

# Roadmap for installing the 5802 and 5877 expansion units





# ESCALA

## Roadmap for installing the 5802 and 5877 expansion units

### Hardware

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## Safety notices

Safety notices may be printed throughout this guide:

- **DANGER** notices call attention to a situation that is potentially lethal or extremely hazardous to people.
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### Laser safety information

IBM® servers can use I/O cards or features that are fiber-optic based and that utilize lasers or LEDs.

#### 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 IEC 60825 as a class 1 laser product. Consult the label on each part for laser certification numbers and approval information.

#### CAUTION:

**This product might contain one or more of the following devices: CD-ROM drive, DVD-ROM drive, DVD-RAM drive, or laser module, which are Class 1 laser products. Note the following information:**

- **Do not remove the covers. Removing the covers of the laser product could result in exposure to hazardous laser radiation. There are no serviceable parts inside the device.**
- **Use of the controls or adjustments or performance of procedures other than those specified herein might result in hazardous radiation exposure.**

(C026)

#### CAUTION:

**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. (C027)**

#### CAUTION:

**This product contains a Class 1M laser. Do not view directly with optical instruments. (C028)**

**CAUTION:**

Some laser products contain an embedded Class 3A or Class 3B laser diode. Note the following information: laser radiation when open. Do not stare into the beam, do not view directly with optical instruments, and avoid direct exposure to the beam. (C030)

**Power and cabling information for NEBS (Network Equipment-Building System) GR-1089-CORE**

The following comments apply to the IBM servers that have been designated as conforming to NEBS (Network Equipment-Building System) GR-1089-CORE:

The equipment is suitable for installation in the following:

- Network telecommunications facilities
- Locations where the NEC (National Electrical Code) applies

The intrabuilding ports of this equipment are suitable for connection to intrabuilding or unexposed wiring or cabling only. The intrabuilding ports of this equipment *must not* be metallically connected to the interfaces that connect to the OSP (outside plant) or its wiring. These interfaces are designed for use as intrabuilding interfaces only (Type 2 or Type 4 ports as described in GR-1089-CORE) and require isolation from the exposed OSP cabling. The addition of primary protectors is not sufficient protection to connect these interfaces metallically to OSP wiring.

**Note:** All Ethernet cables must be shielded and grounded at both ends.

The ac-powered system does not require the use of an external surge protection device (SPD).

The dc-powered system employs an isolated DC return (DC-I) design. The DC battery return terminal *shall not* be connected to the chassis or frame ground.



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# Road map for installing the 5802 and 5877 expansion units

Follow the steps outlined in this road map for installing your expansion unit.

**Note:** This document is provided in printed form as a high-level overview of tasks for installing the 5802 and 5877 expansion units. For best results, use the online version of this document at Road map for installing the 5802 and 5877 expansion units (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/arecy/arecyroadmap.htm>).

To install the 5802 and 5877 expansion units you must perform the following tasks. These tasks are arranged in a series of chronological steps for installing your expansion unit. Where appropriate links are available to provide you with additional detail related to performing these tasks. **At the completion of each task, return to this road map for guidance related to performing the next task.**

1. **Unpack the expansion unit and complete a parts inventory.** For details select this link and complete steps 1 and 2 in Installing the model 5802, 5877 or 5886 into a rack (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/iphbf5886.htm>).

2. **Verify the rack.**

**Note:**

If the rack is not installed, see Installing the rack (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/installrack.htm>).

3. **Determine where to install the expansion unit in the rack.** For more information, see Determining the location (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/locateinrack5886.htm>).

4. **Install the rail assembly into the rack.** For more information, see Attaching the mounting hardware to the rack (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/attachmounting5886.htm>).

5. **Install the expansion unit onto the rails.** For more information, see Installing the 5802, 5877, or 5886 on the rail assembly (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/install5886.htm>).

6. **Cable the expansion unit to the server.**

**Note:**

You might need to power off the server before connecting the cables.

This unit uses 12x double data rate (DDR) and system power control network (SPCN) cables to connect to the server.

Do not perform 12x DDR cable configuration changes, such as moving existing expansion units to different GX adapters at the same time you add new expansion units.

If you are adding a new expansion unit or migrating expansion units from another IBM POWERserver, you might not be able to allocate the expansion unit resources to logical partitions on the new server until an SPCN firmware update is completed for the expansion units.

For detailed procedures related to preparing to connect your expansion units, see Prepare to connect your expansion units (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/prepare.htm>) and perform all applicable prerequisites for installing your expansion units.

For a detailed procedure that describes how to connect your expansion units to the system, see Connect your expansion units (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/iphbf/setup.htm>).

You might need to power off the server before connecting the cables. For information about powering off the server, see Enclosures and Expansion Units (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/ipham/expansionunit.htm>).

For information about connecting the disk drive enclosure, see Configuring the 5802 disk-drive subsystem (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/ipham/config5802enclosure.htm>).

For a detailed procedure that describes how to connect an SAS adapter to your disk drive enclosure, see Cabling the 5802 disk subsystem (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/ipham/config5802enclosure.htm>).

7. **Connect power cables and apply power.**
8. **Verify that the SPCN is functioning correctly.** For more information, see Verify the System Power Control Network (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/ipham/verifyspcn.htm>).
9. **Verify that the new expansion unit configuration is functioning properly.** For more information, see Verify that the new configuration is functioning (<http://publib.boulder.ibm.com/infocenter/systems/scope/hw/topic/ipham/verify.htm>).

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## Appendix. Notices

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The manufacturer's 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 manufacturer's support websites for updated information and fixes applicable to the system and related software.

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### Class A Notices

The following Class A statements apply to the IBM servers that contain the POWER6 processor.

### 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. IBM is not 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.

### **Industry Canada Compliance Statement**

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

### **Avis de conformité à la réglementation d'Industrie Canada**

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

### **European Community Compliance Statement**

This product is in conformity with the protection requirements of EU Council Directive 2004/108/EC on the approximation of the laws of the Member States relating to electromagnetic compatibility. IBM cannot accept responsibility for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product, including the fitting of non-IBM option cards.

This product has been tested and found to comply with the limits for Class A Information Technology Equipment according to 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.

European Community contact:  
IBM Technical Regulations  
Pascalstr. 100, Stuttgart, Germany 70569  
Tele: 0049 (0)711 785 1176  
Fax: 0049 (0)711 785 1283  
E-mail: tjahn@de.ibm.com

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### 声 明

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Declaration: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may need to perform practical action.

## Electromagnetic Interference (EMI) Statement - Taiwan

### 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。

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### IBM Taiwan Contact Information:

台灣IBM 產品服務聯絡方式：  
台灣國際商業機器股份有限公司  
台北市松仁路7號3樓  
電話：0800-016-888

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