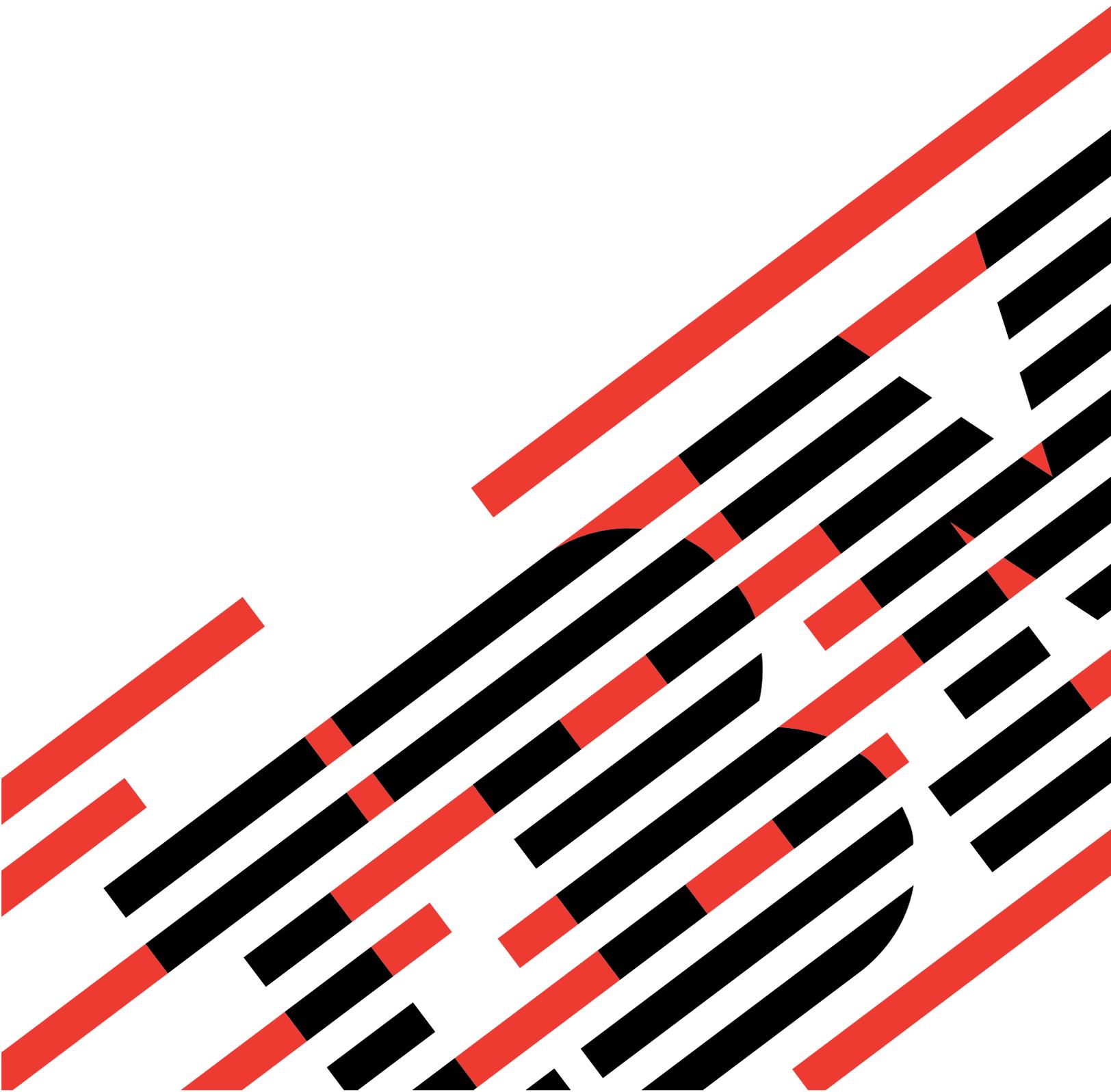


pSeries 7315 Model CR2 Rack-Mounted Hardware Management Console Installation Guide

SA38-0637-00





@server

pSeries 7315 Model CR2 Rack-Mounted Hardware Management Console
Installation Guide

SA38-0637-00

First Edition (September 2003)

Before using this information and the product it supports, read the information in Appendix B, "Notices," on page 13 and product warranties included with your system.

A reader's comment form is provided at the back of this publication. If the form has been removed, address comments to Publications Department, Internal Zip 905-6C006, 11500 Burnet Road, Austin, Texas 78758-3493. To send comments electronically, use this commercial internet address: aix6kpub@austin.ibm.com. Any information that you supply may be used without incurring any obligation to you.

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Safety Notices

A *danger* notice indicates the presence of a hazard that has the potential of causing death or serious personal injury. *Danger* notices appear on the following pages:

- vi

A *caution* notice indicates the presence of a hazard that has the potential of causing moderate or minor personal injury. *Caution* notices appear on the following pages:

- vi
- vii

For a translation of the safety notices contained in this book, see the *System Unit Safety Information*, order number SA23-2652.

Rack Safety Instructions

- Do not install this unit in a rack where the internal rack ambient temperatures will exceed 40 degrees C.
- Do not install this unit in a rack where the air flow is compromised. Any side, front or back of the unit used for air flow through the unit must not be in direct contact with the rack.
- Care should be taken to ensure that a hazardous condition is not created due to uneven mechanical loading when installing this unit in a rack. If the rack has a stabilizer it must be firmly attached before installing or removing this unit.
- Consideration should be given to the connection of the equipment to the supply circuit so that overloading of circuits does not compromise the supply wiring or overcurrent protection. To provide the correct power connection to the rack, refer to the rating labels located on the equipment in the rack to determine the total power requirement for the supply circuit.
- An electrical outlet that is not correctly wired could place hazardous voltage on the metal parts of the system or the devices that attach to the system. It is the responsibility of the customer to ensure that the outlet is correctly wired and grounded to prevent an electrical shock.

Electrical and Mechanical Safety

Observe the following safety instructions anytime you are installing an HMC into a rack.

DANGER

An electrical outlet that is not correctly wired could place hazardous voltage on metal parts of the system or the devices that attach to the system. It is the responsibility of the customer to ensure that the outlet is correctly wired and grounded to prevent an electrical shock.

Before installing or removing signal cables, ensure that the power cables for the system unit and all attached devices are unplugged.

When adding or removing any additional devices to or from the system, ensure that the power cables for those devices are unplugged before the signal cables are connected. If possible, disconnect all power cables from the existing system before you add a device.

Use one hand, when possible, to connect or disconnect signal cables to prevent a possible shock from touching two surfaces with different electrical potentials.

During an electrical storm, do not connect cables for display stations, printers, telephones, or station protectors for communications lines.

D05

DANGER

To prevent electrical shock hazard, disconnect all power cables from the electrical outlet before relocating the system.

D01

CAUTION:

This product is equipped with a three-wire power cable and plug for the user's safety. Use this power cable with a properly grounded electrical outlet to avoid electrical shock.

C01

Laser Safety Information

CAUTION:

This product may contain a CD-ROM, DVD-ROM, or laser module on a PCI card, which are class 1 laser products.

C30

Laser Compliance

All lasers are certified in the U.S. to conform to the requirements of DHHS 21 CFR Subchapter J for class 1 laser products. Outside the U.S., they are certified to be in compliance with the IEC 825 (first edition 1984) as a class 1 laser product. Consult the label on each part for laser certification numbers and approval information.

CAUTION:

All IBM laser modules are designed so that there is never any human access to laser radiation above a class 1 level during normal operation, user maintenance, or prescribed service conditions. Data processing environments can contain equipment transmitting on system links with laser modules that operate at greater than class 1 power levels. For this reason, never look into the end of an optical fiber cable or open receptacle. Only trained service personnel should perform the inspection or repair of optical fiber cable assemblies and receptacles.

C25, C26

Data Integrity and Verification

IBM computer systems contain mechanisms designed to reduce the possibility of undetected data corruption or loss. This risk, however, cannot be eliminated. Users who experience unplanned outages, system failures, power fluctuations or outages, or component failures must verify the accuracy of operations performed and data saved or transmitted by the system at or near the time of the outage or failure. In addition, users must establish procedures to ensure that there is independent data verification before relying on such data in sensitive or critical operations. Users should periodically check the IBM support websites for updated information and fixes applicable to the system and related software.

About This Book

This book provides information about how to install an @server pSeries 7315 Model CR2 rack-mounted Hardware Management Console (HMC) into a standard 19-inch rack.

ISO 9000

ISO 9000 registered quality systems were used in the development and manufacturing of this product.

Highlighting

The following highlighting conventions are used in this book:

Bold	Identifies commands, subroutines, keywords, files, structures, directories, and other items whose names are predefined by the system. Also identifies graphical objects such as buttons, labels, and icons that the user selects.
<i>Italics</i>	Identifies parameters whose actual names or values are to be supplied by the user.
Monospace	Identifies examples of specific data values, examples of text similar to what you might see displayed, examples of portions of program code similar to what you might write as a programmer, messages from the system, or information you should actually type.

References to AIX Operating System

This document may contain references to the AIX operating system. If you are using another operating system, consult the appropriate documentation for that operating system.

This document may describe hardware features and functions. While the hardware supports them, the realization of these features and functions depends upon support from the operating system. AIX provides this support. If you are using another operating system, consult the appropriate documentation for that operating system regarding support for those features and functions.

Accessing Information

Documentation for the IBM @server pSeries is available online. Visit the IBM @server pSeries Information Center at http://publib16.boulder.ibm.com/pseries/en_US/infocenter/base.

- To access the pSeries publications, click **Hardware documentation**.
- To view information about the accessibility features of @server pSeries hardware and the AIX operating system, click **AIX and pSeries accessibility**.

Related Publications

The following publications contain related information:

- The *System Unit Safety Information*, order number SA23-2652, contains translations of safety information used throughout this book.
- The documentation shipped with your managed system contains detailed planning, installation, and option information.
- The managed system's user's guide contains user information for the managed system connected to your HMC.
- The *Site and Hardware Planning Information*, order number SA38-0508, contains information to help you plan the installation of your machine.
- The *IBM Hardware Management Console for pSeries Installation and Operations Guide*, order number SA38-0590, provides information about using your Hardware Management Console.

- The *Hardware Management Console for pSeries Maintenance Guide*, provides information about servicing your HMC, and includes diagnostic and error information.

Trademarks

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- AIX
- @server
- IBM
- pSeries

Other company, product, and service names may be trademarks or service marks of others.

Installing the pSeries 7315 Model CR2 Rack-Mounted Hardware Management Console

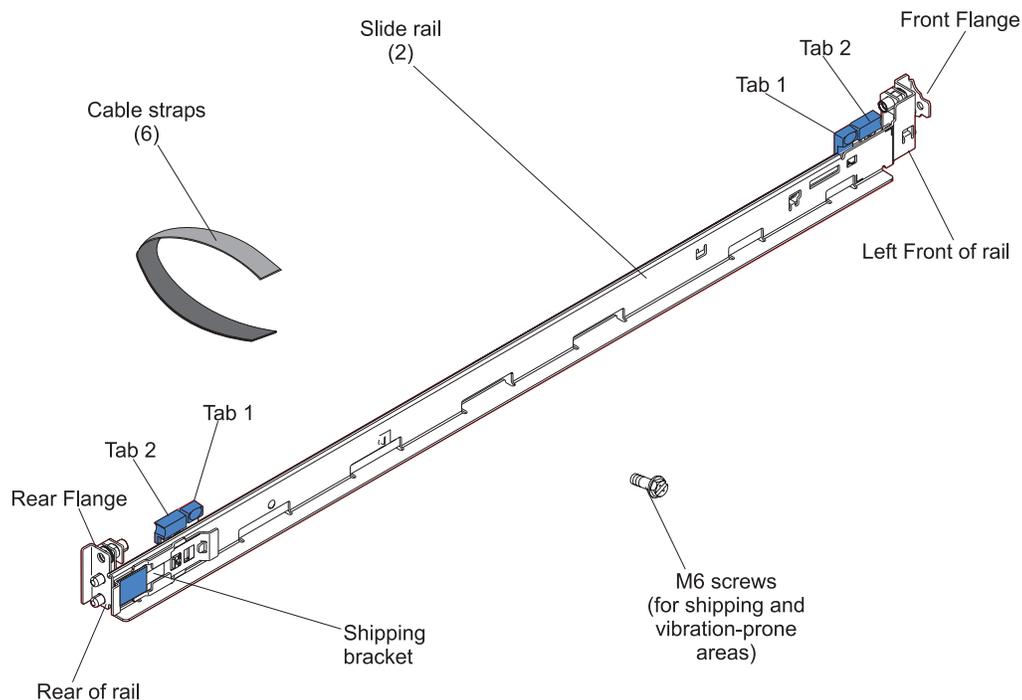
You can install your pSeries 7315 Model CR2 rack-mounted Hardware Management Console (HMC) into a standard 19-inch rack.

Review the documentation that was provided with your rack enclosure for safety and cabling information. When installing your HMC in a rack, consider the following:

- Ensure the room air temperature is below 35°C (95°F).
- Do not block any air vents; usually 15 cm (6 in.) of air space provides proper airflow.
- Install your HMC in a rack with perforated doors.
- Plan the device installation starting from the bottom of the rack.
- Install the heaviest device in the bottom of the rack.
- Remove the rack doors and side panels to provide easier access during installation.
- Connect all power cords to properly wired and grounded electrical outlets.
- Take precautions to prevent overloading the power outlets when you install multiple devices in a rack.
- The slide rails in this kit come preset to the correct length for installation in an IBM rack enclosure and they are adjustable for other rack enclosures.
- The slide rails are marked (RIGHT/FRONT and LEFT/FRONT) for proper placement on the rack-enclosure flanges.

This HMC does not require any tools for the installation procedure unless you are shipping the HMC in a rack. When you are shipping the HMC in a rack, you will need a Phillips screwdriver.

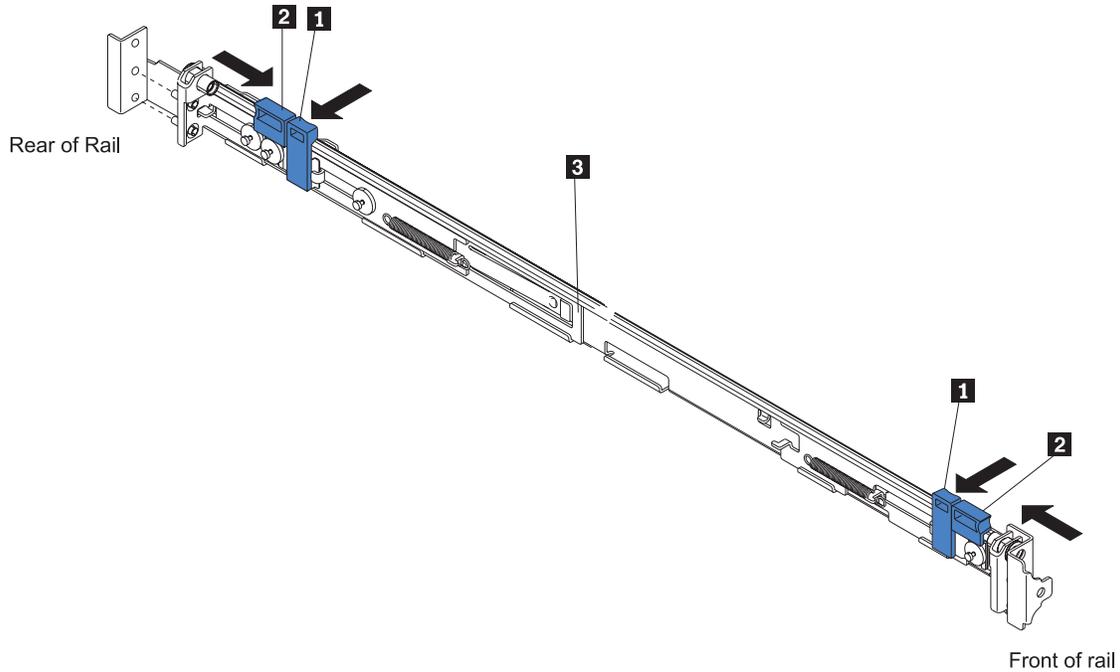
The following illustration shows the items that you need to install the HMC in your rack enclosure. If any items are missing or damaged, contact your place of purchase. For further information about this rack-mounted hardware, refer to the documentation that was provided with the rack enclosure.



Attention: Do not place any object weighing more than 50 kg (110 lbs) on top of rack-mounted devices.

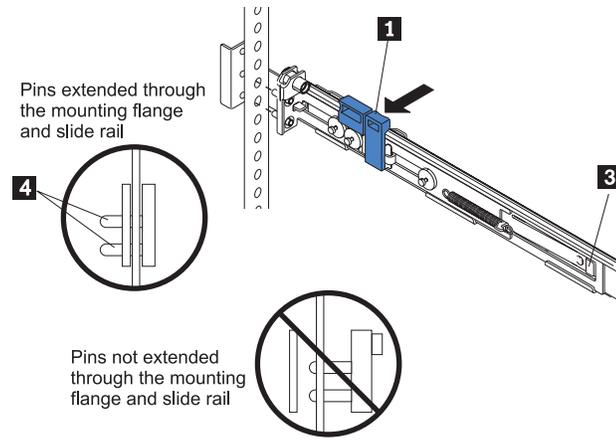
The following steps are required to install the rack-mounted HMC. You can skip steps that do not apply or have already been performed. To install the rack-mounted HMC in a rack, do the following:

1. Starting with the slide rail that is marked **LEFT/FRONT**, do the following to prepare the slide rail for installation in the rack.
 - a. To prevent the rail-adjustment bracket from moving during the next step, press and hold the back of the rail-adjustment bracket (3).
 - b. On the rear end of the rail, while holding the blue tab (1) open, press the blue tab (2) to slide the rear rail-locking carrier toward the front end until it clicks into the open position.
 - c. On the front end of the rail, while holding the blue tab (1) open, press the blue tab (2) to slide the front rail-locking carrier toward the rear end until it clicks into the open position.



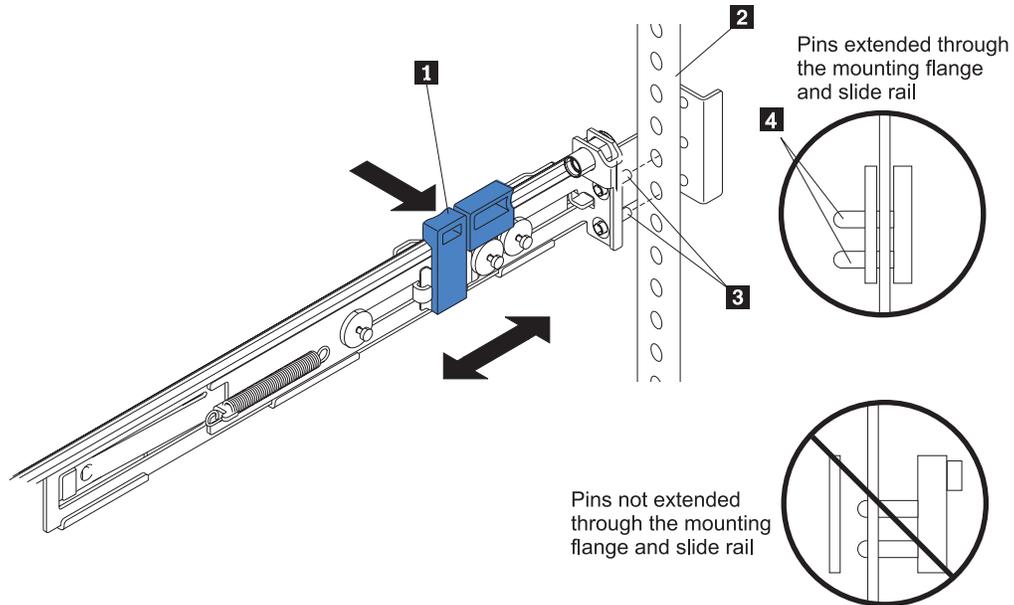
2. Position the rail so that the pins on the rear rail-locking carrier align with the holes on the rear rail-mounting flange. Press the blue tab (1) to release the rail-locking carrier and secure the rear of the slide rail onto the rear rack-mounting flange.

Attention: Ensure that the pins are fully extended through the mounting flange and slide rail (4).



If you need to adjust the slide-rail length, lift the tab (3) and extend the rail-adjustment bracket from the rear of the slide rail until it is the appropriate length.

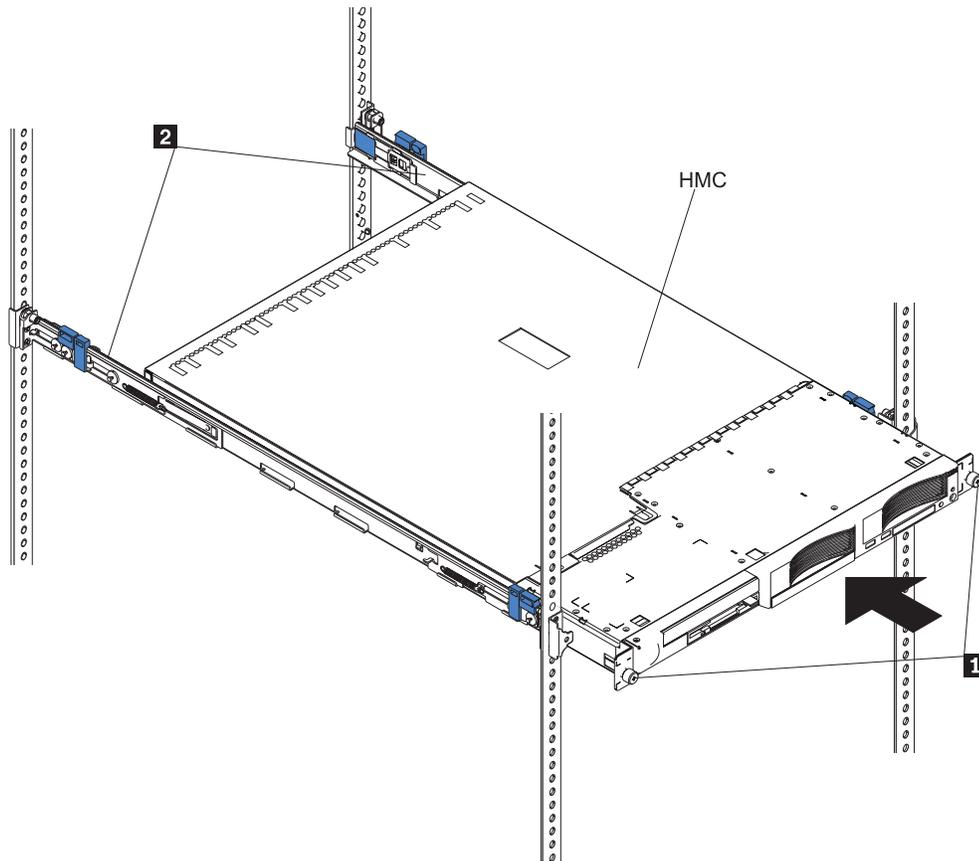
3. Making sure that the rail is level, align the pins (3) on the front rail-locking carrier to the front rack-mounting flange (2). If you adjusted the rail length, push the front rail flange back. Press the blue tab (1) to release the rail-locking carrier and secure the front of the slide rail onto the front rack-mounting flange.



Attention: Ensure that the pins (3) are fully extended through the mounting flange and the slide rail (4).

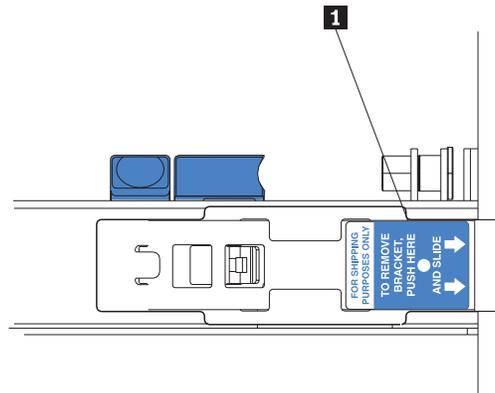
4. Repeat steps 1 on page 2 through 3 for the slide rail marked **RIGHT/FRONT**.

5. Align the HMC on the slide rails and push the HMC fully into the rack enclosure. Secure the HMC to the front mounting flanges with the two captive thumbscrews (1).



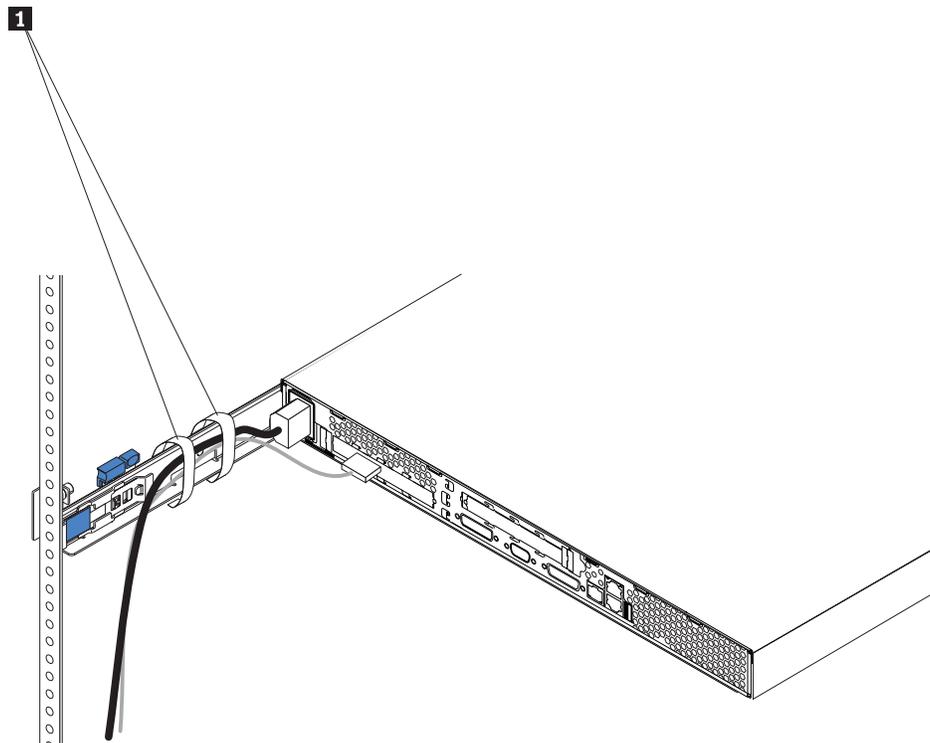
Note: You can leave the shipping brackets (2) attached to the slide rails unless the shipping brackets impede the HMC from fully seating into the rack enclosure. If you need to remove the shipping brackets, continue with step 6 on page 6. If you don't need to remove the shipping brackets, continue on step 7 on page 6.

6. Press on the tab (1) as indicated on the shipping bracket, and slide the shipping bracket off the slide rail. Repeat this step for the other shipping bracket. Store the shipping bracket for future use.

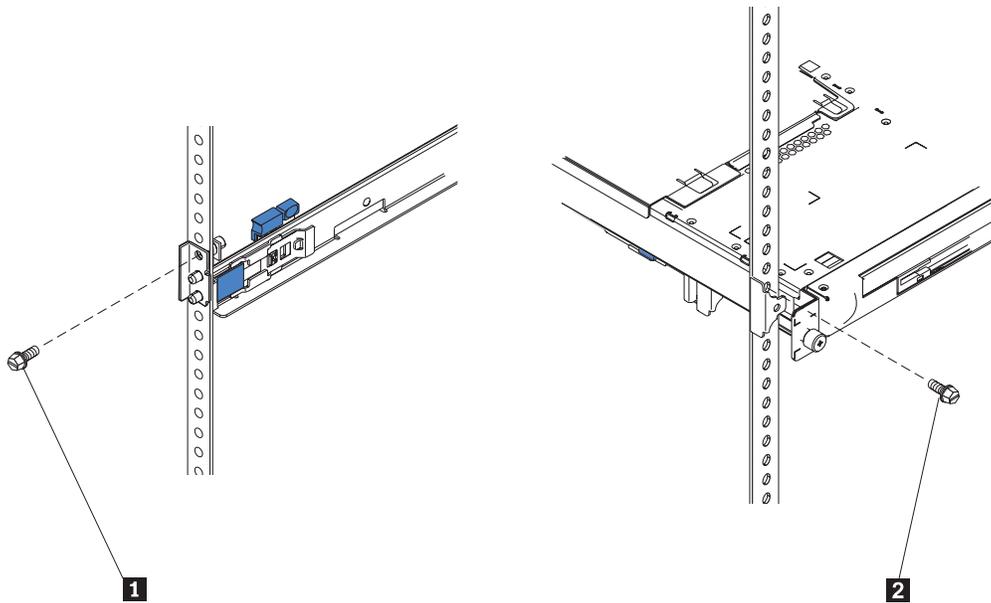


Note: You must reinstall the shipping brackets on the slide rails before you transport the rack enclosure to another location with the HMC installed. To reinstall the shipping bracket, reverse this step.

7. Connect the breakout cable (cable for the keyboard, monitor, and mouse cable that comes with your HMC) and the power cable to the rear of the HMC. Route the cables to the lower-left corner of the HMC (as viewed from the rear), and use the cable straps (1) to secure the cables to the slide rails.



8. Before you transport the rack enclosure to another location with the HMC installed, do the following to secure the HMC to the rack.
 - a. Disconnect the cables from the rear of the HMC.
 - b. Slide the HMC out of the rack about 150 mm (6 inches), and insert the M6 screws in the front of each slide rail (2).
 - c. At the rear of the rack secure the HMC to the rack enclosure with M6 screws (1) and reconnect the cables.
 - d. Reinstall the shipping brackets on the slide rails. To reinstall the shipping brackets, reverse the procedure in step 5 on page 5.



Push the HMC back into the rack and secure it to the rack using the thumbscrews on the front of the rack. Reconnect any cables that were disconnected.

To remove the HMC from the rack, reverse these instructions. Store this information with your HMC documentation for future use.

9. Now that you have installed the HMC in the rack, the next step is to go to the “Installing and Configuring the HMC” chapter in the *IBM Hardware Management Console for pSeries Installation and Operations Guide*, order number SA38-0590 and do the installing and configuring procedures.

Appendix A. Communications Statements

The following statement applies to this product. The statement for other products intended for use with this product appears in their accompanying documentation.

Federal Communications Commission (FCC) Statement

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.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. Neither the provider nor the manufacturer is responsible for any radio or television interference caused by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device 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.

European Union (EU) Statement

This product is in conformity with the protection requirements of EU Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility. The manufacturer cannot accept responsibility for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product, including the fitting of option cards supplied by third parties. Consult with your dealer or sales representative for details on your specific hardware.

This product has been tested and found to comply with the limits for Class A Information Technology Equipment according to CISPR 22 / European Standard EN 55022. The limits for Class A equipment were derived for commercial and industrial environments to provide reasonable protection against interference with licensed communication equipment.

Attention: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

International Electrotechnical Commission (IEC) Statement

This product has been designed and built to comply with IEC 60950.

United Kingdom Telecommunications Safety Requirements

This equipment is manufactured to the International Safety Standard EN60950 and as such is approved in the UK under the General Approval Number NS/G/1234/J/100003 for indirect connection to the public telecommunication network.

The network adapter interfaces housed within this equipment are approved separately, each one having its own independent approval number. These interface adapters, supplied by the manufacturer, do not use or contain excessive voltages. An excessive voltage is one which exceeds 70.7 V peak ac or 120 V dc. They

interface with this equipment using Safe Extra Low Voltages only. In order to maintain the separate (independent) approval of the manufacturer's adapters, it is essential that other optional cards, not supplied by the manufacturer, do not use main voltages or any other excessive voltages. Seek advice from a competent engineer before installing other adapters not supplied by the manufacturer.

Avis de conformité aux normes du ministère des Communications du Canada

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Canadian Department of Communications Compliance Statement

This Class A digital apparatus complies with Canadian ICES-003..

VCCI Statement

<p>この装置は、クラス A 情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。</p> <p>VCCI-A</p>

The following is a summary of the VCCI Japanese statement in the box above.

This is a Class A product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this equipment is used in a domestic environment, radio disturbance may arise. When such trouble occurs, the user may be required to take corrective actions.

Electromagnetic Interference (EMI) Statement - Taiwan

<p>警告使用者： 這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。</p>

The following is a summary of the EMI Taiwan statement above.

Warning: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user will be required to take adequate measures.

Radio Protection for Germany

Dieses Gerät ist berechtigt in Übereinstimmung mit Dem deutschen EMVG vom 9.Nov.92 das EG-Konformitätszeichen zu führen.

Der Aussteller der Konformitätserklärung ist die IBM Germany.

Dieses Gerät erfüllt die Bedingungen der EN 55022 Klasse A. Für diese von Geräten gilt folgende Bestimmung nach dem EMVG:

Geräte dürfen an Orten, für die sie nicht ausreichend entstört sind, nur mit besonderer Genehmigung des Bundesministers für Post und Telekommunikation oder des Bundesamtes für Post und Telekommunikation betrieben werden. Die Genehmigung wird erteilt, wenn keine elektromagnetischen Störungen zu erwarten sind.

(Auszug aus dem EMVG vom 9.Nov.92, Para.3, Abs.4)

Hinweis

Dieses Genehmigungsverfahren ist von der Deutschen Bundespost noch nicht veröffentlicht worden.

Appendix B. Notices

This information was developed for products and services offered in the U.S.A.

The manufacturer may not offer the products, services, or features discussed in this document in other countries. Consult the manufacturer's representative for information on the products and services currently available in your area. Any reference to the manufacturer's product, program, or service is not intended to state or imply that only that product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any intellectual property right of the manufacturer may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any product, program, or service.

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Readers' Comments — We'd Like to Hear from You

pSeries 7315 Model CR2 Rack-Mounted Hardware Management Console
Installation Guide

Publication No. SA38-0637-00

Overall, how satisfied are you with the information in this book?

	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Overall satisfaction	<input type="checkbox"/>				

How satisfied are you that the information in this book is:

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Complete	<input type="checkbox"/>				
Easy to find	<input type="checkbox"/>				
Easy to understand	<input type="checkbox"/>				
Well organized	<input type="checkbox"/>				
Applicable to your tasks	<input type="checkbox"/>				

Please tell us how we can improve this book:

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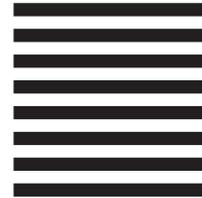
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