing [Alt] + [Tab] twice. (System administrators will have to press [Alt] + [Tab] three times, because they have to bypass the User-List Menu—see **Section 4.2.2**.) You can also access this window by pressing the <CM> Command Mode hotkey sequence (see the “Keystroke Notation” and “Choosing an Alternate Hotkey” sections of the ServSwitch Multi manual); in fact, whenever the Command-Mode sequence is pressed on a computer attached to a UICD, this window pops up.

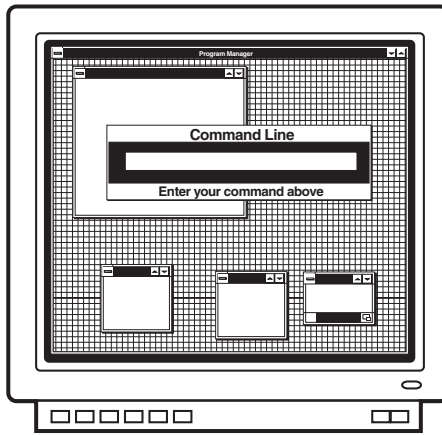


Figure 4-3. The Command-Line-Entry Window.

This window features a field where you can enter any ServSwitch Multi keyboard command; just type in your command (without preceding it with another Command-Mode sequence) and press [Enter]. Refer to the “Operation” chapter of your ServSwitch Multi manual for information about all available commands.

4.3 Administrator Functions in the Channel-List and User-List Menus (Administrator Only)

Each User Interface Card with On-Screen Display in your ServSwitch Multi system has to have an administrator and its own set of administrator and user configurations. However, you can crossload configurations between UICDs in your system if you want to.

A UICD's administrator can configure his own profile and those of the other UICD users with a set of special options in the Channel-List and User-List menus. These options are described in the following subsections; to perform any of them, you *must* be logged on as the administrator. (On a newly installed UICD, or on one without a defined administrator password, you will automatically be logged on as the administrator.)

4.3.1 CHANNEL-LIST MENU FUNCTIONS

Before taking any of these actions, make sure you configure your own administrator setup (see **Section 4.3.2.A**). Once you have, access the Channel-List Menu by pressing the [Ctrl] key on the shared keyboard twice within one second. Note that the white bar at the bottom of the menu lists all of the available menu options; use the [F11] key on the shared keyboard to scroll through them (see Table 4-2 following **Section 4.3.1.D**).

4.3.1.A Adding New Computer-Channel Configurations

At the Channel-List Menu, take these steps to configure a new computer channel in your ServSwitch Multi system:

1. Press [Insert] to add a channel.
2. Enter a name and channel address for this computer.
3. Enter the desired scan-dwell time for this channel (that is, the length of time the ServSwitch Multi will pause to display the channel while scanning).
4. Enter a value, in seconds, for the channel's ID-window dwell time. The ID window displays the name of the current channel on your screen after you switch channels. The dwell time is the length of time that the ServSwitch Multi will display the ID window for this channel. If you enter a value of 0 (zero), the ID window will never appear at all. If you enter the maximum value of 255, the Switch will display the ID window at all times. (You can also configure other ID-window options, as described in **Section 4.3.1.D**.)

5. If you're running two video outputs from this computer to dual monitors as described in **Section 2.2.5**, highlight "Dual Video" and press the space bar to enable the Dual Video feature. (If you do this, you'll also have to designate which User Interface Card the secondary monitor is attached to—see **Section 4.4.3.H.**) Pressing the space bar again disables Dual Video.
6. If the computer whose channel you're configuring is attached to a CPU Interface Card installed in a ServSwitch Multi chassis, leave "Extended Type" set to "Standard." But if the computer is attached to a ServSwitch Multi Z8 (KV158A) that's cascaded from a Multi chassis, highlight "Extended Type" and press the space bar to change to "Cascaded." Then highlight "Extended Address" and enter the channel-letter address ("A" to "H") of the Z8 port that the computer is attached to.

This procedure allows you to control the computers on cascaded Z8s as if they were directly attached to a ServSwitch Multi chassis. For more information about cascading Z8s, refer to the "ServSwitch Multi Z8" chapter in your ServSwitch Multi manual.
7. Press [Enter] to save the settings for the new channel or [Esc] to abort.

4.3.1.B Editing Computer-Channel Configurations

At the Channel-List Menu, take these steps to reconfigure an existing computer channel:

1. Highlight the channel you want to edit. To quickly edit the name and address *only*, press [F4]. To change the settings of any other options, press [F2]. (The options you can edit are the same as those whose initial values you can set by following the steps in **Section 4.3.1.A.**)
2. Make your desired changes to the channel's configuration, then press [Enter] to save the changes or [Esc] to abort them.

4.3.1.C Deleting Computer-Channel Configurations

At the Channel-List Menu, take these steps to delete a computer-channel configuration:

1. Highlight the channel you want to delete and press the [Del] key.
2. Press [Enter] to confirm the deletion or [Esc] to abort it.

4.3.1.D Customizing the ID Window

The ID window displays the name of the currently selected channel on your screen after you switch channels. Starting from the Channel-List Menu, you can adjust the colors, size, and position of the ID window independently for each channel as described below. To adjust the dwell time of a channel's ID window (how long it stays on screen), add a new configuration for that channel or edit the channel's existing configuration, as described in **Sections 4.3.1.A** and **4.3.1.B**.

1. Highlight the desired channel.
2. Press [F3].
3. Adjust the ID window using these keys:
 - Use the [+] and [-] keys on the shared keyboard to set window width;
 - Use the spacebar to change text size;
 - Use the [PgUp] (page up) key to set background color;
 - Use the [PgDn] (page down) key to set text color;
 - Use the [↑], [↓], [←], and [→] (arrow) keys to set window position.

If you're using the main-keyboard arrow keys, leave [Shift] unpressed while you press the arrow keys to move the window in large increments, or hold down [Shift] while you press the arrow keys to move the window in smaller increments.

If you're using the keypad keys as arrow keys, leave Num Lock OFF and [Shift] unpressed while you press the keypad keys to move the window in large increments, or turn Num Lock ON and hold down [Shift] while you press the arrow keys to move the window in smaller increments.

When you're finished, press [Enter] to save your changes or [Esc] (escape) to abort them.

Table 4-2. Administrator options available at the Channel-List Menu.

Press This Key Sequence...	...To Do This
[F1]	Get context-sensitive help.
[F2]	Bring up the channel-setup menu, where you can configure the selected channel's name, address, scan dwell time, ID-window dwell time, and standard or Z8 cascaded status.
[F3]	Configure the on-screen ID window: Use the [+] and [-] keys on the shared keyboard to set window width; Use the spacebar to change text size; Use the [PgUp] (page up) key to set background color; Use the [PgDn] (page down) key to set text color; Use the [↑], [↓], [←], and [→] (arrow) keys to set window position (see Section 4.3.1.D); Press [Enter] to save your completed configuration.
[F4]	Quickly edit the name or address of the selected channel.
[F10]	Log out of the ServSwitch Multi system. The user-login screen will appear; you must log back in to the system to continue operation.
[F11]	See more options.
[Insert]	Add a new channel to the menu.
[Delete]	Remove the selected channel from the menu.
[Enter]	Switch to the highlighted channel.
[Alt] + [Enter]	Switch to the highlighted channel in privacy mode. For more information on privacy mode, refer to the "Privacy Mode" section of your ServSwitch Multi manual.
[Alt] + [Tab]	Cycle through the available menus.

4.3.2 USER-LIST MENU FUNCTIONS

To perform any of these functions, first access the Channel-List Menu by pressing the [Ctrl] key on the shared keyboard twice within one second, then press [Alt] + [Tab] to reach the User-List Menu. Note that the white bar at the bottom of the menu lists all of the available menu options; use the [F11] key on the shared keyboard to scroll through them (see Table 4-3 at the end of this section).

4.3.2.A Administrator Setup

At the User-List Menu, take these steps to complete the administrator setup:

1. Press [F5] for administrator setup.
2. Enter your desired administrator password and timeout in minutes. If a password has previously been set, you can alter individual characters in the Password and Confirm Password fields by moving the cursor to the characters you want to change before typing anything. But if the first character you type in either field is something other than a cursor-movement (arrow) character, the existing password in that field will be erased.
The timeout determines how many minutes of inactivity can elapse before you are automatically logged out. “60” (one hour) is the maximum timeout setting; to disable the timeout so that you can be logged on continuously, enter “0”.
3. Press [Enter] to save your administrator-setup settings or [Esc] to abort.

4.3.2.B Adding New User Profiles

At the User-List Menu, take these steps to add a user profile to your ServSwitch Multi system:

1. Press [Insert] to add a new user.
2. Enter the new user’s name, timeout in minutes, and (if desired) password.
The timeout determines how many minutes of inactivity can elapse before the user is automatically logged out. “60” (one hour) is the maximum timeout setting; to disable the timeout so that the user can be logged on continuously, enter “0”.
3. Press [Enter] to save the user profile or [Esc] to abort.

4.3.2.C Editing User Profiles

At the User-List Menu, take these steps to reconfigure an existing user profile:

1. Highlight the user profile you want to edit. To quickly edit the name and address *only*, press [F4]. To change the settings of any other options, press [F2].
2. Make your desired changes to the user profile, then press [Enter] to save the changes or [Esc] to abort them.

4.3.2.D Deleting User Profiles

At the User-List Menu, take these steps to delete a user profile:

1. Highlight the user profile you want to delete and press the [Del] key.
2. Press [Enter] to confirm the deletion or [Esc] to abort it.

4.3.2.E Setting Users' Access Privileges

At the User-List Menu, take these steps to configure access privileges for each user:

1. Highlight the user for whom you want to configure access.
2. Press [F3] to bring up the user-access options.
3. Highlight the first listed computer channel.
4. Use the spacebar to cycle through the available choices:
 - The selected user has no access (blank);
 - The selected user has video access only ("V");
 - The selected user has video and keyboard/mouse access ("V K"); or
 - The selected user has full access ("V K P").

These changes to user access take effect *instantly*, even if you press [Esc] to exit the menu afterward.

5. Repeat steps 3 and 4 for each attached computer.
6. Press [Enter] or [Esc] to return to the User-List Menu.

Table 4-3. Administrator options available at the User-List Menu.

Press This Key Sequence...	...To Do This
[F1]	Get context-sensitive help.
[F2]	Bring up the user-setup window, where you can configure the selected user's name, timeout in minutes, and (if desired) password.
[F3]	Configure the selected user's access privileges to each listed server. Use the spacebar to scroll through the available choices: Blank stands for no privileges; "V" stands for video (viewing) privileges only; "K" stands for keyboard and mouse privileges; "P" stands for full privileges.
[F4]	Quickly edit the name of the selected user.
[F5]	Set the administrator password and timeout.
[F10]	Log out of the ServSwitch Multi system. The user-login screen will appear. You will have to log back in to the system to continue operation.
[F11]	See more options.
[Insert]	Add a new user profile to the menu.
[Delete]	Remove the selected user profile from the menu.
[Alt] + [Tab]	Cycle through the available menus.

4.4 Administrator Controls (Administrator Only)

System administrators can access the Administrator-Controls Menu (shown in Figure 4-4) by pressing the [Ctrl] key twice, then pressing [Alt] + [Tab] twice. (Regular users will see this as the User-Controls Menu—see **Section 4.2.3**.) In addition to the “Scanning,” “Menu Activation,” “Switch Alt. User Module,” and “Control Alt. User Module” options that are also available in the User-Controls Menu (again, see **Section 4.2.3**), administrators have the control options described in the following subsections.

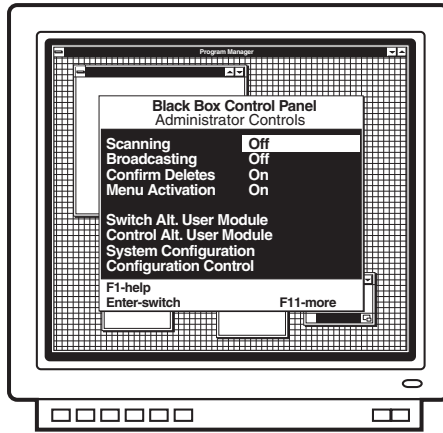


Figure 4-4. The Administrator-Controls Menu.

4.4.1 BROADCAST (ENABLE/DISABLE BROADCAST MODE)

Highlight “Broadcast” in the Administrator-Controls Menu and press the space bar to toggle Broadcast Mode on or off. For information about Broadcast Mode, see the “Broadcast Mode” section of your ServSwitch Multi manual.

4.4.2 CONFIRM DELETES (ENABLE/DISABLE DELETE CONFIRMATION)

Use this option to specify whether users must confirm the deletion of a channel or user before the command is processed. Highlight “Confirm Deletes” in the Administrator-Controls Menu and press the space bar to toggle this option on or off.

4.4.3 SYSTEM CONFIGURATION (CONFIGURE SYSTEM FUNCTIONS)

Select this option in the Administrator-Controls Menu in order to configure a variety of system functions, as described in the following subsections. The first four of these functions are on the first page of the System Configuration menu; the next four are on the second page; and “Keyboard Layout” is by itself on the last page. Press [PgDn] (page down) and [PgUp] (page up) to move between the menu pages.

4.4.3.A Chassis Number

If you don't have an Expansion Transmit Card (KV1601C or KV1603C) in the ServSwitch Multi that the UICD is installed in, you can use this option to set a unique chassis address for the Switch. Chassis addresses are numeric, and may be any value between 1 and 254. Unit addresses of “0” and “255” are reserved.

If you already have a chassis number assigned to this Switch, leave the value in this field at “0”. This doesn't mean that the chassis address is “0”; it just means that the UICD won't try to give the unit a chassis number itself.

4.4.3.B Command Key Sequence

Highlight this option and use the space bar to cycle through the available hotkey sequences for bringing up the Command-Line-Entry Menu. Choose from:

- [Num Lock] + keypad [-] (minus)
- [Num Lock] + keypad [*] (asterisk)
- [Num Lock] + keypad [+] (plus)
- [Num Lock] + keypad [/] (slash)
- [Ctrl] + [~] (tilde)

4.4.3.C Menu Activation Key Sequence

Highlight this option and use the space bar to cycle through the available hotkey sequences for activating the on-screen display system. You can choose [Ctrl], [Ctrl] (press and release [Ctrl] twice in succession); [Alt], [Alt]; or [Shift], [Shift].

4.4.3.D Remote Commands

Highlight this option and use the space bar to either enable or disable your UICD's ability to accept remote commands from other UICDs. For more information on remote commands, see **Sections 4.2.3.C** and **4.2.3.D**.

4.4.3.E Remap Windows Keys

This option determines whether the UICD will remap the Alt and Windows® Start keys on a 104/105-key PC keyboard when a Macintosh computer is selected (see the “Multiplatform Keyboard Mapping” section of your ServSwitch Multi manual). Normally the PC’s Alt keys function as the Mac Option (Alt) keys, and the PC’s Windows Start keys function as the Mac ⌘ (Command) key. But the arrangement of the PC Alt and Start keys is the reverse of the Mac Option and Command keys, so, if you’re used to the Mac layout, you can highlight this option and press the space bar to enable remapping of the PC keys so that PC Alt = Mac Command and PC Start = Mac Option. Press the space bar again to disable remapping.

This remapping option is intended for newer 104/105-key keyboards that have the Windows keys. Older 101/102-key keyboards that don’t include these keys should use the DIP-switch translation option instead. (See the “Setting the Keyboard Translation” section of your ServSwitch Multi manual. Unlike the DIP-switch function, this option involves the console rather than the computer, is not affected by Scroll Lock, and operates only when a Mac is selected rather than continually.) Do *not* activate both types of remapping at the same time.

4.4.3.F Standalone RSP

This option is not supported at this time.

4.4.3.G Follow/Swap Feature Status

Highlight this option and use the space bar to start Follow Mode or Swap Mode or to quit either process. If you are starting Follow or Swap Mode, you’ll also have to enter the user address you are following or swapping with. For more information on Follow Mode or Swap Mode, see the “Follow Mode” or “Swap Mode” section of your ServSwitch Multi manual.

4.4.3.H Dual Monitor Support Card Address

If your ServSwitch Multi system is configured for dual-monitor support (see **Sections 2.2.5** and **4.3.1.A**), use this option to specify the address of the Universal User Interface Card (UUIIC) that the second monitor is attached to. If this field is left blank, dual-monitor support will still be disabled even if the “Dual Video” option in the source computer’s channel configuration (see **Section 4.3.1.A**) is enabled.

4.4.3.I Keyboard Layout

By default, the UICD assumes that the attached keyboard uses the United States “keyboard layout” (keyboard language). Alternatively, you can set the UICD to recognize a keyboard using any of these alternate layouts: United Kingdom, Switzerland, Sweden, Spain, Portugal, Norway, Netherlands, Italy, Greece, Germany, France, Finland, or Denmark. Just highlight this option and use the space bar to advance through the available options until you reach the best match.

4.4.4 CONFIGURATION CONTROL (TRANSFER CONFIGURATION SETTINGS)

Take these steps to send the configuration settings from the User Interface Card with On-Screen Display that you're working at to another UICD elsewhere in your ServSwitch Multi system, or to receive the configuration settings from another UICD (use the [Tab] or arrow keys to move through the fields):

1. At the Administrator-Controls Menu, highlight "Configuration Control" and press [Enter].
2. Use the spacebar to cycle through the available configuration-port options. Select "Internal."
3. Enter the port address of the remote UICD. Be sure to include the unit address and port letter ("3H," for example).
4. Use the spacebar to toggle to the desired setting in the "Direction of Transfer" field. If you are *sending* configuration settings from your UICD to the remote UICD, select "Send." If you are *receiving* configuration settings from the remote UICD, select "Recv."
5. Enter the administration password for the remote UICD.
6. Highlight the Begin Configuration field and press [Enter]. The remote UICD will display a message stating that a transfer is in progress. When the transfer is complete, the UICD that received the configuration will restart itself; this will blank the attached monitor's screen for several seconds.

4.5 Using the On-Screen Display with a Non-Multisync Monitor

The normal default synchronization for the UICD's on-screen display is PC-type separate horizontal and vertical (H/V) sync. When you select a Sun, Mac, or other computer that uses some other kind of sync, and that computer's CPU Interface Card is set to pass the video through unaltered, the UICD will output the on-screen display with sync that matches that of the selected computer's video.

All of this works fine when your monitor is a multisync type. But when your monitor uses a particular fixed type of synchronization, especially if it's a type of sync other than H/V, the display (in its factory-default setting) will not appear on screen properly when there's no computer video to lock onto (when, for example, the selected computer is off or is not outputting video for whatever other reason).

For the UICD to work properly with such a non-multisync monitor, you need to change the UICD's default synchronization. To do this, take these steps:

1. Send the menu-activation hotkey sequence (which is [Ctrl] twice in succession, unless you've changed it—see **Section 4.4.3.C**) to trigger the on-screen display (even if you can't see it). If you've disabled menu activation (see **Section 4.2.3.B**), send the Command-Mode hotkey sequence to bring up the Command-Line-Entry Window (see **Section 4.2.4**).
2. Press the four keys [Ctrl] + [Alt] + [Shift] + [M] simultaneously.
3. The UICD will begin cycling through various types of synchronizations. It will switch to a different sync type approximately every ten seconds. When it gets to one that your monitor can display, press [Enter] to have the UICD save that sync type in NVRAM as its default. If you want to quit the process without selecting a new synchronization, press [Esc]; the Card will continue using whatever type of sync it was using before.

Also press [Esc] to terminate the process if, after two minutes, the UICD doesn't find a matching sync option. If this proves to be the case with your monitor (which should virtually never happen), you will have to use a different monitor.

If you swap in another non-multisync monitor later, just repeat this process to adjust the synchronization again.

5. Troubleshooting

5.1 Calling Black Box

If you determine that your User Interface Card with On-Screen Display or your ServSwitch Multi is malfunctioning, *do not attempt to alter or repair it*. It contains no user-serviceable parts. Contact Black Box Technical Support at 724-746-5500.

Before you do, make a record of the history of the problem. We will be able to provide more efficient and accurate assistance if you have a complete description, including:

- the nature and duration of the problem;
- when the problem occurs;
- the components involved in the problem—that is, what types of computers, what type of keyboard, brand of mouse, make and model of monitor, etc.;
- any particular application that, when used, appears to create the problem or make it worse; and
- the results of any testing you've already done.

Filling out a copy of the report in the “Problem Report” appendix in your ServSwitch Multi manual should provide most of the information we need to get started.

5.2 Shipping and Packaging

If you need to transport or ship your User Interface Card with On-Screen Display or your ServSwitch Multi:

- Package it carefully. We recommend that you use the original container.
- Before you ship the unit back to Black Box for repair or return, contact us to get a Return Materials Authorization (RMA) number.

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