



iSeries 270, 800, 810, 820, 825

30xx Memory

Version 5





iSeries 270, 800, 810, 820, 825

30xx Memory

Version 5

Note

Before using this information and the product it supports, be sure to read the information in "Notices," on page 53.

Fourth Edition (August 2005)

This edition applies to version 5, release 3, modification 0 of IBM Operating System/400® (product number 5722-SS1) and to all subsequent releases and modifications until otherwise indicated in new editions. This version does not run on all reduced instruction set computer (RISC) models nor does it run on CISC models.

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Memory

These instructions contain steps on how to install or replace memory cards (main storage cards), including adding a 2884 card assembly, into the system unit.

Replacing and installing these features are customer tasks. When you use these instructions, you will perform some or all of the following tasks:

- Perform prerequisite tasks.
- Power down the system unit.
- Remove the system unit covers.
- Remove hardware.
- Install new hardware.
- Install covers.
- IPL your operating system.
- Verify your new hardware configuration.

You may need to allow additional time to complete your jobs and back up your system.

You can choose to perform these tasks yourself or contact IBM(R) or an authorized service provider to make arrangements for them to perform the tasks for a fee. Should you encounter difficulties when performing a task, contact your authorized dealer or service provider.

Before you begin

Before you begin a replacement or installation task, follow these steps:

- ___ 1. **For an installation and if possible, for a replacement, ensure that you have a current backup of your system (including operating system, licensed programs, and data).** If you have backed up the operating system and licensed programs since the last time you applied PTFs, that backup is acceptable.
- ___ 2. Ensure that you take a few minutes to become familiar with these instructions.
- ___ 3. Ensure that you have access to a medium flat-bladed screwdriver.
- ___ 4. If there are incorrect, missing, or visibly damaged parts, contact one of the following:
 - Your authorized service provider
 - In the United States: IBM® Rochester Manufacturing Automated Information Line (R-MAIL) at 1-800-300-8751
 - In countries outside of the United States: Use the following Web site to locate your service and support numbers:
<http://www.ibm.com/planetwide>
- ___ 5. If you are installing new hardware in logical partitions, you need to plan and understand the requirements to be successful. Go to Logical partitions in the *Information Center*. Then return to these instructions.
- ___ 6. If you encounter difficulties during the procedure, contact your authorized service provider or your authorized dealer.
- ___ 7. Determine if there are any existing PTF prerequisites before you install your new feature. Go to the following Web site:
http://www-912.ibm.com/s_dir/slkbases.NSF/slkbases
 - a. Select **All Documents**.

- b. Select **General Information**.
- c. Select **Offerings**.
- d. Select **Feature Prerequisites**.
- e. Select **Customer Installation Features Prerequisites**.
- f. Locate your feature number and OS/400® release, and check the prerequisites.

If you are replacing a memory card, select the instructions for the task you want to perform:

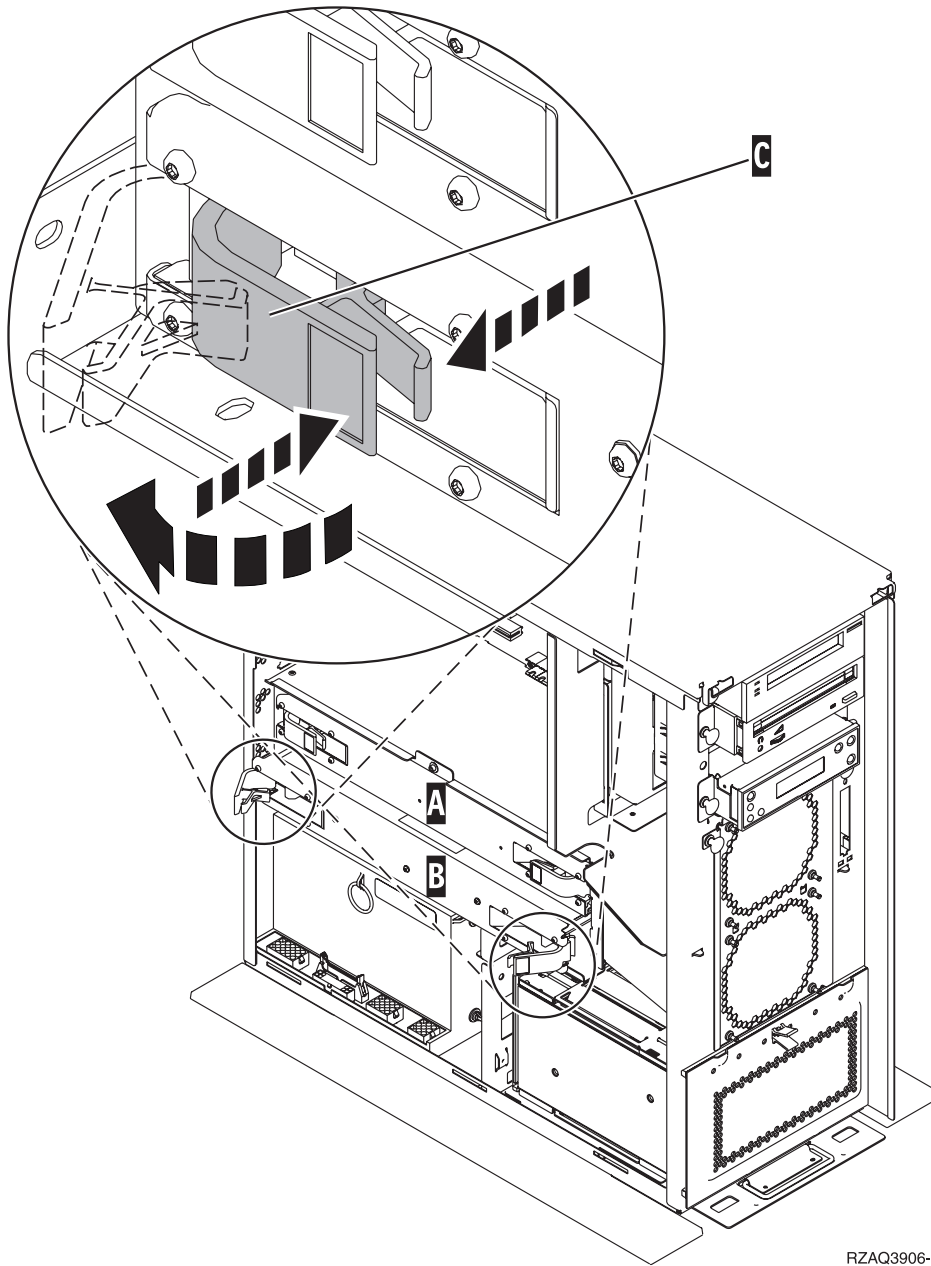
- “Replace the 2884 card assembly”
- “Replace memory in the 2884 card assembly” on page 10
- “Replace memory in the processor card assembly” on page 12
- “Replace memory located with your processor on the backplane” on page 14
- “Replace memory in the iSeries 825 processor card assembly” on page 16

If you are adding memory, go to “Identify the memory location” on page 20

Replace the 2884 card assembly

To replace the 2884 card assembly, follow these steps:

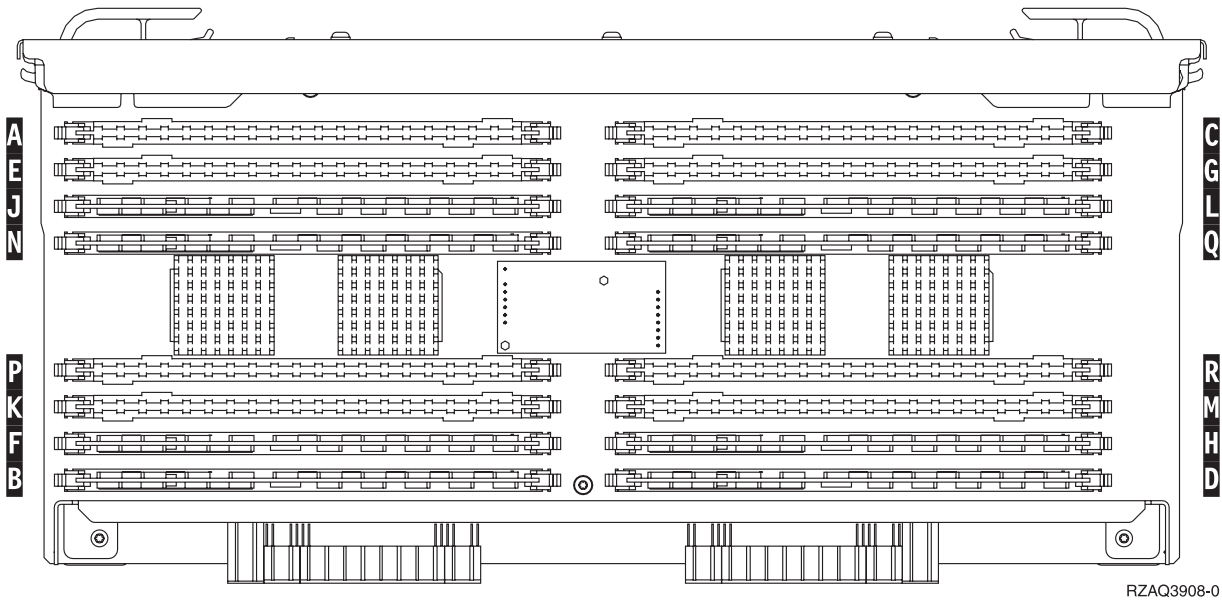
- ___ 1. Go to the instructions for your system:
 - ___ 270, 800, or 810: Continue with the next step.
 - ___ 820: Go to step 13 on page 6.
- ___ 2. **Figure 1 on page 3** shows the location of the 2884 card assembly **B**.



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Figure 1. Location of 2884 card assembly in a 270, 800, or 810 system unit

- ___ 3. Remove the 2884 card assembly to be replaced by doing the following:
 - ___ a. Unlatch the two latches on the 2884 until the card assembly slightly “pops” out. Refer to Figure 1 **C**.
 - ___ b. Pull on both latches at the same time to remove the card assembly from the system unit.
 - ___ c. Place the card assembly on a flat surface.
- ___ 4. Place the new 2884 card assembly next to the card assembly to be replaced.
- ___ 5. Note the memory card locations in the 2884 card assembly to be replaced.

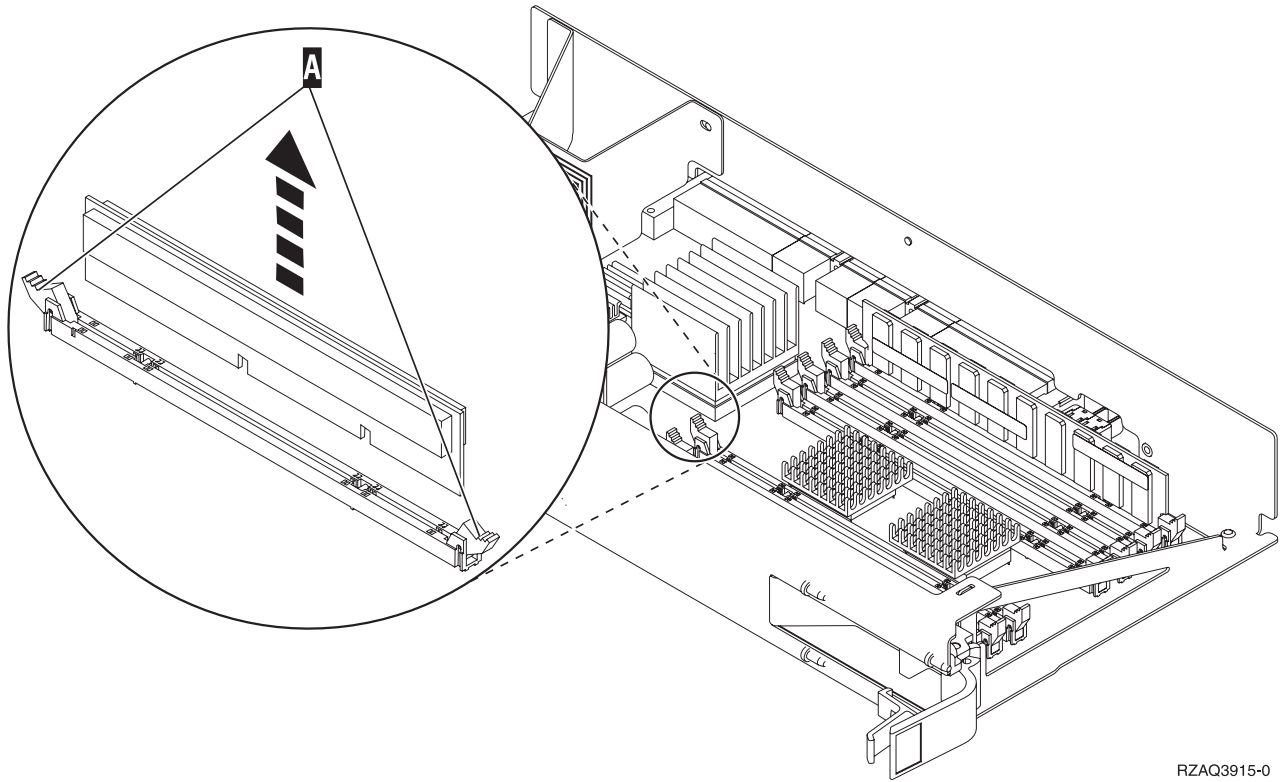


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Figure 2. Memory Locations on Card Assembly

- 6. Remove the first memory card from the card assembly by doing the following:
 - a. Push outward on the latches **A** that are located at each end of the memory card, Figure 3 on page 5.
 - b. Remove the memory card from the card socket.

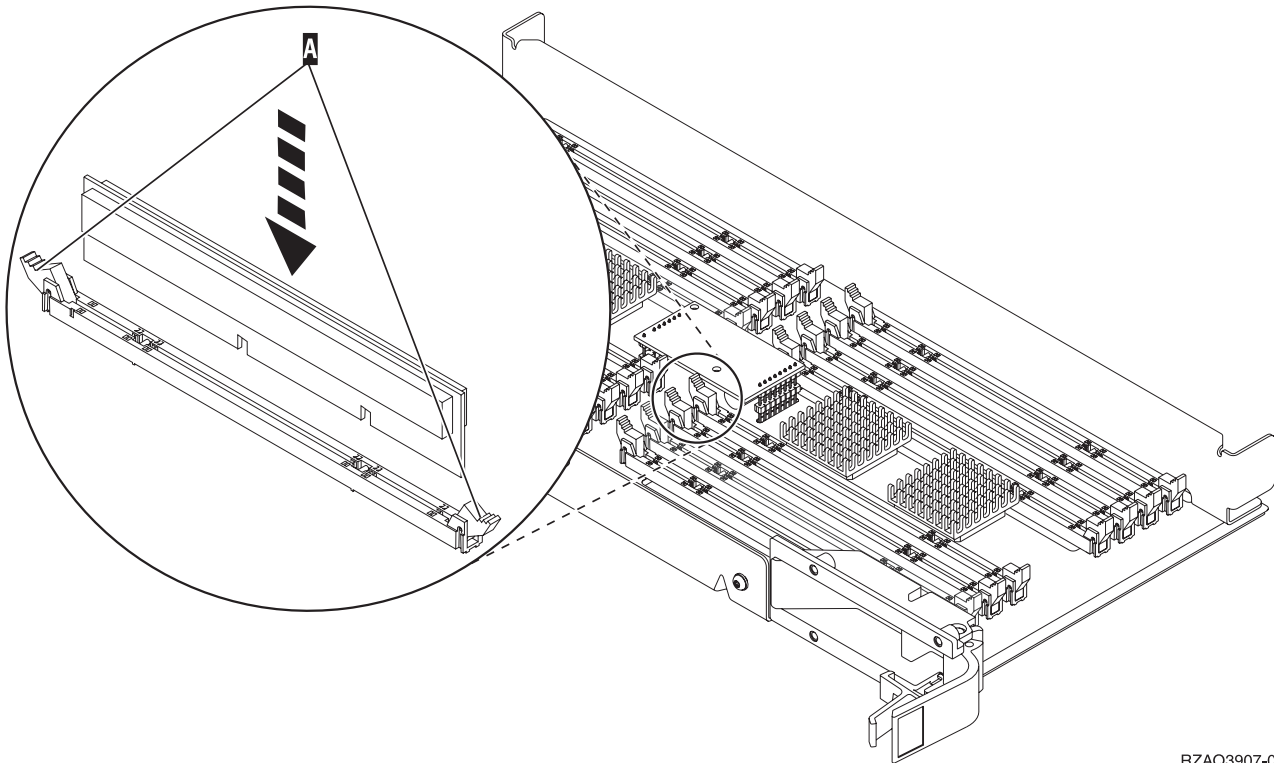
Attention: Memory cards are fragile. Handle with care.



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Figure 3. Remove memory from processor card assembly

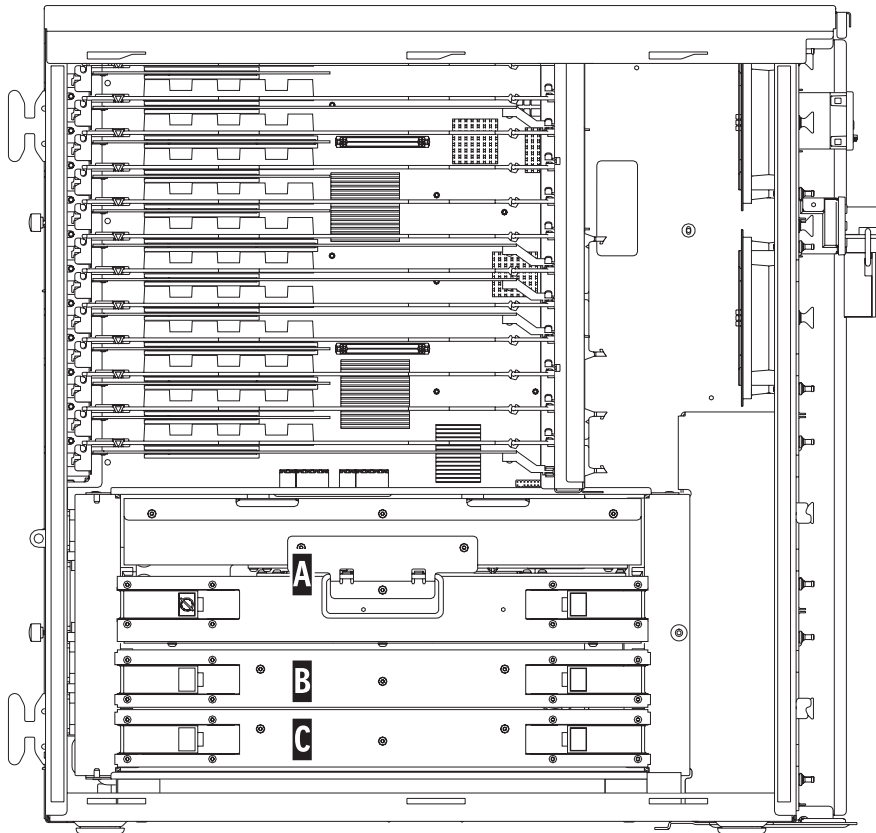
- ___ 7. Install the memory card in the same location in the replacement 2884 card assembly by doing the following:
 - ___ a. Look carefully at the notches on the bottom of the memory card. The distance between the notches and the end of the memory card is slightly different.
 - ___ b. Align the card as shown in Figure 4 on page 6.
 - ___ c. Match the keyed notches and push down on the card until the latches close.



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Figure 4. Install Memory Cards

- ___ 8. Repeat these steps to transfer each of the remaining memory cards to the replacement card assembly.
- ___ 9. When you finish installing all the memory cards, turn the card assembly over, and slide it into the system unit (**B** in Figure 18 on page 21). Push on both card latches at the same time. Close the latches when you cannot push the card assembly any further into the system unit.
- ___ 10. Reinstall the access cover.
- ___ 11. "Install covers" on page 41.
- ___ 12. Follow the steps in "Complete the procedure" on page 43.
- ___ 13. **Figure 5 on page 7** shows the location of the 2884 card assemblies **B** , **C** and the processor card assembly **A** in a model 820.



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Figure 5. Location of card assemblies in 820 system unit

- __ 14. Remove the card assembly to be replaced by doing the following:
 - __ a. Unlatch the two latches on the 2884 until the card assembly slightly “pops” out.
 - __ b. Pull on both latches at the same time to remove the card assembly from the system unit.
- __ 15. Place the card assembly on a flat surface.
- __ 16. Place the new 2884 card assembly next to the card assembly to be replaced.
- __ 17. Note the memory card locations in the 2884 card assembly to be replaced.

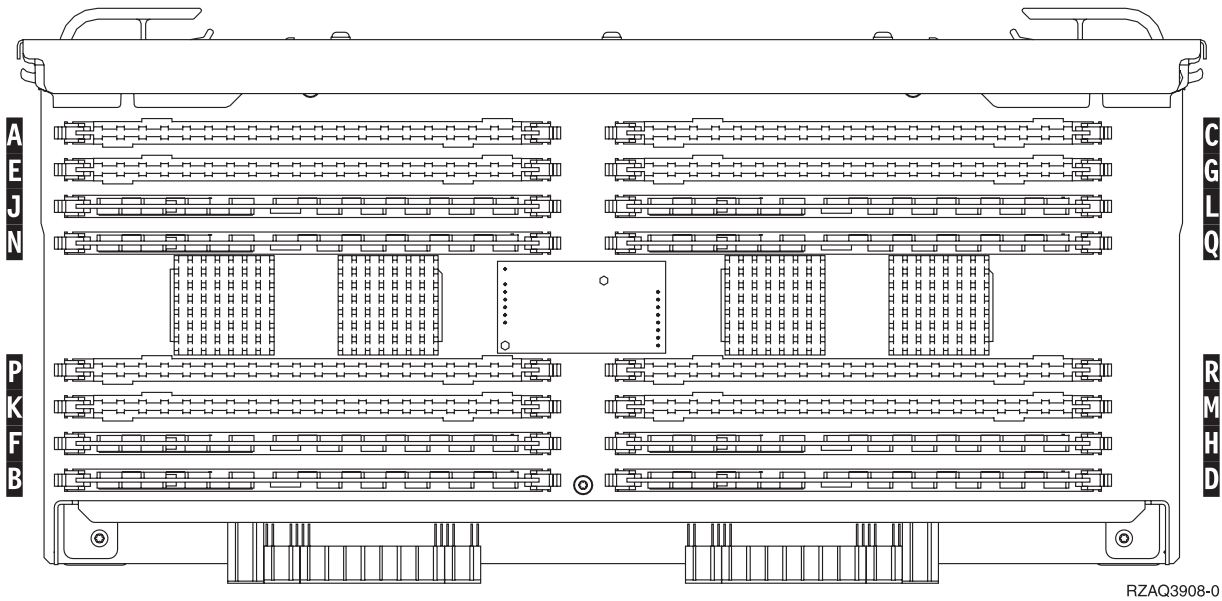
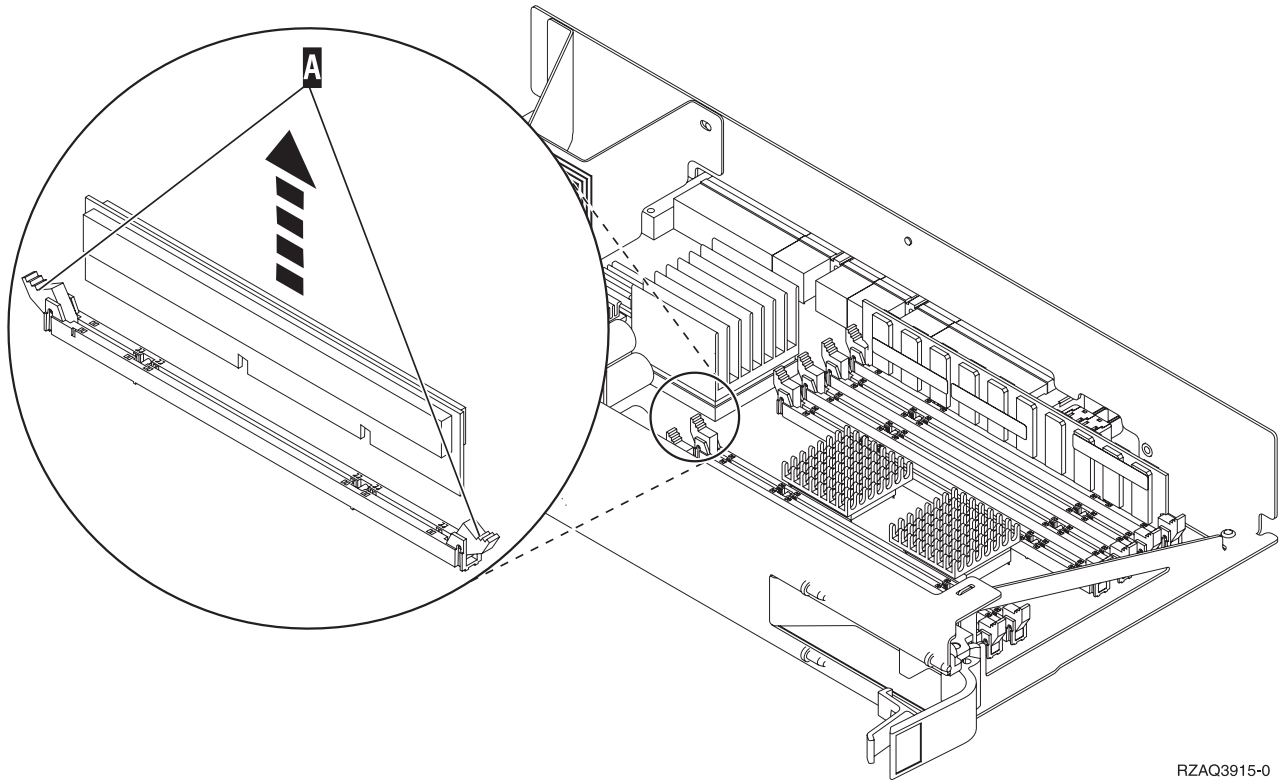


Figure 6. Memory Locations on Card Assembly

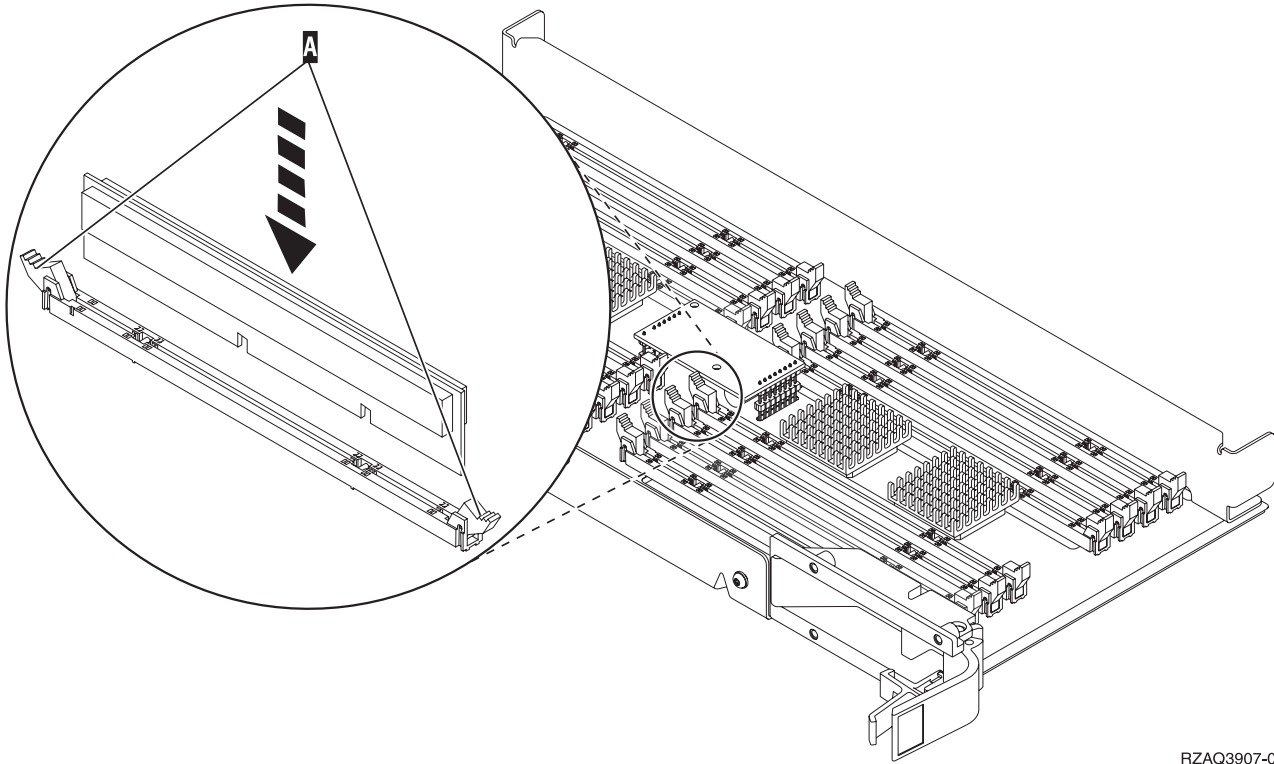
- ___ 18.
- **Figure 23 on page 26** shows memory card locations on the main storage card assembly.
- ___ 19. Remove the first memory card from the card assembly by doing the following:
- ___ a. Push outward on the latches **A** that are located at each end of the memory card, Figure 7 on page 9.
 - ___ b. Remove the memory card from the card socket.
- Attention:** Memory cards are fragile. Handle with care.



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Figure 7. Remove memory from processor card assembly

- ___ 20. Install the memory card in the same location in the replacement 2884 card assembly by doing the following:
 - ___ a. Look carefully at the notches on the bottom of the memory card. The distance between the notches and the end of the memory card is slightly different.
 - ___ b. Align the card as shown in Figure 8 on page 10.
 - ___ c. Match the keyed notches and push down on the card until the latches close.




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Figure 8. Install Memory Cards

- ___ 21. Repeat these steps to transfer each of the remaining memory cards to the replacement card assembly.
- ___ 22. When you finish installing all the memory cards, turn the card assembly over, and slide it into the system unit (**C**). Push on both card latches at the same time. Close the latches when you cannot push the card assembly any further into the system unit.
- ___ 23. Reinstall the access cover.
- ___ 24. “Install covers” on page 41.
- ___ 25. Follow the steps in “Complete the procedure” on page 43.

Replace memory in the 2884 card assembly

To replace a memory card in your 2884 card assembly, perform these tasks:

- ___ 1. Perform prerequisite tasks as described in “Before you begin” on page 1.
- ___ 2. “Power down the system unit” on page 45.
- ___ 3. Remove the “Unit Covers” on page 47.
- ___ 4. **If possible, use a wrist strap to prevent electrostatic discharge from damaging your hardware.** If you do not have a wrist strap, touch a metal surface of the system or expansion unit before installing or replacing hardware.
 - If you received the 2209 Disposable Wrist Strap, follow these steps:
 - ___ a. Attach the disposable wrist strap.  [View video.](#)
 - ___ b. When you unroll the strap, remove the liner from the copper foil at the end.
 - ___ c. Attach the adhesive part of the copper foil to an **exposed, unpainted** metal surface on the frame of the unit.

Note: Follow the same precautions you would use without the wrist strap. The 2209 Disposable Wrist Strap is for static control. It will not increase or decrease your risk of receiving electric shock when using or working on electrical equipment.

- ___ 5. Locate the memory card to be replaced. Figure 9 shows memory card locations on the main storage card assembly.

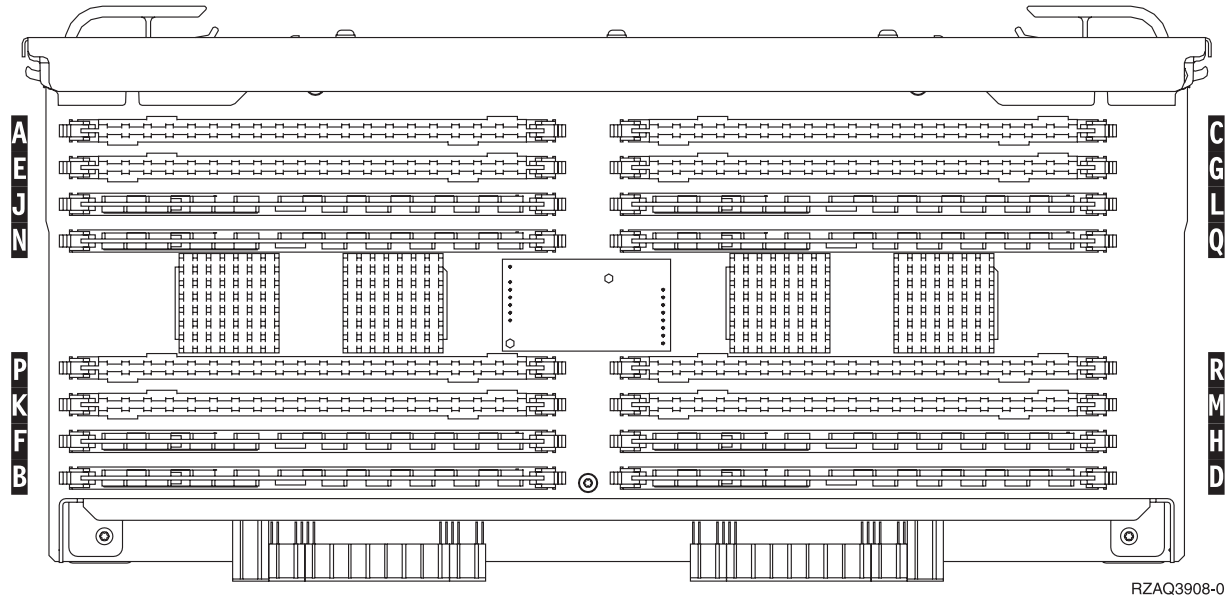
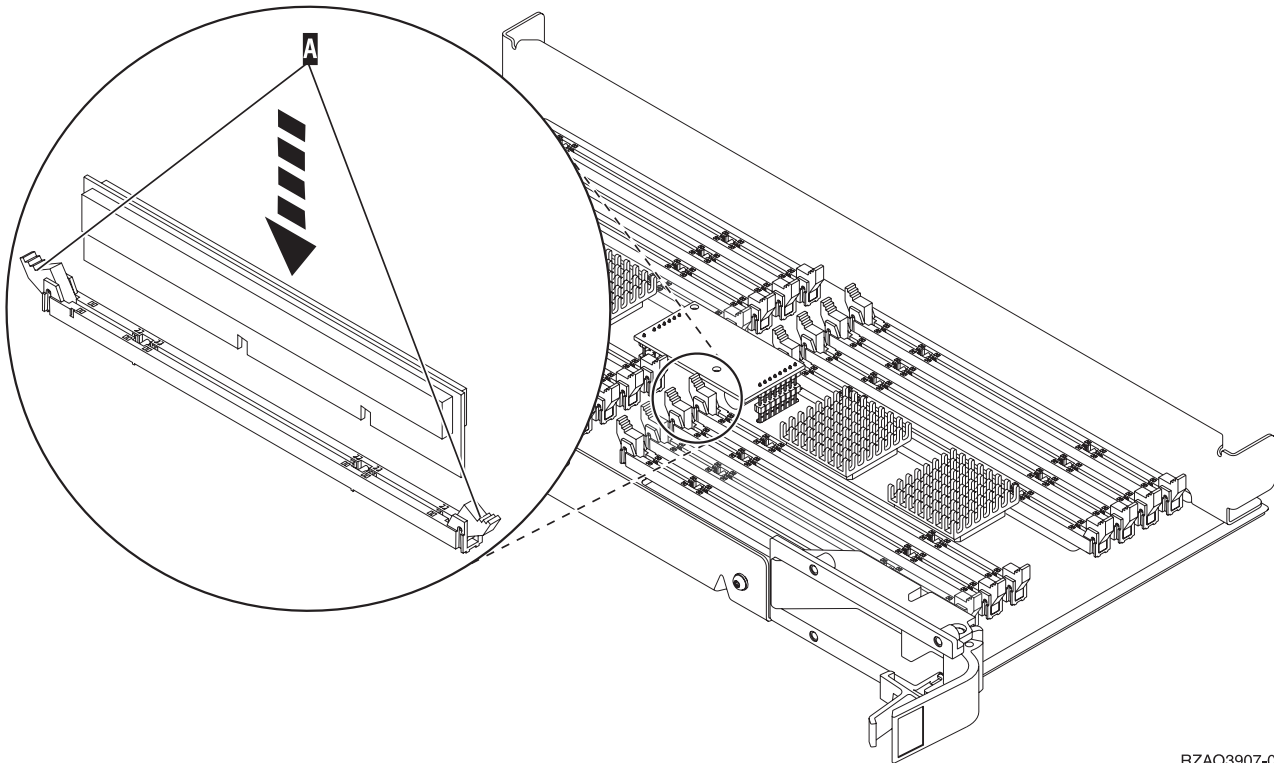


Figure 9. Memory Locations on Card Assembly

- ___ 6. Remove the memory card by doing the following:
 - ___ a. Push outward on the latches **A** that are located at each end of the card, Figure 10 on page 12.
 - ___ b. Remove the card from the card socket.
- ___ 7. Find the package that contains the new memory card.
- ___ 8. **Attention:** Memory cards are fragile. Handle with care. Remove the memory card from the static protective package.
- ___ 9. Refer to Figure 10 on page 12 to install the memory card by doing the following:
 - ___ a. Look carefully at the notches on the bottom of the memory card. The distance between the notches and the end of the memory card is slightly different.
 - ___ b. Align the card as shown in Figure 10 on page 12.
 - ___ c. Match the keyed notches and push down on the card until the latches close.



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Figure 10. Install Memory Cards


- ___ 10. When you finish replacing the memory card, turn the card assembly over, and slide it into the system unit. Push on both card latches at the same time. Close the latches when you cannot push the card assembly any further into the system unit.
- ___ 11. Reinstall the access cover.
- ___ 12. “Install covers” on page 41.
- ___ 13. Follow the steps in “Complete the procedure” on page 43.

Replace memory in the processor card assembly

To replace a memory card in your processor card assembly, perform these tasks:

- ___ 1. Perform prerequisite tasks as described in “Before you begin” on page 1.
- ___ 2. “Power down the system unit” on page 45.
- ___ 3. Remove the “Unit Covers” on page 47.
- ___ 4. **If possible, use a wrist strap to prevent electrostatic discharge from damaging your hardware.** If you do not have a wrist strap, touch a metal surface of the system or expansion unit before installing or replacing hardware.

If you received the 2209 Disposable Wrist Strap, follow these steps:

- ___ a. Attach the disposable wrist strap.  [View video.](#)
- ___ b. When you unroll the strap, remove the liner from the copper foil at the end.
- ___ c. Attach the adhesive part of the copper foil to an **exposed, unpainted** metal surface on the frame of the unit.

Note: Follow the same precautions you would use without the wrist strap. The 2209 Disposable Wrist Strap is for static control. It will not increase or decrease your risk of receiving electric shock when using or working on electrical equipment.

- ___ 5. Locate the memory card to be replaced. **Figure 11** shows memory card locations on the main storage card assembly.

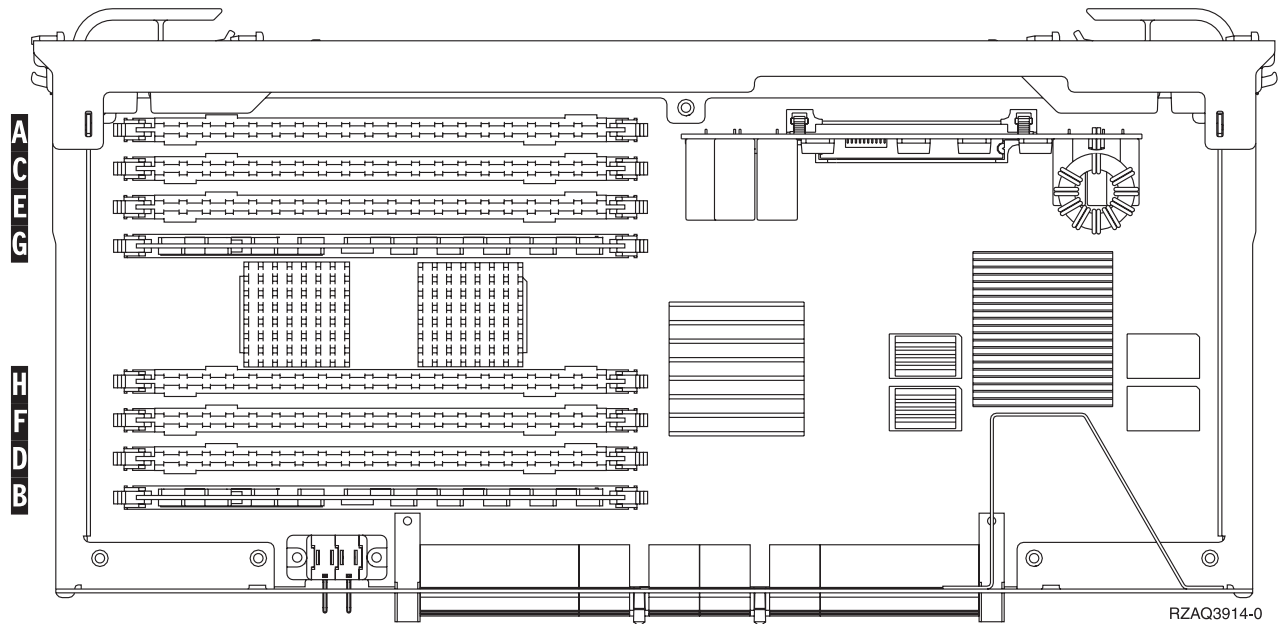
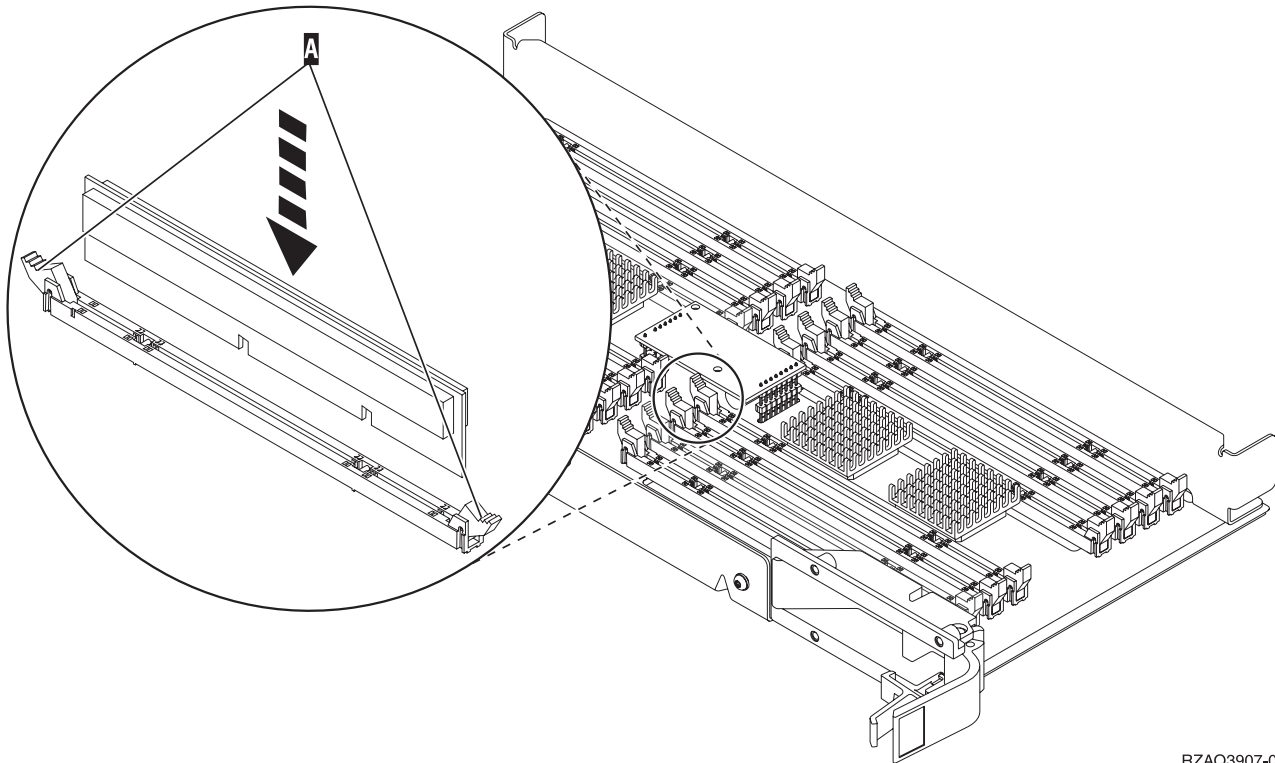


Figure 11. Memory Locations on Card Assembly

- ___ 6. Remove the memory card by doing the following:
 - ___ a. Push outward on the latches **A** that are located at each end of the card, Figure 12 on page 14.
 - ___ b. Remove the card from the card socket.
- ___ 7. Find the package that contains the new memory card.
- ___ 8. **Attention:** Memory cards are fragile. Handle with care. Remove the memory card from the static protective package.
- ___ 9. Refer to Figure 12 on page 14 to install the memory card by doing the following:
 - ___ a. Look carefully at the notches on the bottom of the memory card. The distance between the notches and the end of the memory card is slightly different.
 - ___ b. Align the card as shown in Figure 12 on page 14.
 - ___ c. Match the keyed notches and push down on the card until the latches close.



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Figure 12. Install Memory Cards

- ___ 10. When you finish replacing the memory card, turn the card assembly over, and slide it into the system unit. Push on both card latches at the same time. Close the latches when you cannot push the card assembly any further into the system unit.
- ___ 11. Reinstall the access cover.
- ___ 12. “Install covers” on page 41.
- ___ 13. Follow the steps in “Complete the procedure” on page 43.

Replace memory located with your processor on the backplane

To replace a memory card located with your processor on the backplane, perform these tasks:

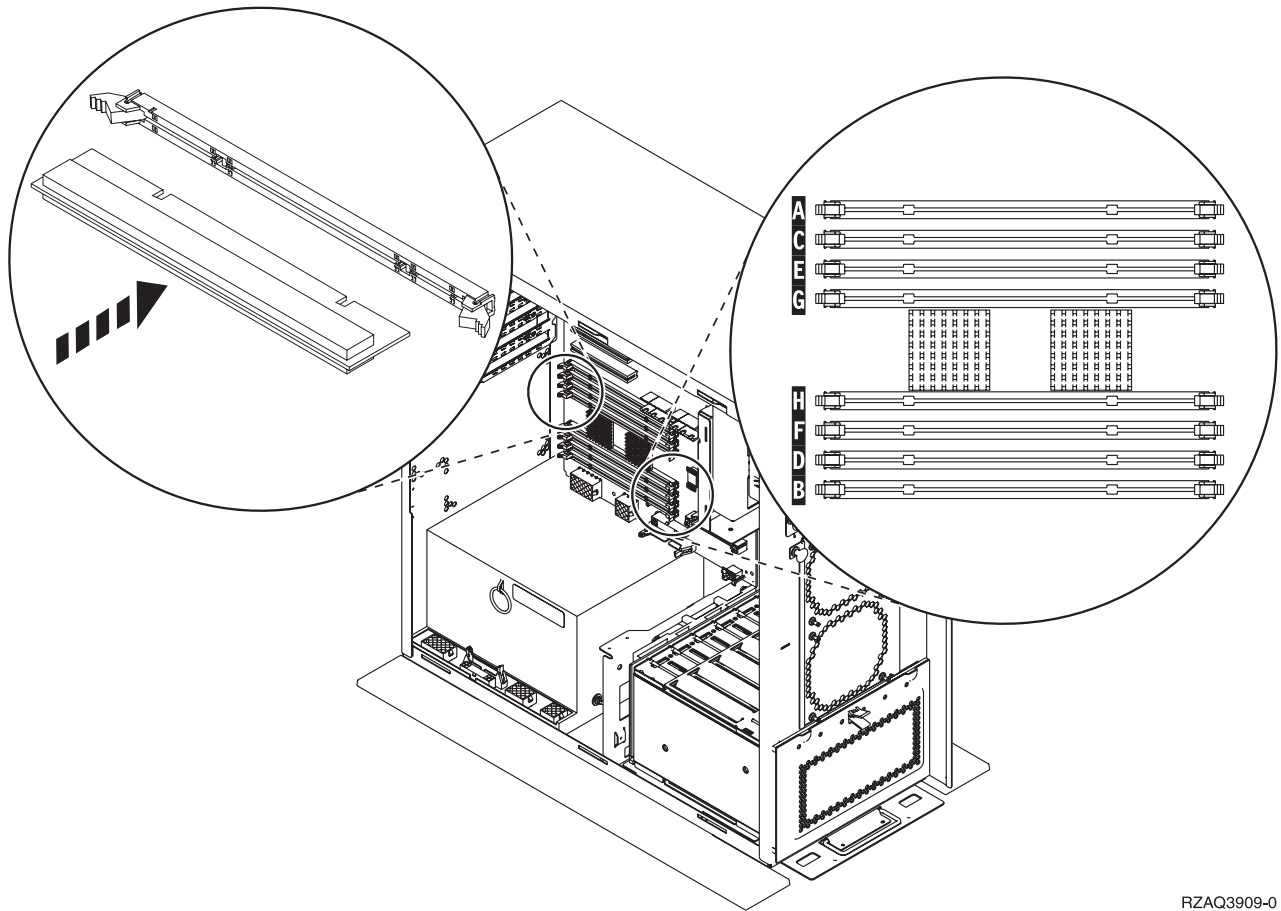
- ___ 1. Perform prerequisite tasks as described in “Before you begin” on page 1.
- ___ 2. “Power down the system unit” on page 45.
- ___ 3. Remove the “Unit Covers” on page 47.
- ___ 4. **If possible, use a wrist strap to prevent electrostatic discharge from damaging your hardware.** If you do not have a wrist strap, touch a metal surface of the system or expansion unit before installing or replacing hardware.

If you received the 2209 Disposable Wrist Strap, follow these steps:

- ___ a. Attach the disposable wrist strap. [View video.](#)
- ___ b. When you unroll the strap, remove the liner from the copper foil at the end.
- ___ c. Attach the adhesive part of the copper foil to an **exposed, unpainted** metal surface on the frame of the unit.

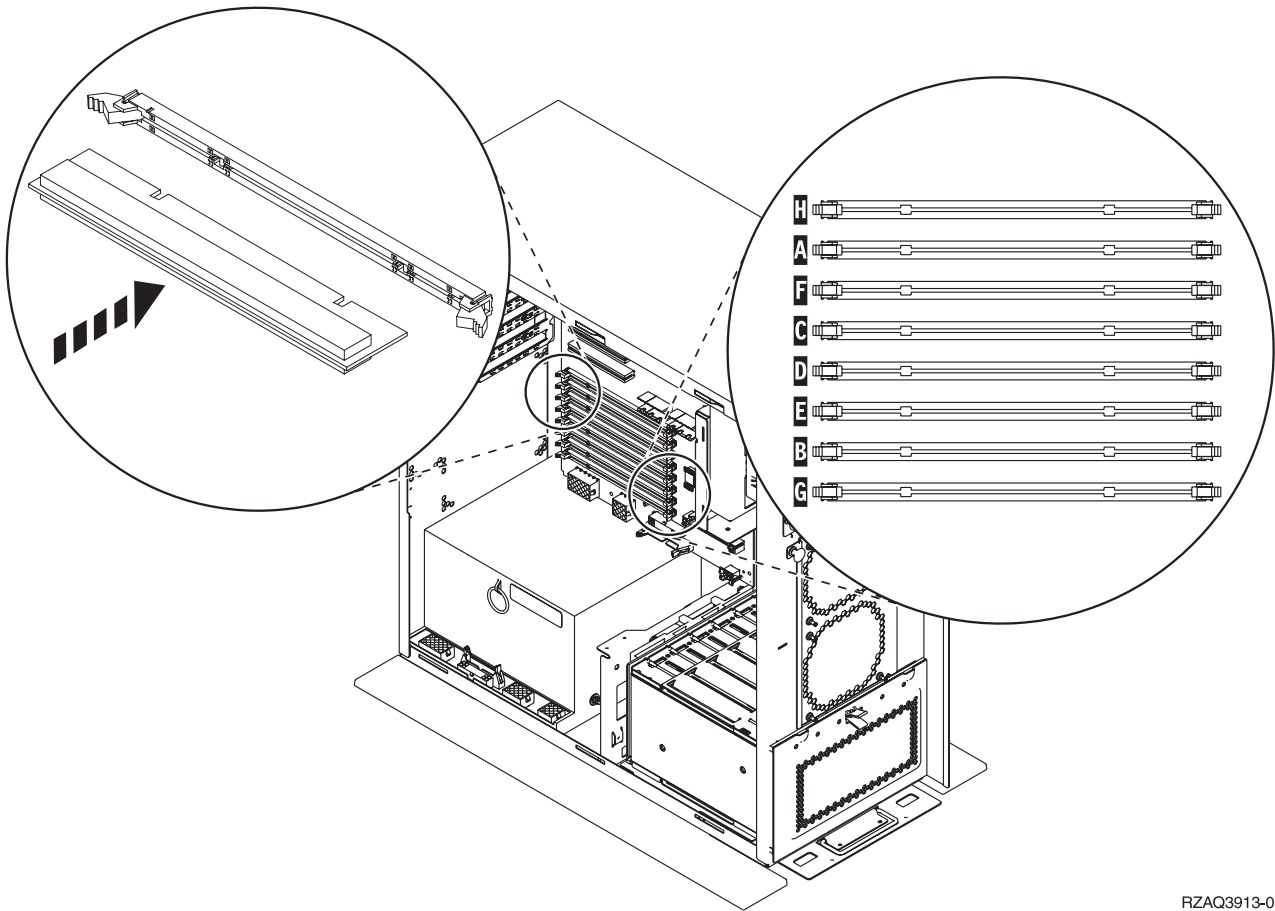
Note: Follow the same precautions you would use without the wrist strap. The 2209 Disposable Wrist Strap is for static control. It will not increase or decrease your risk of receiving electric shock when using or working on electrical equipment.

5. Locate the memory card to be replaced. Figure 13 and Figure 14 on page 16 show the memory card connectors on the processor **A** inside your system unit.



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Figure 13. Memory Connectors View 1



RZAQ3913-0

Figure 14. Memory Connectors View 2

- ___ 6. Remove the memory card by doing the following:
 - ___ a. Push outward on the latches that are located at each end of the card, Figure 13 on page 15.
 - ___ b. Remove the card from the card socket.
- ___ 7. Find the package that contains the new memory card.
- ___ 8. **Attention:** Memory cards are fragile. Handle with care. Remove a memory card from the static protective package.
- ___ 9. Install the memory card by doing the following:
 - ___ a. Look carefully at the notches on the bottom of the memory card. The distance between the notches and the end of the card is slightly different.
 - ___ b. Align the card as shown in Figure 13 on page 15 or Figure 14.
 - ___ c. Push forward on the card until the latches close.
- ___ 10. "Install covers" on page 41.
- ___ 11. Follow the steps in "Complete the procedure" on page 43.


Replace memory in the iSeries 825 processor card assembly

To replace a memory card in your iSeries 825 processor card assembly, perform these tasks:

- ___ 1. Perform prerequisite tasks as described in "Before you begin" on page 1.
- ___ 2. "Power down the system unit" on page 45.
- ___ 3. Remove the "Unit Covers" on page 47.

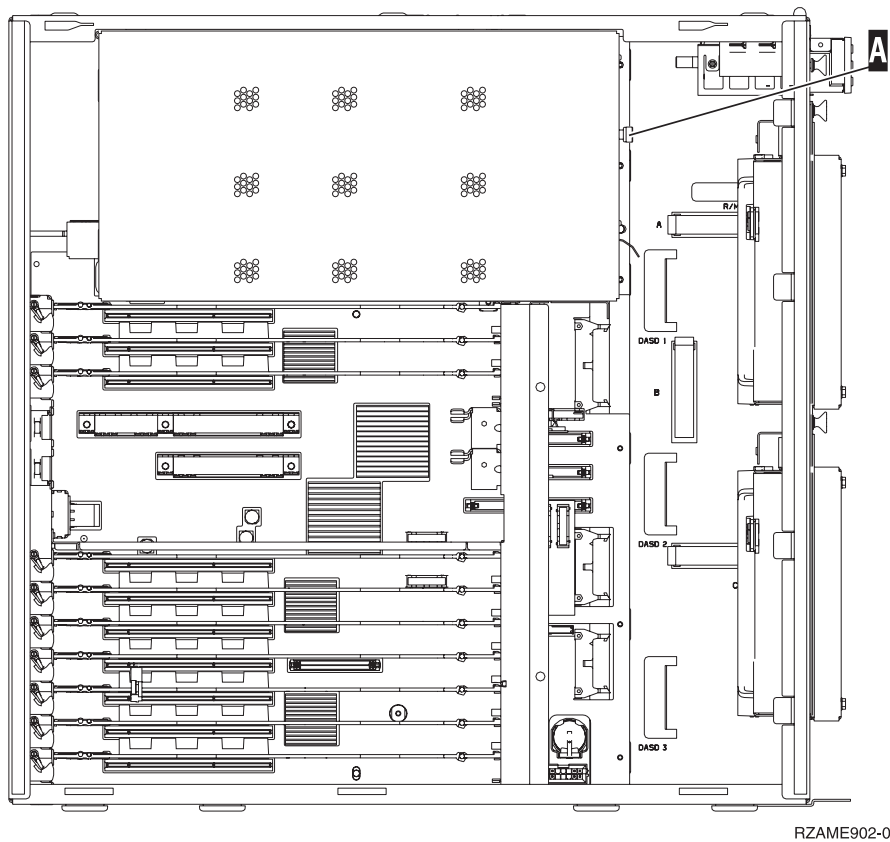
- ___ 4. **If possible, use a wrist strap to prevent electrostatic discharge from damaging your hardware.** If you do not have a wrist strap, touch a metal surface of the system or expansion unit before installing or replacing hardware.

If you received the 2209 Disposable Wrist Strap, follow these steps:

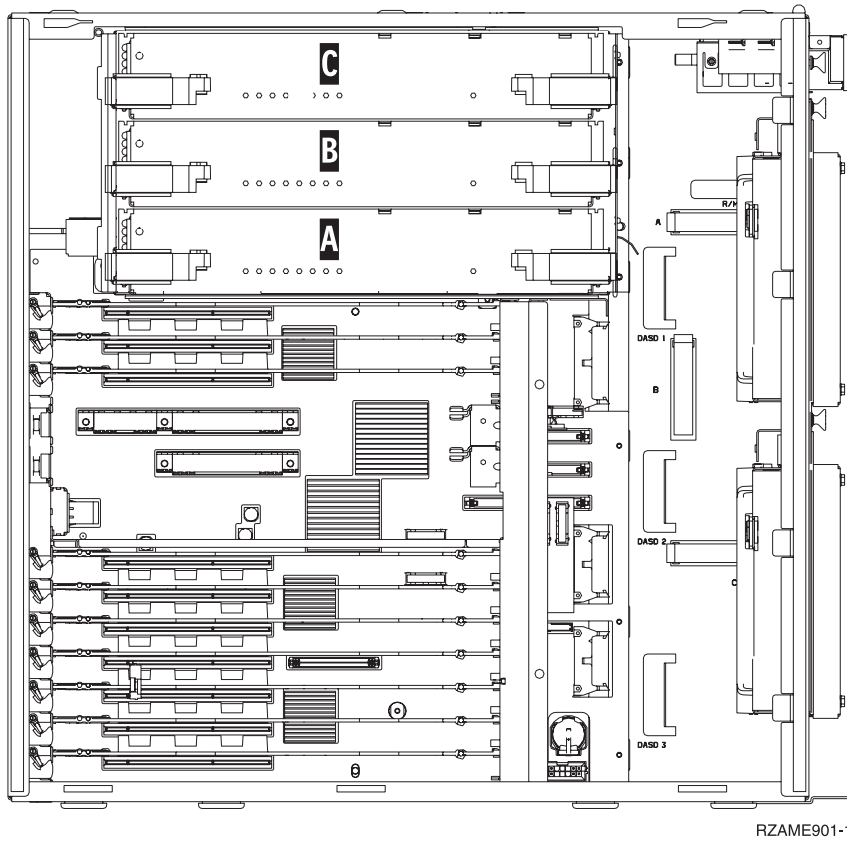
- ___ a. Attach the disposable wrist strap.  View video.
- ___ b. When you unroll the strap, remove the liner from the copper foil at the end.
- ___ c. Attach the adhesive part of the copper foil to an **exposed, unpainted** metal surface on the frame of the unit.

Note: Follow the same precautions you would use without the wrist strap. The 2209 Disposable Wrist Strap is for static control. It will not increase or decrease your risk of receiving electric shock when using or working on electrical equipment.

- ___ 5. Remove the access cover.  View video.

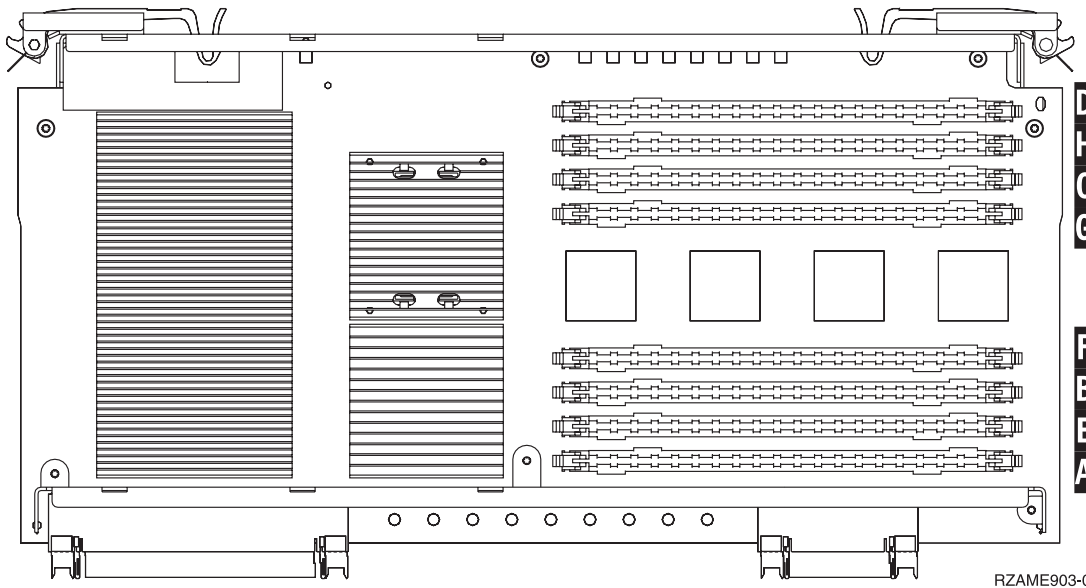


- ___ 6. Remove the processor card assembly **A** by doing the following:  View video.




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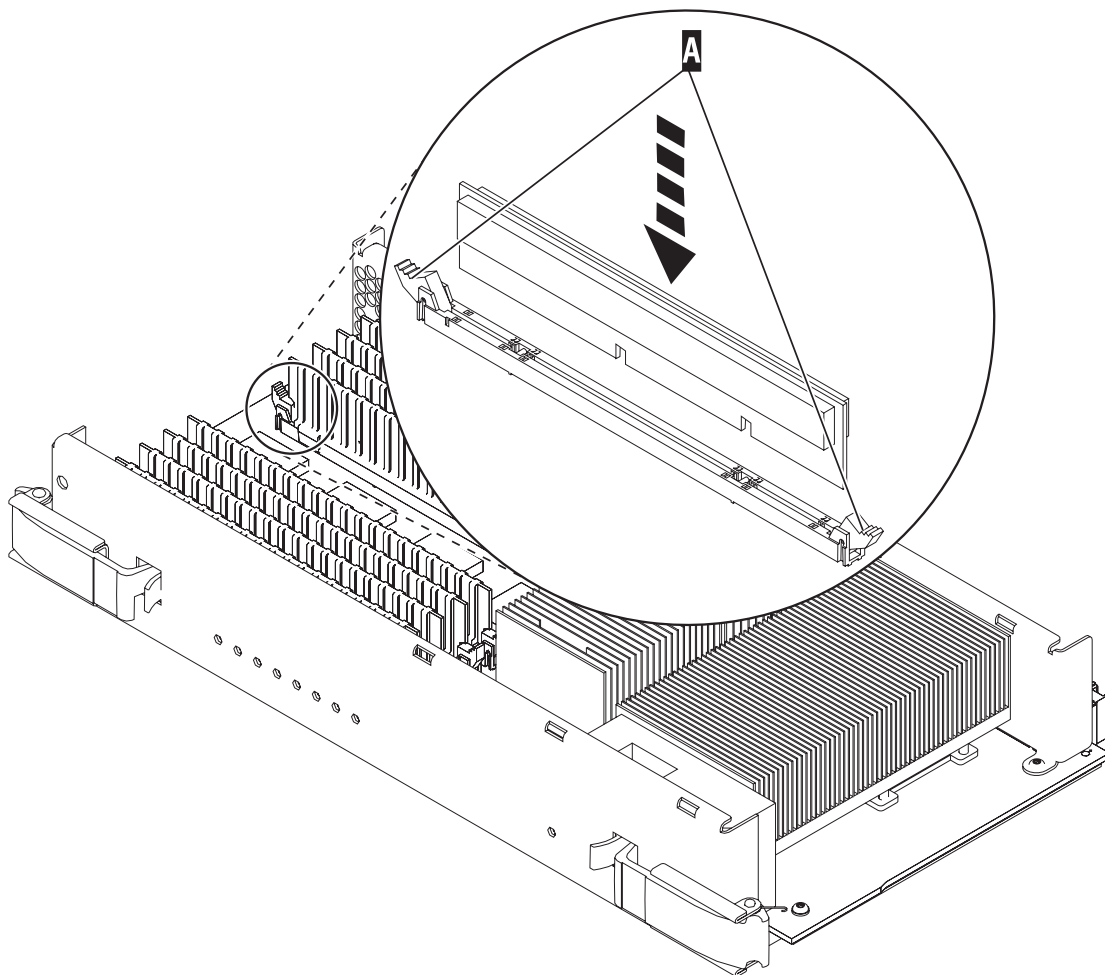
- __ a. Unlatch the two latches until the card assembly slightly “pops” out.
 - __ b. Pull on both latches at the same time to remove the card assembly from the system unit.
 - __ c. Place the card assembly on a static protective bag.
- __ 7. Locate the memory card to be replaced. Figure 15 shows memory card locations on the main storage card assembly, read the following:



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Figure 15. Memory Locations on Card Assembly

- __ 8. Remove the memory card by doing the following:
 - __ a. Push outward on the latches **A** that are located at each end of the card, Figure 16.
 - __ b. Remove the card from the card socket.
- __ 9. Find the package that contains the new memory card.
- __ 10. **Attention:** Memory cards are fragile. Handle with care. Remove a memory card from the static protective package.
- __ 11. Refer to Figure 16 on page 19 to install the memory card by doing the following:  View video.
 - __ a. Look carefully at the notches on the bottom of the memory card. The distance between the notches and the end of the memory card is slightly different.
 - __ b. Align the card as shown in Figure 16.
 - __ c. Match the keyed notches and push down on the card until the latches close.



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Figure 16. Install Memory Cards

- __ 12. When you finish replacing the memory card, slide the card assembly into the system unit. Push on both card latches at the same time. Close the latches when you cannot push the card assembly any further into the system unit.  View video.
- __ 13. Reinstall the access cover.
- __ 14. "Install covers" on page 41.

__ 15. Follow the steps in “Complete the procedure” on page 43.

Identify the memory location

Depending on which system processor you have, memory can be located with the processor on the backplane, on the processor card assembly, or in a separate card assembly (feature 2884).

- __ 1. Is your system unit an iSeries 825?
 - __ **No:** Continue with the next step.
 - __ **Yes:** Go to “Add memory to the iSeries 825 processor card assembly” on page 38.
- __ 2. Does your system unit have an access cover (**A**) as shown in Figure 17?
 - __ **Yes:** Continue with the next step.
 - __ **No:** The memory is located with the processor on the backplane of your 270, 800, or 810. Go to “Add memory located with your processor on the backplane” on page 35.

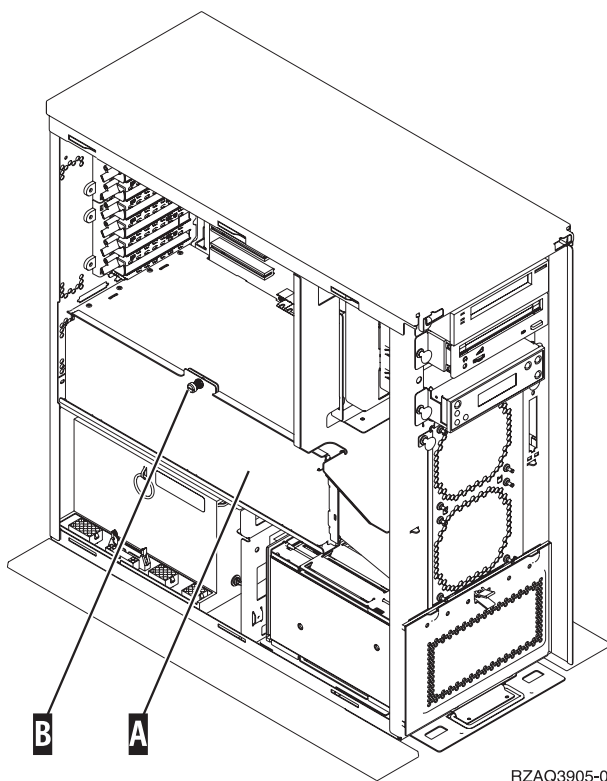
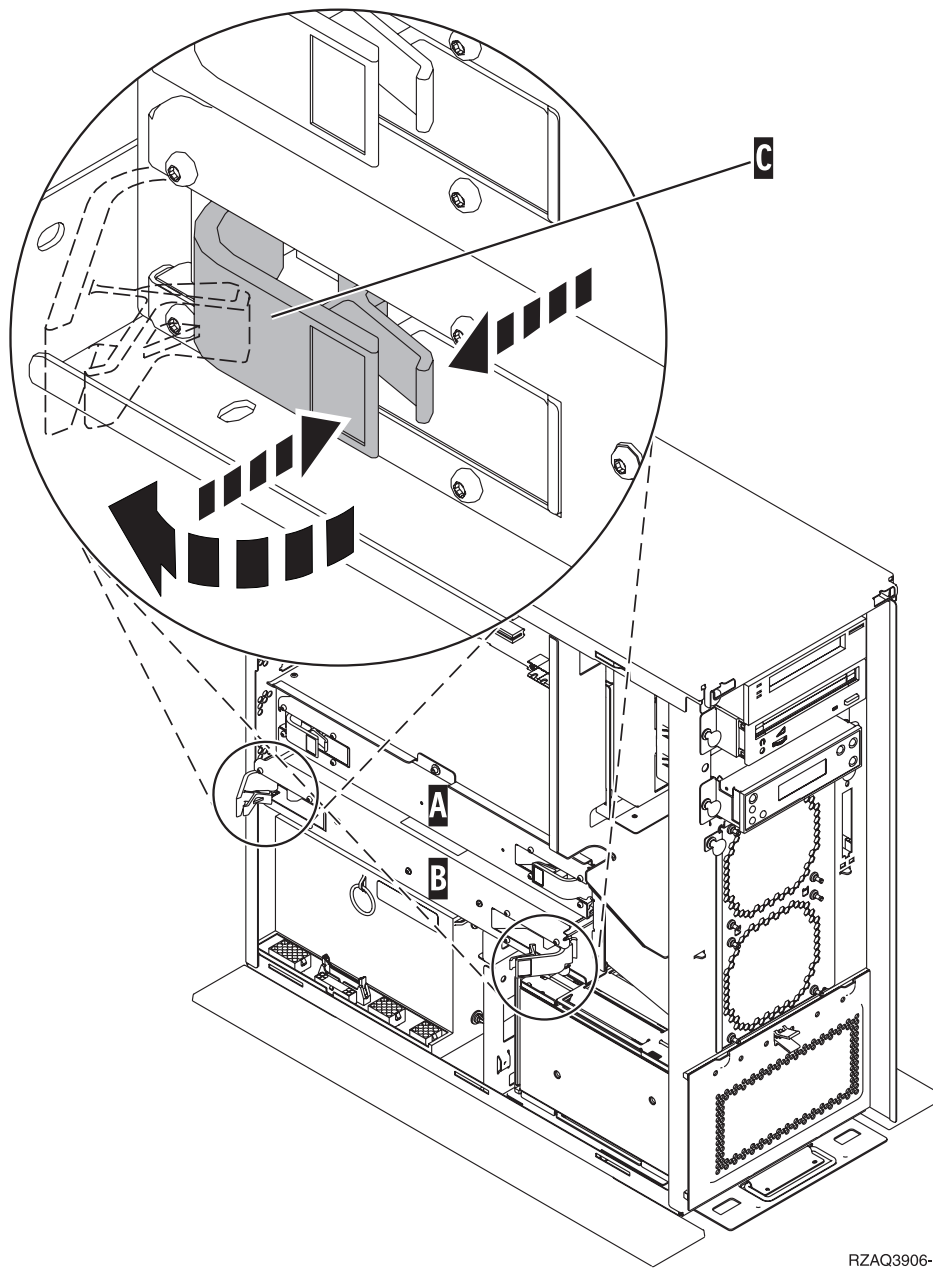


Figure 17. Location of Access Cover

- __ 3. Remove the access cover.
- __ 4. Did you receive a 2884 card assembly with your order?
 - __ **Yes:** Continue with the next step.
 - __ **No:** Do you already have an 2884 card assembly?
 - __ **Yes:** Go to “Add memory to the 2884 card assembly” on page 31.
 - __ **No:** Go to “Add memory to the processor card assembly” on page 33.
- __ 5. To install the 2884 card assembly.
 - __ **270, 800, or 810:** Continue with the next step.
 - __ **820:** Go to step 19 on page 24.

___ 6. Figure 18 shows the location of the 2884 card assembly **B** and the processor card assembly **A**.



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Figure 18. Location of card assemblies in a 270, 800, or 810 system unit

- ___ 7. Remove the empty card assembly **B** by doing the following:
- ___ a. Unlatch the two latches on the 2884 until the card assembly slightly “pops” out. Refer to Figure 18 **C**.
 - ___ b. Pull on both latches at the same time to remove the card assembly from the system unit.
- ___ 8. Locate the 2884 card assembly.
- ___ 9. **Before you remove the blank filler cards and install the memory into the card assembly**, read the following:
- **Figure 19 on page 22** shows memory card locations on the main storage card assembly.
 - Fill positions **C** and **D** before installing memory cards in positions **E**, **F**, **G**, and **H**.

- Install memory in sets of four. For example, you cannot fill only positions E and G and later fill positions F and H. You must install all four memory cards at one time.
- Pairs of memory cards must be either 128 MB, 256 MB, 512 MB, or 1 GB. Pairs installed in E and G must match pairs installed in F and H.

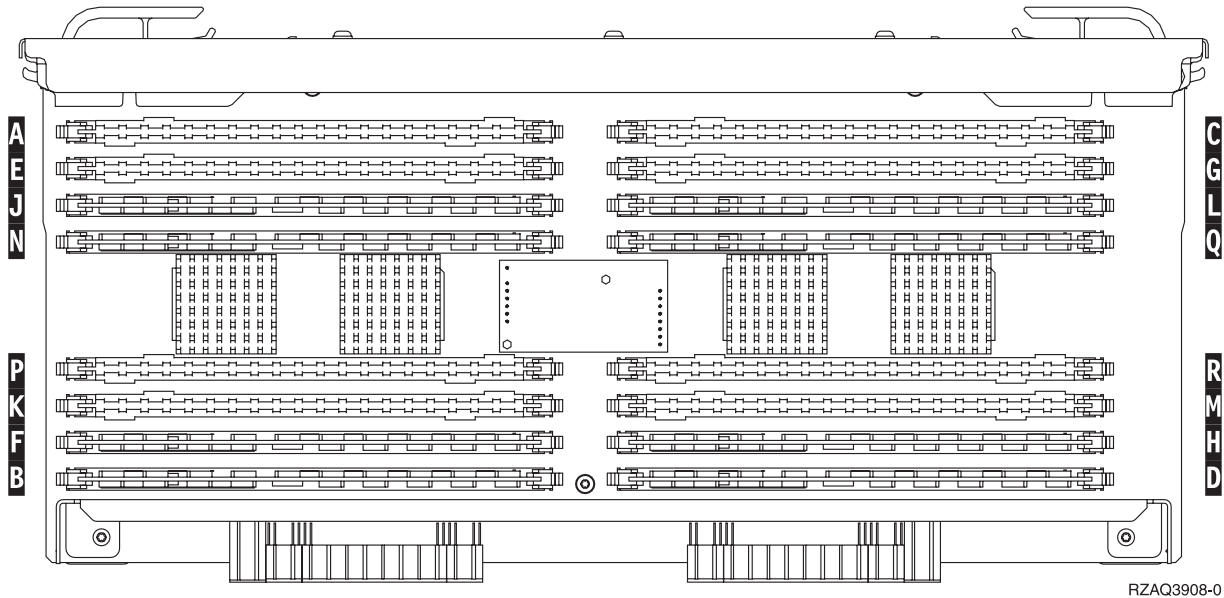
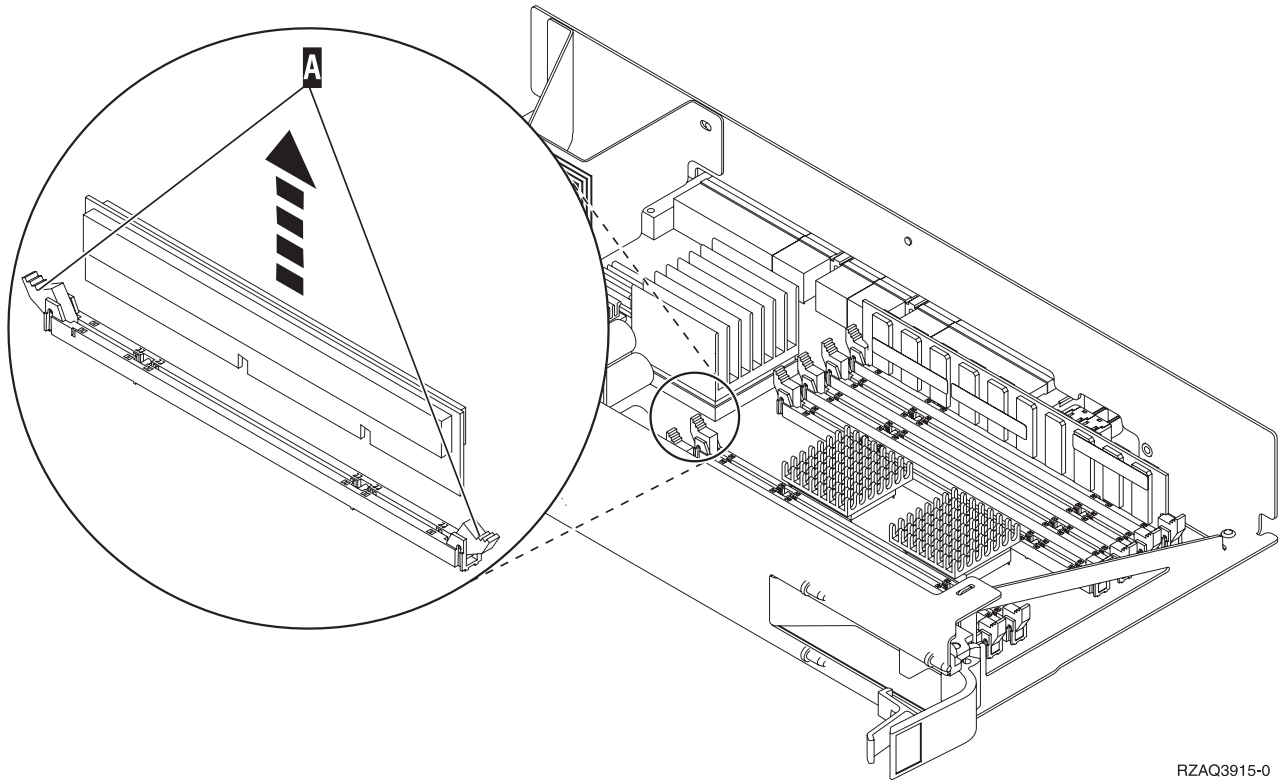


Figure 19. Memory Locations on Card Assembly

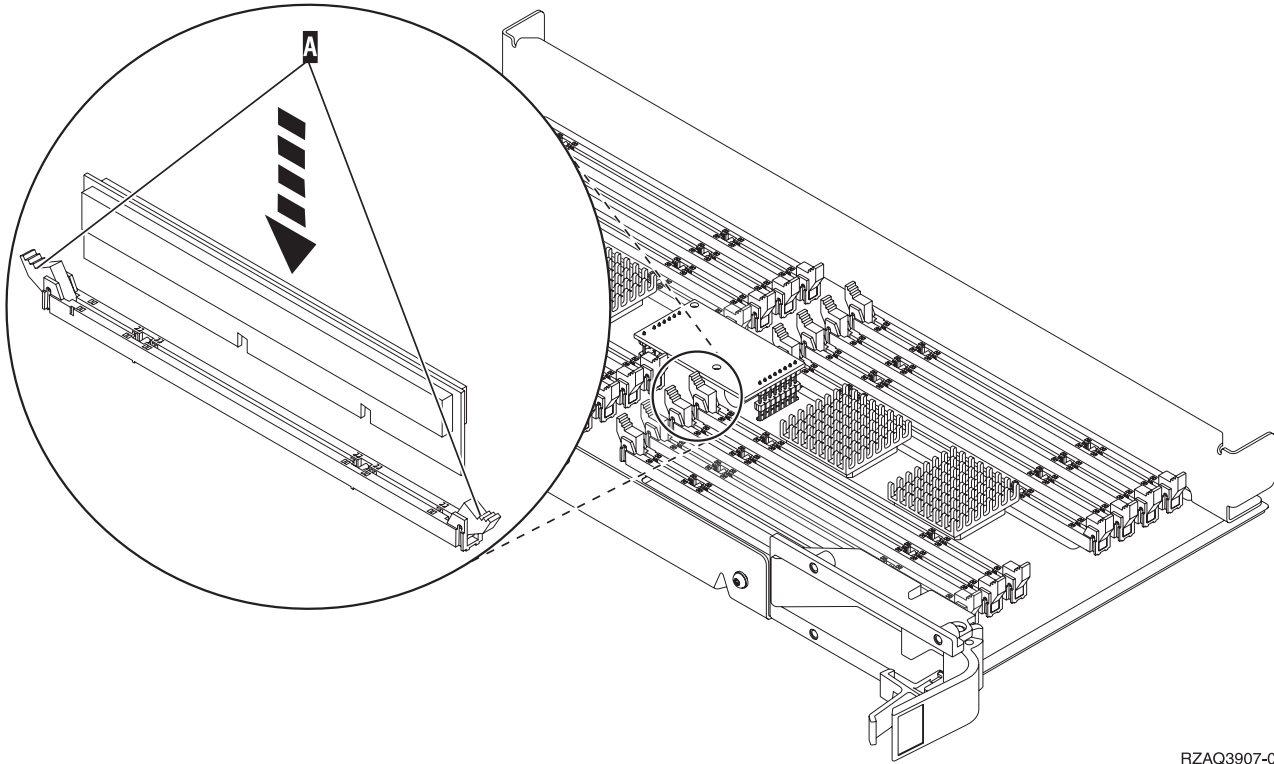
- ___ 10. Remove the blank filler cards from the positions where you will install the memory cards by doing the following:
 - ___ a. Push outward on the latches **A** that are located at each end of the filler card, Figure 20 on page 23.
 - ___ b. Remove the filler card from the card socket and discard it.



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Figure 20. Remove memory from processor card assembly

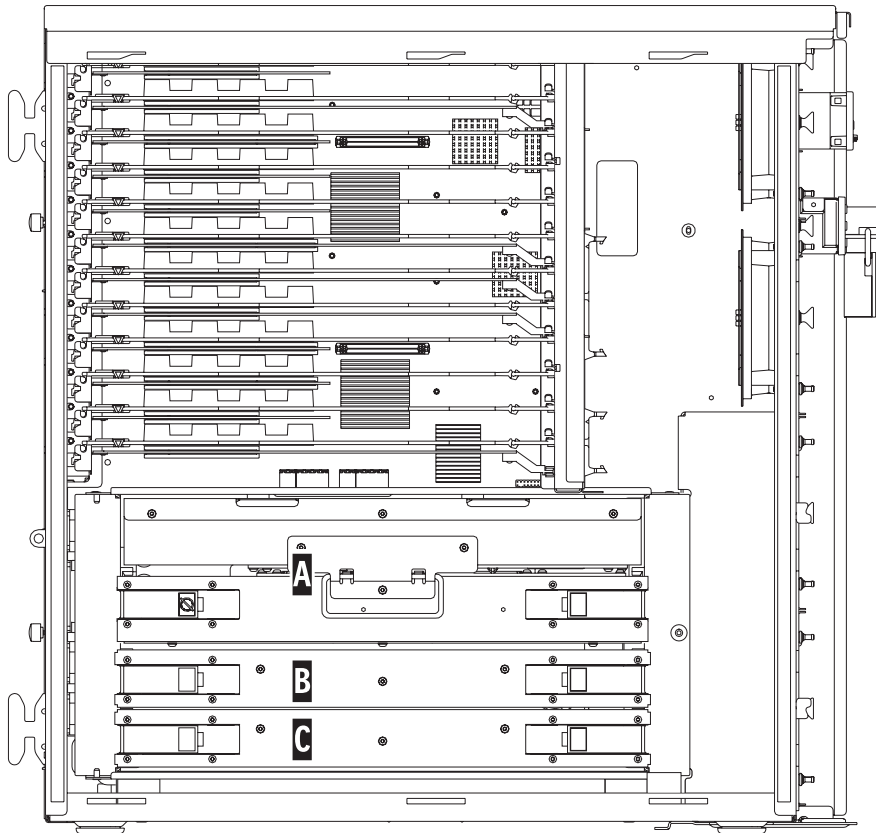
- ___ 11. Remove the processor card assembly **A** by doing the following:
 - ___ a. Unlatch the two latches until the card assembly slightly “pops” out.
 - ___ b. Pull on both latches at the same time to remove the card assembly from the system unit.
 - ___ c. Turn the card assembly over and lay it on the static protective bag.
- ___ 12. Remove a memory card from the processor card assembly (Figure 20 **A**) and install the memory card in the 2884 assembly by doing the following:
 - ___ a. Look carefully at the notches on the bottom of the memory card. The distance between the notches and the end of the memory card is slightly different.
 - ___ b. Align the card as shown in Figure 21 on page 24.
 - ___ c. Match the keyed notches and push down on the card until the latches close.



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Figure 21. Install Memory Cards

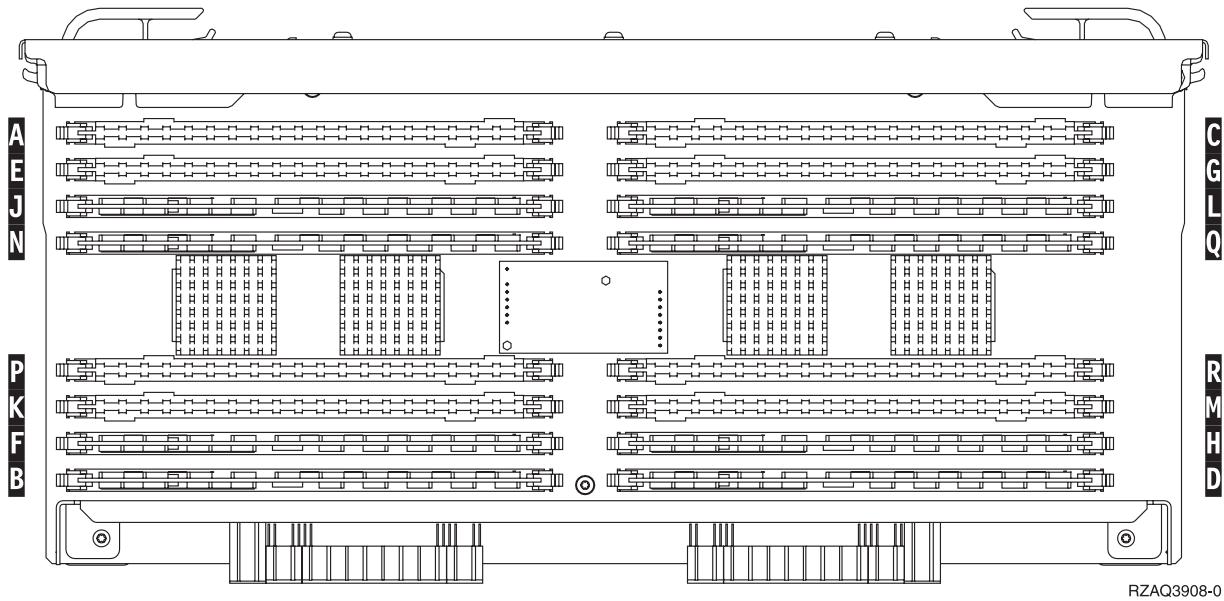
- __ 13. Remove and install the remaining memory cards.
- __ 14. When you finish installing all the memory cards, turn the card assembly over, and slide it into the system unit (**B** in Figure 18 on page 21). Push on both card latches at the same time. Close the latches when you cannot push the card assembly any further into the system unit.
- __ 15. Reinstall the processor card assembly (**A** in Figure 18 on page 21).
- __ 16. Reinstall the access cover.
- __ 17. "Install covers" on page 41.
- __ 18. Follow the steps in "Complete the procedure" on page 43.
- __ 19. Do you already have a 2884 card assembly installed in position **B** of Figure 22 on page 25 in your model 820?



RZAQ2706-0

Figure 22. Location of card assemblies in 820 system unit

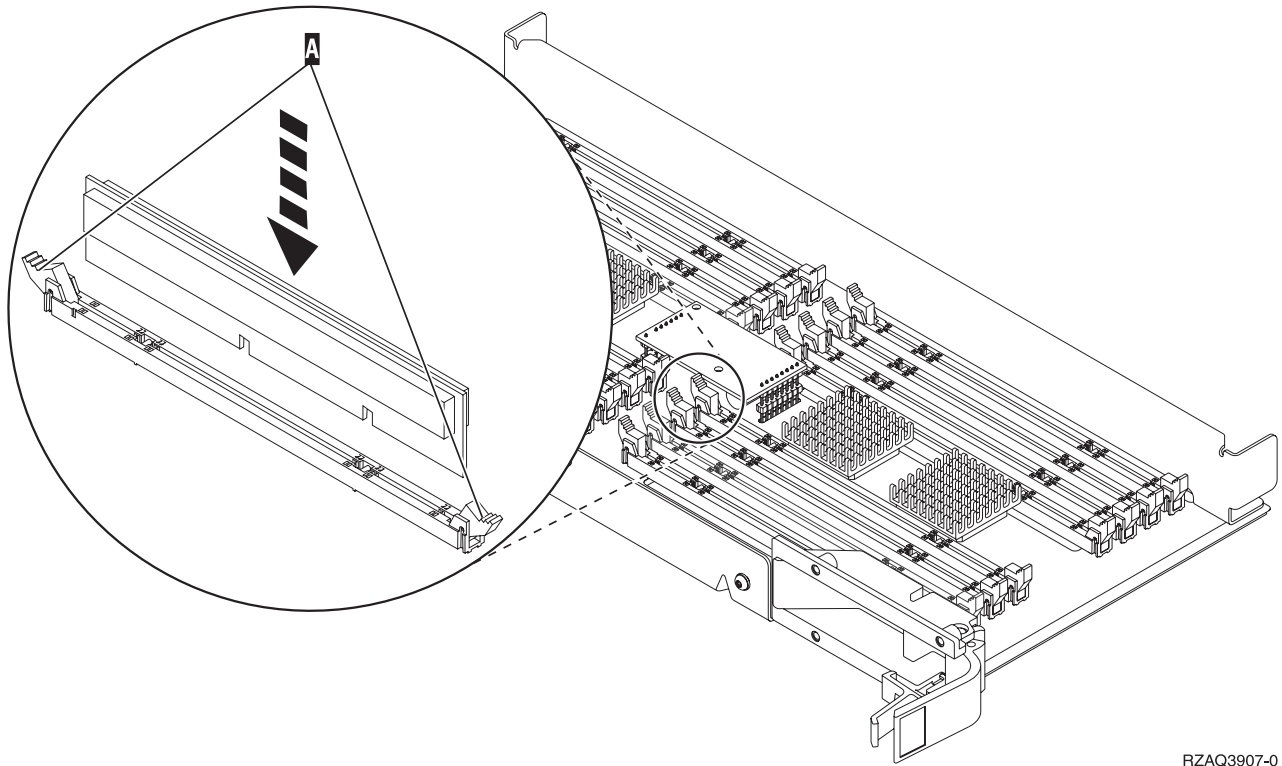
- ___ Yes: Continue with the next step.
- ___ No: Go to step 33 on page 27.
- ___ 20. **Figure 22** shows the location of the 2884 card assemblies **B**, **C** and the processor card assembly **A** in a model 820.
- ___ 21. Remove the empty card assembly **C** by doing the following:
 - ___ a. Unlatch the two latches on the 2884 until the card assembly slightly “pops” out.
 - ___ b. Pull on both latches at the same time to remove the card assembly from the system unit.
- ___ 22. Locate the new 2884 card assembly.
- ___ 23. **Before you remove the blank filler cards and install the memory into the card assembly**, read the following:
 - **Figure 23 on page 26** shows memory card locations on the main storage card assembly.
 - Fill positions **C** and **D** before installing memory cards in positions **E**, **F**, **G**, and **H**.
 - Install memory in sets of four. For example, you cannot fill only positions **E** and **G** and later fill positions **F** and **H**. You must install all four memory cards at one time.
 - Pairs of memory cards must be either 128 MB, 256 MB, 512 MB, or 1 GB. Pairs installed in **E** and **G** must match pairs installed in **F** and **H**.



RZAQ3908-0

Figure 23. Memory Locations on Card Assembly

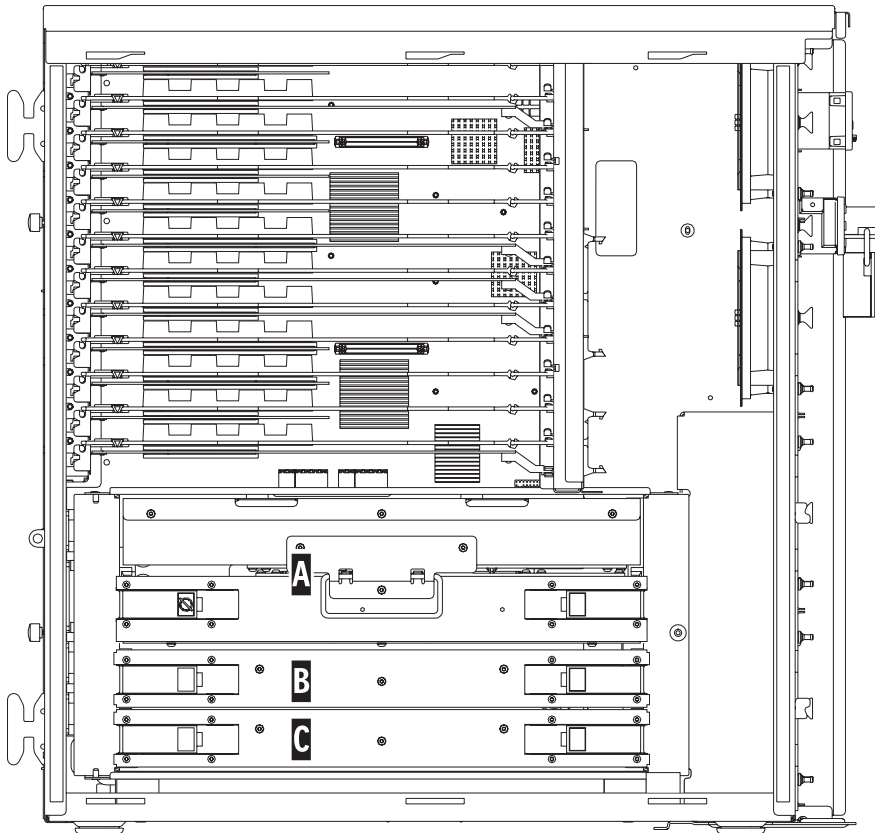
- __ 24. Remove the blank filler cards from the positions where you will install the memory cards by doing the following:
 - __ a. Push outward on the latches that are located at each end of the filler card.
 - __ b. Remove the filler card from the card socket and discard it.
- __ 25. Find the package that contains the new memory cards.
- __ 26. **Attention:** Memory cards are fragile. Handle with care. Remove a memory card, **one at a time**, from the static protective package.
- __ 27. Refer to Figure 24 on page 27 to install the memory card by doing the following:
 - __ a. Look carefully at the notches on the bottom of the memory card. The distance between the notches and the end of the memory card is slightly different.
 - __ b. Align the card as shown in Figure 24 on page 27.
 - __ c. Match the keyed notches and push down on the card until the latches close.



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Figure 24. Install Memory Cards

- __ 28. Install the remaining memory cards.
- __ 29. When you finish installing all the memory cards, turn the card assembly over, and slide it into the system unit (**C**). Push on both card latches at the same time. Close the latches when you cannot push the card assembly any further into the system unit.
- __ 30. Reinstall the access cover.
- __ 31. “Install covers” on page 41.
- __ 32. Follow the steps in “Complete the procedure” on page 43.
- __ 33. Remove the processor card assembly **A** by doing the following:
 - __ a. Unlatch the two latches until the card assembly slightly “pops” out.
 - __ b. Pull on both latches at the same time to remove the card assembly from the system unit.
 - __ c. Turn the card assembly over and lay it on the static protective bag.
- __ 34. Remove the empty card assembly **B** by doing the following:
 - __ a. Unlatch the two latches on the 2884 until the card assembly slightly “pops” out. Refer to Figure 25 on page 28 **B** .
 - __ b. Pull on both latches at the same time to remove the card assembly from the system unit.



RZAQ2706-0

Figure 25. Location of card assemblies in 820 system unit

- ___ 35. Locate the new 2884 card assembly.
- ___ 36. **Before you remove the blank filler cards and install the memory into the card assembly,** read the following:
 - **Figure 26 on page 29** shows memory card locations on the main storage card assembly.
 - Fill positions **C** and **D** before installing memory cards in positions **E**, **F**, **G**, and **H**.
 - Install memory in sets of four. For example, you cannot fill only positions **E** and **G** and later fill positions **F** and **H**. You must install all four memory cards at one time.
 - Pairs of memory cards must be either 128 MB, 256 MB, 512 MB, or 1 GB. Pairs installed in **E** and **G** must match pairs installed in **F** and **H**.

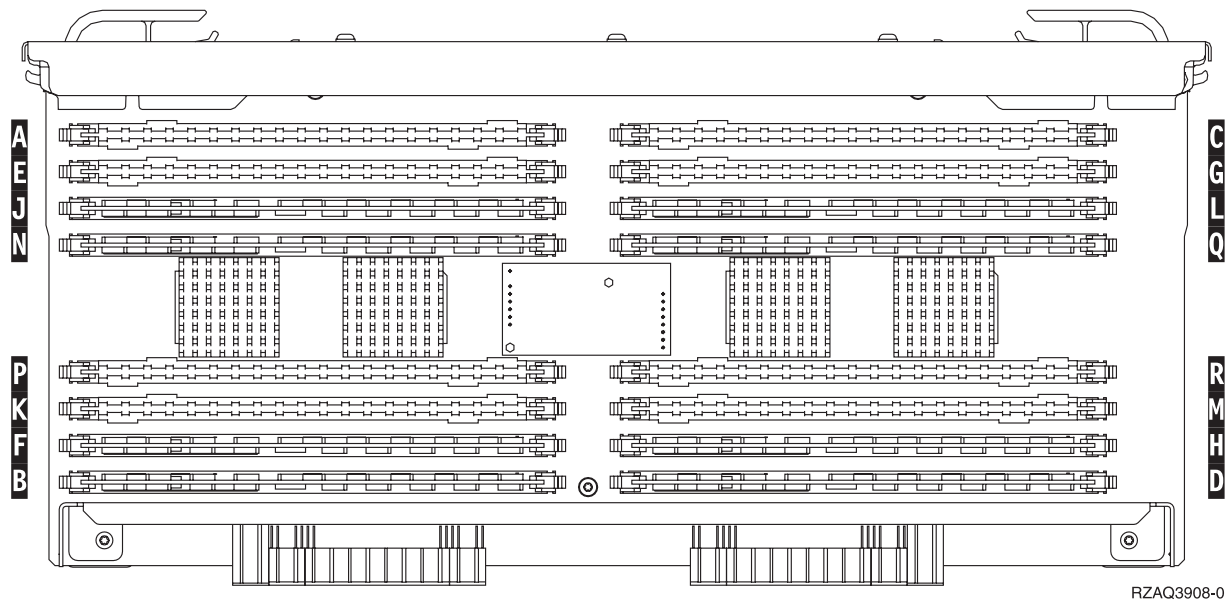
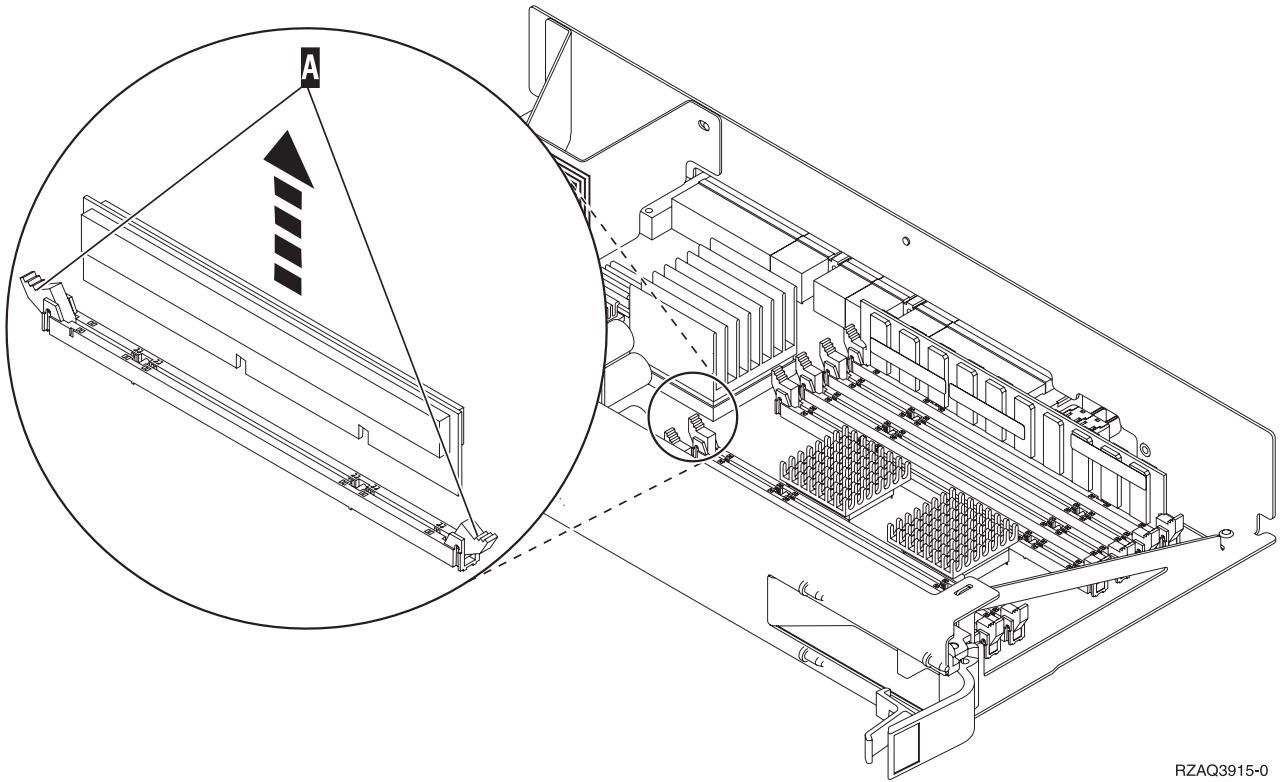


Figure 26. Memory Locations on Card Assembly

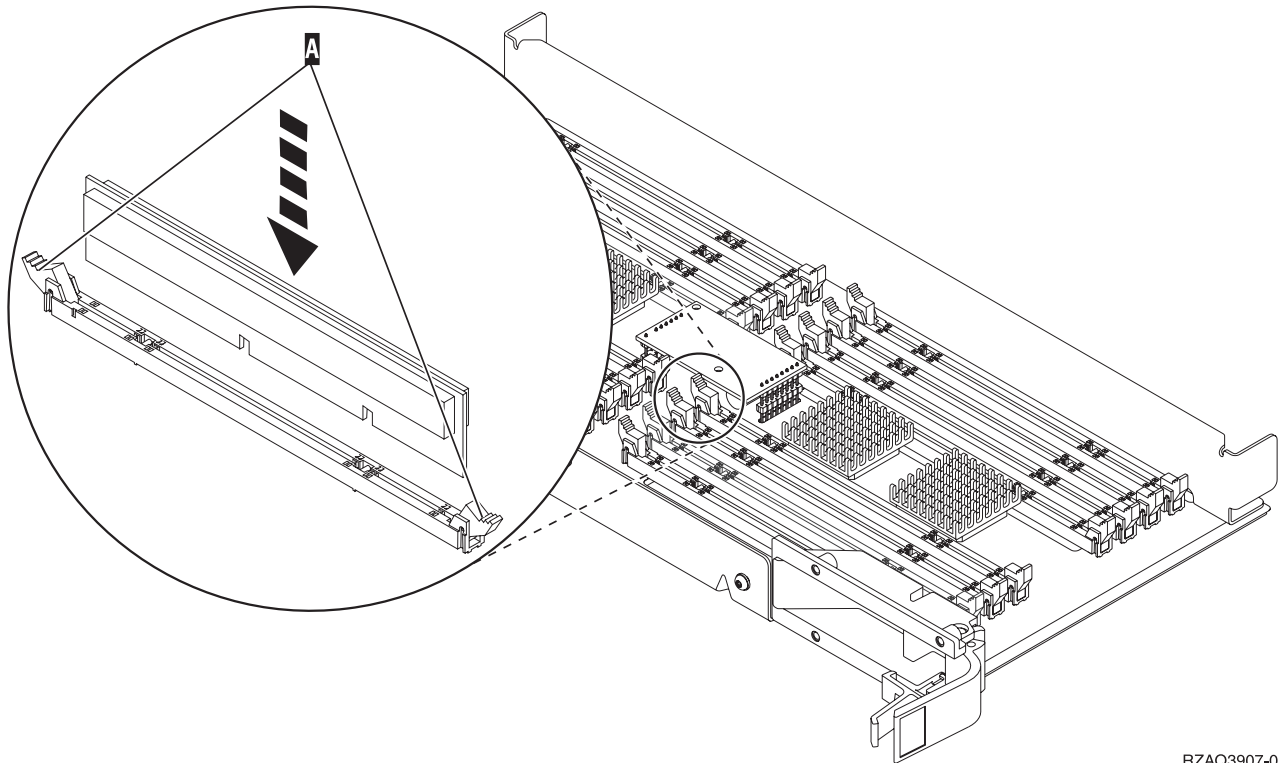
- __ 37. Remove the blank filler cards from the positions where you will install the memory cards by doing the following:
 - __ a. Push outward on the latches **A** that are located at each end of the filler card, Figure 30 on page 33.
 - __ b. Remove the filler card from the card socket and discard it.
- __ 38. Remove a memory card from the processor card assembly (Figure 27 on page 30 **A**) and install the memory card in the 2884 card assembly by doing the following:



RZAQ3915-0

Figure 27. Remove memory from processor card assembly

- ___ a. Look carefully at the notches on the bottom of the memory card. The distance between the notches and the end of the memory card is slightly different.
- ___ b. Align the card as shown in Figure 28 on page 31.
- ___ c. Match the keyed notches and push down on the card until the latches close.



RZAQ3907-0

Figure 28. Install Memory Cards


- __ 39. Remove and install the remaining memory cards.
- __ 40. When you finish installing all the memory cards, turn the card assembly over, and slide it into the system unit **B**. Push on both card latches at the same time. Close the latches when you cannot push the card assembly any further into the system unit.
- __ 41. Reinstall the processor card assembly **A**.
- __ 42. Reinstall the access cover.
- __ 43. "Install covers" on page 41.
- __ 44. Follow the steps in "Complete the procedure" on page 43.

Add memory to the 2884 card assembly

To add memory cards to your 2884 card assembly, perform these tasks:

- __ 1. Perform prerequisite tasks as described in "Before you begin" on page 1.
- __ 2. "Power down the system unit" on page 45.
- __ 3. **If possible, use a wrist strap to prevent electrostatic discharge from damaging your hardware.** If you do not have a wrist strap, touch a metal surface of the system or expansion unit before installing or replacing hardware.

If you received the 2209 Disposable Wrist Strap, follow these steps:

- __ a. Attach the disposable wrist strap.  View video.
- __ b. When you unroll the strap, remove the liner from the copper foil at the end.
- __ c. Attach the adhesive part of the copper foil to an **exposed, unpainted** metal surface on the frame of the unit.

Note: Follow the same precautions you would use without the wrist strap. The 2209 Disposable Wrist Strap is for static control. It will not increase or decrease your risk of receiving electric shock when using or working on electrical equipment.

- ___ 4. Remove the “Unit Covers” on page 47.
- ___ 5. **Before you remove the blank filler cards and install the memory into the card assembly,** read the following:
 - **Figure 29** shows memory card locations on the main storage card assembly.
 - Fill positions **C** and **D** before installing memory cards in positions **E**, **F**, **G**, and **H**.
 - Install memory in sets of four. For example, you cannot fill only positions **E** and **G** and later fill positions **F** and **H**. You must install all four memory cards at one time.
 - Pairs of memory cards must be either 128 MB, 256 MB, 512 MB, or 1 GB. Pairs installed in **E** and **G** must match pairs installed in **F** and **H**.
 - Go to step 6.

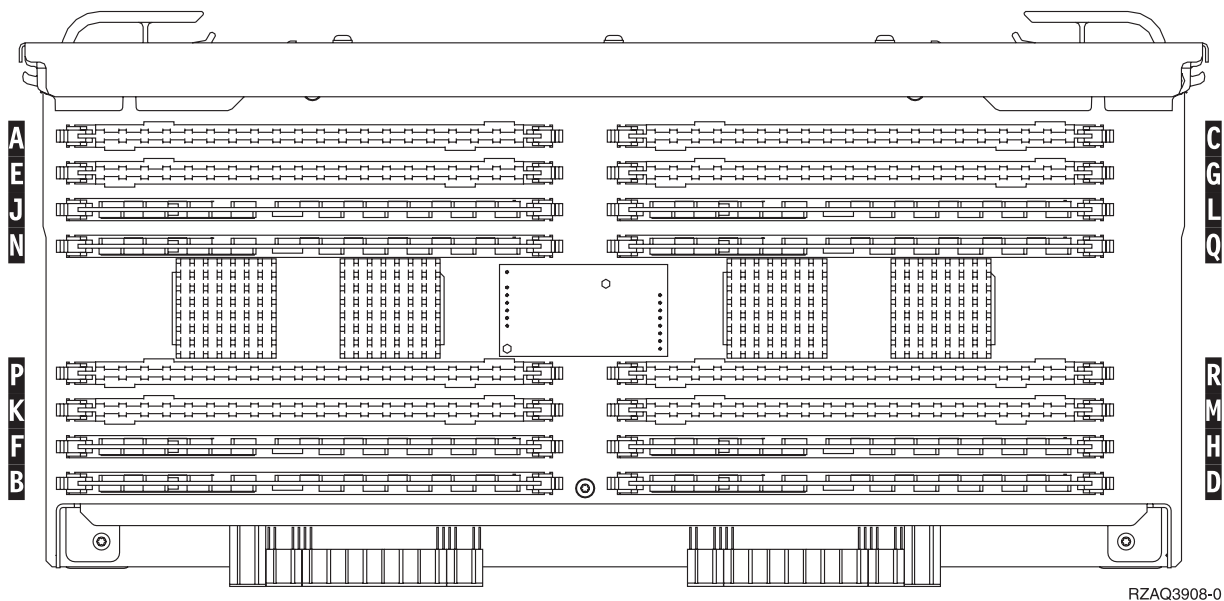
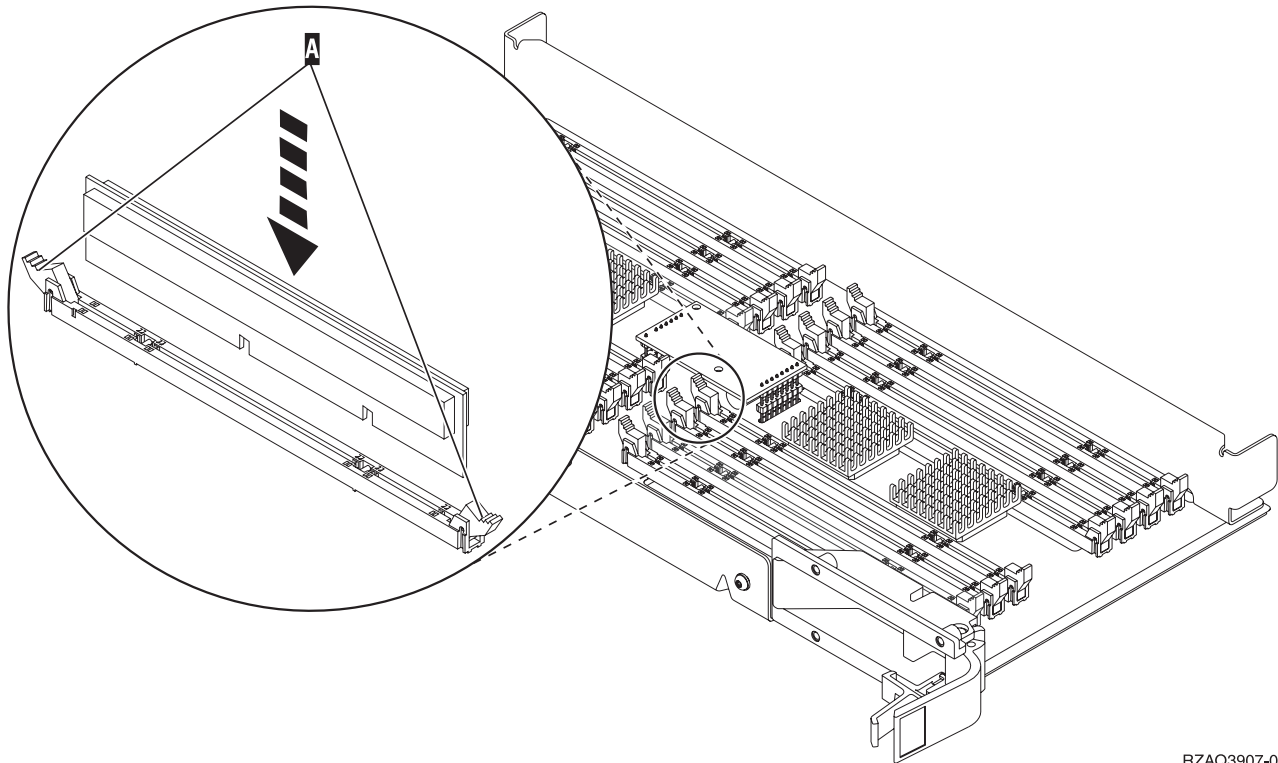


Figure 29. Memory Locations on Card Assembly

- ___ 6. Remove the blank filler cards from the next available positions by doing the following:
 - ___ a. Push outward on the latches **A** that are located at each end of the filler card, Figure 30 on page 33.
 - ___ b. Remove the filler card from the card socket and discard it.
- ___ 7. Find the package that contains the new memory cards.
- ___ 8. **Attention:** Memory cards are fragile. Handle with care. Remove a memory card, **one at a time**, from the static protective package.
- ___ 9. Refer to Figure 30 on page 33 to install the memory card by doing the following:
 - ___ a. Look carefully at the notches on the bottom of the memory card. The distance between the notches and the end of the memory card is slightly different.
 - ___ b. Align the card as shown in Figure 30 on page 33.
 - ___ c. Match the keyed notches and push down on the card until the latches close.



RZAQ3907-0

Figure 30. Install Memory Cards

- __ 10. Install the remaining memory cards.
- __ 11. When you finish installing all the memory cards, turn the card assembly over, and slide it into the system unit. Push on both card latches at the same time. Close the latches when you cannot push the card assembly any further into the system unit.
- __ 12. Reinstall the access cover.
- __ 13. “Install covers” on page 41.
- __ 14. Follow the steps in “Complete the procedure” on page 43.

Add memory to the processor card assembly

To add memory cards to your 2884 card assembly, perform these tasks:

- __ 1. Perform prerequisite tasks as described in “Before you begin” on page 1.
- __ 2. “Power down the system unit” on page 45.
- __ 3. **If possible, use a wrist strap to prevent electrostatic discharge from damaging your hardware.** If you do not have a wrist strap, touch a metal surface of the system or expansion unit before installing or replacing hardware.

If you received the 2209 Disposable Wrist Strap, follow these steps:

- __ a. Attach the disposable wrist strap. [View video.](#)
- __ b. When you unroll the strap, remove the liner from the copper foil at the end.
- __ c. Attach the adhesive part of the copper foil to an **exposed, unpainted** metal surface on the frame of the unit.

Note: Follow the same precautions you would use without the wrist strap. The 2209 Disposable Wrist Strap is for static control. It will not increase or decrease your risk of receiving electric shock when using or working on electrical equipment.

- ___ 4. Remove the “Unit Covers” on page 47.
- ___ 5. **Before you remove the blank filler cards and install the memory into the card assembly, read the following:**
 - **Figure 31** shows memory card locations on the main storage card assembly.
 - Fill positions **C** and **D** before installing memory cards in positions **E**, **F**, **G**, and **H**.
 - Install memory in sets of four. For example, you cannot fill only positions **E** and **G** and later fill positions **F** and **H**. You must install all four memory cards at one time.
 - Pairs of memory cards must be either 128 MB, 256 MB, 512 MB, or 1 GB. Pairs installed in **E** and **G** must match pairs installed in **F** and **H**.
 - Go to step 6.

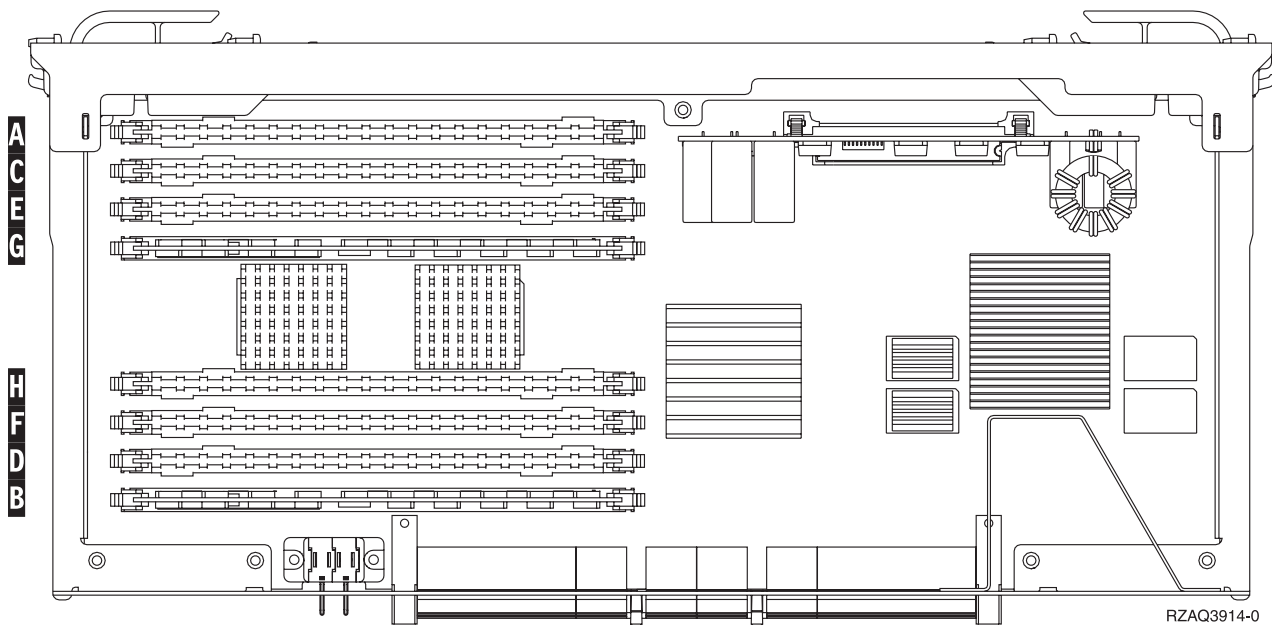
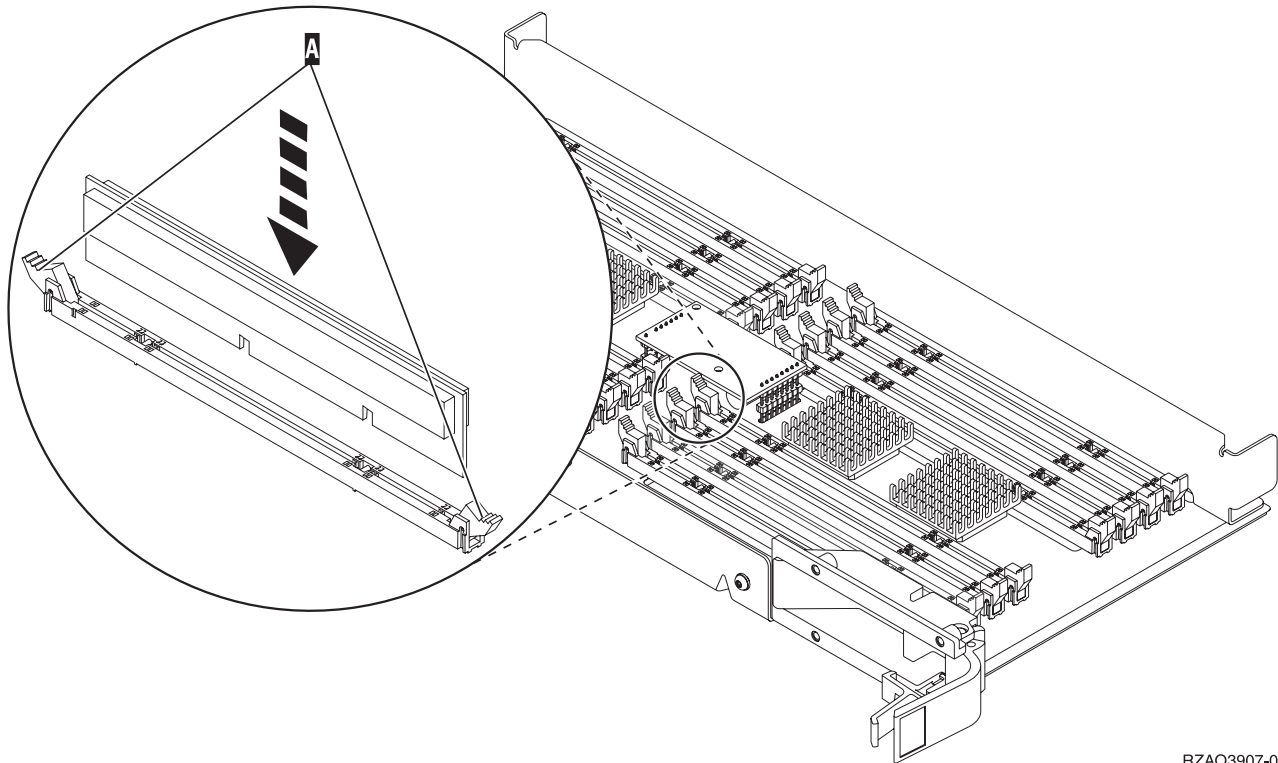


Figure 31. Memory Locations on Card Assembly

- ___ 6. Remove the blank filler cards from the next available positions by doing the following:
 - ___ a. Push outward on the latches **A** that are located at each end of the filler card, Figure 32 on page 35.
 - ___ b. Remove the filler card from the card socket and discard it.
- ___ 7. Find the package that contains the new memory cards.
- ___ 8. **Attention:** Memory cards are fragile. Handle with care. Remove a memory card, **one at a time**, from the static protective package.
- ___ 9. Refer to Figure 32 on page 35 to install the memory card by doing the following:
 - ___ a. Look carefully at the notches on the bottom of the memory card. The distance between the notches and the end of the memory card is slightly different.
 - ___ b. Align the card as shown in Figure 32 on page 35.
 - ___ c. Match the keyed notches and push down on the card until the latches close.



RZAQ3907-0

Figure 32. Install Memory Cards

- __ 10. Install the remaining memory cards.
- __ 11. When you finish installing all the memory cards, turn the card assembly over, and slide it into the system unit. Push on both card latches at the same time. Close the latches when you cannot push the card assembly any further into the system unit.
- __ 12. Reinstall the access cover.
- __ 13. “Install covers” on page 41.
- __ 14. Follow the steps in “Complete the procedure” on page 43.

Add memory located with your processor on the backplane

To add memory cards to the processor inside your system unit, perform these tasks:

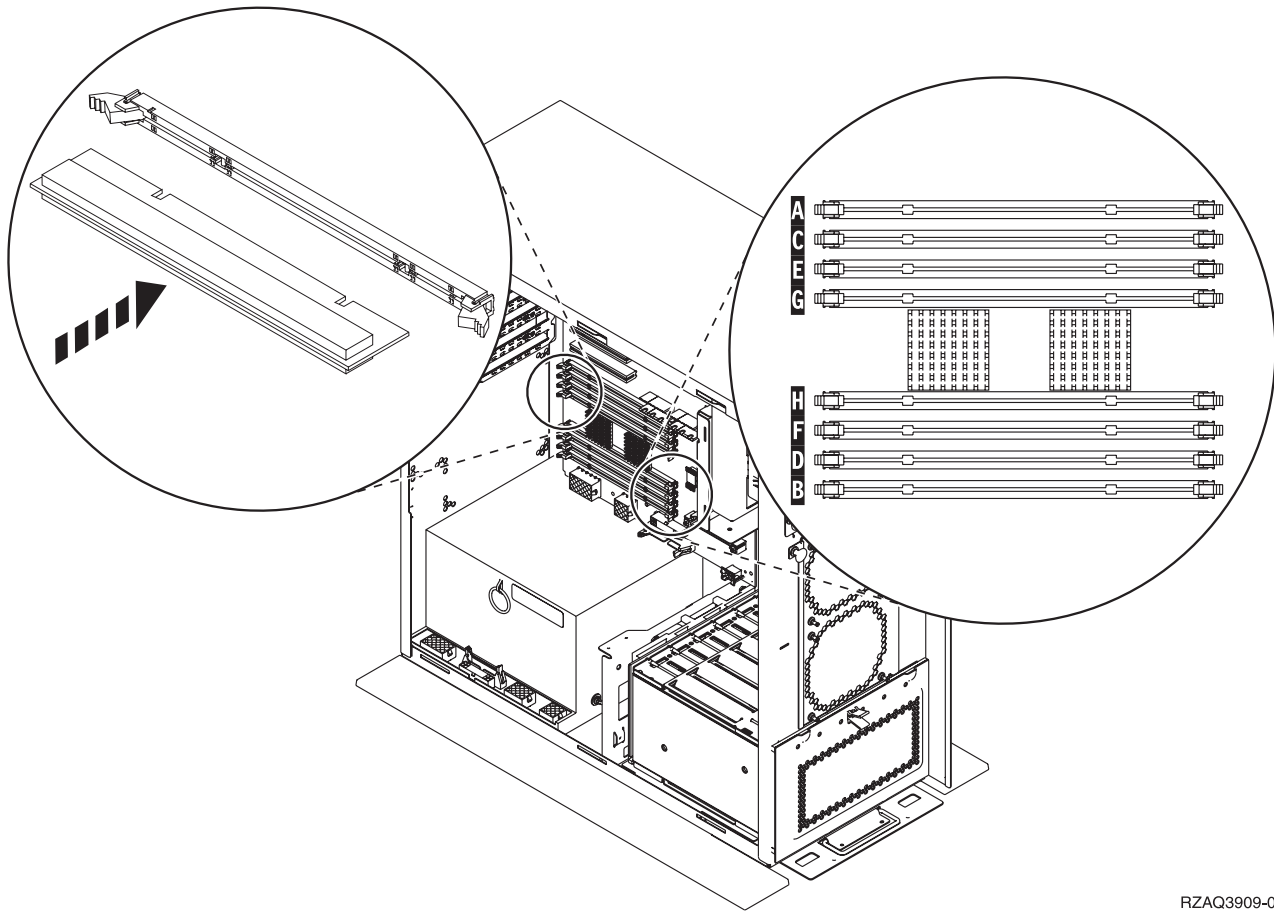
- __ 1. Perform prerequisite tasks as described in “Before you begin” on page 1.
- __ 2. “Power down the system unit” on page 45.
- __ 3. **If possible, use a wrist strap to prevent electrostatic discharge from damaging your hardware.** If you do not have a wrist strap, touch a metal surface of the system or expansion unit before installing or replacing hardware.

If you received the 2209 Disposable Wrist Strap, follow these steps:

- __ a. Attach the disposable wrist strap. [View video.](#)
- __ b. When you unroll the strap, remove the liner from the copper foil at the end.
- __ c. Attach the adhesive part of the copper foil to an **exposed, unpainted** metal surface on the frame of the unit.

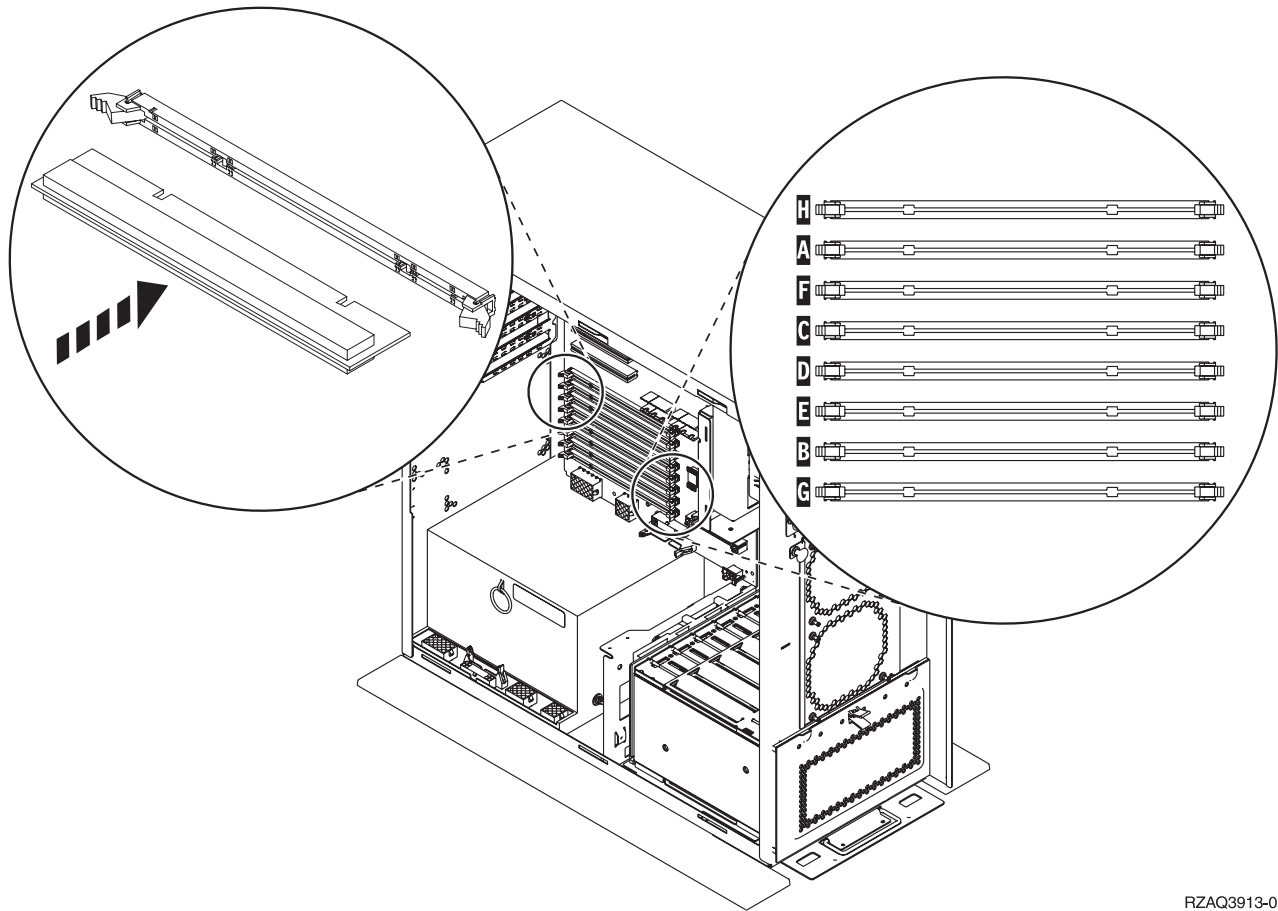
Note: Follow the same precautions you would use without the wrist strap. The 2209 Disposable Wrist Strap is for static control. It will not increase or decrease your risk of receiving electric shock when using or working on electrical equipment.

- 4. Remove the “Unit Covers” on page 47.
- 5. **Figure 33** and **Figure 34** on page 37 show the memory card connectors on the processor **A** inside your system unit.



RZAQ3909-0

Figure 33. Memory Connectors View 1



RZAQ3913-0

Figure 34. Memory Connectors View 2

- ___ 6. Refer to the figure that matches your system unit to place the memory in the correct order.
- ___ 7. Place memory cards as follows on the processor:
 - In pairs, beginning with **C and D**, then **E and F**, and so on.
 - Each pair of storage cards must be either 128 MB, 256 MB, 512 MB, or 1 GB.
- ___ 8. Remove the blank filler cards from the next available positions by doing the following:
 - ___ a. Push outward on the latches that are located at each end of the filler card, Figure 33 on page 36.
 - ___ b. Remove the filler card from the card socket and discard it.
- ___ 9. Find the package that contains the new memory cards.
- ___ 10. **Attention:** Memory cards are fragile. Handle with care. Remove a memory card, **one at a time**, from the static protective package.
- ___ 11. Install the memory card in the next available position beginning with **C and D** by doing the following:
 - ___ a. Look carefully at the notches on the bottom of the memory card. The distance between the notches and the end of the card is slightly different.
 - ___ b. Align the card as shown in Figure 33 on page 36 or Figure 34. Push forward on the card until the latches close.
- ___ 12. Install the second memory card.
- ___ 13. Do you have any other memory cards to install?
 - ___ Yes: Repeat steps 6 through 12.
 - ___ No: Continue with the next step.


- __ 14. Do you have any other adapter cards or devices to install?
 - __ **No:** Continue with the next step.
 - __ **Yes:** If you have another device such as an adapter card, a tape unit, or disk units to install, locate the instructions for that feature.
 - __ 15. "Install covers" on page 41.
 - __ 16. Follow the steps in "Complete the procedure" on page 43.
-


Add memory to the iSeries 825 processor card assembly

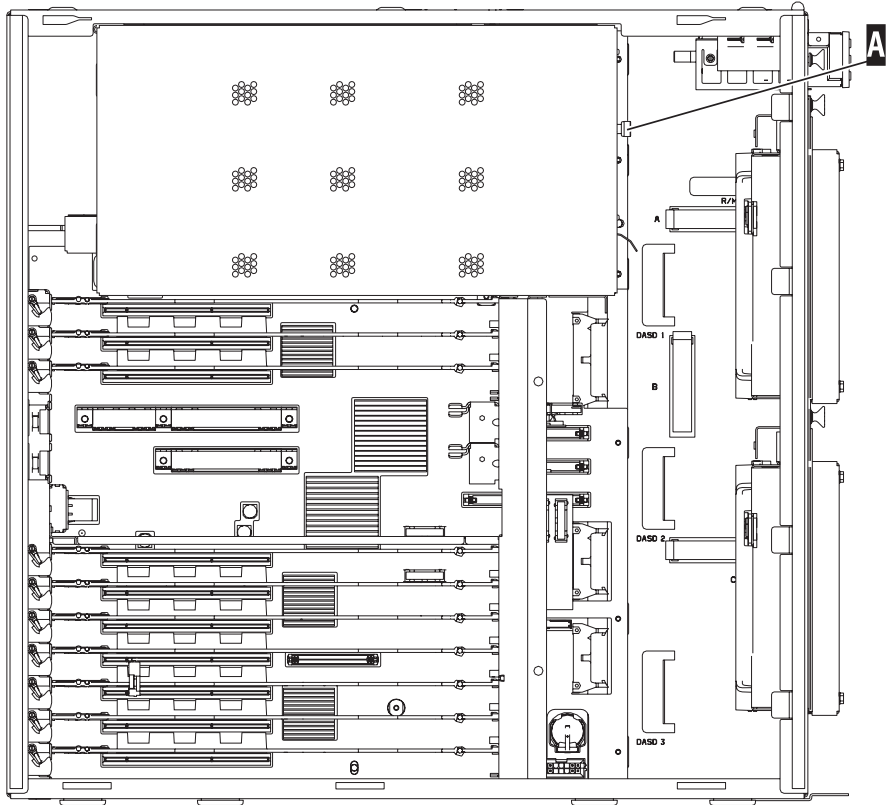
To add memory cards to your iSeries 825 processor card assembly, perform these tasks:

- __ 1. Perform prerequisite tasks as described in "Before you begin" on page 1.
- __ 2. "Power down the system unit" on page 45.
- __ 3. **If possible, use a wrist strap to prevent electrostatic discharge from damaging your hardware.** If you do not have a wrist strap, touch a metal surface of the system or expansion unit before installing or replacing hardware.

If you received the 2209 Disposable Wrist Strap, follow these steps:

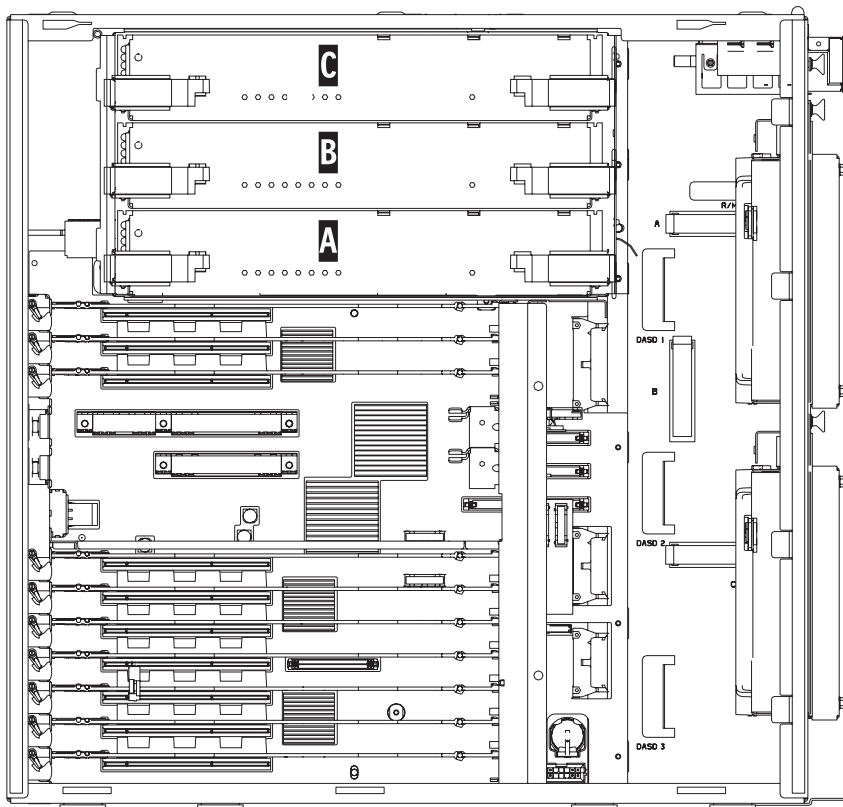
 - __ a. Attach the disposable wrist strap.  View video.
 - __ b. When you unroll the strap, remove the liner from the copper foil at the end.
 - __ c. Attach the adhesive part of the copper foil to an **exposed, unpainted** metal surface on the frame of the unit.

Note: Follow the same precautions you would use without the wrist strap. The 2209 Disposable Wrist Strap is for static control. It will not increase or decrease your risk of receiving electric shock when using or working on electrical equipment.
- __ 4. Remove the "Unit Covers" on page 47.
- __ 5. Remove the access cover.  View video.



RZAME902-0

6. Remove the processor card assembly **A** by doing the following:  View video.



RZAME901-1

- ___ a. Unlatch the two latches until the card assembly slightly “pops” out.
- ___ b. Pull on both latches at the same time to remove the card assembly from the system unit.
- ___ c. Place the card assembly on a static protective bag.

Note: If **A** is full, remove processor card assembly **B**. If **B** is full, remove processor card assembly **C**.

- ___ 7. **Before you remove the blank filler cards and install the memory into the card assembly, read the following:**
 - **Figure 35** shows memory card locations on the main storage card assembly.
 - Fill positions **C** and **D** before installing memory cards in positions **E**, **F**, **G**, and **H**.
 - Install memory in sets of four. For example, you cannot fill only positions **E** and **G** and later fill positions **F** and **H**. You must install all four memory cards at one time.
 - Pairs of memory cards must be either 256 MB, 512 MB, 1 GB or 2 GB. Pairs installed in **E** and **G** must match pairs installed in **F** and **H**.
 - Go to step 8.

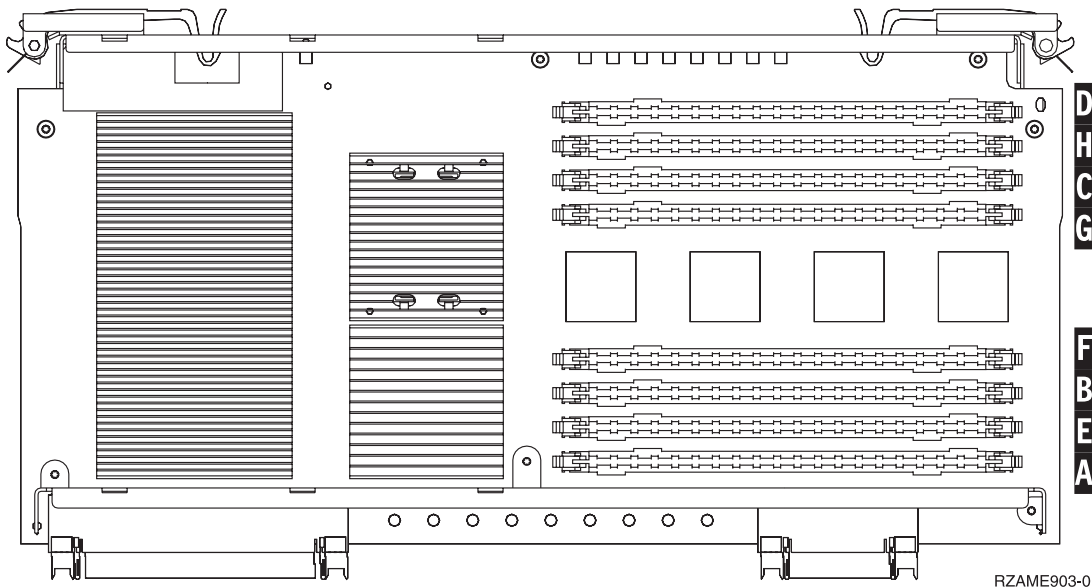

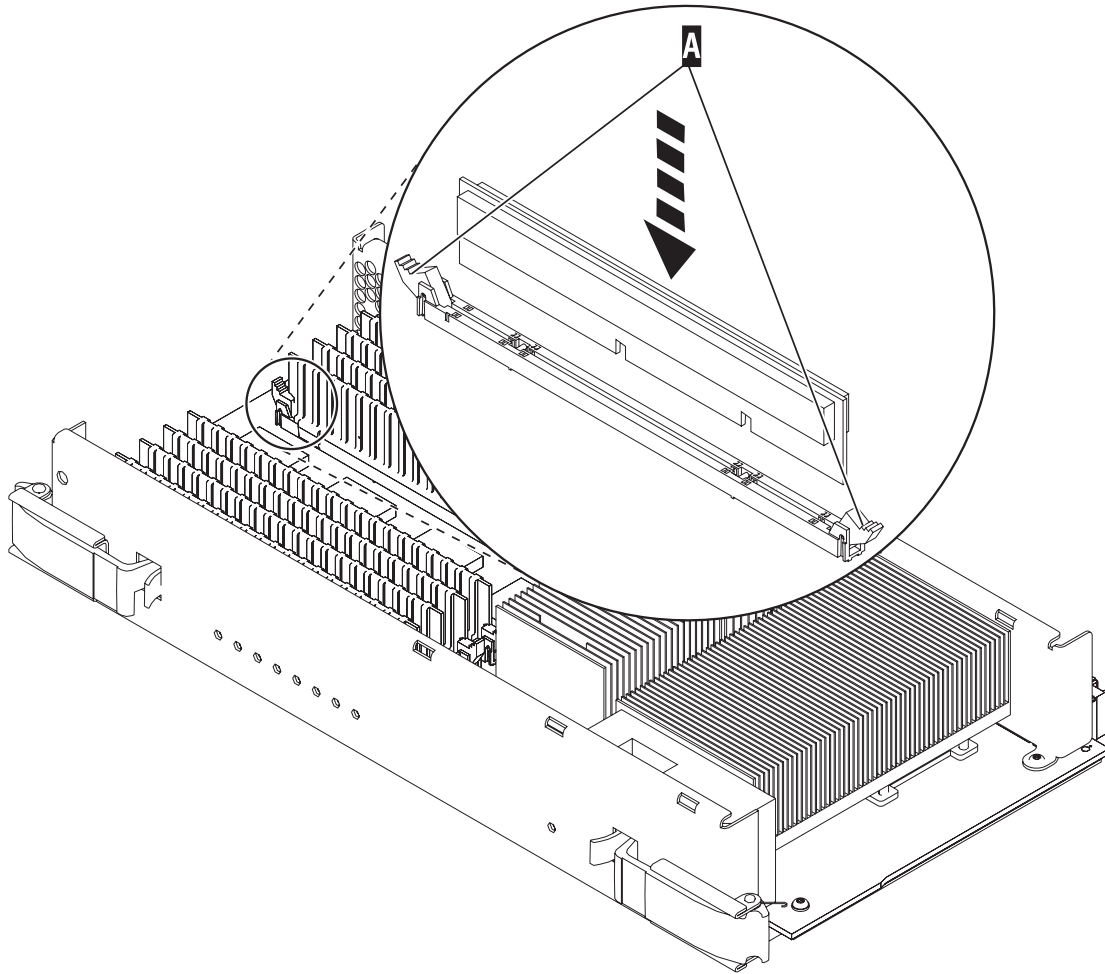


Figure 35. Memory Locations on Card Assembly

- ___ 8. Remove the blank filler cards from the next available positions by doing the following:
 - ___ a. Push outward on the latches **A** that are located at each end of the filler card, Figure 36 on page 41.
 - ___ b. Remove the filler card from the card socket and discard it.
- ___ 9. Find the package that contains the new memory cards.
- ___ 10. **Attention:** Memory cards are fragile. Handle with care. Remove a memory card, **one at a time**, from the static protective package.
- ___ 11. Refer to Figure 36 on page 41 to install the memory card by doing the following:  View video.
 - ___ a. Look carefully at the notches on the bottom of the memory card. The distance between the notches and the end of the memory card is slightly different.
 - ___ b. Align the card as shown in Figure 36 on page 41.
 - ___ c. Match the keyed notches and push down on the card until the latches close.



RZAME904-0

Figure 36. Install Memory Cards

- __ 12. Install the remaining memory cards.
- __ 13. When you finish installing all the memory cards, slide the card assembly into the system unit. Push on both card latches at the same time. Close the latches when you cannot push the card assembly any further into the system unit. [View video.](#)
- __ 14. Reinstall the access cover.
- __ 15. "Install covers."
- __ 16. Follow the steps in "Complete the procedure" on page 43.

Install covers

- __ 1. Remove the wrist strap.
- __ 2. **Figure 37 on page 42** 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.

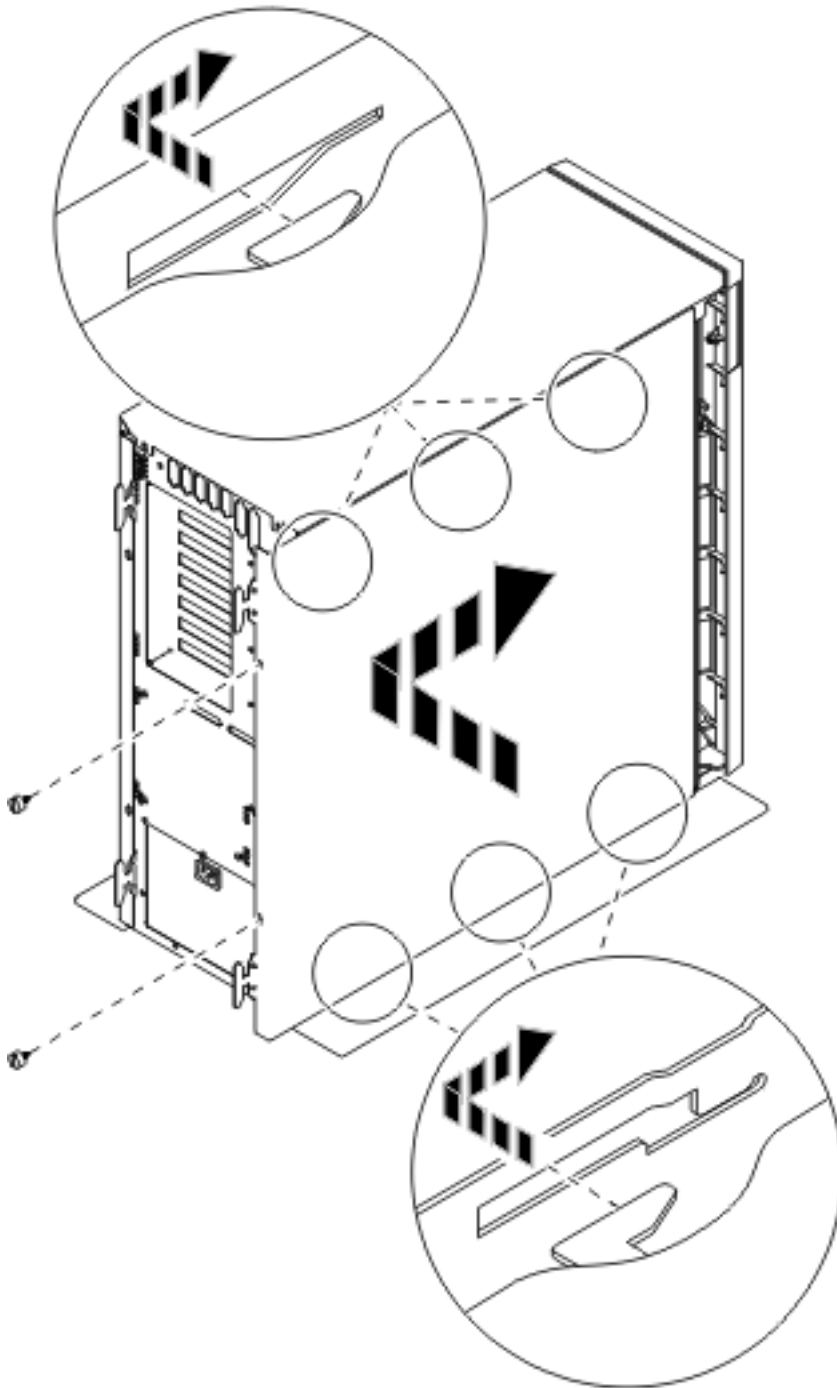


Figure 37. Install system unit side cover

- ___ 3. Install the system unit back cover if you have one.
- ___ 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
- System unit console

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

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

Complete the procedure

- ___ 1. Select your system unit below:
- ___ 270, 800, or 810: Continue with the next step.
 - ___ 820 or 825: Go to step 4.
- ___ 2. Look at the Function/Data display on the control panel. Refer to “System-unit control panel” on page 51.
- ___ 3. Does **01 B N V=S** appear in the Function/Data display?
- ___ **Yes:** Continue with step 6 on page 44.
 - ___ **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. If it does not, repeat steps 3a through 3i.
 - ___ k. Go to step 6 on page 44.
- ___ 4. Look at the Function/Data display on the control panel.
- ___ 5. Does **01 B V=S** appear in the Function/Data display with the Normal mode indicator (OK) illuminated?
- ___ **Yes:** Continue with the next step.
 - ___ **No:** Do the following:
 - ___ a. Press the Mode Select button until the Manual mode indicator (a small hand) lights up.
 - ___ 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 **S** appears in the Function/Data display.

- ___ g. Press the Enter push button on the control panel.
- ___ h. Press the Mode Select button until the Normal indicator (**OK**) lights up.
- ___ 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 S should appear in the Function/Display panel. If it does not appear, repeat steps 5a on page 43 through 5i.
- ___ k. Go to step 6.
- ___ 6. Power on the workstation or PC that is your console.
- ___ 7. Press the system unit power-on button. The power-on light will appear.

Note: There will be an approximately 10-second delay before power on. The system takes approximately 5 to 20 minutes to power on and complete an IPL.

- ___ 8. Sign on the system unit. Ensure that you have service tools authority.
- ___ 9. To verify your memory (main storage) card configuration, do the following:
 - ___ a. Type **strsst** on the command line and press Enter.
 - ___ b. Type **your service tools user ID and service tools password** on the *System Service Tools (SST) Sign On* display and press Enter.
 - ___ c. Select **Start a service tool** on the *System Service Tools (SST)* display and press Enter.
 - ___ d. Select **Hardware service manager** on the *Start a Service Tool* display and press Enter.
 - ___ e. Select **Logical hardware resources (Buses, IOPs, Controllers...)** from the *Hardware Service Manager* display and press Enter.
 - ___ f. Select **Main Storage Resources** on the *Logical Hardware Resources* display and press Enter. Verify that the status is *Operational* for all locations.

Note: If the status is not *Operational*, check the memory cards.

- ___ g. If you have a printer, print the configuration list.
- Note:** To print the hardware resources list, press **F12** one time. When the *Logical Hardware Resources* menu appears, press **F6**.
- ___ h. To return to the Main Menu, press **F3** three times and then press Enter.
- ___ 10. If you changed the value of the *System performance adjustment* option in step 1 on page 45, do the following to return to what you had prior to your upgrade:
 - ___ a. On an iSeries command line, type **WRKSYSVAL (QPFRADJ)**.
 - ___ b. Select **Change** and press Enter.
 - ___ c. Change the Performance adjustment value to what it was before you did the upgrade.
- ___ 11. Your feature installation or replacement procedure is complete.

Power down the system unit

To power down the system unit, follow these steps:

- ___ 1. Set the *System performance adjustment* to a value **other** than option 0.
 - ___ a. On an iSeries command line, type **WRKSYSVAL (QPFRADJ)** and press Enter.
 - ___ b. Select the **Change** option on the *Work with System Values* display and press Enter.
 - ___ c. If you have a Performance adjustment value of option 1, option 2, or option 3 you do not need to change the value. Press Enter.
If the Performance adjustment value is 0 (No adjustment), it is necessary to change the value to 2.
 - ___ d. Press F3 once to return to the Main Menu.
- ___ 2. If an Integrated xSeries Adapter (IXA) is present on the system, shut it down using OS/400 options.
- ___ 3. Ensure that all jobs are complete (WRKACTJOB).
- ___ 4. When all jobs are complete, type: **pwrdownsys *immed** on an iSeries command line and press the Enter key.

Note: If you encounter difficulties during the installation, contact your dealer or your service provider.
- ___ 5. When the iSeries is completely powered down, disconnect all PCs from the system unit. Power off all devices, such as printers and displays, that are connected to the system unit.
- ___ 6. Unplug any power cords, such as printers and displays, from electrical outlets.
- ___ 7. Unplug the system unit power cords from the electrical outlet.

Unit Covers

Locate the unit you are working on.

- “270, 800, 810 and 820 system units”
- “825 unit” on page 48
- “270, 800, or 810 unit in a rack” on page 48

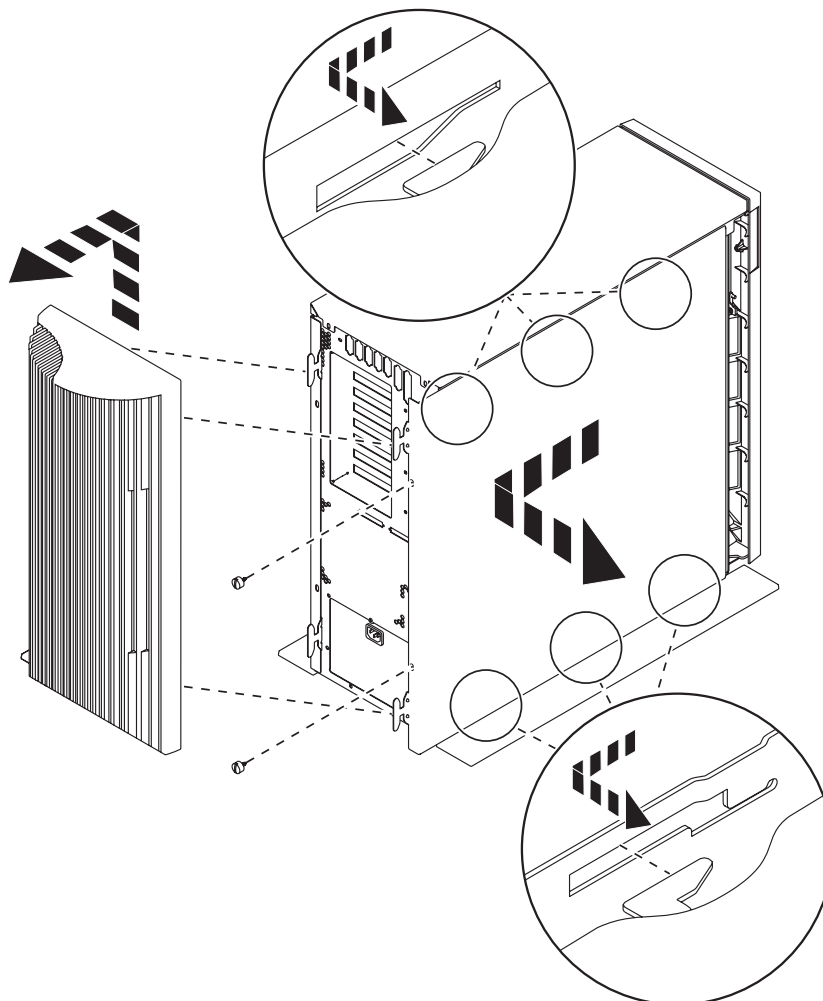
270, 800, 810 and 820 system units

To access the memory location, you need to remove the back cover (📺 view video), if you have one, and the side cover (📺 view video):

1. Place your hand near the bottom of the back cover and lift up and out.
2. **Attention:** If you are removing the side cover while it is powered on, errors may occur due to electromagnetic interference.

Remove the right side cover (view from back) by loosening the thumbscrews and sliding the cover from front to back until it stops.

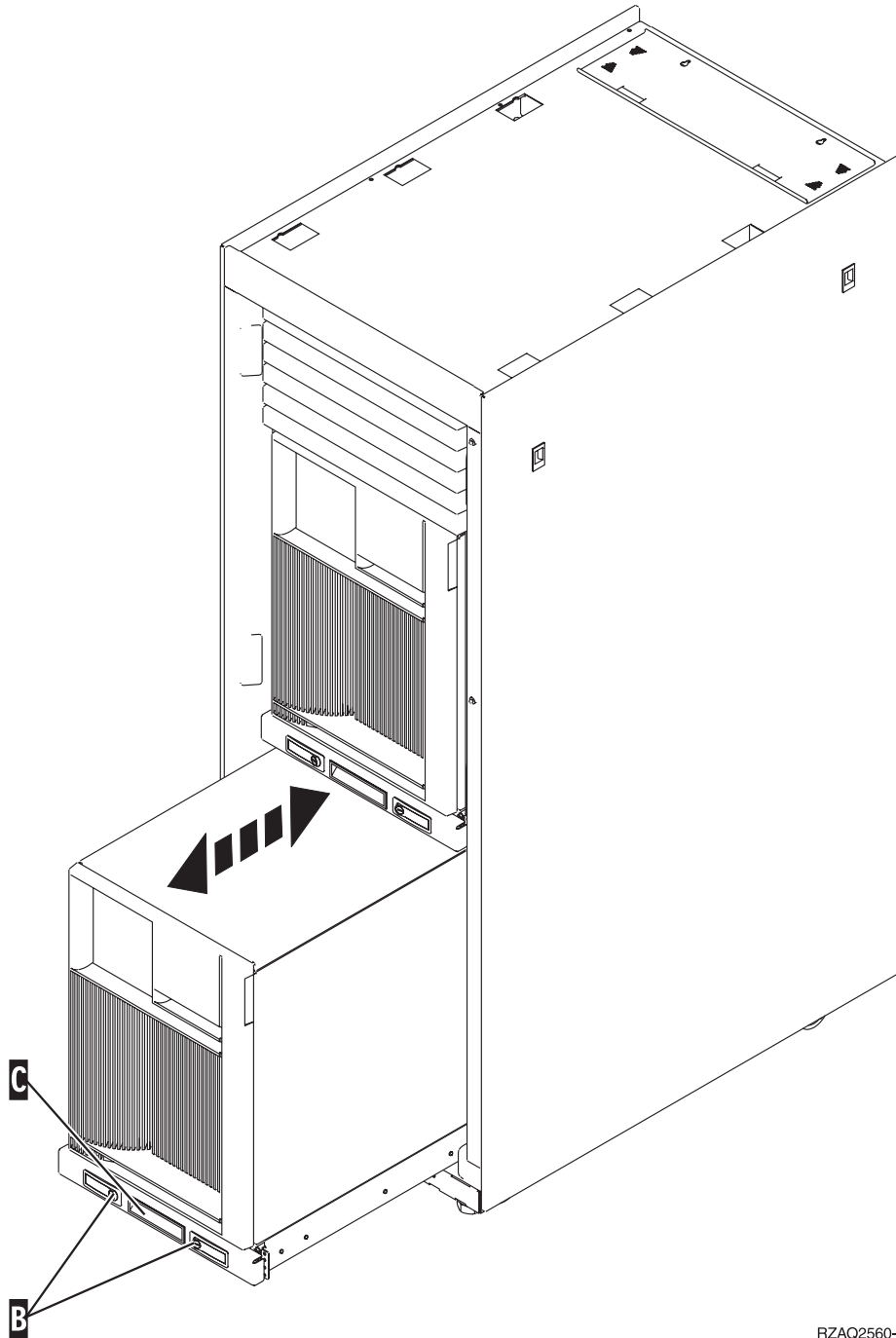
3. Pull the cover out.



RZAQ2517-0

270, 800, or 810 unit in a rack

1. Press latches **B** and pull the server out using the handle **C**.



RZAQ2560-0

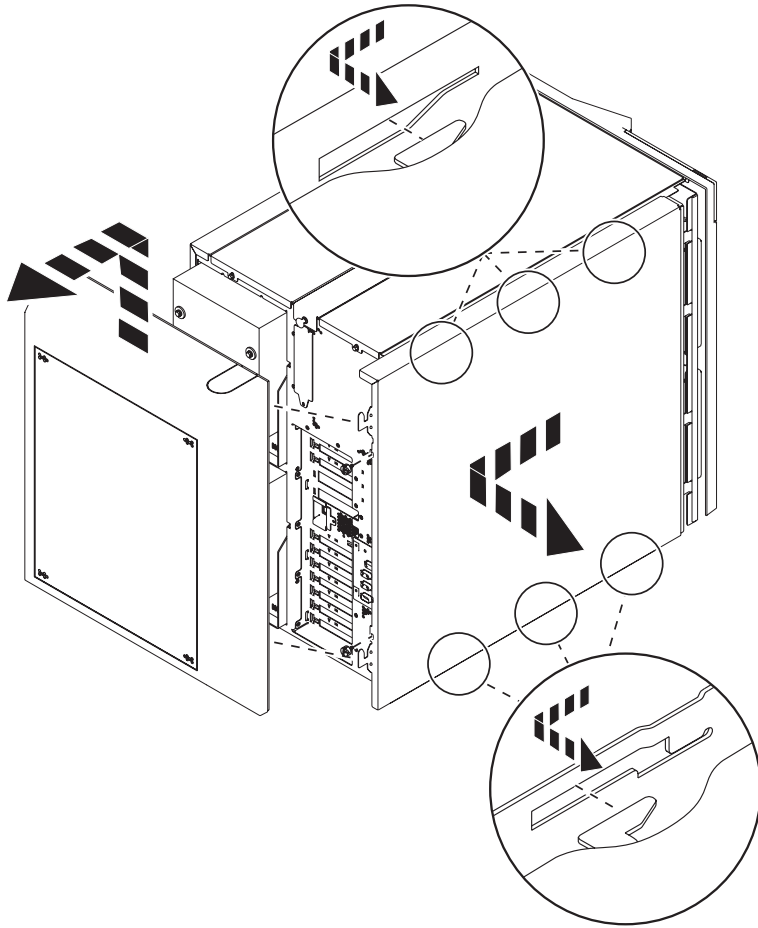
2. Refer to the previous unit diagram to remove the side cover.

825 unit

To access the PCI card location, you need to remove the back cover and the side cover:

- 1. Place your hand near the bottom of the back cover and lift up and out.
- 2. Remove the right side cover (view from back) by loosening the thumbscrews and sliding the cover from front to back until it stops.

__ 3. Pull the cover out.



RZAME601-0

System-unit control panel

Go to the front of your iSeries system unit. Open the control panel door.

Your control panel looks like either Figure 38 or Figure 39 on page 52. Refer to the control panel for your unit.

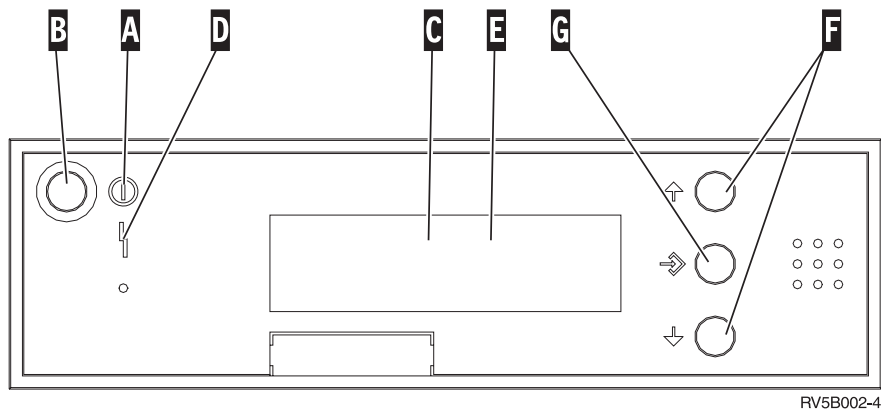


Figure 38. Control panel without Electronic Keystick

Following are the descriptions of the Figure 38 callouts:

- A** Power On Light
 - A blinking light indicates power to the unit.
 - A constant light indicates that the unit is on and working.
- B** Power Push button
- C** Processor Activity
- D** System Attention
- E** Function/Data Display
- F** Increment/Decrement buttons
- G** Enter Push button

If your control panel looks like Figure 39 on page 52, before you can use **F** Increment/Decrement buttons and **G** Enter push button, you need to press **H** Mode Selects to select Manual mode **N**. To use Mode Select, the keystick needs to be inserted.

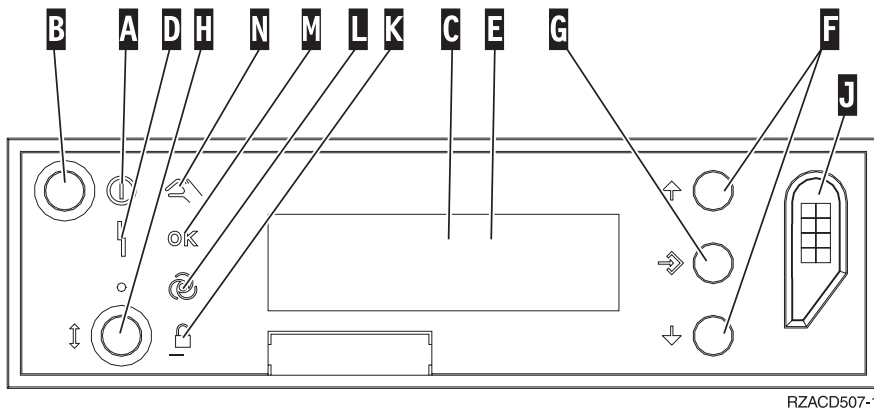


Figure 39. Control panel with Electronic Keystick

- A** Power On Light
 - A blinking light indicates power to the unit.
 - A constant light indicates that the unit is on and working.
- B** Power Push button
- C** Processor Activity
- D** System Attention
- E** Function/Data Display
- F** Increment/Decrement buttons
- G** Enter Push button
- H** Mode Selects
- J** Electronic Keystick Slot
- K** Secure
- L** Auto
- M** Normal
- N** Manual

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Responsible Party:

International Business Machines Corporation
New Orchard Road
Armonk, NY 10504

Telephone: 1-919-543-2193

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を講ずるよう要求されることがあります。 VCCI-A

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Per GB 9254-1998, the user manual for a Class A product must carry the following warning message (English translation from the Chinese standard) about use in a residential environment in Chinese (*Simplified Chinese*):

声 明

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中,该产品可能会造成无线电干
扰。在这种情况下,可能需要用
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施。

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.

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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
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種情況下，使用者會被要
求採取某些適當的對策。

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

Hinweis

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- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
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Responsible Party:

International Business Machines Corporation
New Orchard Road
Armonk, NY 10504

Telephone: 1-919-543-2193

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