

AS/400e



Integrated NetFinity Server Memory Installation Instruction

Version 4

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Note

Before using this information and the product it supports, be sure to read the "Safety and Environmental Notices" on page iii and the "Notices" on page 25.

First Edition (July 2000)

This edition applies only to reduced instructions set computer (RISC) systems.

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Safety and Environmental Notices

Danger Notices

A danger notice calls attention to a situation that is potentially lethal or extremely hazardous to people.

DANGER

To prevent a possible electrical shock during an electrical storm, do not connect or disconnect cables or station protectors for communications lines, display stations, printers, or telephones. (RSFTD003)

DANGER

To prevent a possible electrical shock from touching two surfaces with different electrical grounds, use one hand, when possible, to connect or disconnect signal cables. (RSFTD004)

DANGER

An electrical outlet that is not correctly wired could place hazardous voltage on metal parts of the system or the products that attach to the system. It is the customer's responsibility to ensure that the outlet is correctly wired and grounded to prevent an electrical shock. (RSFTD201)

DANGER

To prevent a possible electrical shock when adding or removing any devices to or from the system, ensure that the power cords for those devices are unplugged before the signal cables are connected or disconnected. If possible, disconnect all power cords from the existing system before you add or remove a device. (RSFTD203)

Caution Notices

A caution notice calls attention to a situation that is potentially hazardous to people because of some existing condition.

CAUTION:

Telecommunications Statement: This unit contains over-voltage circuits between the ac power outlet and the unit. These circuits meet the standard limits described in International Electrical Commission (IEC) 664, installation category II. It is the customer's responsibility to ensure that the power outlet meets the standards of IEC 664, installation category II. (RSFTC214)

Laser Safety Information

CAUTION:

This product may contain a CD-ROM which is a class 1 laser product. (RSFTC240)

Product Recycling and Disposal

Components of the system, such as structural parts and circuit cards, can be recycled where recycling facilities exist. IBM does not currently collect and recycle used IBM products from customers in the United States other than those products that are involved in trade-in programs. Companies are available to disassemble, reutilize, recycle, or dispose of electronic products. Contact an IBM account representative for more information.

The system unit contains batteries and circuit boards with lead solder. Before you dispose of this unit, these batteries and circuit boards must be removed and discarded according to local regulations or recycled where facilities exist. This book contains specific information on each battery type where applicable.

Battery Return Program

In the United States, IBM has established a collection process for reuse, recycling, or proper disposal of used IBM batteries and battery packs. For information on proper disposal of the batteries in this unit, please contact IBM at 1-800-426-4333. Please have the IBM part number that is listed on the battery available when you make your call. For information on battery disposal outside the United States, contact your local waste disposal facility.

Environmental Design

The environmental efforts that have gone into the design of the system signify IBM's commitment to improve the quality of its products and processes. Some of these accomplishments include the elimination of the use of Class I ozone-depleting chemicals in the manufacturing process, reductions in manufacturing wastes, and increased product energy efficiency. For more information, contact an IBM account representative.

You have received your ordered 289x memory card

Take a minute to become familiar with these instructions. Note that you may not complete every step in this instruction.

These instructions contain steps on how to add **Feature 2895, 2896, or 2897 memory to your 2890 Integrated NetFinity Server (INS)**.

Before you begin:

- ___ 1. This feature is customer installed. *An experienced user who understands industry terminology and who has some system experience should perform the installation of this feature.* If you elect not to perform this feature installation yourself, contact IBM® or an Authorized Dealer. They can perform the feature installation for a fee.
- ___ 2. When you use these instructions, you will do the following:
 - Remove the system unit covers.
 - Install your new hardware.
 - Install covers.
 - Perform and initial program load (IPL) of your operating system if you performing a non-concurrent install.
 - Verify your new hardware configuration.

If you are doing a non-concurrent install, you need to allow additional time to do the following:

- Complete your jobs.
 - Back up your system.
 - IPL your system.
 - Verify your hardware configuration.
- ___ 3. Some of the pictures in these instructions may not look exactly like the system unit that you have. However, the steps to perform the task are the same.
 - ___ 4. Ensure that you have a current backup of your operating system and licensed programs. If you have backed up the operating system and licensed programs since the last time you applied program temporary fixes (PTFs), that backup is acceptable.
 - ___ 5. If there are incorrect, missing, or visibly damaged parts, contact one of the following:
 - Your authorized dealer
 - Point of purchase (for example, IBM Direct)
 - IBM Rochester Manufacturing Automated Information Line (R-MAIL)
 - 1-800-300-8751 (United States)
 - 1-507-253-5242 (worldwide)
 - ___ 6. Determine if there are any existing prerequisites before you install your new feature. Go to this Web site and locate your feature number and OS/400 release and check the prerequisites:
http://as400service.ibm.com/s_dir/slkbases.NSF/

Then do the following to get to the Customer Install Features Prerequisites:

- a. Select **All Documents**
 - b. Select **Collapse**
 - c. Select **General Information**
 - d. Select **Offerings**
 - e. Select **Feature Prerequisites**
 - f. Select **Customer Install Features Prerequisites**
- ___ 7. If you encounter difficulties during the installation, contact your authorized dealer or service provider.

Where is the Integrated NetFinity Server?

- ___ 1. Are you installing the memory cards on the Integrated NetFinity Server (INS) in the 270 System Unit?
- Yes No**
- ↓ Go to "Installing memory on the INS in the 5075 expansion unit" on page 9.
- ___ 2. Remove AS/400 system unit back cover. For information on how to remove the back cover, see "Removing the back cover" on page 17.
- ___ 3. Remove system unit right-side cover (from back view). For information on how to remove the side cover, see "Removing the side cover" on page 18.
- ___ 4. Look at your INS card. The INS is located in slot C04. For information on location of card slots, see "Slot positions in the 270 system unit or 5075 expansion unit" on page 22. Is your INS card secured by a blue **latch** or a **screw**?
- Latch Screw**
- ↓ Go to "Installing memory on the INS non-concurrently (270 system unit powered off)" on page 6.
- ___ 5. Are you installing the memory cards on the INS concurrently (270 powered on)?
- Yes No**
- ↓ Go to "Installing memory on the INS non-concurrently (270 system unit powered off)" on page 6.

Installing memory on the INS concurrently (270 system unit powered on)

- ___ 1. Remove AS/400 system unit back cover if you have not done so. For information on how to remove the back cover, see "Removing the back cover" on page 17.
- ___ 2. Remove system unit right-side cover (from back view) if you have not done so. For information on how to remove the side cover, see "Removing the side cover" on page 18.
- ___ 3. Vary off the INS:
- ___ a. Go to the *Work with Configuration Status* display by entering: **WRKCFGSTS** at an AS/400 command line. Press F4.
 - ___ b. At the *Work with Configuration Status* display enter ***NWS** at the *Type* field and press Enter two times.
 - ___ c. At the *Work with Configuration Status* display select the **Vary off** option in the *Opt* column next to the INS and press Enter.

- ___ d. Press F12 to return to the AS/400 Main Menu.
- ___ 4. Verify current INS memory.
 - ___ a. At a command line type **STRSST** and press Enter.
 - ___ b. Select **Start a service tool** and press Enter.
 - ___ c. Select **Hardware service manager** and press Enter.
 - ___ d. Select **Logical hardware resources (buses, IOPs, controllers,...)** and press Enter.
 - ___ e. Select **System Bus Resources** and press Enter.
 - ___ f. Use the cursor to the 2890 server card with which you are working.
 - ___ g. Select **Associated packaging resource(s)** in the *Opt* field in front of that 2890 server card and press Enter.
 - ___ h. At the *Packaging Resources Associated with a Logical Resource* display, use the cursor to select **Communications IOP**.
 - ___ i. Select the **Associated logical resource(s)** option in the *Opt* field and press Enter.
 - ___ j. At the *Logical Resources Associated with a Packaging Resource* display, use the cursor to select **Communications IOA**.
 - ___ k. Select the **Display detail** option in the *Opt* field and press Enter.
 - ___ l. Look at *Memory installed on IOA (MB)* and verify that the current amount of memory that is installed on the 2890 is correct.
 - ___ m. Press F12 twice to go back to the *Package Resources Associated with a Logical Resource* display.
 - ___ n. Use the cursor to select **Communications IOP**.
 - ___ o. Select the **Concurrent Maintenance** option and press Enter.

Note: If the message, "The specified option is not allowed for the selected resource" appears, your system unit is not capable of adding memory to the INS concurrently. Go to "Installing memory on the INS non-concurrently (270 system unit powered off)" on page 6.

- ___ p. Use the cursor to select **Communications IOP**.
- ___ q. Select the **Toggle LED blink off/on** option and press Enter.
The LED at the card slot you chose should flash.
- ___ r. Select the **Toggle LED blink off/on** option again, and press Enter.
The LED at the card slot you chose should stop flashing and remain solid.
- ___ s. With the cursor still at the **Communications IOP** line, press **F9** (Power off domain).
- ___ t. At the *Hardware Resource Concurrent Maintenance* display press Enter. Wait for the power off to complete. The following message should appear:
Power off complete. Check power indicator (LED) to confirm.

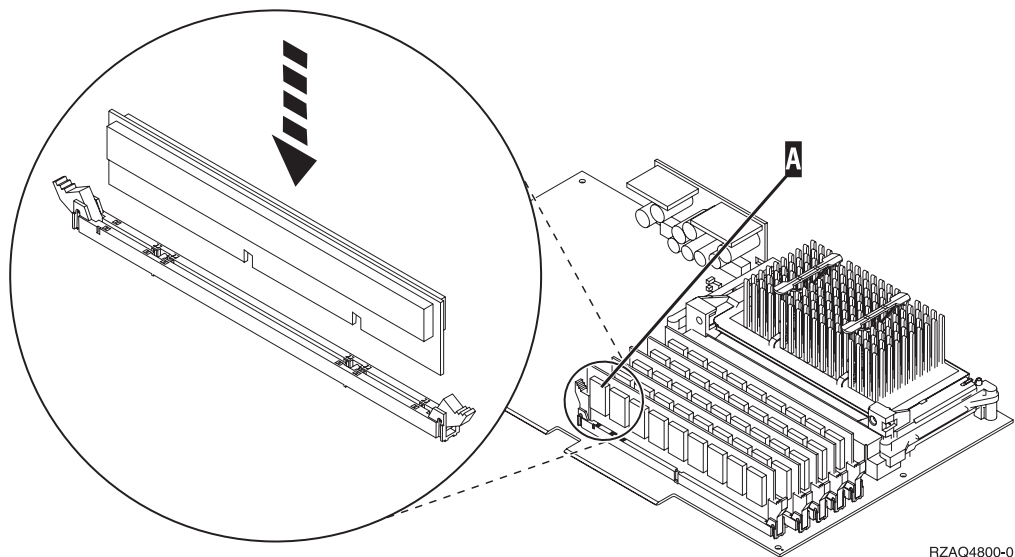
When the LED is in the off position it is safe to proceed. While you do the next steps, keep your console at the *Hardware Resources Concurrent Maintenance* display.

- ___ 5. The INS is located in slot C04. For information on location of card slots, see "Slot positions in the 270 system unit or 5075 expansion unit" on page 22.
- ___ 6. Remove all cables that are connected to the INS.

- ___ 7. Adapter cards are fragile. **Use static strap when handling.** Handle only by the edges, and keep fingers off printed circuit area.
Remove the Integrated NetFinity Server by turning the blue latch up and pulling the black latch out towards you. Squeeze the metal lever while removing the INS from the system unit.
- ___ 8. Lay the INS on a static protective surface.
- ___ 9. Find the package that contains a 289x memory card. Carefully remove the memory card from the static-protective package.
- ___ 10. Install the 289x memory card on the INS by doing the following:
 - ___ a. Align the memory card with the next available connector on the INS card.

Notes:

- 1) **Figure 1** shows the location of the first memory card **A**
- 2) Install your new memory card next to the currently installed memory card.
- ___ b. Snap the card in place by moving it downward in the connector. The memory card has a distinct click as it snaps into the connector.



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Figure 1. Location of memory on INS

- ___ c. Repeat this step if you have another 289x memory card to install.
- ___ 11. Install the INS card into the system unit. Align the card with the card holders inside the system unit until it is fully connected. Swing the latches in and down to secure the card.
- ___ 12. Re-attach the cables that you removed from the card.
- ___ 13. Install covers and plug in devices. For more information on installing covers, see “Installing system unit covers” on page 23.
- ___ 14. Power on the INS:
 - ___ a. The cursor on your console should be where the Communications IOA was. That line on the display should now read Empty Position.
 - ___ b. Press **F10** (Power on domain) and enter to confirm power on.

Note: If the *Work with Controlling Resource* display appears, select the **Assign to** option for each resource on the display. Then press Enter and wait for the power on to complete.

- ___ c. At the *Hardware Resource Concurrent Maintenance* display, press **F8** to verify that the power status is on for all resources.
 - ___ d. Use the cursor to select the **Communications IOP**.
 - ___ e. Select the **Associated logical resource(s)** option and press Enter.
 - ___ f. Use the cursor to select the **Communications IOA**.
 - ___ g. Select the **Display detail** option and press Enter.
 - ___ h. Verify that the correct amount of memory is installed.
- ___ 15. INS memory test:
- ___ a. Press **F12** once.
 - ___ b. Enter the **Verify** option next to the 2890 Comm IOA. Press Enter.
 - ___ c. Press Enter at the *Verification Test* display.
 - ___ d. Select the **Hardware memory test** option. Press Enter.

Note: This memory test will take about 2 minutes per 1GB of memory that is tested.

- ___ e. Press Enter at the *Number of Test Runs* display.
- ___ f. If the test fails, make sure that you have installed the memory properly. If the test continues to fail, contact your authorized dealer or service provider.

Completing the Installation

- ___ 1. When the memory test is complete, the *Verification Test Results* display indicates the following: "This test is successful." Press Enter.
- ___ 2. Press Enter at the *Verification Test* display.
- ___ 3. Press F3 three times and then press Enter to return to the AS/400 Main Menu.
- ___ 4. Vary on the INS:
 - ___ a. Go to the *Work with Configuration Status* display by entering WRKCFGSTS at an AS/400 command line. Press F4.
 - ___ b. At the *Work with Configuration Status* display enter ***NWS** at the *Type* field and press Enter two times.
 - ___ c. At the *Work with Configuration Status* display enter the **Vary on** option in the *Opt* column next to the **INS** and press Enter.
 - ___ d. Press **F3** to exit.
- ___ 5. Your feature upgrade is complete.
- ___ 6. To install any of the applications that are listed in the following table, use the book that is listed for that application.

Application	Book
Windows NT®	Information Center from the <i>AS/400e Information Center CD-ROM</i> or from the following Web site: http://www.as400.ibm.com/infocenter
Windows 2000®	

- ___ 7. For information on how to make your card operational, go to the *AS/400 Information Center*. You can access the Information Center from the *AS/400 Information Center*, SK3T-2027-03 or from the following Web site:

- ___ 8. You have completed installing memory on your Integrated NetFinity Server.

Installing memory on the INS non-concurrently (270 system unit powered off)

- ___ 1. Verify the current memory on your INS by doing these steps:
 - ___ a. At a command line type **STRSST** and press Enter.
 - ___ b. Select **Start a service tool** and press Enter.
 - ___ c. Select **Hardware service manager** and press Enter.
 - ___ d. Select **Logical hardware resources (buses, IOPs, controllers,...)** and press Enter.
 - ___ e. Select **System bus resources** and press Enter.
 - ___ f. Use the cursor to the 2890 Communications IOP with which you are working.
 - ___ g. Select the **Associated packaging resource(s)** option in the *Opt* field in front of that 2890 IOP card and press Enter.
 - ___ h. At the *Packaging Resources Associated with a Logical Resource* display, use the cursor to select **Communications IOP**.
 - ___ i. Select the **Associated logical resource(s)** option in the *Opt* field and press Enter.
 - ___ j. At the *Logical Resources Associated with a Packaging Resource* display, use the cursor to select **Communications IOA**.
 - ___ k. Select the **Display detail** option in the *Opt* field and press Enter.
 - ___ l. Look at *Memory installed on IOA (MB)* and verify that the current amount of memory that is installed on the 2890 is correct.
 - ___ m. Press F3 three times and press Enter to return to the AS/400 Main Menu.
- ___ 2. Power off your AS/400 system unit. For more information on powering off your system, see "Powering off the system unit" on page 16.
- ___ 3. Remove AS/400 system unit back cover if you have not done so. For more information on removing back cover, see "Removing the back cover" on page 17.
- ___ 4. Remove AS/400 system unit right side cover (from back view) if you have not done so. For more information on removing the side cover, see "Removing the side cover" on page 18.
- ___ 5. The INS is located in slot C04. For information on location of card slots, see "Slot positions in the 270 system unit or 5075 expansion unit" on page 22.
- ___ 6. Remove all cables that are attached to the card.
- ___ 7. Adapter cards are fragile. **Use static strap when handling**. Handle only by the edges, and keep fingers off printed circuit area.

Remove the Integrated NetFinity Server by turning the blue latch up and pulling the black latch out towards you. Squeeze the metal lever while removing the INS from the system unit. On some cards it will be necessary to remove the screw that holds the adapter card in place.
- ___ 8. Lay the INS on a static protective surface.
- ___ 9. Find the package that contains a 289x memory card. Carefully remove the memory card from the static-protective package.
- ___ 10. Install the 289x memory card on the INS by doing the following:

- ___ a. Align the memory card with the next available connector on the INS card.

Notes:

- 1) **Figure 2** shows the location of the first memory card **A**.
 - 2) Install your new memory card next to the currently installed memory card.
- ___ b. Snap the card in place by moving it downward in the connector. The memory card has a distinct click as it snaps into the connector.

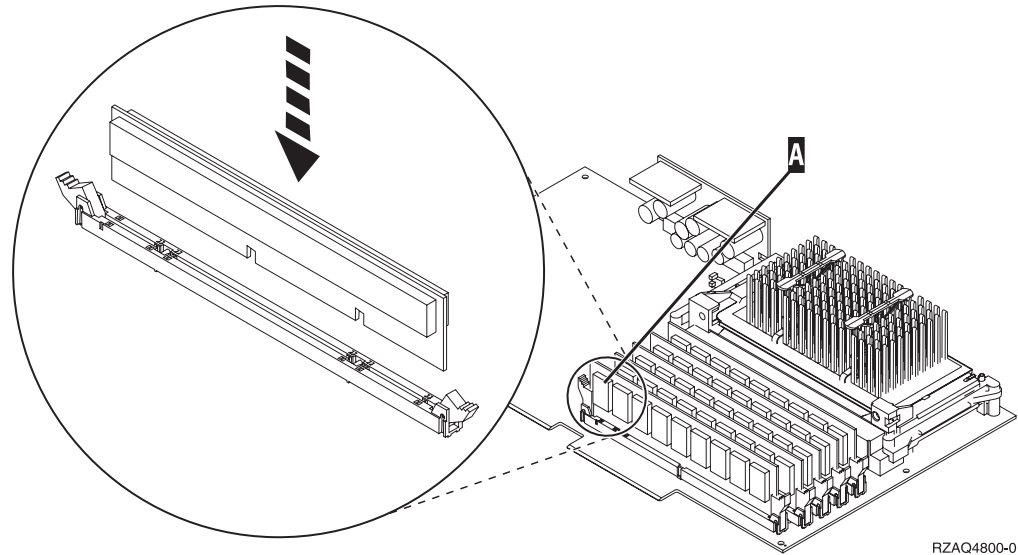


Figure 2. Location of memory on INS

- ___ c. Repeat this step if you have another 289x memory card to install.
- ___ 11. Install the INS card into the system unit. Align the card with the card holders inside the system unit until it is fully connected. Swing the latches in and down to secure the card.
 - ___ 12. Re-attach the cables that you removed from the INS.

Completing the installation

- ___ 1. Install covers and plug in the system unit and devices. For more information, see "Installing system unit covers" on page 23.
- ___ 2. Look at the Function/Data display on the 270 system unit control panel. Does a **01 B N V=S** appear in the Function/Data display?

Yes	No
<ul style="list-style-type: none"> ↓ Do the following: ___ a. Open the control panel door. ___ b. Press the Increment/Decrement push button until 02 appears in the Function/Data display. ___ c. Press the Enter push button on the control panel. ___ d. Press the Increment/Decrement push button until B appears in the Function/Data display. ___ e. Press the Enter push button on the control panel. 	

- ___ f. Press the Increment/Decrement push button until **N** appears in the Function/Data display.
- ___ g. Press the Enter push button on the control panel.
- ___ h. Press the Increment/Decrement push button until **S** appears in the Function/Data display.
- ___ i. Press the Enter push button on the control panel.
- ___ j. Press the Increment/Decrement push button until **01** appears in the Function/Data display.
- ___ k. Press the Enter push button on the control panel.
01 B N S should appear in the Function/Data display.
- ___ l. Go to step 3.
- ___ 3. Power on the workstation or PC that is your console.
- ___ 4. Press the power-on button for the system unit. The power-on light will appear.

Note: There is an approximately 10 second delay before the system unit powers on. The system takes approximately 5 to 20 minutes to power on and complete an IPL.

- ___ 5. Sign on the system unit. Ensure that you have service tools authority.
- ___ 6. Do the following to verify your adapter card configuration:
 - ___ a. On an AS/400 command line, type: **STRSST**. Press the Enter key.
 - ___ b. Select the **Start a service tool** option and press the Enter key.
 - ___ c. Select the **Hardware service manager** option and press the Enter key.
 - ___ d. Select the **Packaging hardware resources (system, frames, cards...)** option and press the Enter key.
 - ___ e. Type a **9** in front of the *System Unit* and press the Enter key.
If the 2890 card is not listed, ensure that the card is properly installed.
 - ___ f. On the *Packaging Hardware Resources* menu, type an **8** in the *Opt* column next to Communications IOP 2890. This will be card Type-Model, for example, 2890-001. Press the Enter key.
 - ___ g. When the *Logical Resources Associated with a Packaging Resource* menu appears, type a **5** in the *Opt* column next to the *Communications IOA*. Press the Enter key.
 - ___ h. When the *Communications Hardware Resource Detail* menu appears, look at the line "Memory installed on IOA (MB)." The number should reflect the amount of memory you just installed on your 2890-001 Integrated NetFinity Server. If it does not, ensure that the memory cards are properly installed.
 - ___ i. INS memory test:
 - ___ 1) Press **F12** once.
 - ___ 2) Enter the **Verify** option next to the 2890 Comm IOA. Press Enter.
 - ___ 3) Press Enter at the *Verification Test* display.
 - ___ 4) Select the **Hardware memory test** option. Press Enter.

Note: This memory test will take about 2 minutes per 1GB of memory to be tested.

 - ___ 5) Press Enter at the *Number of Test Runs* display.

Note: If the test fails, make sure that you have installed the memory properly. If the test continues to fail, contact your authorized dealer or service provider.

- ___ 7. When the memory test is complete, the *Verification Test Results* display indicates the following: "This test is successful." Press Enter.
- ___ 8. Press Enter at the *Verification Test* display.
- ___ 9. Press F3 three times and then press Enter to return to the AS/400 Main Menu.
- ___ 10. Vary on the INS:
 - ___ a. Go to the *Work with Configuration Status* display by entering WRKCFGSTS at an AS/400 command line. Press F4.
 - ___ b. At the *Work with Configuration Status* display enter *NWS at the *Type* field and press Enter two times.
 - ___ c. At the *Work with Configuration Status* display enter the **Vary on** option in the *Opt* column next to the **INS** and press Enter.
 - ___ d. Press F3 to exit.
- ___ 11. Your feature upgrade is complete.
- ___ 12. To install any of the applications that are listed in the following table, use the book that is listed for that application.

Application	Book
Windows NT	Information Center from the <i>AS/400e Information Center CD-ROM</i> or from the following Web site:
Windows 2000	http://www.as400.ibm.com/infocenter

- ___ 13. For information on how to make your card operational, go to the *AS/400 Information Center*. You can access the Information Center from the *AS/400 Information Center, SK3T-2027-03* or from the following Web site:
<http://www.as400.ibm.com/infocenter>
- ___ 14. **You have completed installing memory on your Integrated NetFinity Server.**

Installing memory on the INS in the 5075 expansion unit

- ___ 1. Are you installing the memory cards on the INS concurrently (270 and 5075 powered on)?
 - Yes No
 - ↓ Go to "Installing memory on the INS non-concurrently (system unit and expansion unit powered off)" on page 12.

Installing memory on the INS concurrently (system unit and expansion unit powered on)

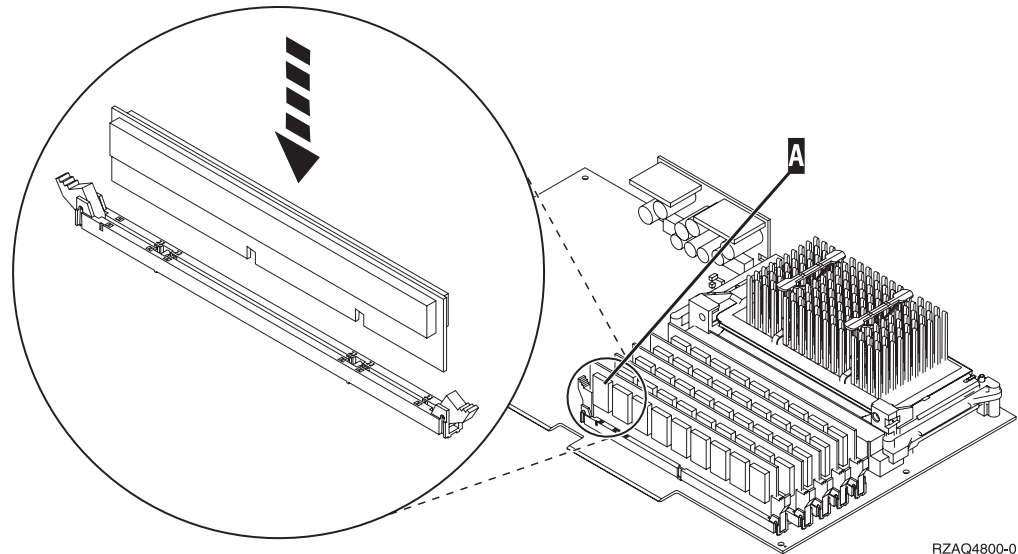
- ___ 1. Remove the left side cover for the 5075 expansion unit. For more information on removing the covers, see "Removing the 5075 back and side covers" on page 20.
- ___ 2. Vary off the INS:
 - ___ a. Go to the *Work with Configuration Status* display by entering: **WRKCFGSTS** at an AS/400 command line. Press F4.
 - ___ b. At the *Work with Configuration Status* display enter *NWS at the *Type* field and press Enter two times.

- ___ c. At the *Work with Configuration Status* display enter the **Vary off** option in the *Opt* column next to the INS and press Enter.
 - ___ d. Press F12 to exit.
- ___ 3. Verify current INS memory.
- ___ a. At a command line type **STRSST** and press Enter.
 - ___ b. Select the **Start a service tool** option and press Enter.
 - ___ c. Select the **Hardware service manager** and press Enter.
 - ___ d. Select the **Packaging hardware resources (systems, frames, cards,...)** option. Press Enter.
 - ___ e. Select the **Hardware contained within package** option in the *Opt* field in front of the System Expansion Unit containing the 2890 you are adding memory to. Press Enter.
 - ___ f. Use the cursor to select the 2890 communications IOP card you are working with.
 - ___ g. Select the **Associated logical resource(s)** option in the *Opt* field in front of that 2890 IOP card and press Enter.
 - ___ h. At the *Logical Resources Associated with a Packaging Resource* display, use the cursor to select Communications IOA.
 - ___ i. Select the **Display detail** option in the *Opt* field and press Enter.
 - ___ j. Look at *Memory installed on IOA (MB)* and verify that the current amount of memory that is installed on the 2890 is correct.
 - ___ k. Press F12 twice to go back to the *Packaging Hardware Resources* display.
- ___ 4. Verify location of the INS:
- ___ a. Use the cursor to select the **2890 Communications IOP**.
 - ___ b. Select the **Concurrent Maintenance** option and press Enter.
 - ___ c. Use the cursor to select **Communications IOP**.
 - ___ d. Select the **Toggle LED blink off/on** option and press Enter.
The LED at the card slot you chose should blink.
 - ___ e. Select the **Toggle LED blink off/on** option again, and press Enter.
The LED at the card slot you chose should stop blinking and remain on.
- ___ 5. With the cursor still at the Communications IOP line, press **F9** (Power off domain).
- ___ 6. At the confirmation display press Enter. Wait for the power off to complete. The following message should appear:
Power off complete. Check power indicator (LED) to confirm.
- When the LED at the card slot you chose is off it is safe to proceed. While you do the next steps, keep your console at the *Hardware Resources Concurrent Maintenance* display.
- ___ 7. Adapter cards are fragile. **Use static strap when handling**. Handle only by the edges, and keep fingers off printed circuit area.
Remove all cables that are attached the Integrated NetFinity Server (INS).
Remove the INS by turning the blue latch up and pulling the black latch out towards you. Squeeze the latch on the left end of the INS while pulling the card toward you.
- ___ 8. Lay the INS on a static protective surface.
- ___ 9. Find the package that contains a 289x memory card. Carefully remove the memory card from the static-protective package.

- ___ 10. Install the 289x memory card on the INS by doing the following:
 - ___ a. Align the memory card with the next available connector on the INS card.

Notes:

- 1) **Figure 3** shows the location of the first memory card **A**.
 - 2) Install your new memory card next to the currently installed memory card.
- ___ b. Snap the card in place by moving it downward in the connector. The memory card has a distinct click as it snaps into the connector.



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Figure 3. Location of memory on INS

- ___ c. Repeat this step if you have another 289x memory card to install.
- ___ 11. Install the INS card into the system unit.
- ___ 12. Re-attach the cables you removed from the INS card.
- ___ 13. Install covers. For more information, see “Installing system unit covers” on page 23.
- ___ 14. Power on the INS.
 - ___ a. The cursor on your console should be where the Communications IOA was. That line on the display should now read **Empty Position**.
 - ___ b. Press **F10** (Power on domain) and enter to confirm power on.

Note: If the *Work with Controlling Resource* display appears, select the **Assign to** option for each resource on the display. Then press Enter and wait for the power on to complete.

- ___ c. At the *Hardware Resource Concurrent Maintenance* display, press **F8** to verify that the power status is on for all resources.
- ___ d. Use the cursor to select the **Communications IOP**.
- ___ e. Enter the **Associated logical resource(s)** option and press Enter.
- ___ f. Use the cursor to select the **Communications IOA**.
- ___ g. Enter the **Display detail** option and press Enter.
- ___ h. Verify that the correct amount of memory is installed.

- ___ i. INS memory test:
 - ___ 1) Press **F12** once.
 - ___ 2) Enter the **Verify** option next to the 2890 Comm IOA. Press Enter.
 - ___ 3) Press Enter at the *Verification Test* display.
 - ___ 4) Select the **Hardware memory test** option. Press Enter.

Note: This memory test will take about 2 minutes per 1GB of memory to be tested.

- ___ 5) Press Enter at the *Number of Test Runs* display.

Note: If the test fails, make sure that you have installed the memory properly. If the test continues to fail, contact your authorized dealer or service provider.

Completing the Installation

- ___ 1. When the memory test is complete, the *Verification Test Results* display indicates the following: "This test is successful." Press Enter.
- ___ 2. Press Enter at the *Verification Test* display.
- ___ 3. Press F3 three times and then press Enter to return to the AS/400 Main Menu.
- ___ 4. Vary on the INS:
 - ___ a. Go to the *Work with Configuration Status* display by entering WRKCFGSTS at an AS/400 command line. Press F4.
 - ___ b. At the *Work with Configuration Status* display enter ***NWS** at the *Type* field and press Enter two times.
 - ___ c. At the *Work with Configuration Status* display enter the **Vary on** option in the *Opt* column next to the **INS** and press Enter.
 - ___ d. Press **F3** to exit.
- ___ 5. Your feature upgrade is complete.
- ___ 6. To install any of the applications that are listed in the following table, use the book that is listed for that application.

Application	Book
Windows NT	Information Center from the <i>AS/400e Information Center CD-ROM</i> or from the following Web site:
Windows 2000	http://www.as400.ibm.com/infocenter

- ___ 7. For information on how to make your card operational, go to the *AS/400 Information Center*. You can access the Information Center from the *AS/400 Information Center*, SK3T-2027-03 or from the following Web site:
<http://www.as400.ibm.com/infocenter>
- ___ 8. **You have completed installing memory on your Integrated NetFinity Server.**

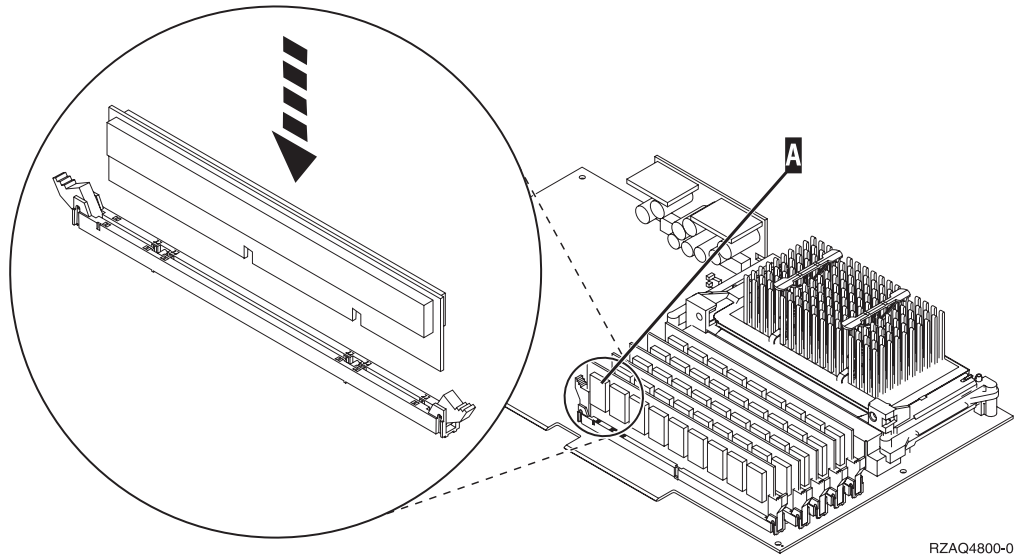
Installing memory on the INS non-concurrently (system unit and expansion unit powered off)

- ___ 1. Verify the current memory on your INS by doing these steps:
 - ___ a. At a command line type **STRSST** and press Enter.
 - ___ b. Select the **Start a service tool** option and press Enter.

- ___ c. Select the **Hardware service manager** and press Enter.
- ___ d. Select the **Packaging hardware resources (systems, frames, cards,...)** option. Press Enter.
- ___ e. Select the **Hardware contained within package** option in the *Opt* field in front of the System Expansion Unit containing the 2890 you are adding memory to. Press Enter.
- ___ f. Use the cursor to select the 2890 communications IOP card you are working with.
- ___ g. Select the **Associated logical resource(s)** option in the *Opt* field in front of that 2890 IOP card and press Enter.
- ___ h. At the *Logical Resources Associated with a Packaging Resource* display, use the cursor to select Communications IOA.
- ___ i. Select the **Display detail** option in the *Opt* field and press Enter.
- ___ j. Look at *Memory installed on IOA (MB)* and verify that the current amount of memory that is installed on the 2890 is correct.
- ___ k. Press F3 three times then press Enter to exit.
- ___ 2. Power off your AS/400 system unit. For more information on powering off your system, see "Powering off the system unit" on page 16.
- ___ 3. Remove the left side cover for the 5075 expansion unit. For more information on removing the covers, see "Removing the 5075 back and side covers" on page 20.
- ___ 4. The 2890 INS uses two slot positions. You may have two INS cards installed in the 5075 expansion unit. The INS is installed in either C02 (with C03 empty) or C05 (with C06 empty). For information on location of card slots, see "Slot positions in the 270 system unit or 5075 expansion unit" on page 22.
- ___ 5. Remove the cables from the INS card receiving memory.
- ___ 6. Adapter cards are fragile. **Use static strap when handling.** Handle only by the edges, and keep fingers off printed circuit area.
Remove the Integrated NetFinity Server by turning the blue latch up and pulling the black latch out towards you. Squeeze the metal lever while removing the INS from the system unit.
- ___ 7. Lay the INS on a static protective surface.
- ___ 8. Find the package that contains a 289x memory card. Carefully remove the memory card from the static-protective package.
- ___ 9. Install the 289x memory card on the INS by doing the following:
 - ___ a. Align the memory card with the next available connector on the INS card.

Notes:

- 1) **Figure 4 on page 14** shows the location of the first memory card **A**.
- 2) Install your new memory card next to the currently installed memory card.
- ___ b. Snap the card in place by moving it downward in the connector. The memory card has a distinct click as it snaps into the connector.



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Figure 4. Location of memory on INS

- ___ c. Repeat this step if you have another 289x memory card to install.
- ___ 10. Install the INS card into the system unit.
- ___ 11. Re-attach the cables that you removed from the INS.

Completing the installation

- ___ 1. Install covers and plug in the system unit and devices. For more information, see "Installing system unit covers" on page 23.
- ___ 2. Look at the Function/Data display on the 270 system unit control panel. Does a **01 B N V=S** appear in the Function/Data display?

Yes	No
↓ Do the following:	
___ a.	Press the Increment/Decrement push button until 02 appears in the Function/Data display.
___ b.	Press the Enter push button on the control panel.
___ c.	Press the Increment/Decrement push button until B appears in the Function/Data display.
___ d.	Press the Enter push button on the control panel.
___ e.	Press the Increment/Decrement push button until N appears in the Function/Data display.
___ f.	Press the Enter push button on the control panel.
___ g.	Press the Increment/Decrement push button until S appears in the Function/Data display.
___ h.	Press the Enter push button on the control panel.
___ i.	Press the Increment/Decrement push button until 01 appears in the Function/Data display.
___ j.	Press the Enter push button on the control panel.
	01 B N S should appear in the Function/Data display.
___ k.	Go to step 3.
- ___ 3. Power on the workstation or PC that is your console.

- ___ 4. Press the power-on button for the system unit. The power-on light will appear.

Note: There is an approximately 10 second delay before the system unit powers on. The system takes approximately 5 to 20 minutes to power on and complete an IPL.

- ___ 5. Sign on the system unit. Ensure that you have service tools authority.
- ___ 6. Do the following to verify your adapter card configuration:
 - ___ a. On an AS/400 command line, type: **STRSST**. Press the Enter key.
 - ___ b. Select the **Start a service tool** option and press the Enter key.
 - ___ c. Select the **Hardware service manager** option and press the Enter key.
 - ___ d. Select the **Packaging hardware resources (system, frames, cards...)** option and press the Enter key.
 - ___ e. Type a **9** in front of the *System Unit* or *System Expansion Unit* and press the Enter key.

If the adapter card is not listed, ensure that the card is properly installed.
 - ___ f. On the *Packaging Hardware Resources* menu, type an **8** in the *Opt* column next to *Communications IOP 2890*. This will be card Type-Model, for example 2890-001. Press the Enter key.
 - ___ g. When the *Logical Resources Associated with a Packaging Resource* menu appears, type a **5** in the *Opt* column next to the *Communications IOA*. Press the Enter key.
 - ___ h. When the *Communications Hardware Resource Detail* menu appears, look at the line "Memory installed on IOA (MB)." The number should reflect the amount of memory you just installed on your 2890-001 Integrated NetFinity Server. If it does not, ensure that the memory cards are properly installed.
 - ___ i. INS memory test:
 - ___ 1) Press **F12** once.
 - ___ 2) Enter the **Verify** option next to the 2890 Comm IOA. Press Enter.
 - ___ 3) Press Enter at the *Verification Test* display.
 - ___ 4) Select the **Hardware memory test** option. Press Enter.

Note: This memory test will take about 2 minutes per 1GB of memory to be tested.
 - ___ 5) Press Enter at the *Number of Test Runs* display.

Note: If the test fails, make sure that you have installed the memory properly. If the test continues to fail, contact your authorized dealer or service provider.
- ___ 7. When the memory test is complete, the *Verification Test Results* display indicates the following: "This test is successful." Press Enter.
- ___ 8. Press Enter at the *Verification Test* display.
- ___ 9. Press F3 three times and then press Enter to return to the AS/400 Main Menu.
- ___ 10. Vary on the INS:
 - ___ a. Go to the *Work with Configuration Status* display by entering WRKCFGSTS at an AS/400 command line. Press F4.

- ___ b. At the *Work with Configuration Status* display enter *NWS at the *Type* field and press Enter two times.
 - ___ c. At the *Work with Configuration Status* display enter the **Vary on** option in the *Opt* column next to the **INS** and press Enter.
 - ___ d. Press **F3** to exit.
- ___ 11. Your feature upgrade is complete.
 - ___ 12. To install any of the applications that are listed in the following table, use the book that is listed for that application.

Application	Book
Windows NT	Information Center from the <i>AS/400e Information Center CD-ROM</i> or from the following Web site:
Windows 2000	http://www.as400.ibm.com/infocenter

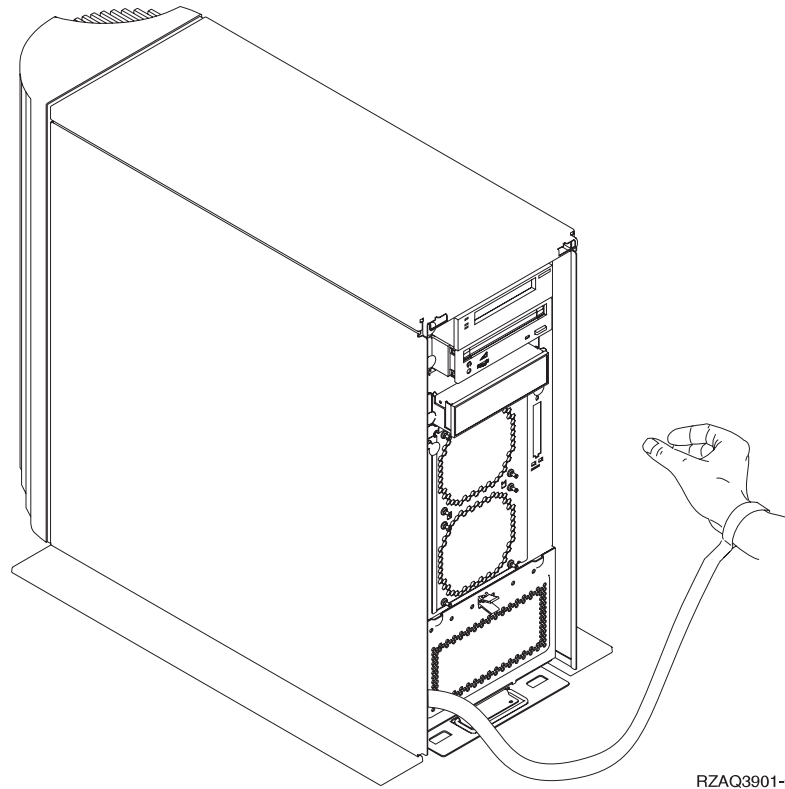
- ___ 13. For information on how to make your card operational, go to the *AS/400 Information Center*. You can access the Information Center from the *AS/400 Information Center*, SK3T-2027-03 or from the following Web site:
<http://www.as400.ibm.com/infocenter>
- ___ 14. **You have completed installing memory on your Integrated NetFinity Server.**

How to power off the AS/400, remove covers, and locate slot positions

This section describes how to power off your AS/400 and remove covers.

Powering off the system unit

- ___ 1. Ensure that all jobs are complete.
 - ___ 2. When all jobs are complete, type **pwrdownsys *immed** on an AS/400 command line and press Enter.
- Note:** Should you encounter difficulties during the installation, contact your authorized dealer or service provider.
- ___ 3. When the AS/400 is completely powered down, power off all PCs and devices, such as printers and displays, that are connected to the system unit.
 - ___ 4. Unplug any power cords, such as printers and displays, from electrical outlets.
 - ___ 5. Unplug the system unit power cord from the electrical outlet.
 - ___ 6. Refer to **“Removing the back cover” on page 17** to remove the system unit covers.
 - ___ 7. **Attach the disposable wrist strap to prevent electrostatic discharge from damaging a device.** Attach the adhesive part of the foil to an unpainted surface.



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Figure 5. Attach wrist strap

Removing the back cover

1. **Figure 6 on page 18** shows removing the system unit back cover by placing your hand near the bottom of the cover and lifting up and out.

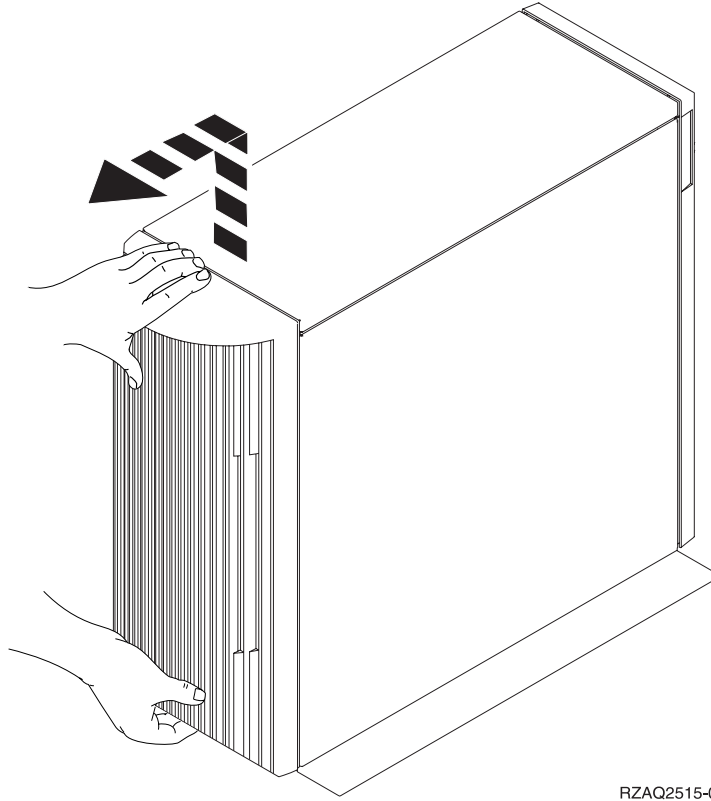
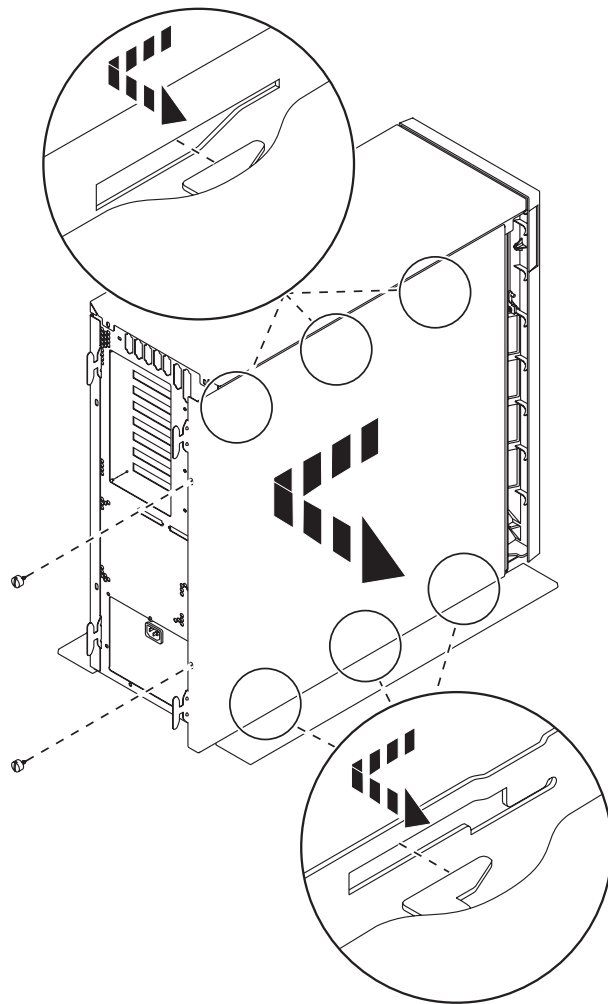


Figure 6. Remove system unit back cover

Removing the side cover

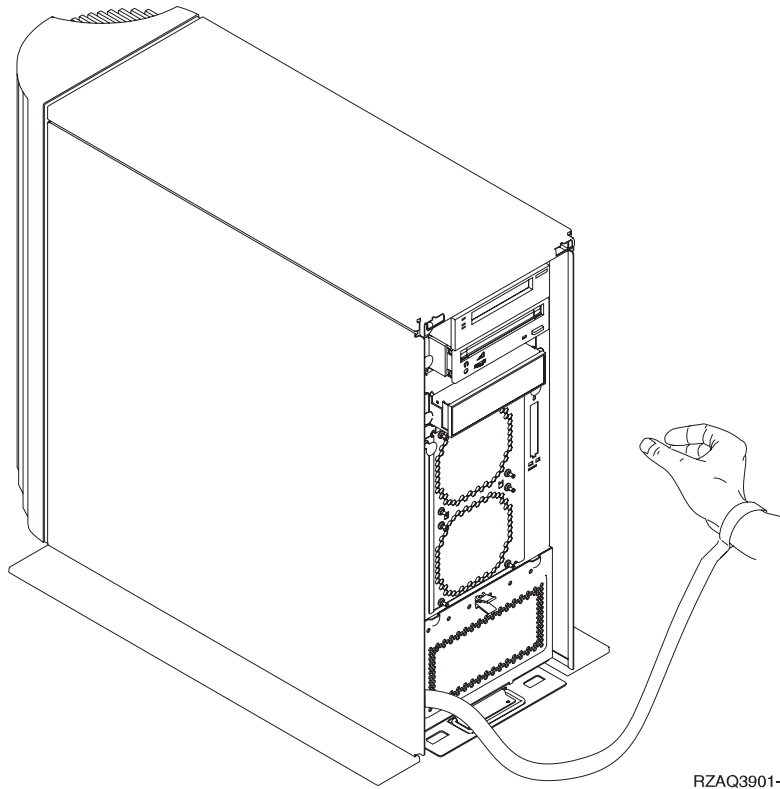
1. Figure 7 on page 19 shows removing the right side cover (view from back) by loosening the screws and sliding the cover from front to back until it stops. Pull the cover out.



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Figure 7. Remove system unit side cover

- ___ 2. Attach the disposable wrist strap to prevent electrostatic discharge from damaging a device. **Figure 8 on page 20** shows an example of where to attach the adhesive part of the foil on the wrist strap to an unpainted surface.



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Figure 8. Attach wrist strap

Removing the 5075 back and side covers

- 1. **Figure 9 on page 21** shows removing the back cover by lifting up and out.
- 2. **Figure 9 on page 21** shows removing the left side cover (view from back) by loosening the screws and sliding the cover from front to back until it stops. Pull the cover out.

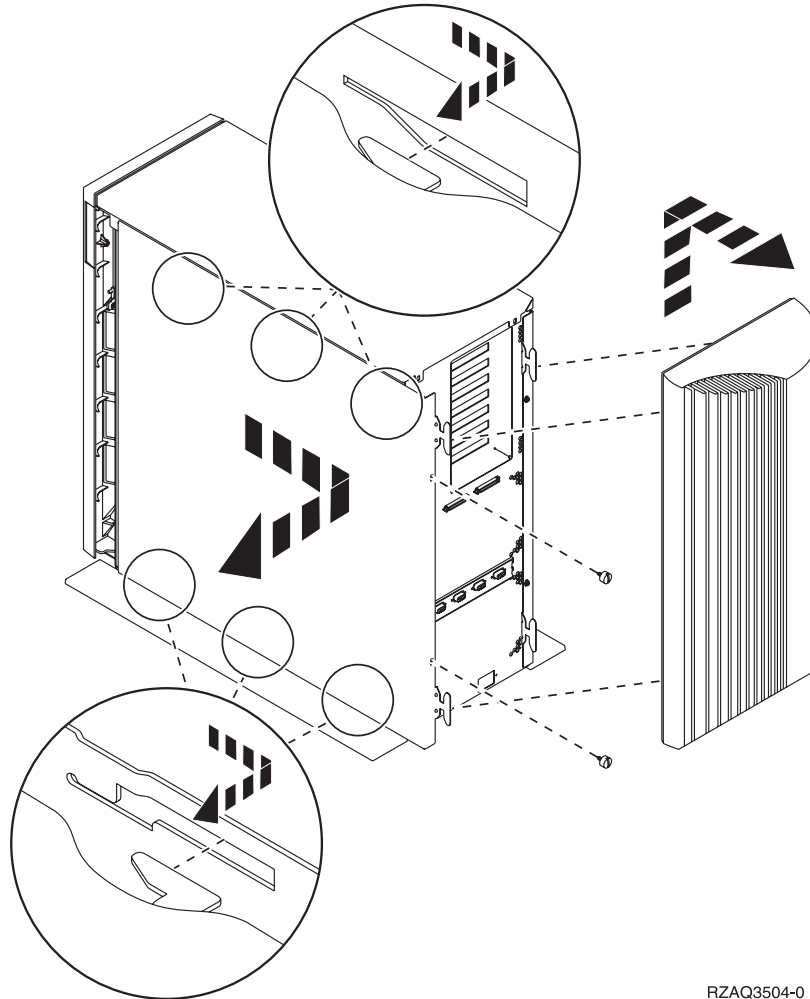
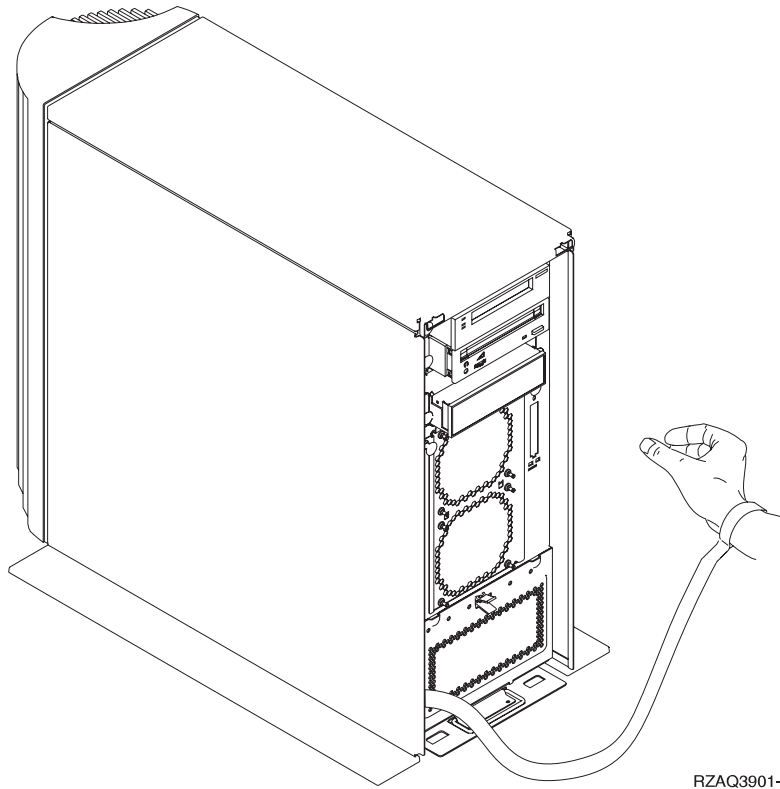


Figure 9. Remove 5075 back cover and left side cover

3. Attach the disposable wrist strap to prevent electrostatic discharge from damaging a device. **Figure 10 on page 22** shows an example of where to attach the adhesive part of the foil on the wrist strap to an unpainted surface.

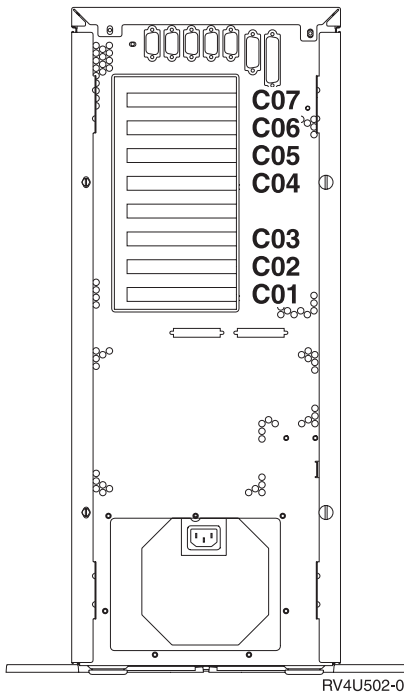


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Figure 10. Attach wrist strap

Slot positions in the 270 system unit or 5075 expansion unit

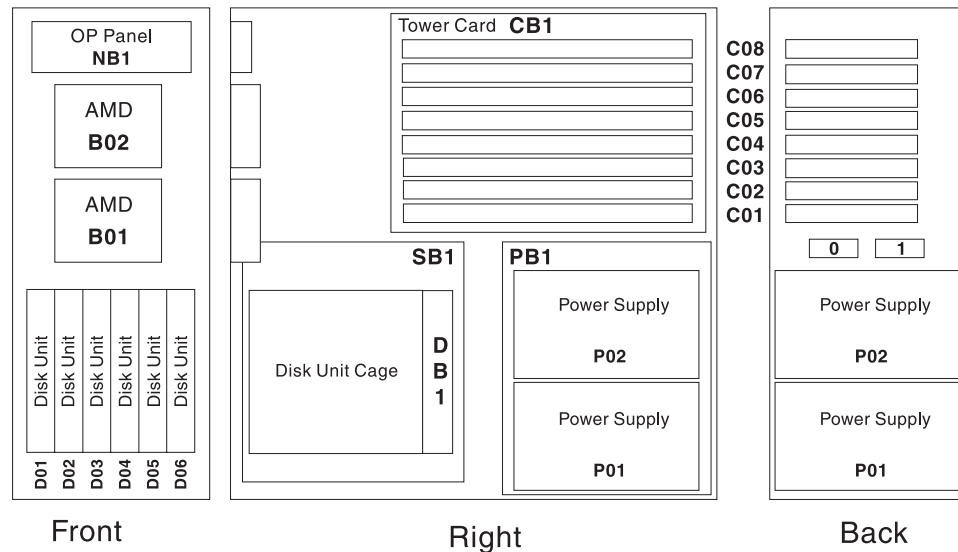
1. Figure 11 shows the slot positions (back view) on a 270 system unit.



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Figure 11. Slot positions on the 270 system unit

2. **Figure 12** shows the slot positions (side and back view) on a 5075 expansion unit.

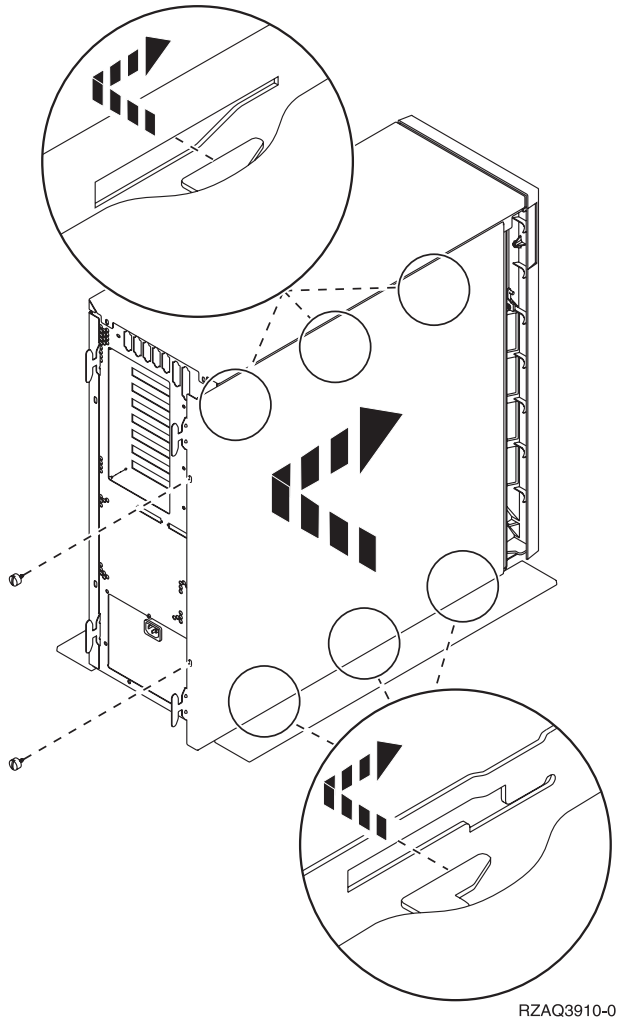


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Figure 12. Slot positions on the 5075 expansion unit

Installing system unit covers

- ___ 1. Remove the wrist strap.
- ___ 2. **Figure 13 on page 24** shows how to install the system unit side cover by aligning the tabs on the top and bottom edge. Press forward to make sure that all tabs enter the slots. Slide the cover toward the front of the system unit until it stops and install the screws.



RZAQ3910-0

Figure 13. Install system unit side cover

- ___ 3. Install the system unit back cover.
- ___ 4. **DANGER**

An electrical outlet that is not correctly wired could place hazardous voltage on metal parts of the system or the products that attach to the system. It is the customer's responsibility to ensure that the outlet is correctly wired and grounded to prevent an electrical shock. (RSFTD201)

Plug the following power cords into an electrical outlet.

- System unit

Note: Do **not** power on your AS/400 system unit at this time.

- System unit console

- ___ 5. Plug in and power on all attached devices, such as printers and displays.

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