

# BELKIN®

## OmniView® ENTERPRISE 1U Rack-Mount Console with Built-In 8-Port KVM Switch

# BELKIN®

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# BELKIN®

OmniView® ENTERPRISE  
1U Rack-Mount Console with  
Built-In 8-Port KVM Switch

Control

Control your rack servers  
from a compact 1U  
rack-mount console



## User Manual

F1DC108C

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## Package Contents:



1U Rack-Mount Console with KVM Switch



Rack-Mount Brackets with Screws



IEC Power Cable



Two Keys



Registration Card



User Manual



Quick Installation Guide

Congratulations on your purchase of this Belkin ENTERPRISE 1U Rack-Mount Console with Built-In 8-Port KVM Switch (the Rack-Mount Console KVM Switch\*). Our diverse line of KVM solutions exemplifies the Belkin commitment to delivering high-quality, durable products at a competitive price.

Designed to give you control over multiple servers, the Rack-Mount Console KVM Switch provides an excellent solution for the server administrator. It outperforms any other rack-mount console with KVM switch on the market. Engineered to work with the most advanced server room and laboratory environments, the Rack-Mount Console KVM Switch offers:

- Dual-rail system with 1U compact design
- Video resolution support of up to 1280x1024
- PS/2 and USB mix-and-match support for output devices
- Multi-console support
- IntelliView™ Graphical On-Screen Display (OSD)
- Server and server-group naming
- Multi-level security
- Server connection status and diagnosis
- Flash-upgradeable firmware
- Dual-port connectors (cables sold separately)
- Belkin Two-Year Warranty
- Free technical support
- 17-inch LCD

This User Manual will provide details about your new Rack-Mount Console KVM Switch, from installation and operation to troubleshooting—in the unlikely event of a problem.

For quick and easy installation, please refer to the Quick Installation Guide included in your packaging.

Thank you for purchasing the Belkin OmniView ENTERPRISE 1U Rack-Mount Console with Built-In 8-Port KVM Switch. We appreciate your business and have confidence that you will soon see for yourself why Belkin is the number one-selling brand in KVM switches worldwide.

\*For simplicity, the 1U Rack-Mount Console with Built-In 8-Port KVM Switch will be referred to as the “Rack-Mount Console KVM Switch” in this User Manual.

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## Feature Overview

- **Quad-Bus Technology**

Multiple KVM Switches and KVM Expanders can be daisy-chained together to allow up to four consoles to simultaneously control up to 256 servers.

- **IntelliView Graphical On-Screen Display (OSD) with Mouse Support**

The IntelliView OSD simplifies server management by allowing you to assign individual names to each connected server in your configuration and to organize the servers into groups. The OSD also provides a visual means of switching between servers, checking server-connection status, assigning security levels to each server, and setting the time interval for the AutoScan function.

- **AutoUpdate™**

The exclusive AutoUpdate system from Belkin and flash-upgradeable firmware allow you to obtain the latest firmware upgrades for your Rack-Mount Console KVM Switch. These upgrades allow you to maintain consistent compatibility with the latest devices and servers. Firmware updates are free for the life of your Rack-Mount Console KVM Switch. Please visit us at [www.belkin.com](http://www.belkin.com) for complete update information and support.

- **Video Resolution**

The LCD supports SXGA video resolutions of up to 1280x1024.

- **Hot Keys**

Hot key functionality allows you to select a desired port using designated key commands. By using a simple hot key sequence on your keyboard, you can select one server from as many as 256 servers, instantaneously.

- **Reprogrammable Hot Key Initiator Sequence**

The Rack-Mount Console KVM Switch allows you to select up to six alternate keys to initiate hot key commands. These settings can be configured through the IntelliView OSD. For more information, please refer to the “IntelliView OSD Features” section.

- **AutoScan**

The AutoScan feature allows you to set your Rack-Mount Console KVM Switch to scan and monitor the activities of all connected servers, one by one. The time interval allotted for each server can be defined or adjusted through the On-Screen Display (OSD) menu.

- **High-Density Server Ports**

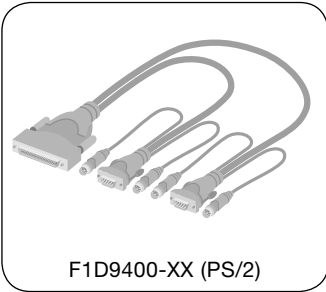
The Rack-Mount Console KVM Switch features high-density, 50-pin, SCSI 2 connectors. These connectors allow you to connect two servers to one port on the Rack-Mount Console KVM Switch, reducing the amount of cabling in your server rack. They also allow the Rack-Mount Console KVM Switch to fit into a compact, 1U-height rack-mount case.

- **Micro-Cabling Technology**

Servers can be attached to the Rack-Mount Console KVM Switch via their PS/2 or USB interfaces by using custom OmniView ENTERPRISE Dual-Port Micro-Cabling. With a 60% reduction in cable size, Micro-Cabling simplifies cable management and allows for greater airflow in your racks, increasing the lifespan of your equipment. These cables are offered in both PS/2 and USB styles [Belkin part numbers F1D9400-XX (PS/2 style) and F1D9401-XX (USB style)].

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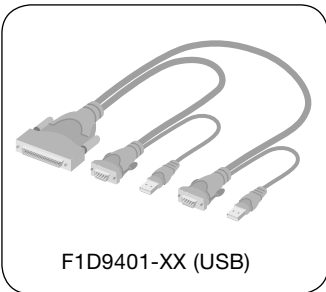
## Equipment Requirements



### Cables

Connecting the Rack-Mount Console KVM Switch to a server requires custom Belkin OmniView ENTERPRISE Dual-Port Micro-Cabling.

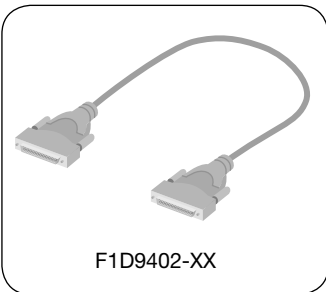
To connect multiple KVM Switches together, a custom Belkin OmniView ENTERPRISE Daisy-Chain Cable is required.



### OmniView ENTERPRISE Dual-Port Micro-Cabling

F1D9400-XX (PS/2 Style)

F1D9401-XX (USB Style)



### OmniView ENTERPRISE Daisy-Chain Cable

F1D9402-XX

(-XX denotes length in feet)

## Operating System Requirements

The Rack-Mount Console KVM Switch is compatible with servers running on the following platforms:

- Windows® 98, 2000, Me, NT®, XP, 2003
- Red Hat® Linux® 7.0, 7.1, 7.2
- Mandrake
- Linspire
- Novell® NetWare® 5.x, 6.x
- MAC OS® X v10.x

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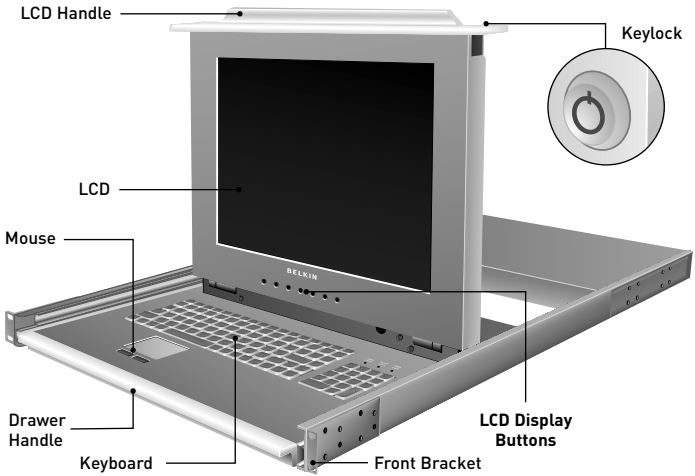
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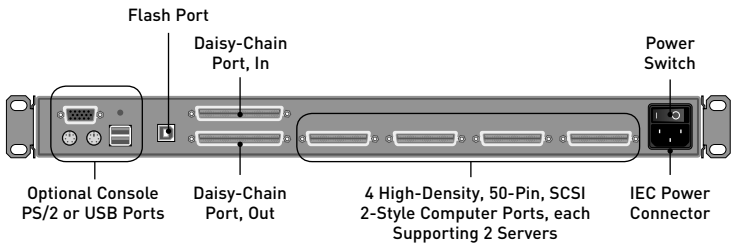


## Unit Display Diagrams

### OmniView ENTERPRISE 1U Rack-Mount Console with Built-In 8-Port KVM Switch



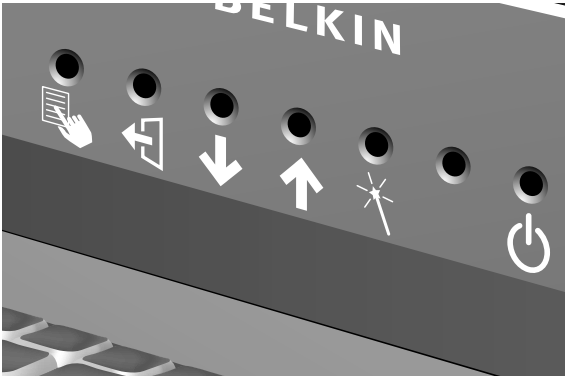
**Front View**









**Back View**

## LCD Display Buttons

The Rack-Mount Console KVM Switch includes six buttons on the LCD panel that allow you to adjust the settings on the display. The buttons are recessed in the panel to prevent accidental activation when the LCD is folded down and stored. You will need to use a fine-tipped object to access the buttons. The table below provides the list of control functions for each button.



	Activate settings menu; select/unselect
	Exit to previous screen
	Move cursor down; change value
	Move cursor up; change value
	Automatically adjust LCD settings
	Power LCD on/off

## Specifications

<b>Part No.:</b>	F1DC108C
<b>Max. Number of KVM Switches in Daisy-Chain:</b>	16
<b>Max. Number of Servers in Daisy-Chain:</b>	248
<b>Keyboard Emulation:</b>	PS/2 & USB
<b>Mouse Emulation:</b>	PS/2 & USB
<b>Server Ports:</b>	High-density, 50-pin, SCSI 2-style connector (requires Belkin OmniView ENTERPRISE Dual-Port Micro-Cabling)
<b>Max. LCD Resolution:</b>	1280x1024 (SXGA)
<b>Keyboard Type:</b>	106-key, PS/2-compatible
<b>Mouse Type:</b>	PS/2-compatible touch pad
<b>Enclosure:</b>	Metal enclosure
<b>Dimensions:</b>	19 (W) x 1.75 (H) x 29 (L) in. (482.6 x 44.5 x 736.6mm)
<b>Rack Depth:</b>	Min - 23 in., Max + 42 in. (Min - 584.2mm, Max + 1066.8mm)
<b>Weight:</b>	37.9 lbs. (17.2kg.)
<b>Operating Temp:</b>	32° to 104° F (0~40° C)
<b>Storage Temp:</b>	-4° to 140° F (-20~60° C)
<b>Humidity:</b>	0-80% RH, non-condensing
<b>Maximum Altitude:</b>	10,000 ft. (3,048m)
<b>Power:</b>	90-264VAC @ 47-63Hz
<b>Warranty:</b>	2-Year Limited Warranty

**NOTE:** Specifications are subject to change without notice.

## Pre-Configuration

The enclosure of the Rack-Mount Console KVM Switch is designed for rack-mount configuration in a standard 19-inch server rack. Rack-mount hardware is included for a sturdy rack installation.

When deciding where to place the Rack-Mount Console KVM Switch, consider the location of your servers and the length of cables needed to connect those servers to your Rack-Mount Console KVM Switch.

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### Cable Length Recommendations

#### For PS/2 servers

We recommend that PS/2 cable length from the Rack-Mount Console KVM Switch to your servers be limited to 25 feet for best video performance. Beyond that length, the probability of video degradation increases.

#### For USB servers

We recommend that USB cable length from the Rack-Mount Console KVM Switch to your servers be limited to 12 feet for best video performance.

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### Installing the Rack-Mount Console KVM Switch into a Server Rack

The Rack-Mount Console KVM Switch includes adjustable mounting brackets ideal for installation in 19-inch racks.

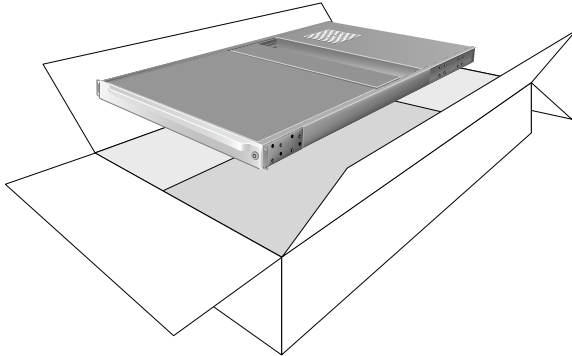
#### Please consider the following before mounting your Rack-Mount Console KVM Switch:

- a) **Elevated Operating Ambient Temperature** – If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the rack manufacturer's maximum rate ambient temperature.
- b) **Reduced Airflow** – Installation of the equipment in a rack should be such that the amount of airflow required for safe operation of the equipment is not compromised.
- c) **Mechanical Loading** – Mounting of the equipment in the rack should be such that hazardous condition is not achieved due to uneven mechanical loading.
- d) **Reliable Earthing** – Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit.

## Installing the Rack-Mount Console KVM Switch into a Server Rack

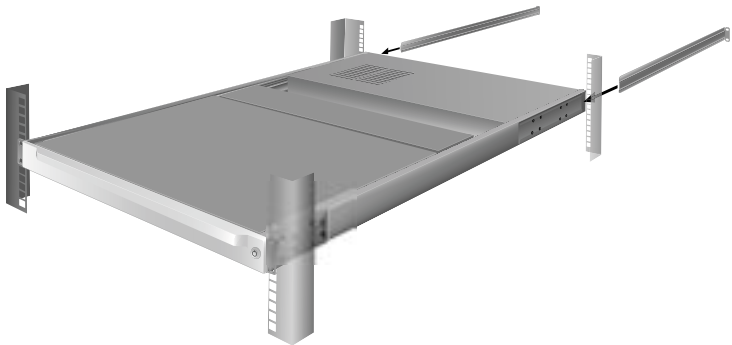
### Step 1

Remove the contents from the box.



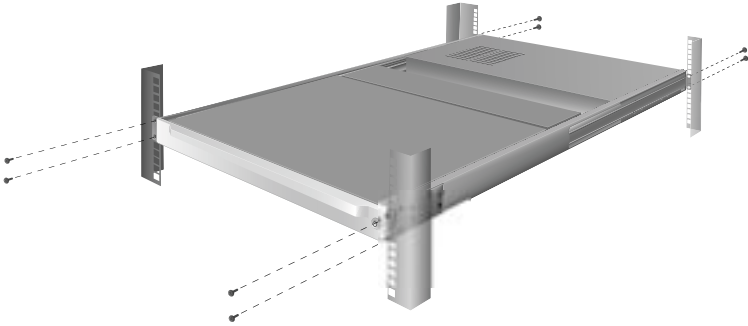
### Step 2

Place the Rack-Mount Console KVM Switch on a rack and install the rack-mount brackets.



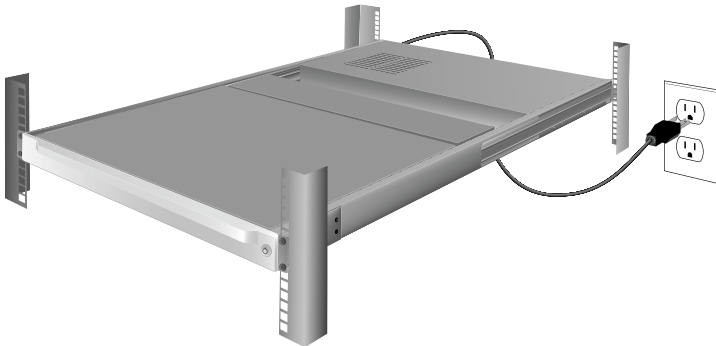
### Step 3

Mount the Rack-Mount Console KVM Switch to your rack or cabinet.



### Step 4

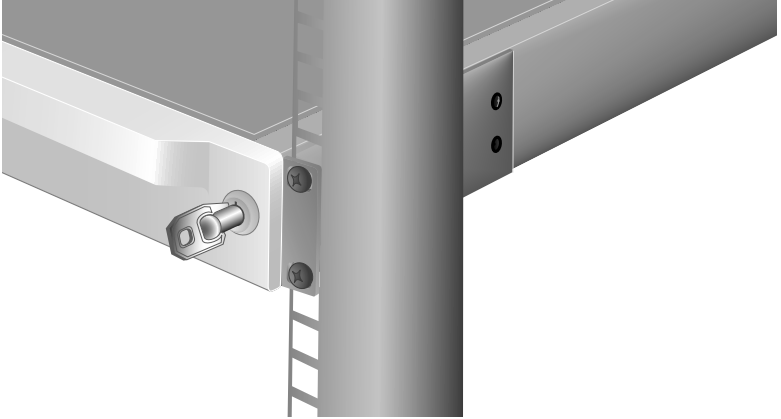
Connect the IEC power cable to an active power outlet and power up the Rack-Mount Console KVM Switch.



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## Step 5

Unlock your Rack-Mount Console KVM Switch with keys provided.



## Connecting Servers to the Rack-Mount Console KVM Switch (PS/2 Connection)

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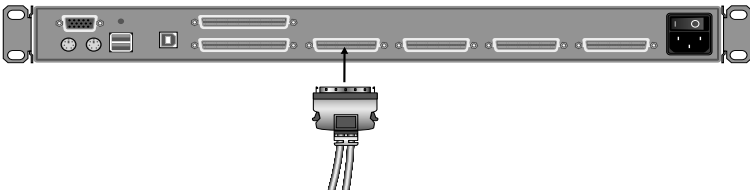
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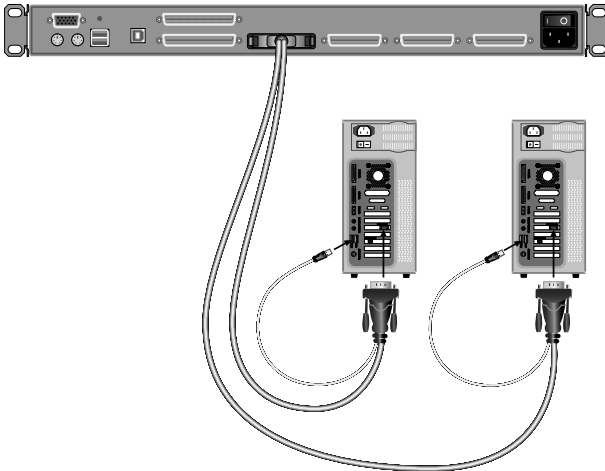
### Step 1

Using the OmniView ENTERPRISE Dual-Port Micro-Cablings (part number F1D9400-XX, PS/2 style), connect the high-density, 50-pin, SCSI 2-style connector to a free Rack-Mount Console KVM Switch port, starting with the port for the first two servers. (For best results, screw the connectors into the Rack-Mount Console KVM Switch and the server, when possible.)



### Step 2

Connect the VGA and PS/2 connectors to the server (make sure that you connect the keyboard and mouse cables to the correct ports on your server; purple indicates the keyboard connector and green indicates the mouse connector).



### Step 3

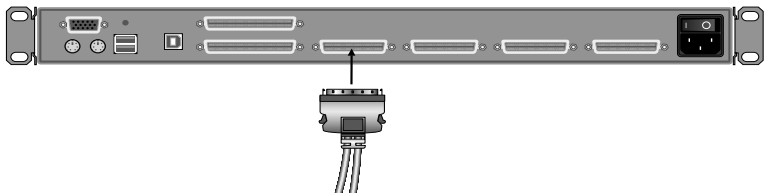
Repeat Steps 1 and 2 for each additional server you wish to connect.



## Connecting Servers to the Rack-Mount Console KVM Switch (USB Connection)

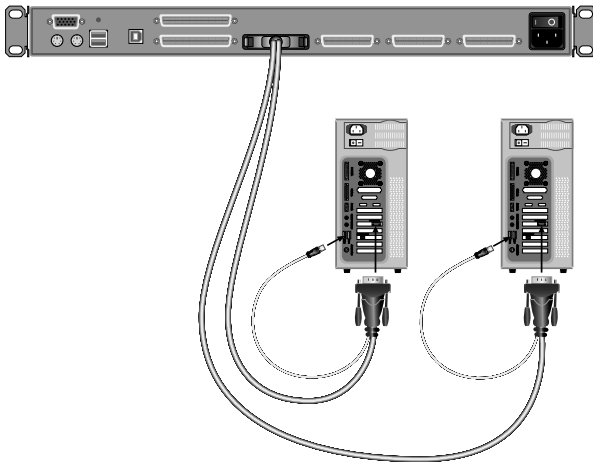
### Step 1

Using the OmniView ENTERPRISE Dual-Port Micro-Cabling (part number F1D9401-XX, USB style), connect the high-density, 50-pin, SCSI 2-style connector to a free Rack-Mount Console KVM Switch port, starting with the port for the first two servers. (For best results, screw the connectors into the Rack-Mount Console KVM Switch and the server, when possible.)



### Step 2

Connect the USB connector of your Micro-Cabling to the server. If your server is running Windows Me or newer, skip to Step 5; otherwise, continue with Step 3.



### Step 3

Boot up the server you wish to connect via USB, as you would normally, with the keyboard, mouse, and monitor connected directly to the server.

## Step 4

Your server will detect the Rack-Mount Console KVM Switch as a generic mouse and keyboard. Older versions of Windows do not automatically install USB HID devices, so you will have to manually press “Next” through the Windows Add/Remove Hardware Wizard until the HID devices are all installed (the Rack-Mount Console KVM Switch will install four devices: an HID keyboard, an HID mouse, a generic keyboard, and a generic mouse). This driver installation is only required the first time the Rack-Mount Console KVM Switch enumerates on each server; the Rack-Mount Console KVM Switch will be detected and enumerate automatically in the future. When driver installation is complete, power down the server and disconnect the keyboard, mouse, and monitor.

## Step 5

Connect the male VGA HDDB15 connector on the Micro-Cabling to the VGA port on the server.

## Step 6

Repeat Steps 1 through 5 for each additional server you wish to connect to the Rack-Mount Console KVM Switch via USB.

## NOTE: For USB Installation

We recommend you attach the Micro-Cabling directly to a free USB port on your server, not through a hub.

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## Connecting Multiple KVM Devices (Daisy-Chaining)

You can daisy-chain up to 15 additional Rack-Mount Console KVM Switches and other Belkin ENTERPRISE KVM Switches and Expanders together with your Rack-Mount Console KVM Switch. This will allow a server administrator to control up to a maximum of 248 servers. Each daisy-chained KVM device becomes a unit that is referred to as a “BANK” and is assigned an address. The first KVM switch (BANK 00) is referred to as a “primary” KVM switch. BANKS 00 through 03 can be configured as primary KVM switches, allowing up to four consoles to be connected. BANKS 04 through 15 can only be configured as secondary KVM switches (without console support). If BANKS 00 through 03 do not have a console attached, they function as secondary KVM switches. However, the connections on these BANKS are hot swappable. For example, if a console is added to one of the first two BANKS, it will immediately become a primary KVM switch.

**NOTE:** A Daisy-Chain Cable (F1D9402-XX) is required to daisy-chain each Rack-Mount Console KVM Switch, other KVM switch, and KVM expander, and is available through your Belkin reseller or online at [www.belkin.com](http://www.belkin.com).

All KVM switches and KVM expanders feature a “BANK DIP” switch. The “BANK DIP” switch is used to assign the proper BANK address to each KVM device. The Rack-Mount Console KVM Switch does not feature a “BANK DIP” switch; the BANK address can be assigned in the OSD [refer to the “Unit ID (Assign BANK Address)” section on page 32].

- For a single-unit configuration, set the “BANK DIP” switch on the KVM switch or KVM expander to the “standalone” (BANK address 00) setting. This is the factory default setting.
- For a multi-unit configuration, the “BANK DIP” switch on the primary units must be set to BANK address 00 or 01. Secondary units must be set to a unique BANK address (from 02 through 15). Refer to the chart on page 17 for DIP switch settings.

**NOTE:** BANK address 00 operates as standalone by default; refer to the section on the “OSD Options” page for instructions on how to configure BANK 00 to join a daisy-chain.

## DIP Switch Configuration Chart

DIP SWITCH #				BANK ADDRESS
1	2	3	4	
Down	Down	Down	Down	BANK 00 (Default)
Up	Down	Down	Down	BANK 01 Primary/Secondary
Down	Up	Down	Down	BANK 02 Secondary
Up	Up	Down	Down	BANK 03 Secondary
Down	Down	Up	Down	BANK 04 Secondary
Up	Down	Up	Down	BANK 05 Secondary
Down	Up	Up	Down	BANK 06 Secondary
Up	Up	Up	Down	BANK 07 Secondary
Down	Down	Down	Up	BANK 08 Secondary
Up	Down	Down	Up	BANK 09 Secondary
Down	Up	Down	Up	BANK 10 Secondary
Up	Up	Down	Up	BANK 11 Secondary
Down	Down	Up	Up	BANK 12 Secondary
Up	Down	Up	Up	BANK 13 Secondary
Down	Up	Up	Up	BANK 14 Secondary
Up	Up	Up	Up	BANK 15 Secondary

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## Installation

### Before you begin:

1. Make sure that all servers and KVM devices are powered off and that each KVM device has been assigned a unique BANK address. The BANK address for the Rack-Mount Console KVM Switch can be adjusted in the OSD [refer to the “Unit ID (Assign BANK Address)” section on page 32].
2. Place all primary and secondary KVM devices in the desired location within your rack or cabinet.

### Connecting the Daisy-Chain Cable:

3. Begin with BANK 00. Using the Daisy-Chain Cable (F1D9402-XX), connect one end to the “Daisy-Chain OUT” port on the primary Rack-Mount Console KVM Switch.
4. Connect the other end of the Daisy-Chain Cable to the “Daisy-Chain IN” port of the next KVM switch, normally BANK 01.

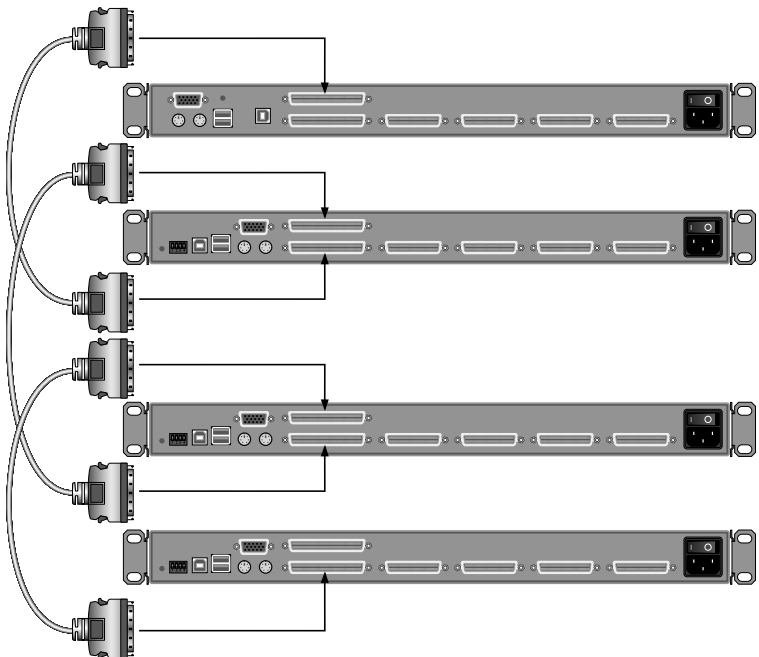
**NOTE:** It does not matter which unit is the primary unit, only that it is connected “OUT-to-IN” or “IN-to-OUT”.

### Adding additional units:

5. Continuing in the same manner, using the Daisy-Chain Cable (F1D9402-XX), connect “Daisy-Chain OUT” to “Daisy-Chain IN” on all subsequent units.

**CAUTION:** Never connect “Daisy-Chain IN” to “Daisy-Chain IN” or “Daisy-Chain OUT” to “Daisy-Chain OUT”. This may produce unpredictable results.

### Example of Daisy-Chain Configuration



**Connecting the servers:**

6. Power on the KVM devices, in any order. You will see the port LEDs flash on and off and the seven-segment LEDs will light up, displaying a series of diagnostic codes, eventually stopping with the digits “XX”, where XX is its BANK address.

**NOTE:** If the KVM devices still do not enumerate with their corresponding BANK addresses, check that all KVM devices have the correct BANK address assigned to them and that all Daisy-Chain Cables are connected properly.

7. If the primary BANK is set to address 00, the KVM administrator must configure the Rack-Mount Console KVM Switch for daisy-chain usage. To do this, take the following steps: (**NOTE:** You may see lines across some of the consoles, which is normal. This is an invalid configuration, which can be eliminated by activating the “Daisy-Chain this Switch” option.)

- a) Open the OSD by pressing the “Scroll Lock” key twice, then the space bar, and enter “Setup”.
- b) Go to the “Options” page, and select the “Advanced” button.
- c) In the “Advanced” dialog, check the “Daisy-chain this KVM” box.
- d) A dialog will appear informing you that, “This will reset the KVM switch to change this setting.” Click “OK” to clear the dialog and automatically power-cycle the Rack-Mount Console KVM Switch. When the Rack-Mount Console KVM Switch reboots, it will interact with the remainder of the other daisy-chained KVM devices as expected. You can verify this by opening the OSD and scrolling through the list of servers; if any of the other KVM devices appear in BANK 00’s list, then the Rack-Mount Console KVM Switch is working properly.

**NOTE:** If you don’t configure BANK 00 for use on the daisy-chain, then the Rack-Mount Console KVM Switch will not be able to interact with any of the other KVM devices, and vice versa. In addition, the unit’s front panel will not act the same as the other units’ front panels. Finally, there could be some unpredictable interactions caused by connecting an improperly configured BANK 00 to a daisy-chain.

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## Powering up the Systems

Once all cables have been connected, power up the connected servers in any order. The Rack-Mount Console KVM Switch emulates both a mouse and keyboard on each port and allows your server to boot up normally. The Rack-Mount Console KVM Switch does not need to be powered on to emulate the keyboard and mouse.

The server connected to port 01 of the Rack-Mount Console KVM Switch and any other primary KVM switch will be displayed on the monitor. Check to see that the Rack-Mount Console KVM Switch is working normally by use of mouse, keyboard, hot keys, and/or OSD. Proceed to do this with all occupied ports to verify that all servers are connected and responding correctly. If you encounter an error, check your cable connections for that server and reboot, if necessary. If the problem persists, please call Belkin Technical Support.

Now that you have connected servers to your Rack-Mount Console KVM Switch, it is ready for use. You can select connected servers by hot key commands, or the On-Screen Display. Note: For hot keys (e.g. up and down arrows) and AutoScan, the order of progression, when switching from one server to the next, is dictated by the order of the servers in the list box on the “Main” page of the OSD.

**NOTE:** For a standalone Rack-Mount Console KVM Switch to function as described in this section, the BANK address must be set to 00 and the “Daisy-chain this KVM” box must be cleared. Otherwise, the Rack-Mount Console KVM Switch will function, but it will operate like a daisy-chained KVM switch.

# Using your Rack-Mount Console KVM Switch

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## Selecting a Server Using Keyboard Hot Key Commands

2

To send commands to the Rack-Mount Console KVM Switch, the “Scroll Lock” (SL) key must be pressed twice within about half a second (you will hear a beep for confirmation). Next, input the key sequence for the specific command (you will have approximately three seconds after the beep to complete each hot key sequence). The hot key commands are listed below:

3

SL > SL > Up Arrow = Switches to PREVIOUS server in the OSD list box

SL > SL > Down Arrow = Switches to NEXT server in the OSD list box

SL > SL > XX YY = Directly switches to BANK XX, PORT YY

(XX=00 to 15) (YY=01 to 08 for F1DE108C and F1DE208C)<sup>1</sup>

SL > SL > Space bar = Activates On-Screen Display

SL > SL > A = Toggles AutoScan Mode on and off

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**NOTE:** Other keys can be used to enter commands for keyboards without “Scroll Lock” keys. For example, “CTRL” is the preferred method for Macintosh® servers, which often map other functions to the “Scroll Lock” key. These settings can be changed in the “Options” page of the OSD.

For hot keys (e.g. up and down arrows) and AutoScan, the order of progression from one server to the next is dictated by the order of the servers in the list box, in the “Main View” of the OSD.

## AutoScan Mode

- The AutoScan feature allows you to set your Rack-Mount Console KVM Switch to scan and monitor the activities of all connected servers one by one. The time interval allotted for each server can be defined or adjusted through the OSD menu.
- AutoScan Mode will continue indefinitely until terminated by pressing any valid hot key sequence.
- When the Rack-Mount Console KVM Switch is in AutoScan Mode, it is also in View-Only Mode. This means that input from the console (keyboard, mouse, and monitor) will not be transmitted to the server in focus. Cancel AutoScan to regain control of the server.
- The AutoScan rate is user-configurable, by server, in the “Setup” page of the OSD.
- AutoScan skips any servers that the user has been restricted from viewing. (The restrictions are set on the “Security” page in the OSD.)

<sup>1</sup> (YY = 01 to 16 F1DE116C and F1DE216C)



### Using the MultiView Feature

Your Rack-Mount Console KVM Switch is capable of allowing multiple users to view the same server simultaneously; however, only the first console to focus on that server will have control (be capable of input). When additional consoles focus on the same server, those consoles will display the banner, “Viewing only, no control”. The console with control will display the banner, “Viewed by console X”, where X corresponds to the letter of another console viewing that server. If the banner is enabled on either type of console, it will be displayed indefinitely; if the banner is disabled, it will be displayed for five seconds.

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### IntelliView Graphical On-Screen Display Menu Control

The IntelliView Graphical On-Screen Display (OSD) is intended to have a look and feel similar to popular Windows-based operating systems for PCs. To activate the OSD, press on “Scroll Lock + Scroll Lock + space bar” on your keyboard. (There are other keys that can be substituted for the “Scroll Lock” key. For keyboards that do not have “Scroll Lock” keys, refer to the “IntelliView OSD Features” section of this User Manual for more information).

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### IntelliView OSD Features

The “Main” page is the initial screen that will appear after opening the OSD. The OSD screen layout is similar to many Windows-based operating systems. The user will see a window with a title bar with some controls and a main area where the user accesses the features of the Rack-Mount Console KVM Switch. The top right side of the OSD title bar identifies the user’s current console (consoles A–D are BANKs 00–03, respectively) and the user that is currently logged-in. Selecting the “?” button displays the “Help” screen, which will provide instructions for using the current OSD page.

Selecting the “X” button will close the page the user is viewing. Selecting the “Escape” key on your keyboard will also close the OSD.

**NOTE:** All changes to the OSD are written and saved to memory as soon as the focus changes; there is no method of canceling or undoing actions once they have been entered. There is one exception: When editing the contents of an edit box (e.g. the “Computer Name” edit box), ESC will exit the control and revert the contents back to their original form.

### Input and Navigation Features

- Clicking on the Group, Computer Name, or ID column headers sorts the list box entries in ascending order, by the column header selected.
- Double-clicking on a server (computer) line will select that server line and switch the console's focus to the selected port. If the user is restricted from accessing the selected server, an error message will be displayed. When the error dialog is cleared, the console's focus will remain on the previously selected port.
- Pressing the up or down arrow keys, while the OSD is up, moves the server cursor (the row highlighted blue) up or down. If the cursor moves outside of the visible area, the list will scroll by one line. The scroll wheel on the mouse can also be used to perform this function.
- The up/down double arrows, to the right of the server list, scroll the list up and down one page at a time. The "Page Up" and "Page Down" keys on the keyboard also perform this function.
- Pressing the space bar will activate the OSD control in focus (same as clicking on the control). If the list box is in focus, then pressing the space bar gives the console control of the highlighted server.
- Pressing "Enter" activates the control in focus if the control is on a button or inside an edit box, but if the focus is on another type of control (e.g. the list box), the "Enter" key activates the default control (Close or Exit, depending on the current OSD screen).
- If the administrator presses "Ctrl + TAB" while viewing one of the "Setup" pages, the OSD goes to the next page.
- Shortcut keys are enabled in the OSD. For example, pressing "ALT + X", where X corresponds to the underlined character in a control's label, activates that control.
- When the OSD is up, keyboard and mouse inputs are routed to it; their signals are not sent directly to the server.
- Selecting the "Close" button (or pressing "ALT + C") on any of the "Setup" pages will return the user to the "Main" page.
- The "TAB" key can be used to cycle through the controls on the current OSD page. The "Shift+TAB" key will cycle backwards.
- The OSD window can be repositioned by clicking on the title bar and dragging the window with the mouse.
- To reposition the banner, press and hold "Ctrl + Alt" while the OSD is up, and the cursor will jump from the OSD window to the banner. Clicking and dragging the mouse will allow the user to reposition the banner.
- The Rack-Mount Console KVM Switch maintains the position settings of the OSD and banner for multiple server video resolutions. The user should set the positions of the OSD and banner windows during the Rack-Mount Console KVM Switch setup to make the locations identical for all video resolutions.

**NOTE:** The OSD does not turn off by itself. To reduce the risk of burning the OSD on the monitor, turn off the monitor or set the Rack-Mount Console KVM Switch to AutoScan Mode. All features configured in the "Setup" pages are global (affect all consoles) unless otherwise noted.

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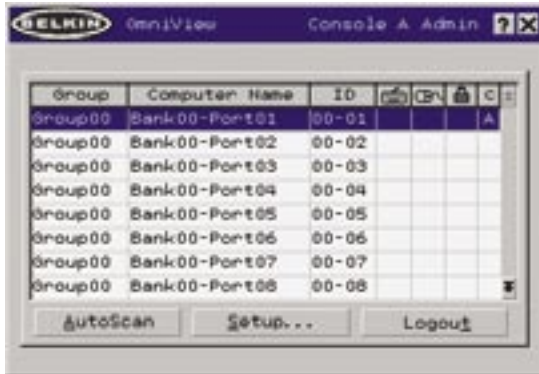
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### Main Page



The “Main” page displays information regarding the current connected servers. At a glance, the user can view each server’s name, group name, port locations, connection status, and security mode. The “Main” page could also be used to navigate through the connected servers.

### Group Column

The “Group” column displays the name of the group to which the server (computer) has been assigned. The group name is assigned by the KVM administrator (see the “Setup” page section below for information on changing the group name). The server list can be sorted on this field by clicking on the column header.

### Computer Name Column

The “Computer Name” column displays the name of each connected server (computer). The computer name can be set by the KVM administrator (see the “Setup” page section below for information on changing the computer name). The server list can be sorted on this field by clicking on the column header.

### ID Column

The “ID” column displays the BANK and port numbers of the Rack-Mount Console KVM Switch where the server is connected. The server list can be sorted on this field by clicking on the column header.

### Keyboard Column

The keyboard column displays the status of the current keyboard connection, and is updated in real time. If the connection to the server is via PS/2 cable, a small keyboard icon is displayed. If the keyboard connection to the server is via USB, the USB trident symbol is displayed. If no keyboard is detected, the cell will be empty.

### Mouse Column

The mouse column displays the status of the current mouse connection, and is updated in real time. If the connection to the server is via PS/2 cable, a small mouse icon is displayed. If the mouse connection to the server is via USB, the USB trident symbol is displayed. If no mouse is detected, the cell will be empty.

### Security Column

The security column displays the security settings for the current user. If this user is restricted from accessing a server, a closed padlock symbol is displayed. If the user is allowed to access the server, the cell is empty.

**NOTE:** The KVM administrator can prevent servers from appearing in the “Main View” if the user doesn’t have rights to access them (for additional information, see the “Options Page” section, on page 30).

### Console Column

The console currently viewing the server is indicated in this column by its corresponding letter (A–D). If multiple consoles are focused on the same server, an asterisk will appear in the console cell.

### AutoScan Button

Click the “AutoScan” button or press “ALT + A” on the keyboard to toggle the AutoScan feature. This will not close the OSD.

### Setup Button

Click the “Setup” button or press “ALT + S” on the keyboard to access the OSD “Setup” pages. If the user is not logged in as “Admin”, the “Setup” button will not be selectable (grayed-out).

### Logout Button

Click on the “Logout” button or press “ALT + T” on the keyboard to return to Guest-level access\*\*. If the administrator has removed Guest access, the User\*\* will lose focus on the port when he or she logs out. All hot keys and the front panel will be disabled, with the exception of opening the OSD, which will present the user with the login dialog.

\*\*In these instances, Guest and User refer to an individual logged in as “Guest” or “User” and operating at that specific access level.

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### Setup Page



The “Setup” page is only available to the Admin user and is used to set the group name, server (computer) name, and server scan times. The scan time is dependent on the port being scanned, and is global (i.e. it’s independent of the console or user). While scan times are independent of the user, AutoScan will skip servers that the user does not have permission to view.

#### Group Column

The “Group” column displays the name of the group to which the server (computer) has been assigned. The group name is arbitrary text, purely for organizational purposes. The group name can be up to eight characters and is assigned by the KVM administrator. The default group name of a server is “Group X” where X is the BANK number of a KVM switch or KVM expander as determined by the BANK address DIP switch (or in the OSD for the Rack-Mount Console KVM Switch). To change the group name, click in the desired cell.

#### Computer Name Column

The “Computer Name” column displays the name of each connected server (computer). The computer name can be up to 15 characters and is assigned by the KVM administrator. The server list can be sorted on this field by clicking on the column header. By default, all computer names will be named “BANK XX-Port YY”, where XX is a two-digit BANK address number from 00 to 15 and YY is a two-digit computer number from 01 to 16. To input the computer name, click in the desired cell.

#### ID Column

This column displays the BANK and port number of the KVM device where the server is connected. The server list can be sorted on this field by left-clicking the mouse on the column header.

### Scan Column

The “Scan” column displays the current setting for how long the console views each server during AutoScan. To change the viewing duration for a server, click in the desired cell.

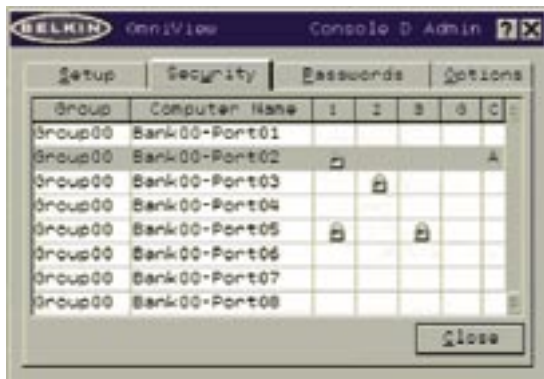
### Scan Time and “Change All” Button

The user can reset the scan time for all servers by entering a value from 1–99 in the edit box and clicking on the “Change All” button. The user will be asked to confirm the action before the new time is applied.

### Console Column

The console currently viewing the server is indicated in this column.

### Security Page



The “Security” page allows the administrator to assign user-access permissions for each connected server. There are three levels of user access: Admin, User, and Guest.

**NOTE:** “Admin”, “Guest”, and “User” refer to an individual logged in as “Guest” or “User” and operating at that specific access level.

### Admin

The Admin is the only user that can access the “Setup” pages to configure the Rack-Mount Console KVM Switch (or other daisy-chained KVM device). The Admin can switch between all connected servers and restrict Users and Guests from accessing specific servers. The Admin can assign access for one Guest account and up to three User accounts.

### User

The User can switch between servers he or she has been given access to and can toggle the AutoScan function in the “Main” page. If the Guest account has been enabled by the Admin, the User logs off to Guest access. If the Admin has disabled the Guest account, the User will lose focus on the port when he or she logs out. All hot keys and the front panel will be disabled, with the exception of opening the OSD, which will present the User with the “Login” dialog. User accounts can be used by individuals or groups of individuals. The names of the User accounts are fixed.

### Guest

The Guest can switch between servers he or she has been given access to and can toggle the AutoScan function in the “Main” page. Guest is also the default user (you never have to log in as the Guest).

**Note:** When the Guest account is enabled, it defines the minimum privileges that any user can access. It is possible to restrict User accounts more than the Guest account; this is a potential mistake to avoid.

### Group Column

The “Group” column displays the name of the group to which the server has been assigned. The server list can be sorted on this field by clicking the mouse on the column header.

### Computer Name Column

The “Computer Name” column displays the name of each connected server (computer). The server list can be sorted on this field by clicking on the column header.

### User Columns (1, 2, 3, G)

These columns allow administrators to set the access rights to each port (server) for each user (User1, User2, User3, and Guest). The padlock indicates that the user (column) will be restricted from accessing that port (row). Empty cells indicate that the user has full access to that server. To toggle user restrictions for a particular port, click the corresponding cell in the list box, or select the server row and type the key corresponding to the user: 1, 2, 3, G (4 also toggles the guest restrictions).

### Console Column

The console currently viewing the server is indicated in this column.

## Passwords Page



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The “Passwords” page allows the administrator to change user passwords, enable or disable user accounts, and set the AutoLogout time.

**NOTE:** Only the administrator can change user passwords and settings.

### Password Entry Fields

There is a “Change Password” button associated with each user; clicking the button displays the password entry dialog. The administrator is required to type the password and then confirm it; the new password will not be accepted until the entries match (passwords are up to eight characters long, and case-sensitive). Canceling the “Change Password” dialog will return to the “Passwords” page without changing the existing password. In a daisy-chain configuration, clicking “OK” automatically synchronizes this password with the other consoles.



### Enable Check Boxes

The check boxes next to the user names allow the administrator to disable user accounts with a single mouse click. This removes the need to alter the security settings of each host individually when it is necessary to remove a user's access.



### AutoLogout Enable and Time

The AutoLogout feature logs-off the user after a specified period (1–99 minutes) of console inactivity. Generally, this will return the Rack-Mount Console KVM Switch to Guest-level access, but if Guest access has been disabled, all access rights will be revoked until a valid user logs-on to the console. The edit box sets the length of inactivity required before the logout occurs. The AutoLogout feature is not global; it has to be set independently for each console.

**NOTE:** Unless AutoLogout is enabled, or the user manually logs out, the session will not end when the user closes the OSD (the next user will open the OSD at the privilege level of the previous user).

### Broadcast Passwords

This check box forces all other consoles to overwrite all of their user passwords with the passwords contained in the current console. This makes it simple for the administrator to synchronize the passwords of all consoles (e.g. when adding a new console to an existing configuration).



### Options Page



The controls of this page affect several of the Switch's features.

### Display Banner

This check box enables a banner to be displayed for system events: pressing a front-panel button, powering-on the Rack-Mount Console KVM Switch, etc. The banner is either always displayed, or displayed for a configured time (1–99 seconds). If the timed selection is enabled, the time input determines how long the banner will remain on-screen after the system event occurs. See the “Using the MultiView Feature” section (on page 22) and the “Banner” section (on page 34) for additional information on the operation and content of the banner. The banner configurations are not global; they have to be set independently for each console.

### Display Inactive Ports

Enabling this feature will cause ports that do not have an active server attached to appear in the server list box, on the “Main” page of the OSD. By default, inactive ports are displayed. The “Display Inactive Ports” feature is not global; it has to be set independently for each console.

### Display Restricted Ports

Enabling this feature will cause ports that the current user is restricted from accessing to appear in the server list box, on the “Main” page of the OSD. By default, restricted ports are displayed. The “Display Restricted Ports” feature is not global; it has to be set independently for each console.

### Alternate Attention Key

This screen allows you to select alternate keys to initiate hot key commands. It provides compatibility with keyboards that do not feature the identical keys or that may be using them to perform other functions. You may select any number of “Alternate Attention” keys.

**NOTE:** If all options are deselected, “Scroll Lock” becomes the default “Attention” key.

### Display Version Numbers

This screen displays product information, including the model number and the firmware revisions. The “Display Version Numbers” feature is not global; it only displays the version numbers for this BANK.

**NOTE:** When performing flash upgrades, you will have to upgrade each Rack-Mount Console KVM Switch, other KVM switch, and KVM expander individually.

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### Advanced Dialog Page



Activating this button will take the user to the “Advanced Dialog” screen.

### Disable Viewing

When “Disable Viewing” is checked, only another administrator may view channels occupied by the administrator. This function will be active by default in the OSD by design. For security reasons, the Admin needs to disable this if need be.

### Daisy-Chain this KVM Switch

Checking this box allows a Rack-Mount Console KVM Switch set to BANK 00 to communicate with other BANKS in a daisy-chain configuration. This affects front-panel operations, and other operational parameters. Whenever the state of this check box is changed, the following message will be displayed: “This will reset the KVM to change this setting”. If the user selects “OK”, the Rack-Mount Console KVM Switch will immediately reboot in the new configuration. By default, a Rack-Mount Console KVM Switch set to BANK 00 is configured as standalone (the check box is cleared).

### Unit ID (Assign BANK Address)

Checking one of these boxes (0, 1, 2, or 3) assigns a BANK address for the Rack-Mount Console KVM Switch. Selecting “0” sets the BANK address to 00, selecting “1” sets the BANK address to 01, and so on. The default BANK address for the Rack-Mount Console KVM Switch is set at 00 (box “0” is checked).

### Steal Control of this Host

This feature allows the KVM administrator to take full control of a host that is currently being used by other users.

### Restore Factory Defaults

Selecting this button will reset ALL user-configurable settings (computer names, group names, passwords, etc.) to their default values on all BANKs in the daisy-chain. The user is presented with a confirmation screen before this action is applied.

**NOTE:** In a daisy-chain configuration, restoring factory default will cause unpredictable behavior. To resolve this temporary issue, the administrator will have to go back into the “Options” page, select the “Advanced” button, and check the “daisy-chain this KVM” box after “Restoring Factory Defaults” for BANK 00 to function properly.

### Error Messages and Dialogs

From time to time, it will be necessary to display messages to the user indicating errors or requesting simple answers to questions. These pop-up screens use the familiar format of title bar and window body, which contains the text of the message. It includes appropriate response controls such as “OK” and “Cancel” buttons, based on the nature of the message.

### Login Dialog

The Login dialog is a simple window with radio buttons to select the user, and an edit box for the user to enter a password. If the user is already logged-in, pressing “Cancel” returns the user to his or her current login (or guest, if the account is enabled). If the user is not logged in, and guest is disabled, pressing “Cancel” will close the OSD.

### Help Screens

Online help is available within the OSD. Simply press the F1 key, or click on the “?” button on the right side of the title bar.

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### Banner



The banner, a small window that is displayed to inform the user of the console's focus, appears as a line of text surrounded by a gray, 3-D frame. It displays the following information:

- Group name
- Host name
- BANK and port in focus

If multiple consoles are viewing the same server (MultiView Mode), the console with control displays the following banner information:

- Viewed by console [console letter]
- BANK and port in focus

The view-only console displays the following banner information:

- Viewing only, no control
- BANK and port in focus

The banner also displays important error messages and important changes in the KVM configuration.

### Splash Screen

When you power-on the Rack-Mount Console KVM Switch, a window appears that displays its product name and copyright information. This window remains for several seconds then disappears. Opening the OSD will clear the Splash Screen immediately.

# The AutoUpdate™ Firmware Update Utility

## Updating Firmware

The AutoUpdate application is designed to inspect your hardware and guide you through the process of updating the firmware (if necessary) on your Rack-Mount Console KVM Switch. AutoUpdate automatically downloads the best firmware for your device from the Belkin website, or you can download the appropriate file manually by going to our website at [www.belkin.com](http://www.belkin.com). The administrator should perform the updates when the Rack-Mount Console KVM Switch is not in use. The Rack-Mount Console KVM Switch will be power-cycled during the process, which may lead to loss of keyboard, or mouse functionality on some servers. The administrator should shut down any servers that he or she is not willing to physically reset, before beginning the update process.

**NOTE:** The AutoUpdate function will not run if your servers are located behind a proxy server. Please call Belkin Technical Support to have the file emailed to you.

**WARNING!** Moving the mouse and keyboard during the AutoUpdate may cause damage to the Rack-Mount KVM switch.

To update the firmware, you will need the following items<sup>2</sup>:

1. A server running Windows XP, 2000, Me, or 98, with an available USB port.
2. A standard USB cable that connects between the Rack-Mount Console KVM Switch and the server.
3. The Belkin AutoUpdate application that can be downloaded from the Internet.
4. An Internet connection for automatic installation.

### Installing the AutoUpdate application:

1. Download and run the AutoUpdate application from the Belkin website.
2. Click the “Next” buttons, configuring file locations, icon preferences, etc., as desired, until the install is complete.

<sup>2</sup> During the firmware upgrade process, both Rack-Mount Console KVM Switch drawers must remain closed, and all cables, excluding power and the USB cable, must be disconnected. Any input into the Rack-Mount Console KVM Switch during the firmware upgrade will potentially corrupt the firmware and cause the unit to be inoperable.

### Connecting the server to the Rack-Mount Console KVM Switch:

1. Power on the Rack-Mount Console KVM Switch.
2. Connect one end of the USB cable to the flash port on your Rack-Mount Console KVM Switch (the USB “B” connector) and the other end to the server’s USB port(s). You may need one or more USB hubs between the server and the Rack-Mount Console KVM Switch if you intend to update multiple Rack-Mount Console KVM Switches (or other KVM devices) simultaneously.

**NOTE:** Before you begin the update, the administrator should go into the “Options” page in the OSD, press the “Display Version Numbers” button, and record the current version numbers; this will allow the administrator to confirm that the firmware was updated correctly.

To start the update process, you must run the AutoUpdate application by selecting “AutoUpdate.exe” from the start menu, or a desktop shortcut. The first screen of the AutoUpdate application will prompt the user to select an automatic or manual update. You should generally select automatic, unless you have a specific reason to do otherwise. An automatic update will check the firmware on the Rack-Mount Console KVM Switch and compare the versions installed against the latest versions available; if there are newer versions, the application will download the new firmware from the Internet and transfer it into the Rack-Mount Console KVM Switch.

**NOTE:** Before clicking “Next” to continue the AutoUpdate installation, make sure all servers are unplugged. Failure to do so could render the Rack-Mount KVM Switch non-functional.

The user then needs to power-cycle the Rack-Mount Console KVM Switch to complete the firmware installation. The manual update works similarly, but the



user needs to acquire the correct update file manually.



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**NOTE:** Before updating the Rack-Mount Console KVM Switch, make sure that AutoScan is off and the OSD is not displayed on the console. This will reduce the level of extraneous activity in the Rack-Mount Console KVM Switch.

### Updating Devices via the Web

When you start the AutoUpdate application, it searches your server for devices that support the update process. It also automatically connects to the Web and searches for available updates for the devices that are found. When the application has gathered the relevant information, it lists all of the devices found. An “OK” to the left of the device name (filling the check box) indicates that there are no new updates available on the Web (the device is up to date). If AutoUpdate finds an update for a device, it displays a checked box and the AutoUpdate icon to the left of the device name. If you click on a device in the list box, information about the device and the update will be displayed in the details box, to the right of the list box. Click on the checked boxes in the device list to deselect (uncheck) any devices that you don’t want to update. All devices with checked boxes will

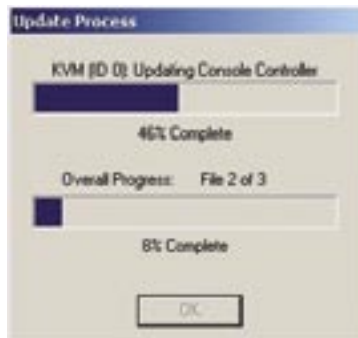




be updated (one at a time) when you click "Next".

Before the AutoUpdate begins, a warning screen will be displayed, informing the user of the risks involved in proceeding with the update, and actions that should be avoided while the update is in progress.

**NOTE:** It is crucial that the server and the Rack-Mount Console KVM Switch remain powered-on, and the USB cable remains connected to the server and the Rack-Mount Console KVM Switch during the update. The user should also



avoid using the server in ways that might interfere with the operations of the AutoUpdate application. If the update process is disturbed, the Rack-Mount Console KVM Switch could become nonfunctional. If the update is interrupted, but the Rack-Mount Console KVM Switch is still on, you should be able to restart the update (you may have to restart the AutoUpdate application).

When the update is started, a dialog pops up, displaying the file transfer progress for each sub-device, and for the Rack-Mount Console KVM Switch, as a whole. If multiple devices have been selected, the dialog remains up and repeats the update process for each device. When the update is complete, the “Next” button will become active, allowing the user to complete the update.



**NOTE:** During the AutoUpdate file transfer process, the seven-segment LEDs on the Rack-Mount Console KVM Switch will display “AU”, indicating AutoUpdate is in progress.

### Updating your Rack-Mount Console KVM Switch Manually with a File from a Local Disk

If you select a manual update, the AutoUpdate application will still scan for devices that can be updated, but it will not look for updates on the website, so all of the device check boxes will be empty. The user must input the path to the target update file (manually, or using the browse button (the ellipsis)). If the file is valid, the “Next” button will become active. Click it to progress to the next screen.

**NOTE:** Invalid files include: files that are not made for AutoUpdate; AutoUpdate files for the incorrect device, language, etc.; or AutoUpdate files that are of the correct type, but do not contain newer software.

The “Advanced” button allows the user to manually force updates into the target device. AutoUpdate does minimal checking to determine whether the selected file is valid in this mode. Belkin does not recommend using Advanced Mode unless directed to do so by Belkin Technical Support. The Advanced button will

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become active at the same time that the Next button becomes active (when a



device is selected and a valid file has been selected).



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**WARNING!** Improper use of Advanced Mode could render your Rack-Mount Console KVM Switch nonfunctional and incapable of receiving further updates.

When the update is complete, the “Next” button will become active, allowing the user to complete the update.

If the download fails for any reason, a dialog box will appear with an option to retry the update. If the application has completed successfully, this screen will be displayed. If a reboot is required, that will be indicated on this screen. When you click “Finish”, the AutoUpdate application will close. When the AutoUpdate is complete, the seven-segment LED will display “PC”, indicating that a power cycle is needed to complete the update.

### Completing the Firmware Update

The Rack-Mount Console KVM Switch needs to be power-cycled (or reset) after a successful download, so that it can program its internal components. The update process will not be complete until the device has been power-cycled.

**WARNING!** If the update process failed or was disrupted, DO NOT power-cycle the device! Resetting the device at this point may cause the Rack-Mount Console KVM Switch to be programmed with corrupted data. This may cause your Rack-Mount Console KVM Switch to stop working and become incapable of accepting corrective updates. Try updating the device again; if this fails, then contact Belkin Technical Support for assistance.

### Completing a Standalone Rack-Mount Console KVM Switch Firmware Update

1. Power-cycle or reset the Rack-Mount Console KVM Switch.
2. The internal components of the Rack-Mount Console KVM Switch will be reprogrammed with the new code (this may take several minutes).
3. When the update is complete, the Rack-Mount Console KVM Switch

### Completing a Firmware Update on Multiple KVM Devices (Daisy-Chained)

1. Power-off ALL of the KVM devices in the daisy-chain.
2. Power-on ONE KVM device.
3. The internal components of the KVM device will be reprogrammed with the new code (this may take a few minutes).
4. When the update is complete (approximately two minutes), the KVM device will play a series of tones, boot up automatically, and display the Splash Screen. The KVM device is now updated and fully functional.
5. **POWER-OFF** the updated KVM device.
6. Repeat steps 2–5 for each of the KVM devices until all have been successfully updated.
7. When all of the KVM devices have been independently updated, power-on all of the BANKs of the daisy-chain. The entire daisy-chain is now updated and fully functional.

**I've daisy-chained multiple KVM switches; now I want to add another console. What do I need to do to get it running?**

- If you want to add your console to a KVM switch that is already in your daisy-chain with its DIP switches set from 00 through 03, you simply have to connect your monitor, keyboard, and mouse.
- Connect the KVM switch to the servers following the same procedure that you would for a standalone KVM switch. Before you power-on the BANK, connect the daisy-chain cable to it and one of the KVM devices on the end of the chain (be sure to use the "IN" port on one BANK and the "OUT" port on the other). Turn on the KVM devices. Bring up the OSD, on one of the other consoles, and enter Setup Mode. Go to the "Passwords" page and click the "Broadcast Passwords" button. The new console is synchronized with the remainder of your daisy-chain and ready to use.

**I have a Macintosh® server that doesn't have an eject button on its CD tray, and the "Eject" key on my keyboard doesn't work through the Rack-Mount Console KVM Switch. How do I open my drive?**

On Mac OS® X (v10.1 and up), press F12 to eject the CD.

To map the eject function on your keyboard for Mac OS 9, take the following steps:

1. From the "Apple" menu, select "Sherlock2".
2. Select the hard drive that contains the Mac OS 9 system information.
3. In the "Search" field, enter "Eject this disk".
4. Select the magnifying glass icon to begin search.
5. From the "Apple" menu, select "Control Panels".
6. From the "Control Panels" menu, select "Keyboard".
7. In the "Keyboard" dialog box, select the "Function Keys" button.
8. Choose the key that you want to execute the eject function.
9. Select the function key and an "Assign F[X] key" dialog box appears, where X indicates the number of the function key that you pressed.
10. Choose the application "Eject this disk" (either from a copy on the desktop, or from the location indicated in Sherlock) and select the "Assign" button.
11. Select "OK" to close the "Hot Function Keys" dialog box.
12. Close the keyboard application.

**NOTE:** By creating a copy of the "Eject this disk" application on your desktop, you can easily map the "Eject this disk" function to the keyboard map. To copy the "Eject this disk" application from within Sherlock, hold down the "Option" key on the keyboard ("Alt" key on PC keyboard) and drag the application from the search results box to your desktop.

### **The following definitions are used throughout this User Manual.**

**AutoScan:** A mode of operation where the KVM switch or KVM expander scans from one port to another, on an ongoing basis, as configured by the user.

**BANK:** The address of a daisy-chained KVM switch or KVM expander (00–15, set by the DIP switch or in the OSD).

**Console:** The all-in-one term for the keyboard, video monitor, and mouse connected to a KVM switch.

**Console Port:** Receptors for the console to connect to the KVM switch.

**Control:** When discussing switching between ports, control means that the console is capable of sending input to the server. Control requires that the console also has focus on the port, and is viewing it.

**Daisy-Chain:** A configuration of multiple KVM switches and KVM expanders that are connected one to another in a series. A Belkin KVM Switch daisy-chain uses common settings to allow seamless, complex interactions between multiple consoles for control over many servers.

**Focus:** This term is used in two distinct ways:

1. In the OSD, the focus is represented by a dashed gray line around the control. The focus determines which control will be activated by pressing the space bar or the “Enter” key; if the focus is on a button, or inside an edit box, pressing “Enter” will activate that control, whereas if the focus is on another control (e.g. the list box), the “Enter” key will activate the default control (Close or Exit).
2. When discussing switching between ports, focus refers to the act of targeting a particular port.

**HID:** Human Interface Device, the USB device class that includes keyboards and mice.

**KVM:** Literally, “Keyboard Video Mouse”, this term refers to technology that allows two or more computers to be controlled by one keyboard, video monitor, and mouse; some switches that use KVM technology enable sharing of other peripherals such as audio speakers and microphones.

**KVM Device:** In this User Manual, this term is used to refer to any Rack-Mount Console KVM Switch, other KVM switch, or KVM expander.

**KVM Expander:** A device that allows users to expand the number of servers connected to their existing KVM configuration. It does not have a console port, so it must be daisy-chained to a KVM switch or Rack-Mount Console KVM Switch for a user to access the servers.

1

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**KVM Switch:** A device that allows a user to access and control multiple servers from a single console. It has at least one console port and multiple server ports.

3

**OSD:** On-Screen Display, a Graphical User Interface that can be used to control and configure the KVM Switch.

4

**Port:** An interface receptor on a server through which you can attach a device or plug in a device cable.

5

**Primary KVM Switch:** A KVM switch set to BANK address 00–03 only with a console attached.

6

**Rack-Mount Console KVM Switch:** In this User Manual, this term is used to refer to the Belkin OmniView ENTERPRISE 1U Rack-Mount Console with Built-In 8-Port KVM Switch.

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**Secondary KVM Switch:** Any KVM device without a console attached (BANK address 04–15).

**Select Mode:** The mode of operation a daisy-chained KVM device, in Static Mode, enters when the first front-panel button is pressed. Select Mode allows the user to select BANKs, hosts, etc. with the next button press.

**Standalone:** A single KVM switch that operates independently (not connected to others).

**Static Mode:** The predominant mode of operation of the KVM device. The KVM device enters this state whenever it has not received a button press for at least five seconds.

**View:** When discussing switching between ports, viewing means that the console is receiving video from the server. Viewing requires that the console also has focus on the port.



## FCC Statement

### Declaration of Conformity with FCC Rules for Electromagnetic Compatibility

We, Belkin Corporation, of 501 West Walnut Street, Compton, CA 90220, declare under our sole responsibility that the product:

F1DC108C

to which this declaration relates:

Complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

#### CE Declaration of Conformity

We, Belkin Corporation, declare under our sole responsibility that the product F1DC108C, to which this declaration relates, is in conformity with Emissions Standard EN55022 and with Immunity Standard EN55024, LVP EN61000-3-2, and EN61000-3-3.

#### ICES

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

#### Belkin Corporation Limited Two-Year Product Warranty

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