

owner's manual



HP	J1473A	4-port Console Switch
HP	J1474A	8-port Console Switch
HP	J1475A	Console Switch Expansion Kit

Owner's Manual
Manual do Proprietário
Manual del propietario
Manuel du propriétaire

Hewlett-Packard Company
www.hp.com

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FCC Notification

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

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Canadian Notification

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

Le present appareil numerique n'emet pas de bruits radioelectriques les limites applicables aux appareils numeriques de la class A prescrites dans le Reglement sur le brouillage radioelectrique edicte par le ministere des Communications du Canada.

Japan - VCCI Class A ITE

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Declaration of Conformity

(according to ISO/IEC Guide 22 and EN45014)

Manufacturer's Name: Hewlett-Packard
Manufacturer's Address: 10955 N. Tantau Avenue
Cupertino, CA 95014-0770 U.S.A.

Declares that the product:

Product Name: Rackmount Console Switch 4-Port / 8-Port / Expansion
Product Type: Console Controllers
Model Numbers: J1473A / J1474A / J1475A
Product Options: All

Conforms to the following Product Specifications:

Safety: IEC 950:1991+A1+A2+A3+A4
EN 60950:1992+A1+A2+A3+A4
EMC: CISPR 22:1993 / EN 55022:1994 - Class A ⁽¹⁾
EN 50082-1:1992
IEC 801-2:1991 / prEN 55024-2:1992 - 4kV CD, 8kV AD
IEC 801-3:1984 / prEN 55024-3:1991 - 3V/m
IEC 801-4:1988 / prEN 50024-4:1992 - 1kV power lines
- 0.5kV signal lines

Supplementary Information:

The product herewith complies with the requirements of the Low Voltage Directive 73/23/EEC and 93/68/EEC and the EMC Directive 89/336/EEC and 92/31/EEC and 93/68/EEC and carries the CE Marking, accordingly.

⁽¹⁾ The product was tested in a typical configuration with a Hewlett-Packard computer system.

Cupertino, CA, USA November 1, 1999



Location

Date

John McBain, Sr. Quality Engineer

Only for Regulatory Compliance Information:

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USA Contact: Hewlett-Packard Company, Regulatory Affairs Office, 3000 Hanover Street, Palo Alto, CA 94304 (Tel. 650-857-4423).

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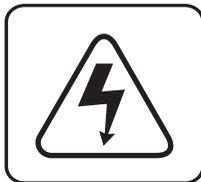
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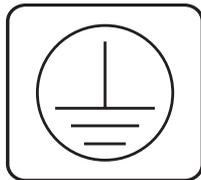
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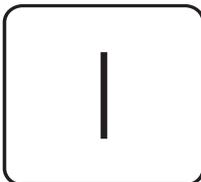
INSTRUCTIONS: The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



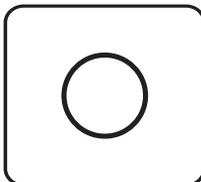
DANGEROUS VOLTAGE: The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



PROTECTIVE GROUNDING TERMINAL: A terminal which must be connected to earth ground prior to making any other connections to the equipment.



POWER ON: This symbol indicates the principal on/off switch is in the on position.



POWER OFF: This symbol indicates the principal on/off switch is in the off position.

1

Product Overview

Feature Overview

The Hewlett-Packard Rackmount Console Switch allows you to control multiple servers with one keyboard, monitor and mouse. The switch is available in two models: the J1473A and the J1474A. These models support four and eight attached servers respectively. Each server can be up to 15 feet away from the switch and peripherals. The Rackmount Console Switch works with IBM PC/AT and PS/2 systems, and 100% compatible computers with support for VGA, SVGA, XGA and XGA-II video. PS/2 keyboard and PS/2 mouse peripherals are supported through the rear of the unit.

Multiuser, remote access capability

The J1473A and J1474A Rackmount Console Switches can be upgraded to support two simultaneous users in the system by purchasing the J1475A Console Switch Expansion kit. Within the base unit, the switch performs as a matrix, with both users independently accessing any of the attached servers at the same time. Your second user can be as far as 500 feet away from the switch. This extension capability lets you place your second keyboard, monitor and mouse wherever you need them most.

FLASH upgrade capability

The Rackmount Console Switch is FLASH upgradable. This means that you can update your firmware at any time through a simple serial connection.

Extensive mouse support

The Rackmount Console Switch offers support for numerous mice including: Microsoft IntelliMouse, IBM ScrollPoint, Logitech MouseMan +, Logitech Marble Plus, Logitech Marble FX and the Kensington Expert Mouse.

Plug and play

The Rackmount Console Switch supports Plug and Play video and is compliant with the VESA DDC2B standard.

Share mode

Share Mode enables two users to view information on a single server at the same time and allows either user to have keyboard and mouse access to that server.

- Expansion for up to 64 servers* A J1473A Rackmount Console Switch will support up to four attached servers, or ports - J1474A models support eight. If more ports are needed, multiple units can be cascaded together for expansion. Up to two tiers of units can be connected for a total of 16 (J1473A) or 64 (J1474A) attached servers in one system.
- "Keep Alive" feature* The Rackmount Console Switch's "Keep Alive" feature allows attached servers to power the unit in the event of a switch power failure. This prevents attached servers from locking up and keeps you from losing valuable time and data.
- Advanced security for total control over system access* Use the advanced multi-level security feature to configure and control server access for every type of user in the system. The administrator has full access privileges, while individual users can have viewing or viewing/editing capability for each attached server.
- On-screen display capability* Configure and control your switch with on-screen menuing! Name your servers anything you wish, then select the desired server from an easy-to-use menu. Servers can be listed by name or by port. Secondary menus let you configure and initiate scanning and other features.
- AutoBoot technology* The AutoBoot feature boots all attached servers during initial power-up or after a power failure. Servers are booted transparently without operator intervention, and may be powered-up one-at-a-time or all at once. When the power stabilizes, a port may be selected.
- Built-in scanning capabilities* A built-in scanning feature allows you to automatically monitor, or scan, your servers without intervention. When keyboard activity is detected, scanning is suspended until all activity stops. Scanning then resumes with the next port in sequence. Scan ports by name, by address or configure your own customized scanning order.
- Configurable ID Window* The Rackmount Console Switch's ID Window feature displays the name of your selected port for easy reference. Size, color, position and length of time the window remains on-screen are all user configurable.
- Easy maintenance and troubleshooting* On-screen menus guide you through quick troubleshooting procedures. Menu selections allow you to reset your keyboard and mouse or display your switch's current firmware revision for easy system maintenance.

Save System Settings

System settings such as mouse sampling rate and keyboard status indicators are saved automatically by the Rackmount Console Switch, eliminating unneeded menu options or keyboard sequences.

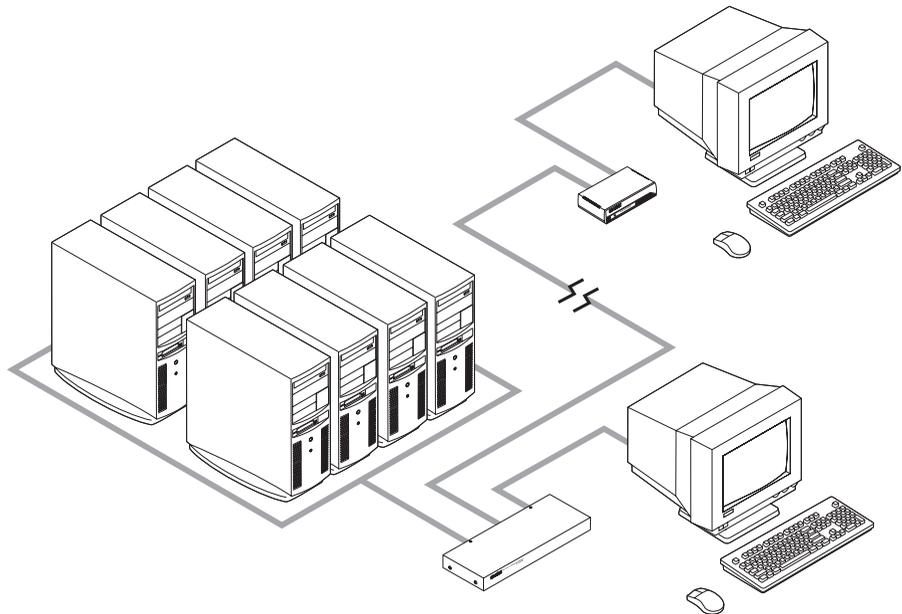
Hot Pluggable

Since the Rackmount Console Switch is “Hot Pluggable” you can add and remove peripherals without powering down the computers or the switch.

Can be mounted in non-HP racks

For easy integration into your current configuration, you can mount the Rackmount Console Switch in any standard rack - even if it is not a Hewlett-Packard rack.

A typical configuration is shown below.



2

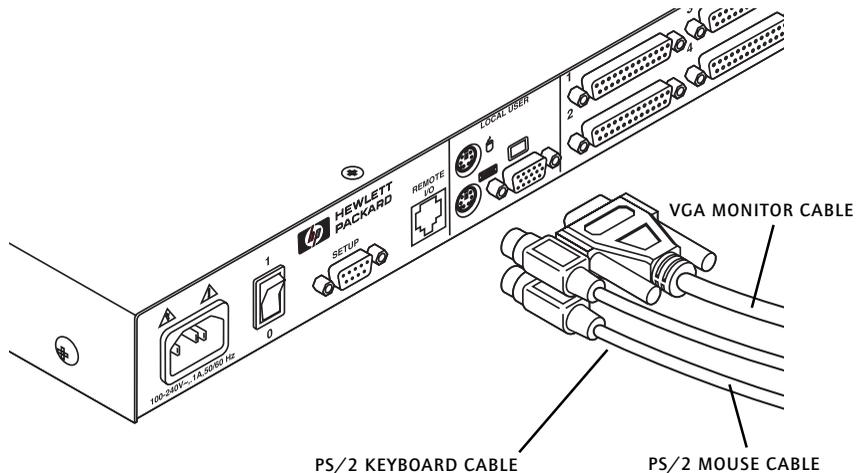
Installation

Basic Install

1. **Power down all servers that will be part of your Rackmount Console Switch system.**

Connecting your Local User

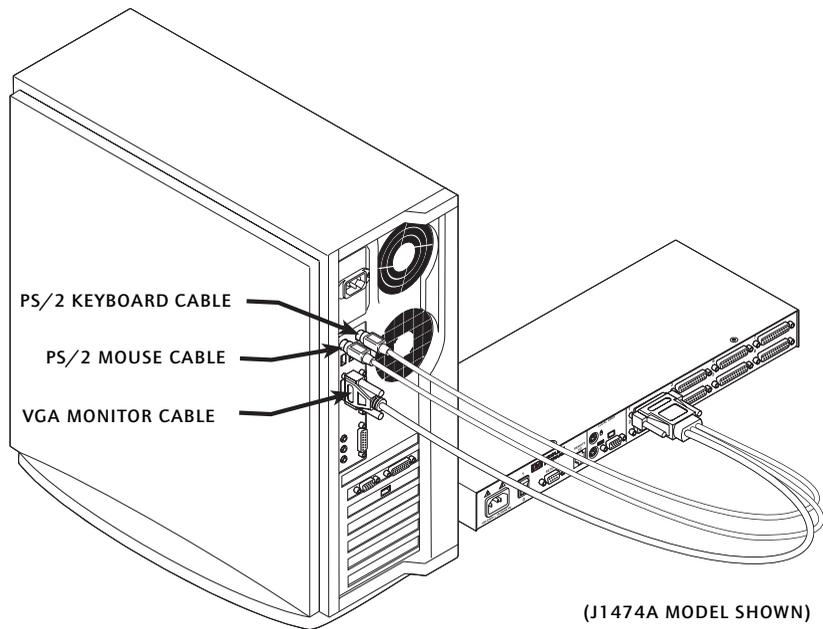
2. Locate your PS/2 keyboard, VGA video monitor and PS/2 mouse.
3. Plug your VGA monitor cable into the port labeled  on the back of your Rackmount Console Switch. Plug your PS/2 keyboard cable and your PS/2 mouse cable into the ports labeled  and  respectively.



Connecting Servers to the Rackmount Console Switch

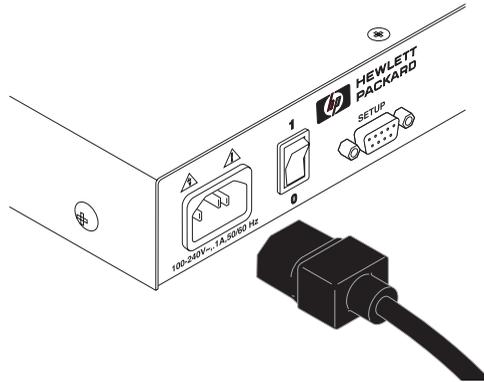
4. Locate your first input cable. It will have a 25-pin “D” connector at one end. Plug this cable into any numbered port on the rear of the Rackmount Console Switch. The other end of the input cable will have three connectors: a 15-pin “HDD” connector for video, a 6-pin miniDIN connector for a PS/2 keyboard connection, and a 6-pin miniDIN connector for a PS/2 mouse connection. The PS/2 mouse connector is designated by a mouse icon.

Plug these connectors into the matching ports on your server.



5. Locate your next input cable. Repeat step 4 until all servers are properly attached to the Rackmount Console Switch.
6. Locate the power cord that came with your Rackmount Console Switch. Plug it into the IEC power connector on the switch. Make sure that the power switch is off, then plug the other end of the power cord into an

appropriate AC outlet or Power Distribution Unit in the rack. This outlet must be near the equipment and easily accessible to allow for unplugging prior to any servicing of the unit.



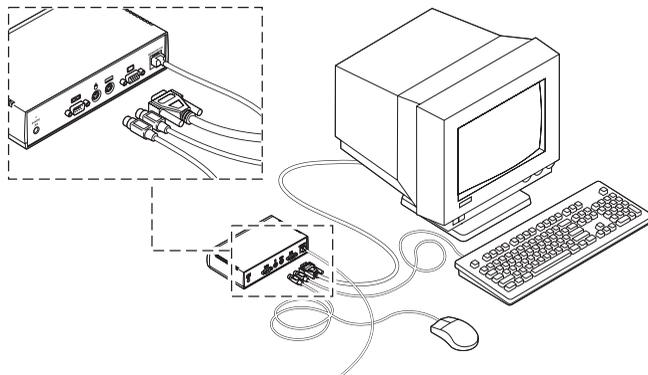
7. Power-up your Rackmount Console Switch first, then power up all attached servers.



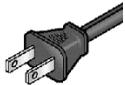
The Rackmount Console Switch and all attached servers should be powered-down before servicing the unit. Always disconnect the power cord from the wall outlet.

Connecting the Optional J1475A HP Console Switch 2 User Expansion Kit

1. Plug a standard Category 5 Unshielded Twisted Pair cable (up to 500 feet) into the RJ-45 style modular jack on the rear of the Rackmount Console Switch. Make sure the Category 5 cable is wired straight through (no crossing of wires) and that it is terminated to the EIA (TIA) 568 B standard, commonly used for 10BaseT Ethernet.
2. Route the Category 5 cable to the location where you intend to place the secondary monitor, keyboard and mouse.
3. Place the Console Expansion Box near the monitor and connect your monitor, keyboard and mouse to the connectors on the rear of the Expansion Box just as you would connect them to your server. Make sure you connect your monitor's power supply to appropriate electrical outlets. (Please note that the  connector on the rear of the Expansion Box is not used. Do not connect anything to the  connector on the rear of the Expansion Box.)



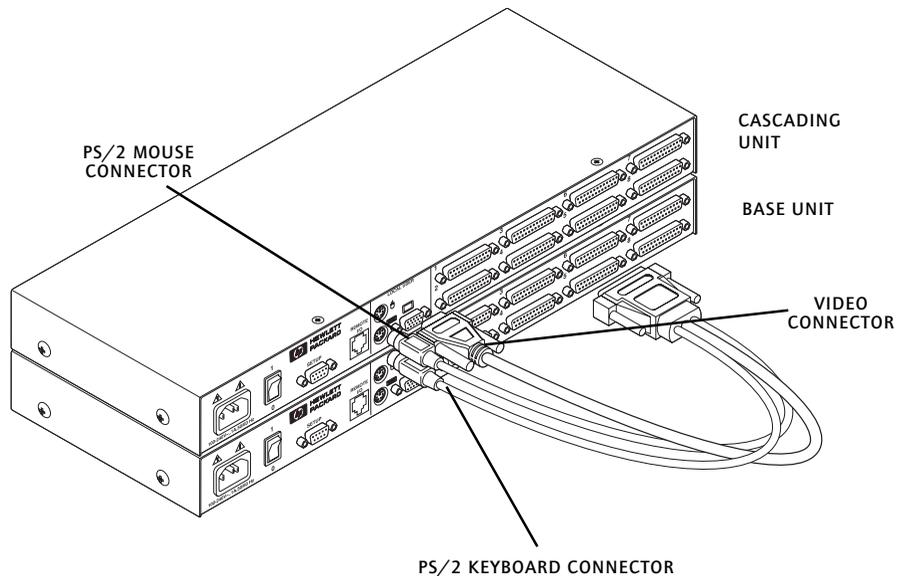
4. Connect the Category 5 cable to the modular jack on the rear of the Expansion Box.
5. Connect the circular power plug from the included power supply to the power port on the Expansion Box. Then plug the power supply into a convenient electrical outlet. (See the table for additional power cord information.) Verify that the Expansion Box's POWER light is now lit.

Cord Set HP Part Number	Description	Some Countries Where Used	Approximate Appearance of Plug End of Cord Set
8120-8367	plug: IRAM 2063 (Straight) connector: IEC 320-1 C7 (Straight) cable: 1.8 meters, Black, 250V, 2.5A	Argentina	
8120-8373	plug: GB 1002 Figure 1 (Straight) connector: IEC 320-1 C7 (Straight) cable: 1.8 meters, Black, 250V, 2.5A	China (PRC)	
8120-6312	plug: AS 3112 Figure 2.1C (90 Degree) connector: IEC 320-1 C7 (Straight) cable: 1.8 meters, Black, 250V, 2.5A	Australia, New Zealand	
8120-6313	plug: NEMA 1-15P (Straight) connector: IEC 320-1 C7 (Straight) cable: 1.8 meters, Black, 125V, 2.5A	United States, Canada, Mexico, Taiwan, Brazil	
8120-6314	plug: CEE 7 - XVI (Straight) connector: IEC 320-1 C7 (Straight) cable: 1.8 meters, Black, 250V, 2.5A	Continental Europe	
8120-8699	plug: BS 1363A (90 degree) connector: IEC 320-1 C7 (Straight) cable: 1.8 meters, Black, 250V, 2.5A	United Kingdom, Singapore, Hong Kong, Malaysia	
8120-6316	plug: JIS C8303 (Straight) connector: IEC 320-1 C7 (Straight) cable: 1.8 meters, Black, 125V, 2.5A	Japan	
8120-6317	plug: IEC 83-B1 (90 degree) connector: IEC 320-1 C7 (Straight) cable: 1.8 meters, Black, 250V, 2.5A	South Africa, India	
8120-8441	plug: KSC 8305 (Straight) connector: IEC 320-1 C7 (Straight) cable: 1.8 meters, Black, 250V, 2.5A	Korea	
8120-8452	plug: CEI 23-16 (Straight) connector: IEC 320-1 C7 (90 degree) cable: 1.8 meters, Flint Gray, 250V, 2.5A	Chile	

Advanced Install

Attaching Multiple Rackmount Console Switches

1. Follow steps 1-3 of the Basic Install section for each cascaded unit.
2. Plug the 25-pin "D" connector of your input cable into any available server port on the rear of your base Rackmount Console Switch.
3. Plug the 15-pin video connector on the other end of the cable into the port labeled  on your first cascading switch. Plug the PS/2 mouse connector, designated by a mouse icon, into the  port. Plug the remaining 6-pin miniDIN keyboard connector into the  port.
4. Repeat steps 4-7 in the section 'Connecting Servers to the Rackmount Console Switch' for each attached server.



(J1474A MODELS SHOWN)

3

Basic Operations

Keyboard Control

The following notational conventions appear throughout this chapter to illustrate commands for operating the Rackmount Console Switch. Whenever you see one of the symbols listed on the left side of the table, substitute the corresponding steps or values listed on the right.

Convention	Key Sequence or Value
<CM>	Enter Command Mode: 1. Press and hold down the 'Num Lock' key. 2. Press and release the minus (-) key on the numeric keypad. 3. Release the 'Num Lock' key. Note: For alternate hot-key sequences, see 'System Control & Maintenance' later in this chapter.
<Enter>	Press the 'Enter' or 'Return' key. The <Enter> command is used to execute an instruction and exit from Command Mode.
<i>Addr</i>	The numbers on your Rackmount Console Switch are your servers' addresses. Enter the number for the server you're selecting. For cascaded systems, enter the port address on the base unit where the second switch is attached, then a period (.) followed by the address of the server in your cascaded unit. <i>Example:</i> A switch is cascaded from port 2 of your base unit. To access the server at port 3 of this second (cascaded) unit, enter 2.3.
<ESC>	Press the 'Escape' key. The <ESC> command is used to exit Command Mode without executing an instruction.

Regarding OSD on-screen menu commands, the words 'choose' and 'select' indicate that a users should highlight the relevant command and press the enter key.

Keyboard Switching

One of the ways to change the active port in a non-secured Rackmount Console Switch system is by entering a short sequence of keystrokes on the keyboard. This is called keyboard, or hot-key, switching.

Note: Hot-key switching is only available in the default non-secure state. For more information on secure versus non-secure operation, see the 'Administrator Functions' section of Chapter 4.

The first set of keystrokes places your system in Command Mode. A blue window with a line for commands will appear. As long as you are operating in Command Mode, whatever you type will be interpreted as port switch commands until the **Enter** or the **ESC** key is pressed to terminate Command Mode. None of the keystrokes entered will be forwarded to the attached server until you exit Command Mode.

Next, enter the address (*Addr*) for the port you wish to select.

Press **Enter** to accept the new port. The following command line shows the proper format used to switch your active port via keyboard.

Key Sequence	Action
<CM>Addr<Enter>	Selects an active port via keyboard.

Below is a sample of a keyboard switching session, with an accompanying explanation for each step.

Key Sequence	Action
1. <CM>4<Enter>	Selects Port 4 on the base unit as the active port.
2. <CM>3.2<Enter>	Selects the switch attached to Port 3 on the base unit, then selects Port 2 on the cascaded unit.
3. <CM>1<Enter>	Selects Port 1 on the base unit as the active port.
4. <CM>2.1<ESC>	Exit Command Mode. The instruction is not executed. Port 1 is still the active port.

System Control & Maintenance

The following commands are used for system control and maintenance. Enter the command sequences to perform the actions described in the table below.

Key Sequence	Action
<CM>Kn<Enter>	Sets the keyboard scan set where <i>n</i> is a scan set number 1-3.
<CM>MR<Enter>	If you hot-plug your mouse cable, you may experience a loss of mouse signal. Use this command to restore the signal if you are using a server with a standard PS/2 mouse driver.
<CM>MW<Enter>	If you hot-plug your mouse cable, you may experience a loss of mouse signal. Use this command to restore the signal if you are using a server with a Microsoft IntelliMouse or other wheel mouse driver.
<CM>AV<Enter>	Displays the current firmware version of your switch.
<CM>SG<Enter>	Enables the scan Go command (By address only)
<CM>SH<Enter>	Enables the scan Halt command
<CM>M+<Enter>	Enables mouse suspension of scanning
<CM>M-<Enter>	Disables mouse suspension of scanning
<CM>H1<Enter>	Changes the hot-key sequence to the default: (NumLock, -)
<CM>H2<Enter>	Changes the hot-key sequence to the 1st alternate: (NumLock, *)
<CM>H3<Enter>	Changes the hot-key sequence to the 2nd alternate: (CTRL, ~)
<CM>OSD0<Enter>	Disables the OSD Sequence
<CM>OSD1<Enter>	Changes the OSD sequence to the default: (CTRL, CTRL)
<CM>OSD2<Enter>	Changes the OSD sequence to the 1st alternate: (Alt, Alt)
<CM>OSD3<Enter>	Changes the OSD sequence to the 2nd alternate: (Shift, Shift)
<CM>ZM<Enter>	Use this command to resynchronize the mouse after a device or server hot-plug. Repeat, if necessary, until synchronization is re-established. Note: Using this command while the mouse is operating correctly will cause the mouse to lose sync.

4 On-Screen Display Operations

Activating OSD

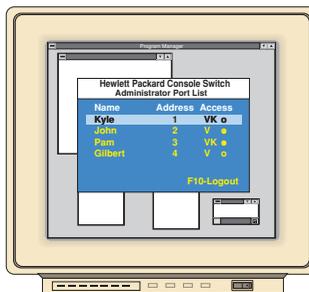
Activate on-screen display (OSD) by pressing either of the keyboard **Ctrl** (control) keys twice within one second. Refer to the section 'System Control & Maintenance' in the previous chapter for alternate sequences. In nonsecure mode, this brings up the main OSD Window, "Administrator Port List".

In secure mode, activating OSD will bring up the "User Login" window. Type in your user name and press **Enter**. The system administrator should login as "Admin", "Root" or "Administrator". Type your password and press **Enter**. This will bring up your "Port List". If there is no keyboard activity, the login window will timeout after five minutes and go blank to allow the monitor's energy saver to execute. Activate on-screen display to restore the login prompt.

Note: All Rackmount Console Switches ship in the default non-secure state. For more information on secure versus non-secure operation, see the section 'Administrator Functions'.

The OSD Window

This window lists all named ports in your Rackmount Console Switch system. They will be listed alphabetically by name with their port addresses and access status beside them. Beside the address there will be a small circle. If the circle is filled, the server in question is powered on. When in secure mode, only the ports that are accessible to the logged in user will be listed. (See the section 'Administrator Functions' for more information.)



THE MAIN OSD WINDOW

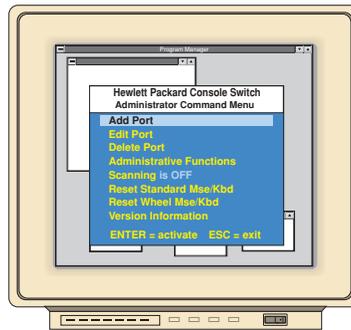
Use your up and down arrow keys and the page up and down keys to select a port. Move immediately to the top or bottom of the list with the home and end keys. Press a letter while in the main OSD Window, and the Highlight Bar moves to the first port name beginning with that letter. Press the letter repeatedly to scroll through all ports that begin with that letter from top to bottom. Press **Enter** to make the switch. To exit the OSD Window without changing ports, press **Esc**.

To manually logout when in secure mode, press **F10**.

The Command Menu

Once you have activated the main OSD Window, you can open the Command Menu by pressing either of the **Ctrl** keys twice.

The Command Menu options are selected in the same manner as ports in the OSD Window. Scroll the Highlight Bar up and down and press **Enter** when your selection is highlighted.



THE COMMAND MENU

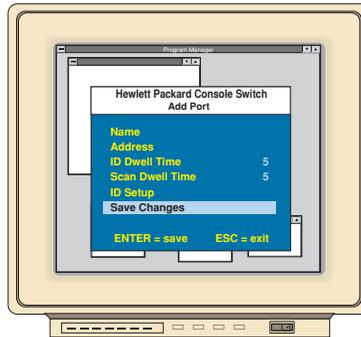
If you are operating in non-secure mode or are the system administrator, you'll have several options that are not in the User level Command Menu. Add Port, Edit Port, Delete Port and Administrator Functions are covered in separate sections in this chapter. Scanning is covered in Chapter 6.

If you experience a loss of mouse signal while using the Rackmount Console Switch, select the 'Reset Standard Mouse/Keyboard' option from this menu for a server with a standard mouse driver or 'Reset Wheel Mouse/Keyboard' if you are using a server with a Microsoft IntelliMouse or other wheel mouse driver. This will reset and in most cases restore your mouse signal. These commands are equivalent to the **<CM>MR<Enter>** and **<CM>MW<Enter>** keyboard commands listed in the 'System Control & Maintenance' section of this manual.

Choose the option 'Version Information' to display on your monitor the current version level of your Rackmount Console Switch firmware. Press the **Esc** key to clear this information from your screen.

Basic Port Maintenance

Basic Port Maintenance is performed from the Administrator Command Menu, and is available if you are operating in non-secure mode or if you are the system administrator. Here you can add, delete or edit ports.



THE ADD PORT WINDOW

Adding Ports

1. Select 'Add Port' from the Administrator Command Menu or press the **Insert** key. Type in a new port name, up to 14 characters long, and press **Enter**.
2. Type in the address for the server you are naming and press **Enter**. Please note that the address cannot be longer than two digits.
3. Enter the dwell time for the ID Window and press **Enter**.
4. Enter the dwell time for scanning and press **Enter**.
5. After selecting "ID Setup", use the arrow keys to position the ID window to where you would like it to appear when this port is selected. Then press **Enter**. (For further information see 'The ID Window' later in this chapter.)

Press **Esc** at any point to exit this operation without adding the port.

Editing Port Names and Addresses

1. Highlight the port you wish to change in the main OSD Window.
2. Press the **Ctrl** key twice to access the Command Menu or press the **F2** key once. (If you press **F2** skip Step 3)
3. Select 'Edit Port' from the Command Menu.
4. Enter the new port name, address, ID Dwell time and Scan Dwell time. Press **Enter** to accept.
5. After selecting "ID Setup", use the arrow keys, position the ID window to where you would like it to appear when this port is selected. Then press **Enter**. (For further information see 'The ID Window' later in this chapter.)
6. Select "Save Changes" and press **Enter** to accept.

Press **Esc** at any point to exit this operation without saving the changes.

Deleting an Existing Port

1. Highlight the port you wish to delete in the main OSD Window.
2. Press the **Ctrl** key twice to access the Command Menu or simply press the **DELETE** key. (If you press **DELETE** skip Step 3)
3. Choose the 'Delete Port' option.
4. Type Y or N at the prompt to confirm the deletion and press **Enter**.

The ID Window

The ID Window appears when you change ports and displays the name of the selected port. This window can be individually configured for each port in your system. The characteristics of the ID Window can be changed from the Edit Port Menu. This option is only available if you are operating in non-secure mode or if you are the system administrator.

Changing the Size, Color and Position of the ID Window

1. Highlight the port you wish to change in the main OSD Window.
2. From the main OSD Window, press the **Ctrl** key twice to access the Command Menu or press F3. (If you press **F3** skip Step 3)
3. Select 'Edit Port' from the Command Menu.
4. Choose the option 'ID Setup.'

Follow the procedures outlined in the table below to change the size, color or position of your ID Window.

Operation	Procedure
Move the ID Window	Use the arrow keys or mouse to move the ID Window's position on the monitor. (Hold down the SHIFT key to move faster.) If the window flickers but does not move, continue tapping the arrow keys until it moves back into range.
Change window background color	Press the <PAGE UP> key to cycle through the available window background colors.
Change text color	Press the <PAGE DOWN> key to cycle through the available text colors.
Change window length	Use the (+) and (-) keys to change the length of the ID Window.
Change window size	Press SPACE to toggle between large and small.
ID Window Help	Press F1

5. Press **Enter** to accept the changes or press **Esc** to exit the menu without saving the changes.

Setting the ID Window Dwell Time

This menu selection lets you set the time that the ID Window remains on screen after a port switch. Each port can be configured independently. The default time is set for five seconds.

1. Highlight the port you wish to change in the main OSD Window.
2. From the main OSD Window, press the **Ctrl** key twice to access the Administrator Command Menu.
3. Select 'Edit Port' from the Command Menu.
4. Choose the option 'ID Dwell Time'.
5. Enter a number between 0-255 seconds. Entering **0** disables the ID Window. Entering **255** allows the ID Window to stay on screen the entire time the port is active.

Administrator Functions

The Administrator Functions Menu is accessed from the Administrator Commands Menu. Here, you can setup the administrator and user accounts and utilize the Rackmount Console Switch's FLASH upgrade feature.

Differences between Secure and Non-Secure Operating Modes

Administrator Account

Setting up an administrator account with a password places your system in secure mode. Non-secure systems do not use passwords. To return your system to the default of non-secure mode, simply delete the administrator password. When the administrator password is enabled, user passwords must also be entered or the switch will not be completely secure. The default for users is no password. Simply press **Enter** at the prompt.

If you configure an administrator password from this menu, your system will then be in secure mode. A lock symbol will appear to the right of the menu headings to indicate secure operation.

Logout Capability

You have the option of automatically logging out of the system after an administrator defined period of inactivity. Timeout values can be set from 0 to 60 minutes. (Default is five minutes). A value of 0 keeps the user logged in continuously. When the timeout is reached, the current port is deselected and the display goes to the login prompt. Users must login again to access system servers. This option is only available in secure mode.

Multiple User Logins

You can create up to four user logins in addition to the system administrator. Use these logins to configure and control server access for every type of system user. The administrator has full access privileges; additional users can have viewing or viewing with keyboard and mouse control capability for each attached server. This option is only available in secure mode.

Creating the Administrator Account

1. Press the **Ctrl** key twice to access the Command Menu.
2. Select 'Administrator Functions' from the Command Menu.
3. Select 'Setup Administrator' from the Administrator Menu.
4. Type your password and press **Enter**. (The password is not case sensitive.)
5. Repeat entry of the password for confirmation.
6. Enter the number of minutes you wish to pass without keyboard/mouse activity before the administrator is automatically logged out of the system. Entering a 0 keeps the administrator logged on continuously; 60 is the maximum setting.

CAUTION: Security is enabled once the password has been created. Store a copy of your password in a safe place.

You should now see the option 'F10 - Logout' at the bottom of your main OSD Window and a lock symbol to the right of the menu headings.

Setting Up Additional Users

1. Press the **Ctrl** key twice to access the Command Menu.
2. Select 'Administrator Functions' from the Command Menu.
3. Select 'Setup User 1' from the Administrator Menu.
4. Choose the 'Name' heading and enter the name for this user.
5. Choose the 'Password' heading and enter the password and confirm it for this user. (Passwords are not case sensitive.)
6. Choose the 'Logout Time' heading. Enter a value in minutes for this user's logout time. A value of 0 keeps the user logged on continuously; 60 is the maximum setting. The default is set for 5 minutes.

7. Choose the 'Access Setup' heading. Here, you will see a listing of all attached servers in the port list. For each server, choose a level of access for this user by selecting one of the function keys listed on the screen: F5 for no access, F6 for video only or F7 for video and keyboard/mouse capability. The default is set for full access. All changes go into effect as soon as they are made. Press **Enter** when you have completed your configuration.
8. Press **Enter** to accept your selections and repeat steps 3-7 for each remaining user.

FLASH Upgrades

FLASH Upgrading allows you to change the code that runs your Rackmount Console Switch. This lets you enhance the features of your switch and keep it current with the latest improvements in KVM switching. For more information, see Appendix B.

5

Console Switch 2 User Expansion Kit (Optional)

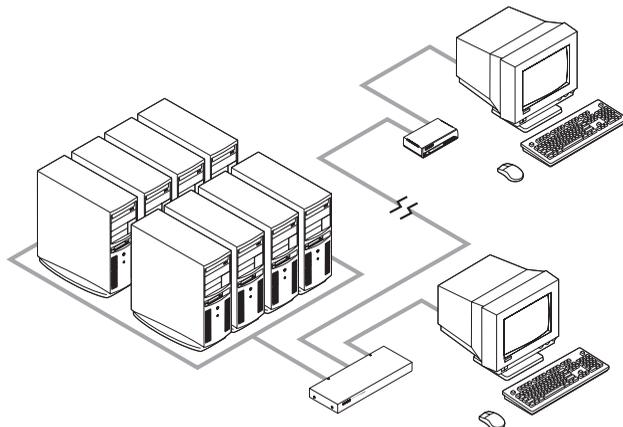
Multiuser Operation

If you have purchased the optional Console Switch 2 User Expansion Kit, you can utilize advanced features that go beyond those available in the standard Rackmount Console Switch. Primarily, the kit provides for a remote user that may be located up to 500 feet away from the switch. The remote user has all the capabilities of the local user and can access any server attached to the Rackmount Console Switch just as if he were sitting in front of it.

Within the base unit, there are two ways to utilize the multiuser capabilities of the Rackmount Console Switch. You can access servers independently or share access with the other user.

Independent Access

As long as both users are trying to access servers attached to the base Rackmount Console Switch, they may access any of them independently at the same time. In the diagram below, either user may access any attached server at any time. They may also share access to any attached server.



Shared Access

If both users need to access the same server in the base unit, they can 'share' access to it through the Rackmount Console Switch. Sharing means that both consoles can view a server port at the same time, but only one can enter data through the keyboard or mouse at any given moment. As soon as the active console stops all keyboard and mouse activity, the other console can take control of the server.

For information on access across multiple Rackmount Console Switch units, see 'Multi Chassis Operation' below.

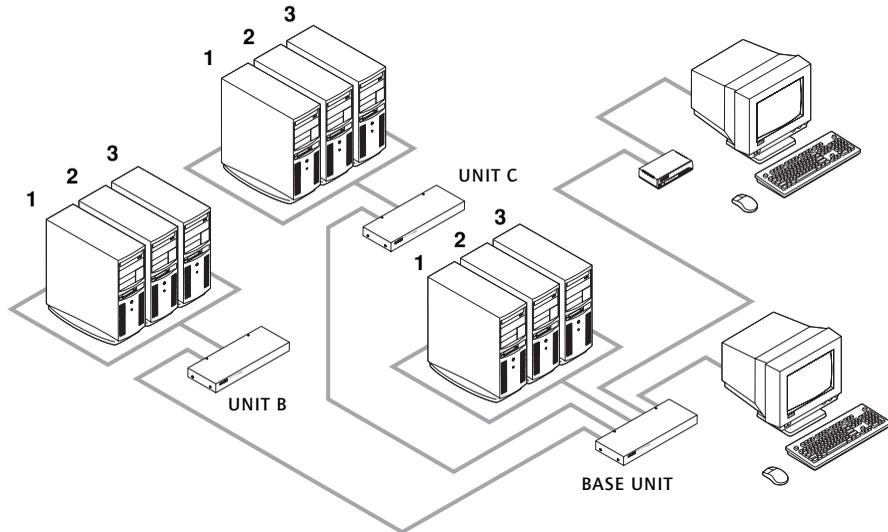
Multi Chassis Operation

Multi chassis operation involves independent access only.

Both users can simultaneously and independently access any server attached to the base Rackmount Console Switch unit. Similarly, independent access is possible across expansion units as long as each user is accessing a **different** expansion unit.

Example

For example, in the configuration below, two users can access nine servers through three Rackmount Console Switch units.

**Independent Access Options**

- 1) Both users can independently access the three servers attached to the base unit at any time.
- 2) Both users can independently access any server in a different Rackmount Console Switch unit at any time.

If one user is working on Port 1 of the base unit, the other user can be independently using servers 2 or 3 of the base unit, or any server attached to units B or C.

If one user is working on Port 2 of unit B, the other user can be independently using any server attached to the base unit or Unit C. This user cannot independently access any server attached to Unit B until the first user connects to a server attached to a different Rackmount Console Switch unit.

6

Port Scanning

Choosing a Scanning Method

The Rackmount Console Switch's scanning feature allows you to automatically monitor, or scan, your server ports without intervention. When keyboard activity is detected, scanning is suspended until all keyboard activity stops. Scanning then resumes with the next port in sequence. The length of time each port remains on the screen, or dwell time, is configurable and can be changed at any time.

There are three ways to scan through the ports in your Rackmount Console Switch system: by name, by address or by list. Please note that the switch **only** scans the servers that are in your OSD list.

Scanning by name allows you to scan ports in alphanumeric order according to the port list in the main OSD Window.

Scanning by address allows you to view each of your active ports in port number order.

Scanning by list allows you to create a customized scanning order for the switch to follow. Any active port in the system can be scanned in any order, as many times as desired.

With all scan methods, you can adjust the dwell time for each port or omit a port from the scan sequence completely.

Choose whichever method is most appropriate for your configuration.

Turning Scanning On and Off

From the OSD menu.

1. From the main OSD Window, press the **Ctrl** key twice to access the Command Menu.
2. Toggle 'Scanning is OFF', 'Scan by Name', 'Scan by Address' or 'Scan by List' from the menu. This is a toggle option - only one scanning option will show on the menu at any one time.
3. Press **Enter**.

By keyboard hot-key sequence

The following key sequences control scanning.

Key Sequence	Action
<CM>SG<Enter>	Enables the scan Go command. (By Address Only)
<CM>SH<Enter>	Enables the scan Halt command.

7

Appendices

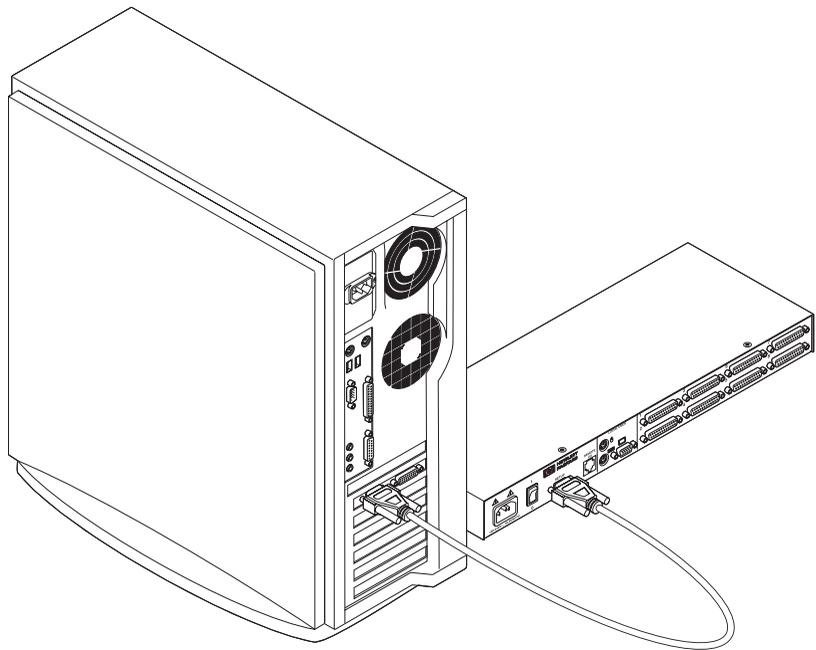
A: Specifications

Mechanical	Height: 1.7" (4.5 cm) Width: 17.2" (43.7 cm) Depth: 6.5" (16.51 cm) Weight: 4.8 lbs (1.91 kg)
Environmental/ Power	Operating Temperature: 41° (5°C) to 104° (40°C) Storage Temperature: -4° (-20°C) to 122° (50°C) Operating Voltage: 100 - 240 VAC Power Frequency: 50 - 60 Hz
Supported Hardware	Computer: IBM PC/AT, PS/2 and 100% compatibles Video Modes: VGA, SVGA Maximum Resolution: 1600 x 1200 @ 72 Hz Peripherals: PS/2 keyboard, PS/2 mouse, IntelliMouse (PS/2 only), IBM Scrollpoint, Logitech Mouseman +, Logitech Marble Plus, Logitech Marble FX and Kensington Expert mouse.
Regulatory Standards	UL 1950, CSA C22.2 No. 950, EN60950 FCC part 15A, EN55022, EN50082

B: FLASH Upgrading

To upgrade the FLASH code on your Rackmount Console Switch, you will first need to obtain the latest FLASH firmware revision from Hewlett-Packard. It is available through the Hewlett-Packard web site at www.hp.com/go/enclosures.

Next you will need a serial cable (available at most electronics stores) to connect a server to your Rackmount Console Switch. Simply connect the



serial cable between the SETUP port on your switch to the serial port on the server.

You will then need some form of terminal software on your attached server so that the computer can communicate with the Rackmount Console

Switch. There are several commercially available. Select one that you are comfortable with and be sure that it can communicate at 38,400 baud.

Configure your terminal program to the following settings:

38,400 Baud
8 Bits
No Parity
1 Stop Bit
No Flow Control

Activate the OSD menu on your Rackmount Console Switch by tapping the Control key twice. Enter Control twice more to activate the Administrator Commands screen and then select Administrator Functions.

Use the down arrow key to highlight the menu selection for FLASH Upgrade, then press Enter.

A menu screen will appear and ask if you wish to continue. You must type out the word Yes before proceeding. Once you have done this, the switch will go into a standby mode and wait for data from the server. (Note: The keyboard, video and mouse are disabled during the FLASH upgrade.)

The final step is to send the FLASH file from your terminal program. To do this, you will need to use the transfer function from whichever program you are using. Send the FLASH file as a text file. The transfer should be completed within five minutes.

The Rackmount Console Switch will automatically check the upgrade and make sure that it is valid. If the switch detects an error, it will abort the upgrade and retain the original OSD firmware. Otherwise, it will return the message "Flash Upgrade Successful". If the file read does not validate, you will be prompted to re-transfer your file.

C: Troubleshooting

Our Technical Support staff is ready to assist you with any installation or hardware problems you encounter with your Rackmount Console Switch. If a problem should develop, follow the steps below:

1. Check the troubleshooting tables to see if the problem can be resolved by following the procedures outlined.
2. If you are unable to find a resolution, fill out the Problem Report in Appendix D completely.
3. Check the Hewlett Packard web site at www.hp.com/go/enclosures for the HP support service phone number nearest you. Have your Problem Report with you when you call. To expedite assistance, have this manual with you when you call, along with a copy of your invoice giving the date purchased and other identifying data.

Symptom	Action
<p>Unable to hot-key switch to a port</p>	<p>Check the power indicator on the OSD screen to ensure that the system in question is powered.</p> <p>Verify that you are not in secure mode. (No lock symbol on OSD screen.)</p> <p>Verify that you are in hot-key mode. Press escape and try going into command mode again. If the problem persists, contact Technical Support.</p>
<p>No video</p>	<p>Verify that the video cable between the server and the switch is correctly connected. Verify that the monitor cable is correctly connected to the switch.</p> <p>Power down the server. Connect the monitor directly to the server and power up again. If the monitor operates correctly direct to the server, contact Technical Support. If it does not, try another monitor.</p>
<p>Mouse jumps or "hugs" screen</p>	<p>If the mouse has been hot-plugged while running in Windows, you may need to close and restart Windows.</p> <p>If the mouse still does not function, try the mouse resynchronization command <ZM>. (For instructions on command mode, see 'Basic Operations'.) If the problem persists, contact Technical Support.</p>

Symptom	Action
<p>Mouse is inoperable on one server port</p>	<p>If the mouse is inoperable on a port, try the mouse reset command <MR> or <MW> with that server selected. (For instructions on command mode, see 'Basic Operations'.)</p> <p>Verify that the cables from the server to the switch are connected properly.</p> <p>Make sure that you have keyboard/mouse privileges for that port.</p> <p>Verify that the mouse driver and application are configured properly for mouse support.</p> <p>Verify that the server works properly with a mouse connected directly to it. If the problem persists, contact Technical Support.</p>
<p>Mouse is inoperable on all server ports</p>	<p>Verify that the mouse is plugged into the correct PS/2 port on the back of the switch.</p> <p>Try the mouse reset command <MR> or try the 'Reset standard mouse/keyboard' command from the OSD Command Menu for servers using PS/2 mice. Use <MW> or 'Reset wheel mouse' for servers using the Microsoft IntelliMouse. (For instructions on command mode, see the 'Basic Operations' chapter.)</p> <p>Verify that the mouse works when connected directly to a server.</p> <p>Cycle power to the switch. (You do not have to power down your servers for this.) If the mouse remains inoperable, power down all attached servers, cycle power on the switch, then repower the servers. If the problem persists, contact Technical Support.</p>
<p>Remote Video is unrecognizable</p>	<p>Verify the remote monitor capabilities are equal to or greater than the local monitor capabilities. Plug and Play video is only supported on the local video port.</p>

Symptom	Action
<p>Keyboard is inoperable on one server port</p>	<p>If keyboard does not function on one port, verify that the cables from the servers to the switch are connected properly.</p> <p>If you are operating in secure mode, verify your keyboard and mouse privileges.</p> <p>Verify that the keyboard works properly connected directly to the server. If the problem persists, contact Technical Support.</p>
<p>Keyboard is inoperable on all ports</p>	<p>If keyboard does not work on any port, try the 'Reset mouse/keyboard' command from the OSD Command Menu.</p> <p>Try a different keyboard. If the keyboard still does not function, cycle the power on the switch.</p> <p>Cycle power on all attached servers and the switch unit and try again. If the problem persists, contact Technical Support.</p>
<p>Keyboard is inoperable after switching ports</p>	<p>If you are operating in secure mode, verify your keyboard and mouse privileges. If the problem persists, call Technical Support.</p> <p>Try changing the keyboard scan set for that port by using the keyboard command sequence <Kn>. (For more information, see the 'Basic Operations' chapter.)</p>
<p>Characters on screen do not match keyboard input</p>	<p>Try changing the keyboard scan set for that port by using the keyboard command sequence <Kn>. (For more information, see the 'Basic Operations' chapter.) If the problem persists, call Technical Support.</p>
<p>No keyboard, video or mouse on expansion unit; base unit is functioning properly</p>	<p>Verify that the cable connecting the two units together is correctly connected on both ends. (For additional information, see the 'Installation' chapter.) If the problem persists, contact Technical Support.</p>

Symptom	Action
OSD menu does not "pop-up"	Verify that you are pressing the Ctrl (control) key twice within one second. If the problem persists, contact Technical Support.
Unable to change ports using OSD	Verify that the port is powered. Check the address configured in OSD. If the server is powered and the address is correct, call Technical Support.
Administrator password is forgotten	Call Technical Support.
User password is forgotten	Contact your system administrator.
General Keyboard/Video Problems	<p>If the building has 3-phase AC power, ensure that the server, the switch and the monitor are on the same phase. Best results are obtained when they are on the same circuit.</p> <p>Use only Hewlett-Packard supplied cable. HP warranties do not apply to damage resulting from user supplied cable.</p> <p>Do not use a 2-wire extension cord.</p> <p>Test AC outlets at server, switch and monitor for proper polarity and grounding.</p> <p>Use only with grounded outlets at the server, switch and monitor. When using a backup power supply (UPS), power the server, switch and the monitor off the supply.</p>

D: Problem Report

For the best possible service, please fill out this form completely. Have your completed Problem Report with you when you call.

Company Name: _____

Contact Name: _____

Phone Number: _____ Fax Number: _____

Service Call Number (if one has been issued): _____

Console Switch Part #: _____ Serial #: _____ Revision: _____

Name and Model of Monitor: _____

Name and Model of Keyboard: _____

Name and Model of Mouse: _____

Version Information (Select from the OSD Command Menu): _____

List any non-PC equipment attached to the Rackmount Console Switch.
(Include additional peripherals, adaptors, etc.):

Problem Description: (Include all affected ports, exact nature of problem, troubleshooting steps taken, etc.)

Fill out the chart below, including every server attached to your Rackmount Console Switch.

Port	Computer Manufacturer/ Model	BIOS Manufacturer / Revision	Operating System	Graphics Card Name/Model	Video Resolution / Scanrate
A					
B					
C					
D					
E					
F					
G					
H					

Hewlett-Packard Warranty Statement

HP PRODUCT

J1473A 4-port Console Switch

J1474A 8-port Console Switch

J1475A Console Switch Expansion Kit

DURATION OF WARRANTY

One Year

One Year

One Year

1. HP warrants HP hardware, accessories and supplies against defects in materials and workmanship for the period specified above. If HP receives notice of such defects during the warranty period, HP will, at its option, either repair or replace products which prove to be defective. Replacement products may be either new or like-new.

2. HP warrants that HP software will not fail to execute its programming instructions, for the period specified above, due to defects in material and workmanship when properly installed and used. If HP receives notice of such defects during the warranty period, HP will replace software media which does not execute its programming instructions due to such defects.

3. HP does not warrant that the operation of HP products will be uninterrupted or error free. If HP is unable, within a reasonable time, to repair or replace any product to a condition as warranted, customer will be entitled to a refund of the purchase price upon prompt return of the product.

4. HP products may contain remanufactured parts equivalent to new in performance or may have been subject to incidental use.

5. The warranty period begins on the date of delivery or on the date of installation if installed by HP. If customer schedules or delays HP installation more than 30 days after delivery, warranty begins on the 31st day from delivery.

6. Warranty does not apply to defects resulting from (a) improper or inadequate maintenance or calibration, (b) software, interfacing, parts or supplies not supplied by HP, (c) unauthorized modification or misuse, (d) operation outside of the published environmental specifications for the product, or (e) improper site preparation or maintenance.

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