IBM

@server

iSeries

43xx Disk Unit, 71xx Disk Expansion Unit, 71xx Disk Unit Enclosure Installation Instruction

Version 5

IBM

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71xx Disk Expansion Unit,
71xx Disk Unit Enclosure
Installation Instruction

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Chapter 1. Install 43xx or 71xx disk unit

This feature is customer installable. It will take approximately 1 hour to install the hardware. If you elect not to do this installation yourself, contact IBM® or an authorized dealer to make arrangements for them to perform the feature installation for a fee.

You need to allow additional time to complete your jobs, back up your system, perform an initial program load (IPL) of your system, and verify your hardware configuration.

When you use these instructions, you may do the following:
- Remove the system unit covers.
- Install your new hardware.
- Install covers.
- Perform an IPL of your operating system.
- Verify your new hardware configuration.

Note: If you are removing or moving disk units already installed in your unit refer to Backup and Recovery .

Some of the figures in these instructions may not look exactly like the system unit that you have. However, the steps to perform the task are the same.

Do the following before you begin.

__ 1. **Ensure that you have a current backup of your system (including operating system, licensed programs, and data).**

__ 2. Ensure that you take a few minutes to become familiar with these instructions.

__ 3. If there are incorrect, missing parts, or visibly damaged parts, contact one of the following:
   - Your authorized dealer
   - IBM Rochester Manufacturing Automated Information Line (R-MAIL)
     – 1-800-300-8751 (United States and Canada)
     – 1-507-253-5242 (worldwide)

__ 4. If you encounter difficulties during the installation, contact your authorized service provider or your authorized dealer.

__ 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. 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/supporthome.nsf/document/10000051

   a. Select **All Documents**.
   b. Select **Collapse**.
   c. Select **General Information**.
   d. Select **Offerings**.

e. Select **Feature Prerequisites**.

f. Select **Customer Install Features Prerequisites**.

g. Locate your feature number and OS/400® release and check the prerequisites.

Go to the installation instructions for the feature you plan to install:

- **Chapter 2, "Install 43xx disk units" on page 3**
- **"Install the 7104 expansion unit to the 270 server or 7116 expansion unit to the 810 server" on page 33**
- **"Install the 7123 or 7136 disk unit enclosure" on page 41**
- **"Install the 7124 or 7127 disk unit enclosure" on page 47**

Chapter 2. Install 43xx disk units

This feature is customer installable. If you elect not to do this installation yourself, contact IBM or an authorized dealer to make arrangements for them to perform the installation for a fee.

Your unit can either be powered off (nonconcurrent) or powered on (concurrent) when you install your disk unit:

__ 1. Be sure you understand the complexity of the powered on (concurrent) procedures before you begin ("Your system is powered on during installation"). If you do not feel comfortable using the concurrent procedure, go to "Your system is powered off during installation" on page 8.

__ 2. Decide which way you want to install your disk unit—"Your system is powered on during installation" on page 3 or "Your system is powered off during installation" on page 8.

Your system is powered on during installation

Attention: Disk units are fragile. Handle with care.

__ 1. Remove or open the unit front cover. Refer to "Open or remove the front cover" on page 17.

__ 2. **Attach the disposable wrist strap to prevent electrostatic discharge from damaging a device.** View video.

Notes:

a. Follow the same precautions you would use without the wrist strap. The 2209 Disposable Wrist Strap is for static control. It will not increase nor decrease your risk of receiving electric shock when using or working on electrical equipment.

b. When you unroll the wrist strap, remove the liner from the copper foil at the end.

c. Attach the copper foil to an **exposed, unpainted** metal surface on the frame of the system unit (electrical ground).

__ 3. Find the disk unit locations in your system unit or your expansion unit. Refer to "Disk unit locations" on page 21.

__ 4. Remove the disk unit covers. Squeeze the latch and pull out. iSeries 825 does not use disk unit covers.

__ 5. Look at the front of the system unit or the expansion unit and determine the next available position. When you have a system unit with an expansion unit, **fill the slot positions in the system unit first**. If using logical partitions, go to Plan for logical partitions, in the *Information Center*, for specific load source disk unit locations.

__ 6. Write down the position where the new disk will be installed _____ (for example; D03).

__ 7. Write down the Frame ID where you will be installing the disk unit here _____ . You will need it later. The base system Frame ID is 1. The Frame ID for each external expansion unit is displayed on the front display (for example: 02)

__ 8. Be sure you are signed on **with at least service level authority**.

__ 9. Type **strsst** on the command line of the iSeries session and press Enter.

__ 10. Type **your service tools user ID and service tools password** on the *System Service Tools (SST) Sign On* display. Press Enter.

__ 11. Select **Start a service tool** from the *System Service Tools (SST)* display. Press Enter.

__ 12. Select **Hardware service manager** from the *Start a Service Tool* display. Press Enter.

__ 13. Select **Device Concurrent Maintenance** from the display. Press Enter.

__ 14. Type the **Physical Location** (Frame ID and position) where you will be installing the new disk unit. Refer to step 6 on page 3 and step 7 on page 3.

   In this example, `Physical Location: Frame ID 1____ Position D06____` , you would install a disk unit in frame 1 (base system), disk unit position 6.

__ 15. Select option **2** (Install device for the action to be performed.)

__ 16. Set the time delay for one minute—01. (Do not press Enter at this time.)

__ 17. Find the package that contains the new disk unit assembly and remove it from the static-protective package. Write the serial number (use the last four digits) of the disk unit here _____ before you install it.

Serial Number

RV5B003-0
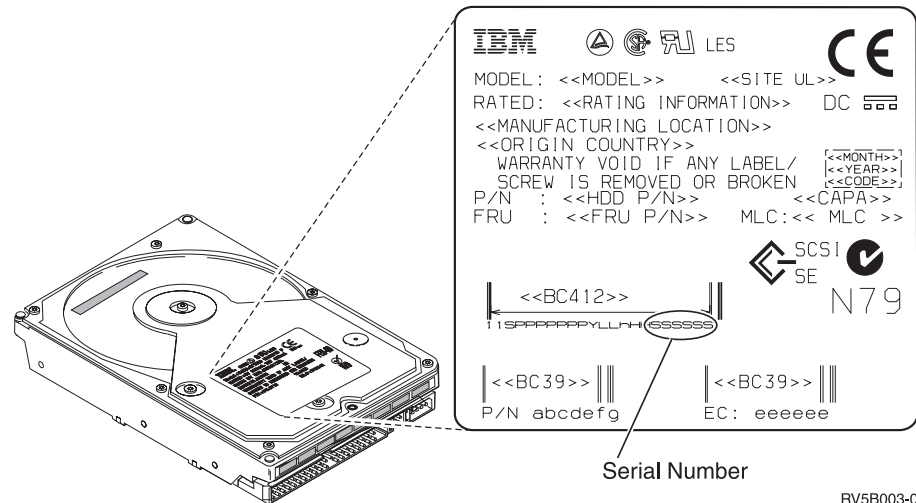
__ 18. Unlock the handle by squeezing and pulling it out toward you and down before you install the disk unit. If the handle is not all the way down, the disk unit will not slide into the system unit or the expansion unit. ⬚ View

video.

RZAG6510-0
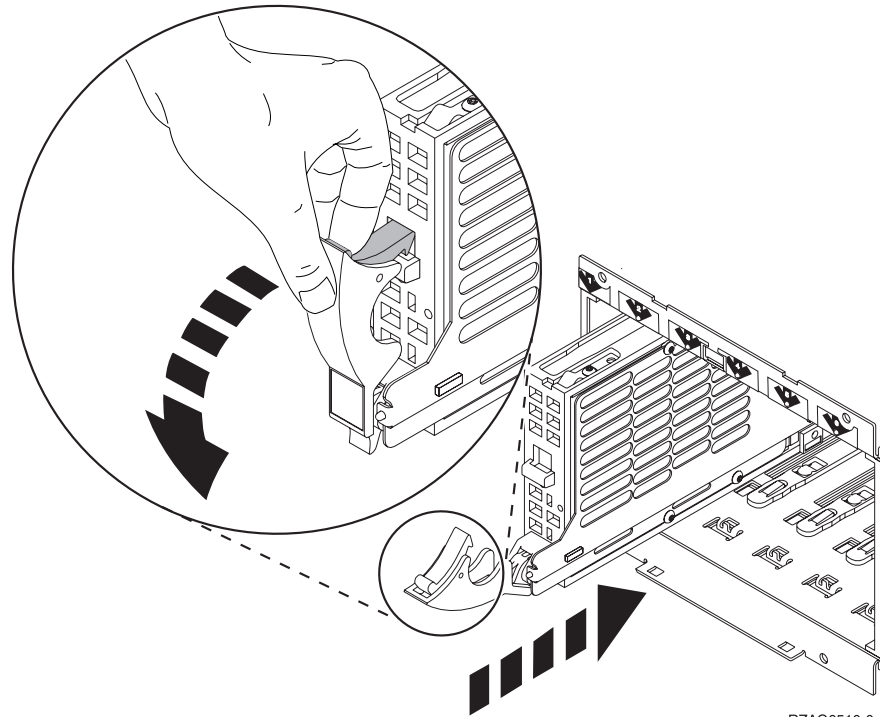
__ 19. Support the disk unit assembly as you slide it half way into the system unit or the expansion unit. Do not push it any further.

    Note: You install the disk units horizontally in the 7123, 7136, and 7137 disk unit enclosure.

__ 20. Locate the light in the numbered arrow by the disk unit you are installing. When Enter is pressed in the next step, the light comes on and begins to blink rapidly. You will have nine seconds to slide the disk unit **all the way forward** and push in the handle on the disk unit.

__ 21. Press Enter on the console.

__ 22. When the light starts blinking, after the one minute delay, slide the disk unit **all the way in** and lock it in place by closing the latch.

__ 23. The light stops blinking and remains solid when you have installed the disk unit properly.

__ 24. Return to the console and wait until the *Concurrent Maintenance Results* display appears.

    Press Enter.

__ 25. Do you have another disk unit to install?

    __   **No**: Continue with the next step.

    __   **Yes**: Look at the front of the system unit or the expansion unit and determine the next available position. Repeat steps 13 on page 4 through 24.

__ 26. When the *Hardware Service Manager* display appears, **press F12**.

__ 27. Select **Work with Disk Units** on the *System Service Tool* display.

    Press Enter.

__ 28. Select **Display disk configuration** on the *Work with Disk Units* display.

Press Enter.

__ 29. Select **Display non-configured units** on the *Display disk configuration* display.

Press Enter.

__ 30. The disk unit that you installed should be listed. The serial number should match the serial number you wrote in step 17 on page 4.

> **Note:** The new disk unit may take up to five minutes to appear in the list. If the disk unit is not listed, ensure that the disk unit was properly installed. Repeat steps "Your system is powered on during installation" on page 3 through 24 on page 5.

__ 31. Press F12, twice.

__ 32. Select **Work with disk configuration** on the *Work with Disk Units* display.

Press Enter.

__ 33. Are you adding a disk unit to an existing device parity set? If you need more information about device parity, go to Backup and Recovery .

     __   **Yes**: Continue with the next step.

     __   **No**: Do you want to start a device parity set?

         __   **Yes**: Go to Device parity protection in the *Information Center*.

         __   **No**: Go to step 51 on page 7.

__ 34. Select **Include unit in device parity protection** on the *Work with disk configuration* display.

Press Enter.

__ 35. Did the **Include Device Parity Protection Failed** display appear?

     __   **Yes**: Continue with the next step.

     __   **No**: Go to step 39.

__ 36. The following conditions must be met before you can start device parity protection. Including the disk unit in device parity protection may fail for one or more reasons.

- If there are enough disk units available to create a new parity set, the units will be eligible for *Start Device Parity Protection* operation and not for the *Include Device Parity Protection* operation. For more information, go to Backup and Recovery .

- **All disk units in a parity set must be the same capacity with a minimum number of 3 or 4 disk units and maximum of 10 or 18 units in the resulting parity set, depending on the disk unit type.**

- Not all disk units attached to an advanced function input/output processor have reported to the system. Retry the operation.

- The type/model of the disk units must be supported for the requested operation.

__ 37. When the above conditions are met, select F12 to return to the *Work with disk configuration* display.

__ 38. Select **Include unit in device parity protection** on the *Work with disk configuration* display.

Press Enter.

__ 39. Select the disk units to include in Device Parity Protection. Type a **1** in the *Option* column on the *Include Disk Units in Device Parity Protection* display.

Press Enter.

__ 40. Press Enter to confirm your choice. The configuration will start and may take 30 to 60 minutes to complete.

__ 41. When the device parity protection is complete, the message `Selected units have been included successfully` appears on the *Work with disk configuration* display.

__ 42. Select **Display disk configuration** on the *Work with disk configuration* display and press Enter.

__ 43. Select **Display disk configuration status** on the *Display disk configuration* display and press Enter.

__ 44. If you have more than one ASP, determine the auxiliary storage pool (ASP) to which you want to add the disk units.

__ 45. Press F12, twice.

__ 46. Select **Add units to the ASPs and balance data** on the **Work with disk configuration** display.

Press Enter.

__ 47. Specify the ASP that you determined in step 44 on the **Specify ASPs to Add Units to** display.

Press Enter.

__ 48. The **Confirm Add Units** display appears showing the configuration your system will have when the add operation completes.

Note: If you have selected the wrong ASP, press F12 to change your options.
Press the Enter key to continue. The add process will take several minutes to complete.

__ 49. When the message `Selected units have been added successfully` appears, return to the *Main Menu*. (Press F3 three times and press Enter.)

__ 50. Go to step 59 on page 8.

__ 51. Select **Display disk configuration** on the *Work with Disk Configuration* display.

Press Enter.

__ 52. Select **Display disk configuration status** on the *Display Disk Configuration* display.

Press Enter.

__ 53. If you have more than one ASP, determine the auxiliary storage pool (ASP) to which you want to add the disk units.

__ 54. Press F12, twice.

__ 55. Select **Add units to ASPs** on the *Work with Disk Configuration* display.

Press Enter.

__ 56. Specify the number of the ASP to which you want to add the disk unit. The system ASP is **ASP 1**.

Press Enter.

Notes:

a. When an even number of disk units are added to a mirrored ASP, they will automatically become mirrored protected.

b. If ASP is mirror protected, disk units must be added in pairs.

__ 57. The *Confirm Add Units* display appears showing the configuration your system will have when the add operation completes.

> **Note:** If you have selected the wrong ASP, press F12 to change your options.
>
> Press the Enter key to continue. The add process will take several minutes to complete.

___ 58. When the message Selected units have been added successfully appears, return to the *Main Menu*. (Press F3 three times and press Enter.)

___ 59. Install the disk unit covers. Align the tabs on the disk unit cover with the slots in the system unit. Push the cover in until it latches.

___ 60. Install or close the system unit or expansion unit front cover.

___ 61. If you have a printer, print the configuration list. A service representative may refer to the configuration list in the future.

    ___ a. You need to sign on with service authority.

    ___ b. Type **strsst** on the *Main Menu* command line and press Enter.

    ___ c. Type **your service tools user ID and service tools password** on the *System Service Tools (SST) Sign On* display and press Enter.

    ___ d. Select **Start a service tool** on the *System Service Tools (SST)* display and press Enter.

    ___ e. Select **Hardware service manager** on the *Start a Service Tool* display and press Enter.

    ___ f. Press F6 (Print configuration) from the *Hardware Service Manager* display.

    ___ g. Press F3 (Exit) twice to return to the *Main Menu* and press Enter.

    ___ h. Place the configuration list where you can reference it in the future.

___ 62. The installation of the disk unit is complete.

___ 63. For information on disk unit configuration, go to the Disk management topic in the *Information Center*.

Your system is powered off during installation

___ 1. **Attention:** Disk units are fragile. Handle with care.

___ 2. Ensure that all jobs are complete.

___ 3. When all jobs are complete, type **pwrdwnsys *immed** on an iSeries command line and press Enter.

___ 4. 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.

___ 5. Unplug any power cords, such as printers and displays, from electrical outlets.

___ 6. Unplug the system unit and expansion unit power cords from the electrical outlets.

___ 7. Remove or open the unit front cover. Refer to "Open or remove the front cover" on page 17.

___ 8. **Attach the disposable wrist strap to prevent electrostatic discharge from damaging a device.** View video. Attach the adhesive part of the foil to an unpainted surface.

Notes:

    a. Follow the same precautions you would use without the wrist strap. The 2209 Disposable Wrist Strap is for static control. It will not increase nor decrease your risk of receiving electric shock when using or working on electrical equipment.

b. When you unroll the strap, remove the liner from the copper foil at the end.

c. Attach the copper foil to an **exposed, unpainted** metal surface on the frame of the system unit (electrical ground).

__ 9. Find the disk unit locations in your system unit or your expansion unit. Refer to "Disk unit locations" on page 21.

__ 10. Remove the disk unit covers. Squeeze the latch and pull out.

__ 11. Look at the front of the system unit or the expansion unit and determine the next available position. When you have a system unit with an expansion unit, **fill the slot positions sequentially in the system unit first**.If using logical partitions, go to Plan for logical partitions, in the *Information Center*, for specific load source disk unit locations.

__ 12. Find the package that contains the new disk unit assembly and remove it from the static-protective package. Write the serial number (use the last 4 digits) of the disk unit here _____ before you install it.

Serial Number
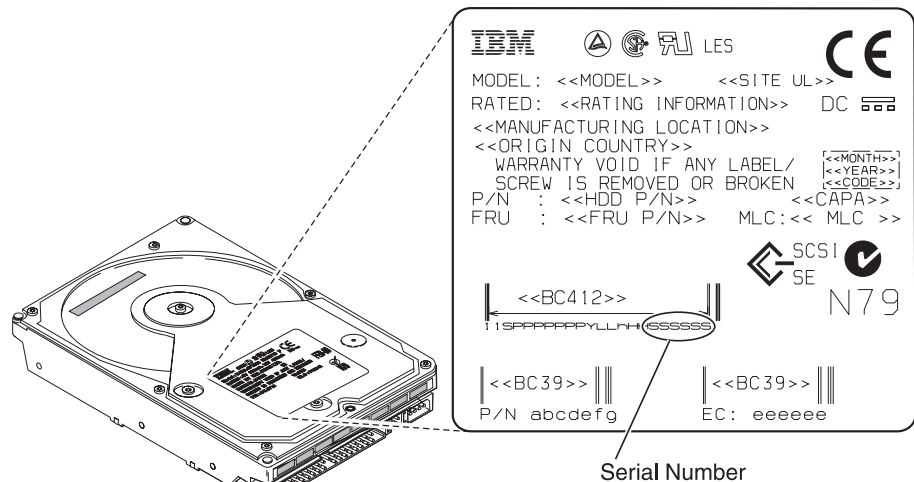
RV5B003-0

__ 13. Squeeze and pull the handle out toward you and down before you install the disk unit. If the handle is not all the way down, the disk unit will not

slide into the system unit or the expansion unit. ⬚ View video.
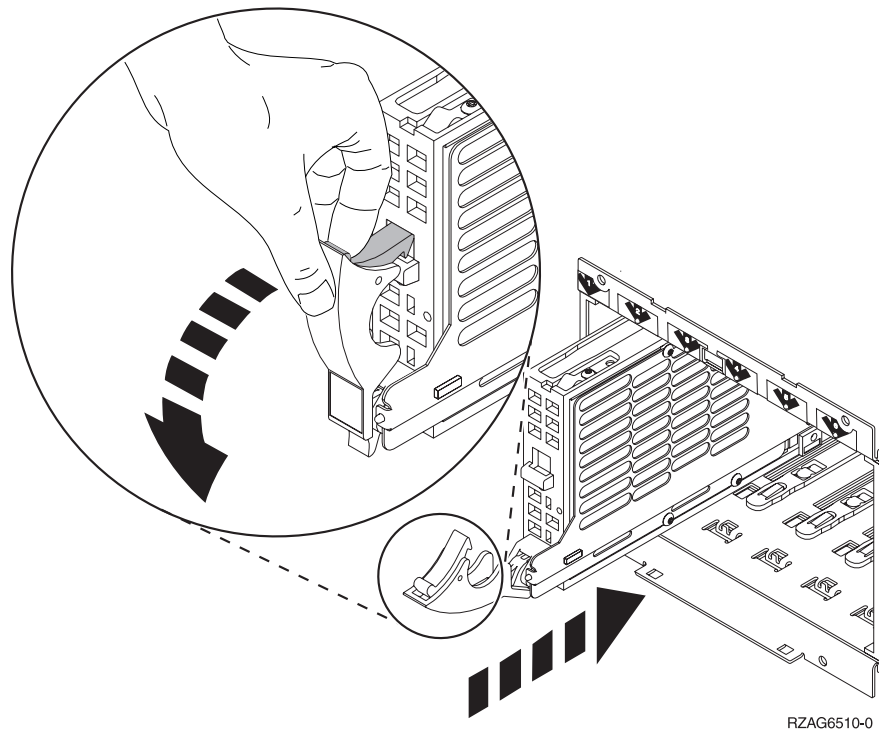
RZAG6510-0

__ 14. Support the bottom of the disk unit assembly as you slide it completely forward and install it into the system unit or the expansion unit. Do not hold the disk unit by the handle.

__ 15. Align the disk unit assembly with the next available slot and slide it into the system or expansion unit until it **stops**. Make sure that the handle is fully extended when sliding into the system unit or the expansion unit.

__ 16. Close the disk unit handle firmly locking it into place.

__ 17. Do you have another disk unit to install?

   __ **No**: Continue with the next step.

   __ **Yes**: Repeat steps 9 on page 9 through 16.

__ 18. Install the disk unit covers. Align the tabs on the disk unit enclosure cover with the slots on the system unit enclosure. Push the cover in until it latches.

__ 19. 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 a memory card to install, go to the instructions that came with that device.

__ 20. Remove the disposable wrist strap.

__ 21. Install or close the unit front cover.

__ 22. **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
- Expansion units

__ 23. Plug in and power on all attached devices, such as printers and displays.

__ 24. If your system unit is an iSeries 270 or 810, go to step 26.

__ 25. If your system unit is an iSeries 820, 825, 830, 840, 870 or 890, go to step 29 on page 12.

__ 26. Look at the Function/Data display on the control panel. Refer to "System-unit control panel" on page 31.

__ 27. Did you just install a 7104 Expansion Unit?

> __ **No**: Continue with the next step.

> __ **Yes**: 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 **M** 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 **07** appears in the Function/Data display.

>> __ j. Press the Enter push button on the control panel.

>> __ k. Press the Increment/Decrement push button until **07A9** appears in the Function/Data display.

>> __ l. Press the Enter push button on the control panel.

>> __ m. Press the Increment/Decrement push button until **0701** appears in the Function/Data display.

>> __ n. Press the Enter push button on the control panel.

>> __ o. Depending on the processor type you identified in step 1 on page 33, the configuration ID in step 27p will be 0795 or 0796.

>>> __ 2248, 2250, or 2422 processors: 0795

>>> __ For all other processors: 0796

>> __ p. Press the Increment/Decrement push button until **0795 or 0796** appears in the Function/Data display.

>> __ q. Press the Enter push button on the control panel.

01 B M V=F should appear in the Function/Data display. If it does not, repeat steps 27a on page 11 through 27q on page 11.

    __ r. Go to step 31.

__ 28. Does **01 B M V=S** appear in the Function/Data display?

    __   **Yes**: Go to step 31.

    __   **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 **M** 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 M S should appear in the Function/Data display. If it does not, repeat steps 28a through 28j.

        __ k. Go to step 31.

__ 29. Look at the Function/Data display on the control panel.

__ 30. Does **01 B V=S** appear in the Function/Data display and the Manual mode indicator (a small hand) 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 Increment/Decrement push button until **01** appears in the Function/Data display.

        __ i. 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 30a through 30i.

__ 31. Press the Power push button that is located on the iSeries control panel. There is approximately a 10-second delay before the power-on light comes on, and data appears in the Function/Data display.

> **Note:** The system takes approximately 5 to 10 minutes to power on and complete an IPL. When the IPL is complete, the *IPL or Install the System* display should appear on your system unit console.

__ 32. Do the following to verify your disk unit configuration:

    __ a. Select **Use Dedicated Service Tools (DST)** when the *IPL or Install the System* display appears.

       Press Enter.

    __ b. Enter your DST user ID and password.

       Press Enter.

    __ c. Select **Work with disk units** on the *Use Dedicated Service Tools (DST)* display.

       Press Enter.

    __ d. Select **Work with disk configuration** on the *Work with Disk Units* display.

       Press Enter.

    __ e. Select **Display disk configuration** on the *Work with Disk Configuration* display.

       Press Enter.

    __ f. Select **Display non-configured units** on the *Display Disk Configuration* display.

       Press Enter.

    __ g. The disk units that you installed should be listed. The serial number should match the serial number you wrote in step 12 on page 9.

> **Note:** If the disk unit is not listed, ensure that the disk unit is properly installed.

    __ h. Return to the *Work with Disk Configuration* display (press F12 two times).

__ 33. Are you adding a disk unit to an existing device parity set? If you need more information about device parity, refer to Backup and Recovery .

    __   **Yes**: Continue with the next step.

    __   **No**: Go to step 52 on page 14.

__ 34. Select **Work with device parity protection** on the *Work with Disk Configuration* display.

    Press Enter.

__ 35. Select **Include unit in device parity protection** on the *Work with Device Parity Protection* display.

    Press Enter.

__ 36. Did the *Include Device Parity Protection Failed* display appear?

    __   **Yes**: Continue with the next step.

    __   **No**: Go to step 39 on page 14.

__ 37. The following conditions must be met before you can start device parity protection. Including the disk unit in device parity protection may fail for one or more reasons.

    • If there are enough disk units available to create a new parity set, the units will be eligible for **Start Device Parity Protection** operation and

not for the **Include Device Parity Protection** operation. For more

information, refer to Backup and Recovery .

- **All disk units in a parity set must be the same capacity with a minimum number of three or four disk units and maximum of 10 or 18 units in the resulting parity set, depending on the disk unit type.**
- Not all disk units attached to an advanced function input/output processor have reported to the system. Retry the operation.
- The type/model of the disk units is not supported for the requested operation.

___ 38. When the above conditions are met, press F12 twice to return to the *Work with Disk Configuration* display.

___ 39. On the *Include Disk Units in Device Parity Protection* display, select the disk units to be included in Device Parity Protection. Type a **1** in the **Option** column.

Press Enter.

___ 40. Press Enter to confirm your choice. The configuration will start and may take 30 to 60 minutes to complete.

___ 41. When the device parity protection is complete, the message "Selected units have been included successfully" appears on the *Work with device parity protection* display.

Press F12.

___ 42. Select **Display disk configuration** on the *Work with disk configuration* display.

Press Enter.

___ 43. Select **Display disk configuration status** on the *Display disk configuration* display.

___ 44. If you have more than one ASP, determine the auxiliary storage pool (ASP) to which you want to add the disk unit.

___ 45. Press F12, twice.

___ 46. Select **Work with ASP configuration** on the *Work with disk configuration* display.

Press Enter.

___ 47. Select **Add units to ASPs** on the *Work with ASP configuration* display.

Press Enter.

___ 48. Specify the ASP you determined in step 45 on the *Specify ASPs to Add Units to* display.

Press Enter.

___ 49. Press Enter to confirm.

___ 50. When the message "Selected units have been added successfully" appears, press F3 three times and press Enter to return to the *Main Menu*.

___ 51. Go to step 56 on page 15.

___ 52. Select **Work with ASP configuration** on the *Work with Disk Configuration* display and press Enter.

___ 53. Select **Add units to ASPs** on the *Work with ASP configuration* display.

Press Enter.

___ 54. Specify the number of the ASP to which you want to add the disk unit. The system ASP is **ASP 1**.

Press Enter.

Notes:

    a. When an even number of disk units are added to a mirrored ASP, they will automatically become mirrored protected.

    b. If ASP is mirror protected, disk units must be added in pairs.

__ 55. The *Confirm Add Units* display appears showing the configuration your system will have when the add operation completes.

    Note: If you have selected the wrong ASP, press F12 to change your options.
Press the Enter key to continue. The add process will take several minutes to complete.

__ 56. Press F12 three times to return to the *Use Dedicated Service Tools (DST)* display.

__ 57. Select **Perform an IPL** on the *Use Dedicated Service Tools (DST)* display.
Press Enter.

__ 58. If you have a printer, print the configuration list. A service representative may refer to the configuration list in the future.

    __ a. You need to sign on with service authority.

    __ b. Type **strsst** on the *Main Menu* command line.
Press Enter.

    __ c. Type **your service tools user ID and service tools password** on the *System Service Tools (SST) Sign On* display.
Press Enter.

    __ d. Select **Start a service tool** on the *System Service Tools (SST)* display.
Press Enter.

    __ e. Select **Hardware service manager** on the *Start a Service Tool* display.
Press Enter.

    __ f. Press F6 (print the configuration) from the *Hardware Service Manager* display.

    __ g. To return to the *Main Menu*, press F3 (Exit) twice and then press Enter.

    __ h. Place the configuration list where you can refer to it in the future.

__ 59. The installation of the disk unit is complete.

__ 60. For information on how to make your disk unit operational, go to the Disk management topic in the *Information Center*.

Open or remove the front cover

Select your unit:
- "270, 810, 820, or 5075 front cover" on page 17
- "270 or 810 in a rack" on page 19
- "825 front cover" on page 18
- "830, 840, 870, 890, 5074, 5079, 5094 or 5095" on page 20

270, 810, 820, or 5075 front cover

Remove the system unit or expansion unit front cover by gripping the sides of the cover **A** and pulling the cover toward you. View video.
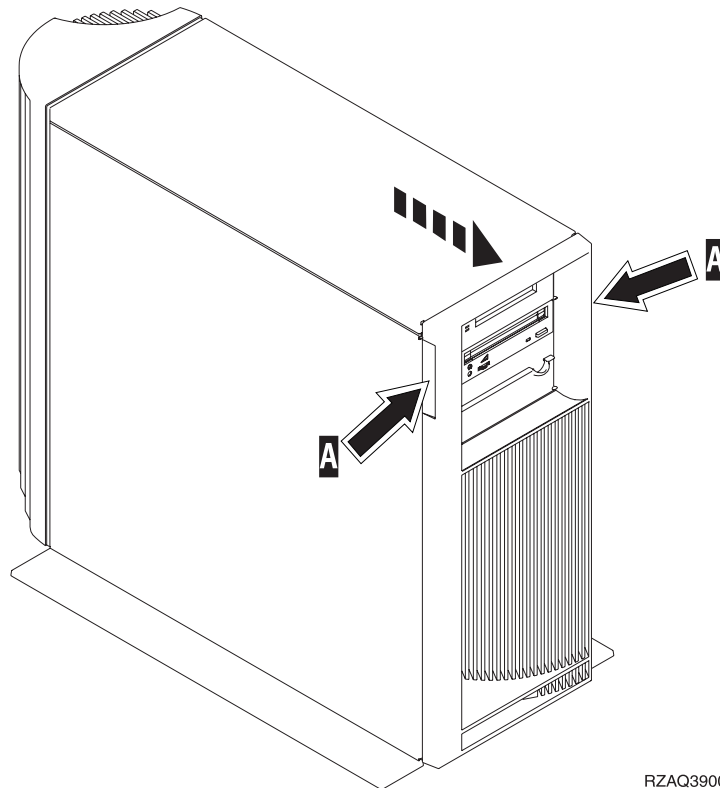
RZAQ3900-0

825 front cover

Remove the front cover by gripping the sides of the cover and pulling the cover toward you.⬚ View video.
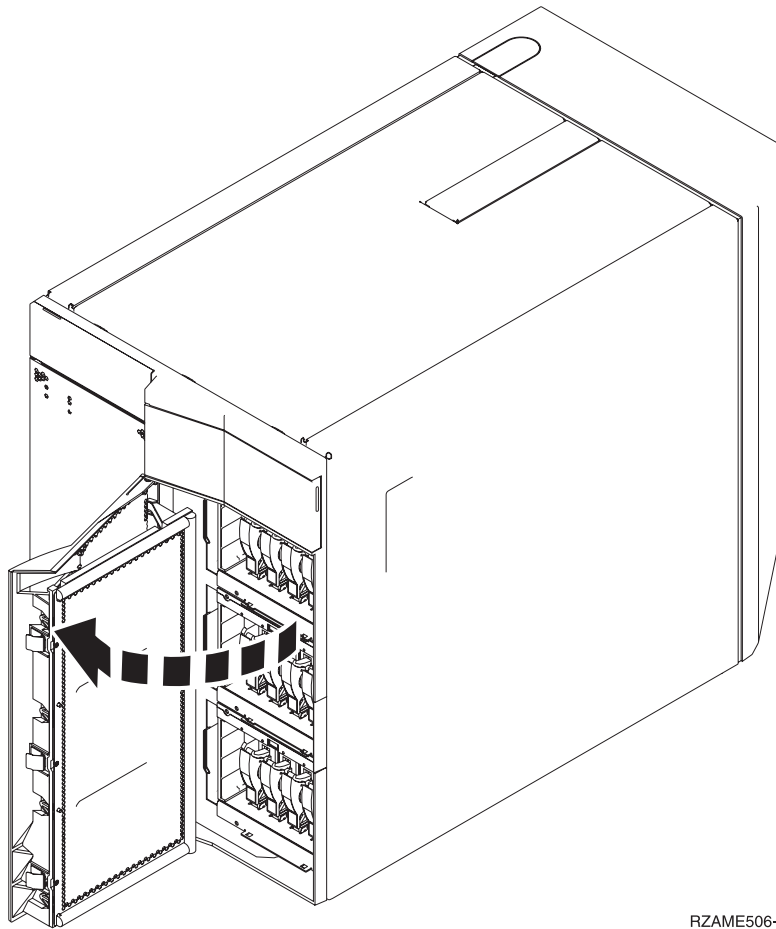
RZAME506-0

270 or 810 in a rack
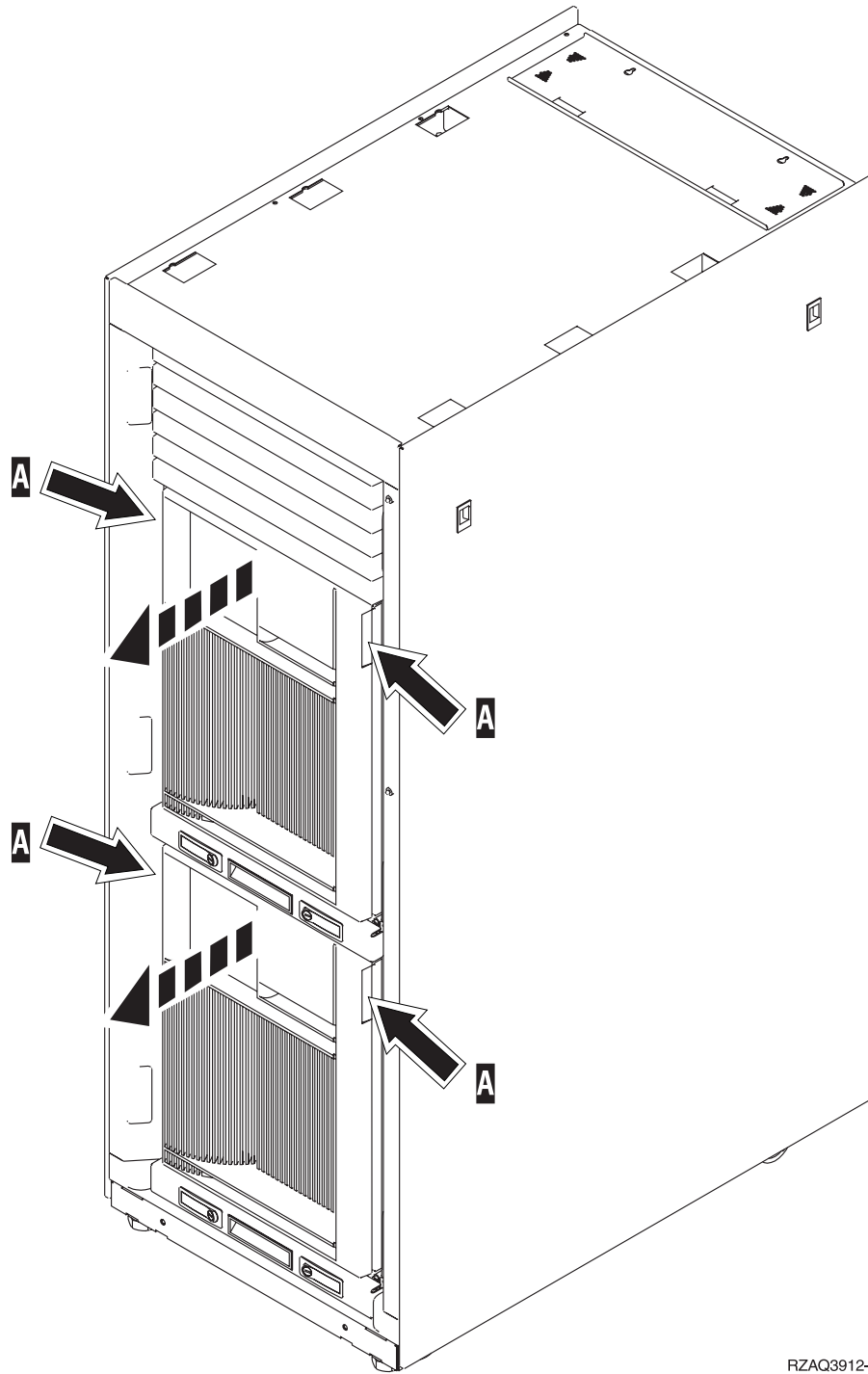
RZAQ3912-0

830, 840, 870, 890, 5074, 5079, 5094 or 5095

Use **A** to open the front cover. If needed, use latch **B** to remove the front cover.
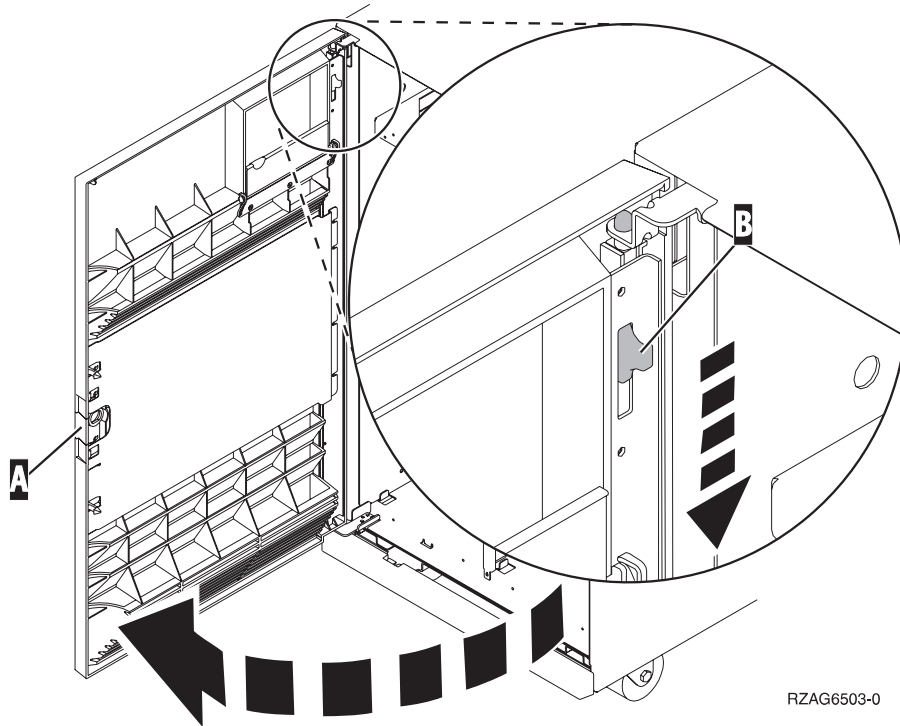
RZAG6503-0

Disk unit locations

Locate your system or expansion unit to find the disk unit locations. If using logical partitions, go to Plan for logical partitions, in the *Information Center*, for specific load source disk unit locations.

270 or 810 system unit
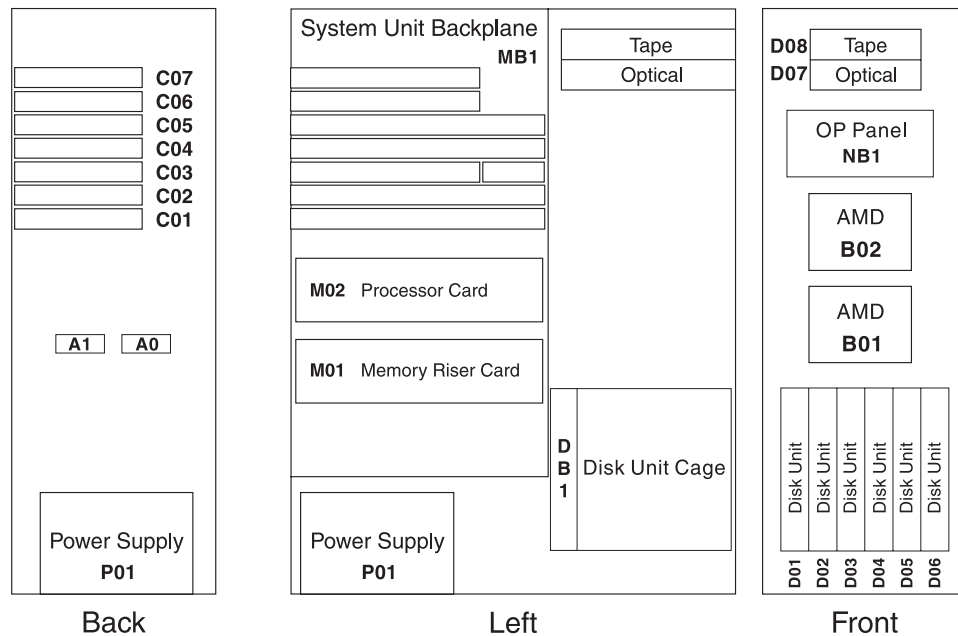
RZAQ2502-5

7104 or 7116 expansion unit

Disk Unit	D20
Disk Unit	D19
Disk Unit	D18
Disk Unit	D17
Disk Unit	D16
Disk Unit	D15

Disk Unit Cage — **D B 3**

AMD **B03**

Disk Unit	D14
Disk Unit	D13
Disk Unit	D12
Disk Unit	D11
Disk Unit	D10
Disk Unit	D09

Disk Unit Cage — **D B 2**

Power Supply **P02**
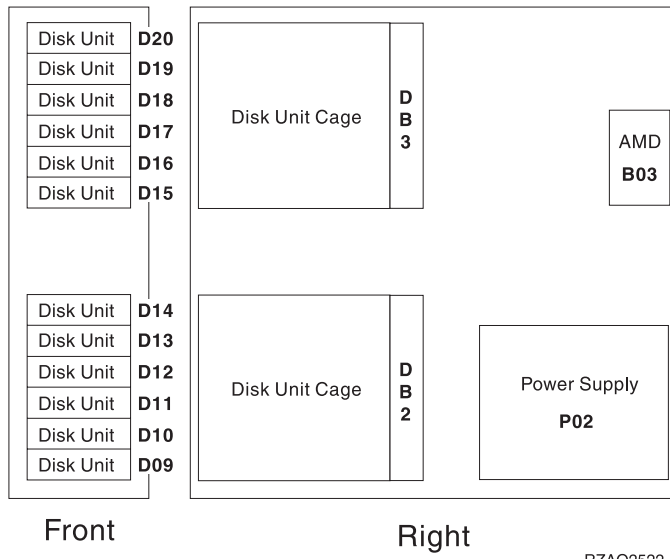
Front

Right

RZAQ2522-0

820 system unit

Tape	**D14**
Optical	**D13**
OP Panel	**NB1**

Front

Tape
Optical

OP Panel

Power Supply **P03**

Disk Unit Cage

Power Supply **P02**

DB2

Power Supply **P01**

Disk Unit Cage

DB1

Right

Disk Unit **D07**
Disk Unit **D08**
Disk Unit **D09**
Disk Unit **D10**
Disk Unit **D11**
Disk Unit **D12**

DB2

Disk Unit **D01**
Disk Unit **D02**
Disk Unit **D03**
Disk Unit **D04**
Disk Unit **D05**
Disk Unit **D06**

DB1

AMD **B04**

AMD **B03**

AMD **B02**

AMD **B01**

C12
C11
C10
C09
C08
C07
C06
C05
C04
C03
C02
C01

A1   **A0**
High Speed Link
Connectors

(RPO) **J11**   **J15** (SPCN0)
(UPS) **J14**   **J16** (SPCN1)

JTAG   C/E

Back

System Unit Backplane   **MB1**

AMD **B04**

AMD **B03**

AMD **B02**

Processor Card   **M03**

Memory Riser Card   **M02**   AMD **B01**

Memory Riser Card   **M01**

Left

RZAQ2503-6

825 system unit

Front	**Right**

NB1
DB1
D17
D18
DB2
B01
D01 D02 D03 D04 D05
DB3
B02
D06 D07 D08 D09 D10
DB4
D11 D12 D13 D14 D15

D17
D18
DB2
P01
DB3
DB4
P02

P01
P02

Back

MB1   MB2   NB1
M02
M01
C13
C12
C11
C10
C09
C08
C07
C06
C05
C04
C03
C02
C01   CB1

B01
B02

Left

RZAR6800-2

830 system unit

Top

830 System Unit

System Unit Backplane   MB1

Power Supplies

PP2 and PP1

M01 M02

Processor Regulator Card

Memory Riser Card

Processor Card 1 **M04**

Processor Card 0 **M03**

M05 M06

Memory Riser Card

Network Interface Controller Card (NIC)

M06A

Clock Card

Power Supply PP2

Power Supply PP1

M01 M02

Processor Regulator Card

Memory Riser Card

Processor Cards **M03 and M04**

M05 M06

Memory Riser Card

Network Interface Controller Card (NIC)

M06A

Clock Card

System Unit Backplane   MB1

FC 9074 Base I/O Tower

AMD **BP1**

AMD **BP2**

AMD **B01**

AMD **B02**

C01 C02 C03 C04 C05 C06 C07 C08 C09 C10 C11 C12 C13 C14 C15

Tower Card — CB1

JTAGCE   Debug   Serial   SPCN

PB1

AC Input/ Charger **A01**

Power Supply **P01**

Power Supply **P02**

Power Supply **P03**

Battery **T01**

Battery **T02**

Battery **T03**

Battery **T04**

DB3

Tape	D42
Optical	D41
OP Panel	NB1

Disk Unit D46 | Disk Unit D47 | Disk Unit D48 | Disk Unit D49 | Disk Unit D50

Disk Unit D31 | Disk Unit D32 | Disk Unit D33 | Disk Unit D34 | Disk Unit D35

Disk Unit D36 | Disk Unit D37 | Disk Unit D38 | Disk Unit D39 | Disk Unit D40

Disk Unit D21 | Disk Unit D22 | Disk Unit D23 | Disk Unit D24 | Disk Unit D25

Disk Unit D26 | Disk Unit D27 | Disk Unit D28 | Disk Unit D29 | Disk Unit D30

Disk Unit D11 | Disk Unit D12 | Disk Unit D13 | Disk Unit D14 | Disk Unit D15

Disk Unit D16 | Disk Unit D17 | Disk Unit D18 | Disk Unit D19 | Disk Unit D20

Disk Unit D01 | Disk Unit D02 | Disk Unit D03 | Disk Unit D04 | Disk Unit D05

Disk Unit D06 | Disk Unit D07 | Disk Unit D08 | Disk Unit D09 | Disk Unit D10

DB1   **DB2**

Front   Back

RZAQ2504-9

Note: Disk unit plug sequence for optimum performance: D31, D36, D46, D32, D37, D47, ... D50, (add second adaptor), D01, D11, D21, D02, ... D25, (add third adaptor), D06, D16, D26, D07, ... D30.

840 system unit

DB3									

Front (left diagram)

Tape **D42**
Optical **D41**
OP Panel **NB1**

Disk Unit D46	Disk Unit D47	Disk Unit D48	Disk Unit D49	Disk Unit D50

Disk Unit D31	Disk Unit D32	Disk Unit D33	Disk Unit D34	Disk Unit D35	Disk Unit D36	Disk Unit D37	Disk Unit D38	Disk Unit D39	Disk Unit D40

Disk Unit D21	Disk Unit D22	Disk Unit D23	Disk Unit D24	Disk Unit D25	Disk Unit D26	Disk Unit D27	Disk Unit D28	Disk Unit D29	Disk Unit D30

Disk Unit D11	Disk Unit D12	Disk Unit D13	Disk Unit D14	Disk Unit D15	Disk Unit D16	Disk Unit D17	Disk Unit D18	Disk Unit D19	Disk Unit D20

Disk Unit D01	Disk Unit D02	Disk Unit D03	Disk Unit D04	Disk Unit D05	Disk Unit D06	Disk Unit D07	Disk Unit D08	Disk Unit D09	Disk Unit D10

DB1   **DB2**

Front

Back (right diagram)

AMD **B01**   AMD **B02**

C01 C02 C03 C04 C05 C06 C07 C08 C09 C10 C11 C12 C13 C14 C15

Tower Card

JTAGCE / JTAGA   CEC SPCN   Debug Serial   SPCN

PB1

AC Input/ Charger	Power Supply	Power Supply	Power Supply
A01	**P01**	**P02**	**P03**
Battery **T01**	Battery **T02**	Battery **T03**	Battery **T04**

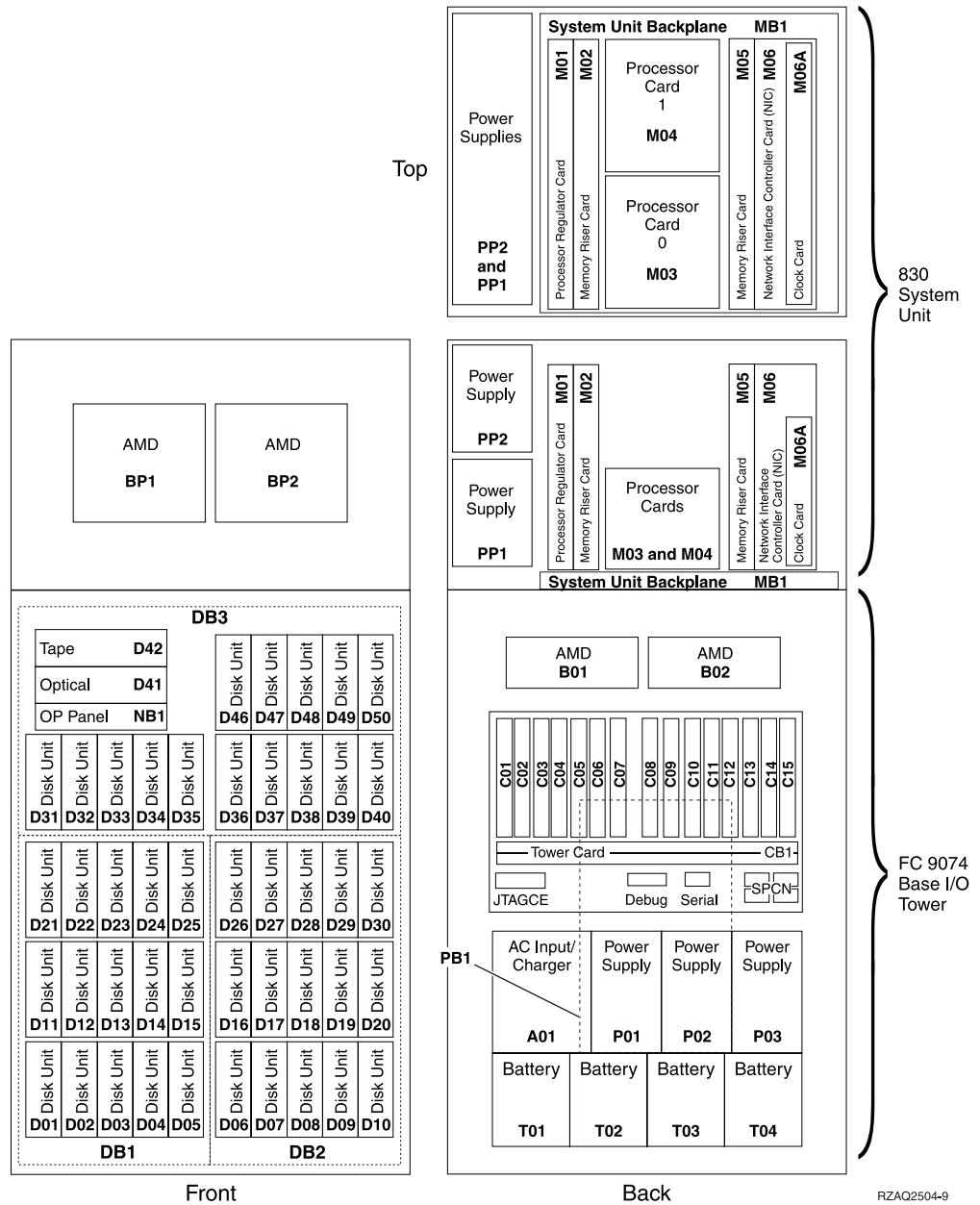**Back**   RZAQ2518-1
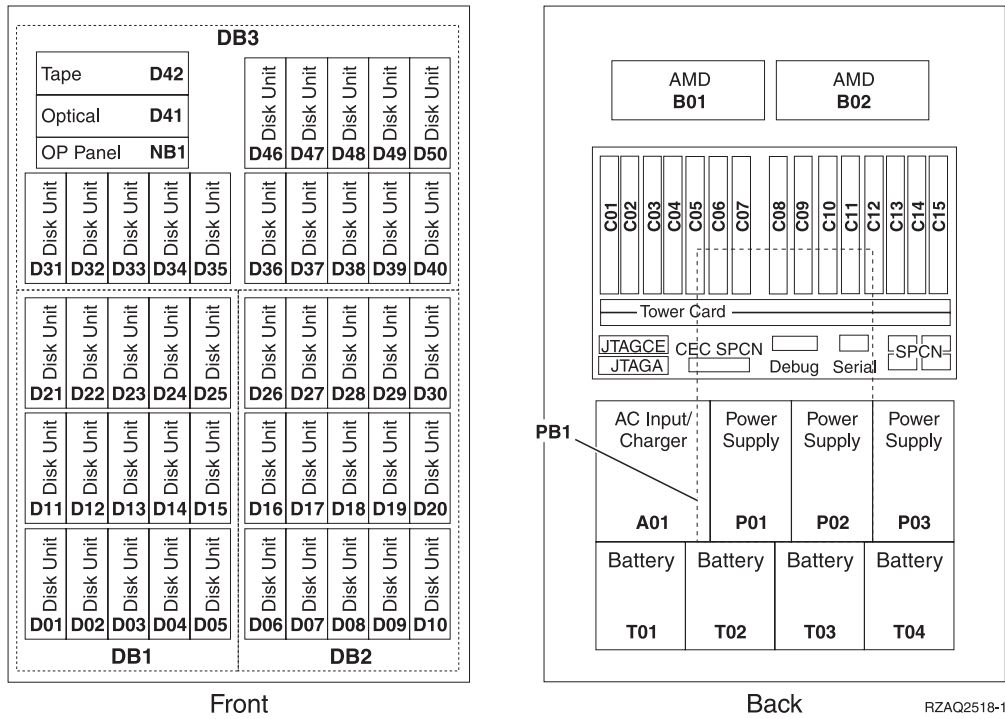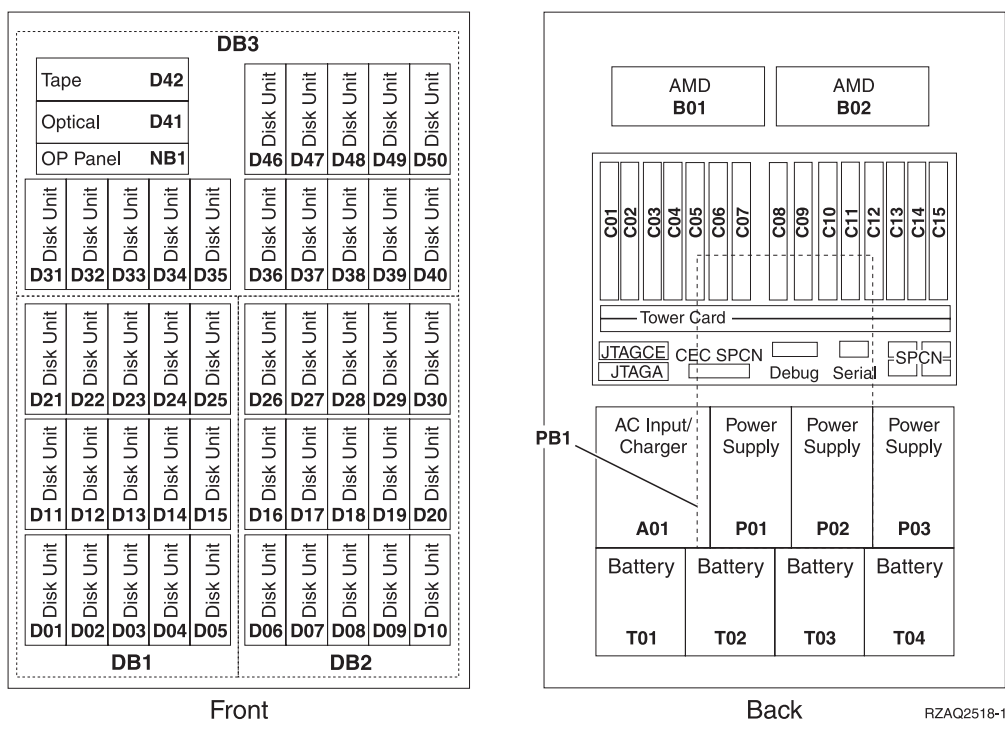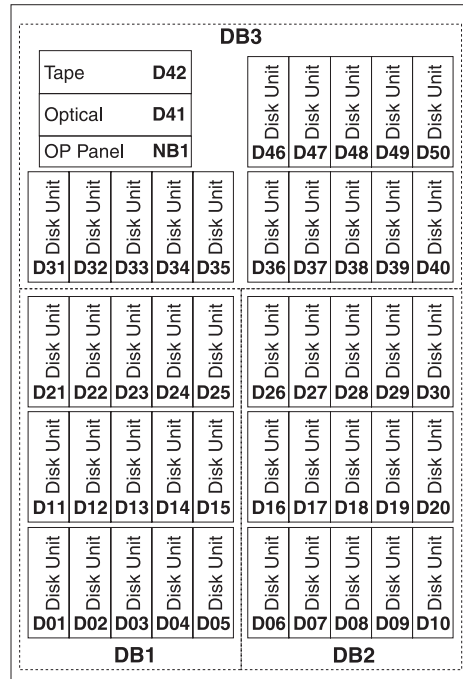
Note: Disk unit plug sequence for optimum performance: D31, D36, D46, D32, D37, D47, ... D50, (add second adaptor), D01, D11, D21, D02, ... D25, (add third adaptor), D06, D16, D26, D07, ... D30.
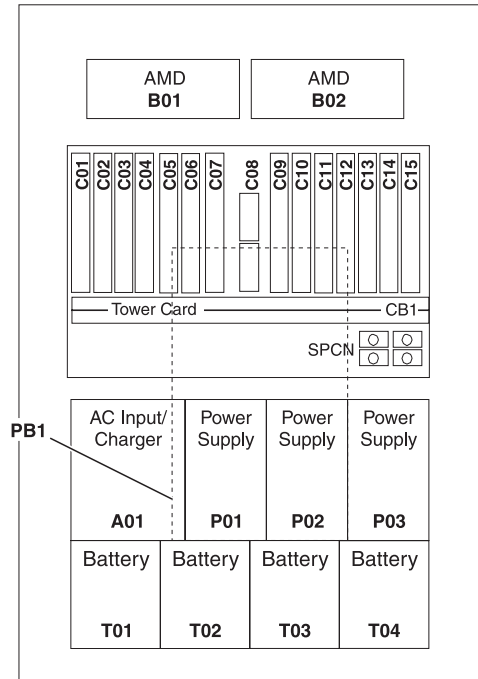
870 and 890 system unit

DB3									

Tape **D42**
Optical **D41**
OP Panel **NB1**

Disk Unit D46	Disk Unit D47	Disk Unit D48	Disk Unit D49	Disk Unit D50

Disk Unit D31	Disk Unit D32	Disk Unit D33	Disk Unit D34	Disk Unit D35	Disk Unit D36	Disk Unit D37	Disk Unit D38	Disk Unit D39	Disk Unit D40

Disk Unit D21	Disk Unit D22	Disk Unit D23	Disk Unit D24	Disk Unit D25	Disk Unit D26	Disk Unit D27	Disk Unit D28	Disk Unit D29	Disk Unit D30

Disk Unit D11	Disk Unit D12	Disk Unit D13	Disk Unit D14	Disk Unit D15	Disk Unit D16	Disk Unit D17	Disk Unit D18	Disk Unit D19	Disk Unit D20

Disk Unit D01	Disk Unit D02	Disk Unit D03	Disk Unit D04	Disk Unit D05	Disk Unit D06	Disk Unit D07	Disk Unit D08	Disk Unit D09	Disk Unit D10

DB1   **DB2**

Front

AMD **B01**   AMD **B02**

C01 C02 C03 C04 C05 C06 C07 C08 C09 C10 C11 C12 C13 C14 C15

Tower Card

JTAGCE / JTAGA   CEC SPCN   Debug Serial   SPCN

PB1

AC Input/ Charger	Power Supply	Power Supply	Power Supply
A01	**P01**	**P02**	**P03**
Battery **T01**	Battery **T02**	Battery **T03**	Battery **T04**

Back   RZAQ2518-1

Note: Disk unit plug sequence for optimum performance: D31, D36, D46, D32, D37, D47, ... D50, (add second adaptor), D01, D11, D21, D02, ... D25, (add third adaptor), D06, D16, D26, D07, ... D30.

5065, 5074, and 5094 expansion unit

```
                         DB3
  ┌──────────────────────────┐ ┌────────────────────┐
  Tape        D42    D46 D47 D48 D49 D50           AMD         AMD
                     Disk Units                     B01         B02
  Optical     D41
  OP Panel    NB1
  D31 D32 D33 D34 D35   D36 D37 D38 D39 D40      C01...C07  C08  C09...C15
                                                    Tower Card          CB1
  D21 D22 D23 D24 D25   D26 D27 D28 D29 D30                   SPCN
                                             PB1  AC Input/  Power  Power  Power
  D11 D12 D13 D14 D15   D16 D17 D18 D19 D20         Charger   Supply Supply Supply
                                                   A01        P01    P02    P03
  D01 D02 D03 D04 D05   D06 D07 D08 D09 D10       Battery  Battery Battery Battery
       DB1                    DB2                   T01      T02     T03     T04
        Front                                            Back        RZAQ2507-4
```

Select the optimal disk unit position

When you install disk units, you should evenly distribute the disk units on the disk controllers. Evenly distributing the disk units will optimize them for maximum performance.

Note for 5079 users: The 5079 consists of two independent expansion units: 5079–001 and 5079–002. Installation rules and procedures apply to each expansion unit independently.

Note for 5094 users: The 5094 consists of two independent expansion units: 5094–001 and 5094–002. Installation rules and procedures apply to each expansion unit independently.
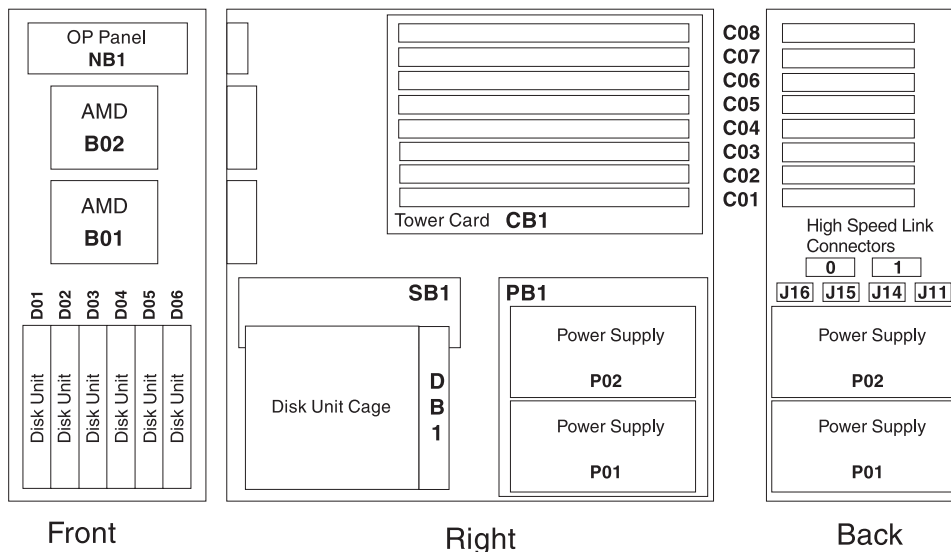
Note: If you are installing feature 4331 1.65 GB Read Cache, solid-state disk units, you can only install them in position one of your disk unit enclosures. You can install three of these features (if you have three disk unit controllers) in the expansion unit, for example, in positions D31, D01, and D06.

Refer to the label on the inside of the front cover and install the disk units in this order:

__ 1. First fill all the disk unit positions that are controlled by the first high-speed disk-unit controller.

     __ a. Fill the slot **1**'s: D31, D36, D46

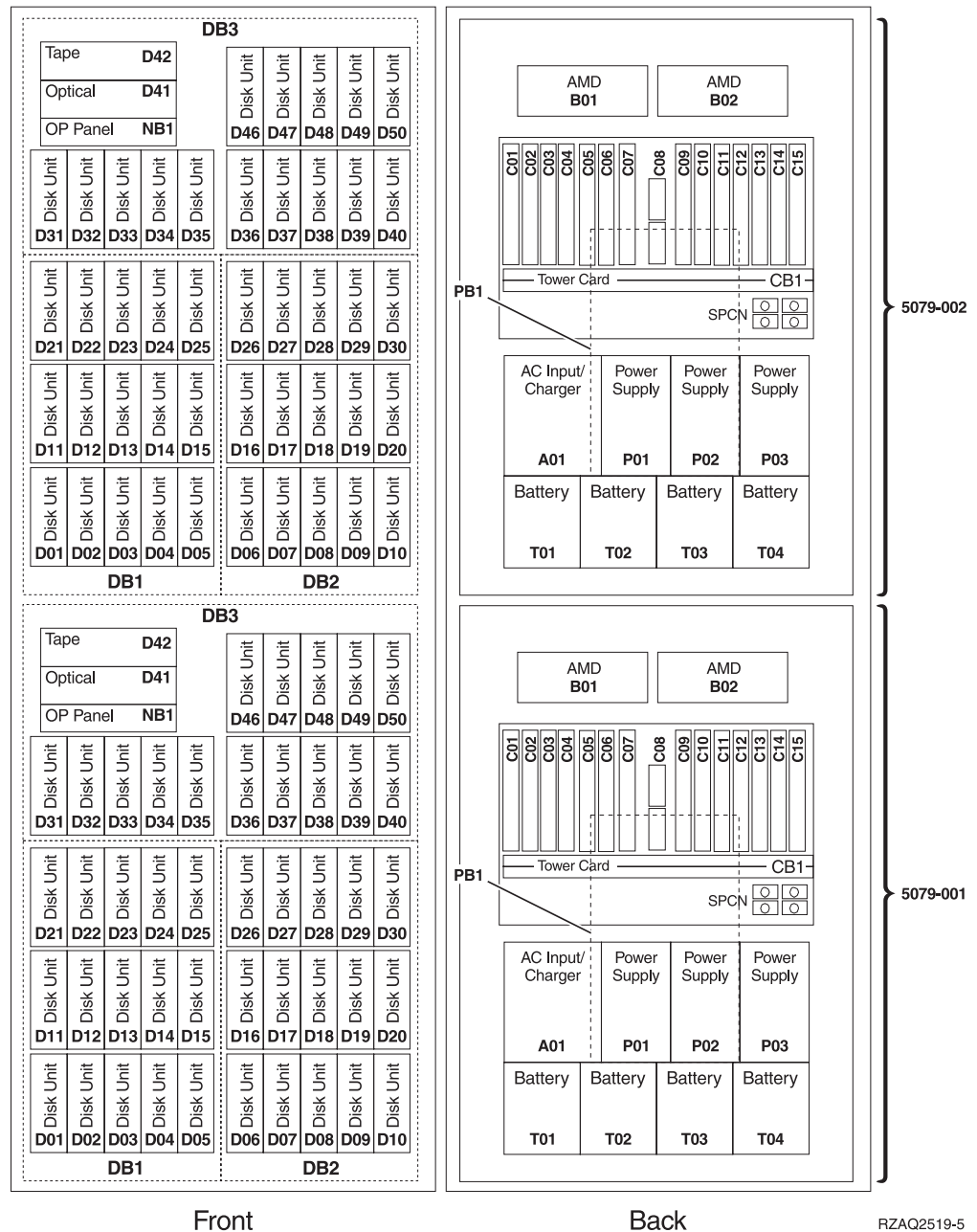   __ b. Fill the slot **2**'s D32, D37, D47

__ c. Fill the slot **3**'s: D33, D38, D48

        __ d. Fill the slot **4**'s: D34, D39, D49

        __ e. Fill the slot **5**'s: D35, D40, D50

__ 2. Your expansion unit requires a second high-speed disk-unit controller before you can install disk units into the following positions. Contact IBM or an authorized dealer if your expansion unit does not have a second high-speed disk-unit controller (IOA Card 2).

   Next fill the positions in (IOA Card 2) this sequence:

        __ a. Fill the slot **1**'s: D01, D11, D21

        __ b. Fill the slot **2**'s: D02, D12, D22

        __ c. Fill the slot **3**'s: D03, D13, D23

        __ d. Fill the slot **4**'s: D04, D14, D24

        __ e. Fill the slot **5**'s: D05, D15, D25

__ 3. Your expansion unit requires a third high-speed disk-unit controller before you can install disk units into the following positions. Contact IBM or an authorized dealer if your expansion unit does not have a third high-speed disk-unit controller (IOA Card 3).

   Last fill the positions in (IOA Card 3) this sequence:

        __ a. Fill the slot **1**'s: D06, D16, D26

        __ b. Fill the slot **2**'s: D07, D17, D27

        __ c. Fill the slot **3**'s: D08, D18, D28

        __ d. Fill the slot **4**'s: D09, D19, D29

        __ e. Fill the slot **5**'s: D10, D20, D30

5075 and 5095 expansion unit

RZAQ2500-4

5079 and 5294 expansion unit

DB3

Tape	D42
Optical	D41
OP Panel	NB1

Disk Unit D46 | Disk Unit D47 | Disk Unit D48 | Disk Unit D49 | Disk Unit D50

Disk Unit D31 | Disk Unit D32 | Disk Unit D33 | Disk Unit D34 | Disk Unit D35 — Disk Unit D36 | Disk Unit D37 | Disk Unit D38 | Disk Unit D39 | Disk Unit D40

Disk Unit D21 | Disk Unit D22 | Disk Unit D23 | Disk Unit D24 | Disk Unit D25 — Disk Unit D26 | Disk Unit D27 | Disk Unit D28 | Disk Unit D29 | Disk Unit D30

Disk Unit D11 | Disk Unit D12 | Disk Unit D13 | Disk Unit D14 | Disk Unit D15 — Disk Unit D16 | Disk Unit D17 | Disk Unit D18 | Disk Unit D19 | Disk Unit D20

Disk Unit D01 | Disk Unit D02 | Disk Unit D03 | Disk Unit D04 | Disk Unit D05 — Disk Unit D06 | Disk Unit D07 | Disk Unit D08 | Disk Unit D09 | Disk Unit D10

DB1   **DB2**

AMD B01   AMD B02

C01 C02 C03 C04 C05 C06 C07 C08 C09 C10 C11 C12 C13 C14 C15

PB1 — Tower Card — CB1

SPCN

AC Input/Charger A01 | Power Supply P01 | Power Supply P02 | Power Supply P03

Battery T01 | Battery T02 | Battery T03 | Battery T04

5079-002

DB3

Tape	D42
Optical	D41
OP Panel	NB1

Disk Unit D46 | Disk Unit D47 | Disk Unit D48 | Disk Unit D49 | Disk Unit D50

Disk Unit D31 | Disk Unit D32 | Disk Unit D33 | Disk Unit D34 | Disk Unit D35 — Disk Unit D36 | Disk Unit D37 | Disk Unit D38 | Disk Unit D39 | Disk Unit D40

Disk Unit D21 | Disk Unit D22 | Disk Unit D23 | Disk Unit D24 | Disk Unit D25 — Disk Unit D26 | Disk Unit D27 | Disk Unit D28 | Disk Unit D29 | Disk Unit D30

Disk Unit D11 | Disk Unit D12 | Disk Unit D13 | Disk Unit D14 | Disk Unit D15 — Disk Unit D16 | Disk Unit D17 | Disk Unit D18 | Disk Unit D19 | Disk Unit D20

Disk Unit D01 | Disk Unit D02 | Disk Unit D03 | Disk Unit D04 | Disk Unit D05 — Disk Unit D06 | Disk Unit D07 | Disk Unit D08 | Disk Unit D09 | Disk Unit D10

DB1   **DB2**

AMD B01   AMD B02

C01 C02 C03 C04 C05 C06 C07 C08 C09 C10 C11 C12 C13 C14 C15

PB1 — Tower Card — CB1

SPCN

AC Input/Charger A01 | Power Supply P01 | Power Supply P02 | Power Supply P03

Battery T01 | Battery T02 | Battery T03 | Battery T04

5079-001

Front   Back   RZAQ2519-5

Select the optimal disk unit position

When you install disk units, you should evenly distributing the disk units on the disk controllers. Evenly distributing the disk units will optimize them for maximum performance.

Note for 5079 users: The 5079 consists of two independent expansion units: 5079–001 and 5079–002. Installation rules and procedures apply to each expansion unit independently.

Note for 5294 users: The 5294 consists of two independent expansion units: 5294–001 and 5294–002. Installation rules and procedures apply to each expansion unit independently.

Note: If you are installing feature 4331 1.65 GB Read Cache, solid-state disk units, you can only install them in position one of your disk unit enclosures. You can install three of these features (if you have three disk unit controllers) in the expansion unit, for example, in positions D31, D01, and D06.

Refer to the label on the inside of the front cover and install the disk units in this order:

__ 1. First fill all the disk unit positions that are controlled by the first high-speed disk-unit controller.

    __ a. Fill the slot **1**′s: D31, D36, D46

    __ b. Fill the slot **2**′s D32, D37, D47

    __ c. Fill the slot **3**′s: D33, D38, D48

    __ d. Fill the slot **4**′s: D34, D39, D49

    __ e. Fill the slot **5**′s: D35, D40, D50

__ 2. Your expansion unit requires a second high-speed disk-unit controller before you can install disk units into the following positions. Contact IBM or an authorized dealer if your expansion unit does not have a second high-speed disk-unit controller (IOA Card 2).

Next fill the slots in (IOA Card 2) this sequence:

    __ a. Fill the slot **1**′s: D01, D11, D21

    __ b. Fill the slot **2**′s: D02, D12, D22

    __ c. Fill the slot **3**′s: D03, D13, D23

    __ d. Fill the slot **4**′s: D04, D14, D24

    __ e. Fill the slot **5**′s: D05, D15, D25

__ 3. Your expansion unit requires a third high-speed disk-unit controller before you can install disk units into the following positions. Contact IBM or an authorized dealer if your expansion unit does not have a third high-speed disk-unit controller (IOA Card 3).

Last fill the slots in (IOA Card 3) this sequence:

    __ a. Fill the slot **1**′s: D06, D16, D26

    __ b. Fill the slot **2**′s: D07, D17, D27

    __ c. Fill the slot **3**′s: D08, D18, D28

    __ d. Fill the slot **4**′s: D09, D19, D29

    __ e. Fill the slot **5**′s: D10, D20, D30

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 1 or Figure 2 on page 32. Refer to the control panel for your unit.
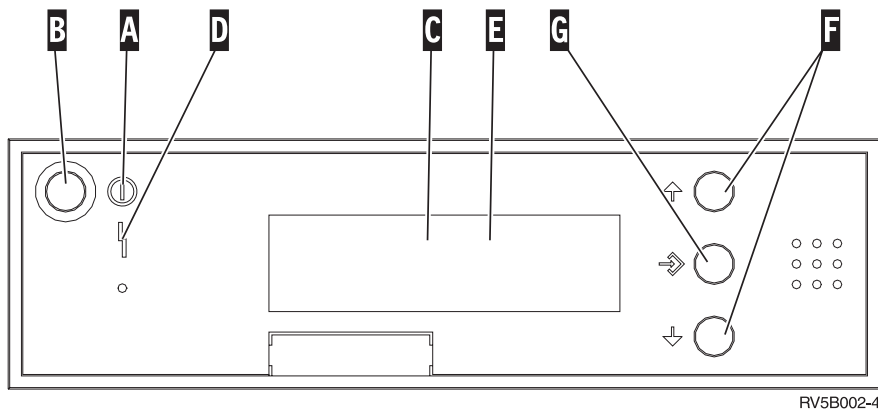
Figure 1. Control panel without Electronic Keystick

Following are the descriptions of the Figure 1 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 2 on page 32, 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.
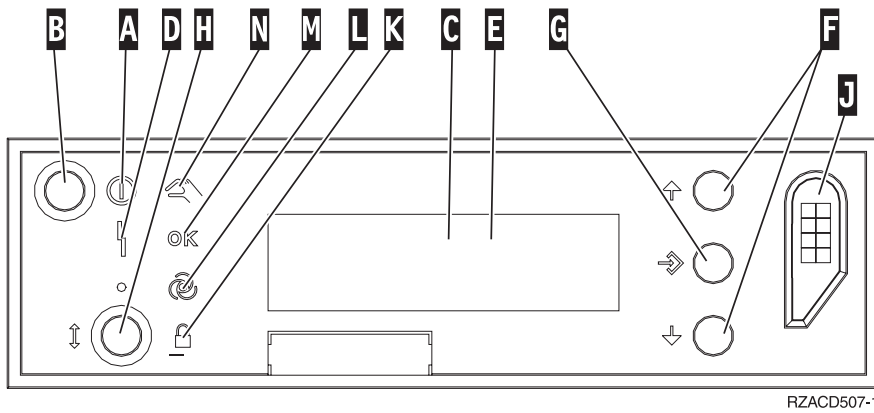
Figure 2. Control panel with Electronic Keystick

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

Install the 7104 expansion unit to the 270 server or 7116 expansion unit to the 810 server

__ 1. Determine the processor in your model 270 or 810 by doing the following:

To get to Manual mode (**01 B M S**):

 __ 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 **M** appears in the Function/Data display.

 __ f. Press the Enter push button on the control panel.

 __ g. Press the Increment/Decrement push button until **20** appears in the Function/Data display.

 __ h. Press the Enter push button on the control panel.

 __ i. The system processor feature number is the last 4 digits of the long number in the top of the control panel display. Write it down here _____.

 __ j. Press the Increment/Decrement push button until **02** appears in the Function/Data display.

 __ k. Press the Enter push button on the control panel.

 __ l. Press the Increment/Decrement push button until **B** appears in the Function/Data display.

 __ m. Press the Enter push button on the control panel.

 __ n. Press the Increment/Decrement push button until **N** appears in the Function/Data display.

 __ o. Press the Enter push button on the control panel.

 02 B N S should appear in the Function/Data display. If it does not, repeat steps 1a through 1o.

__ 2. Ensure that all jobs are complete.

__ 3. When all jobs are complete, type **pwrdwnsys *immed** on an iSeries command line and press Enter.

__ 4. When the unit is completely powered down, power off all PCs and devices, such as printers and displays, that are connected to the system unit.

__ 5. Unplug any power cords, such as printers and displays, from electrical outlets.

__ 6. Unplug the system unit and expansion unit power cords from the electrical outlets.

__ 7. Remove the front cover Refer to "270, 810, 820, or 5075 front cover" on page 17.

__ 8. Remove the back cover. Refer to "Remove the side and back cover" on page 53.

__ 9. Remove the right side cover (two thumbscrews).

__ 10. Remove the left side cover (two screws).

__ 11. Remove the top cover (two screws). Slide the top cover back and lift up.

__ 12. **Attach the disposable wrist strap to prevent electrostatic discharge from damaging a device.** ⬚ View video. Attach the adhesive part of the foil to an unpainted surface on the frame of the unit.

> **Notes:**
>
> a. 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.
>
> b. When you unroll the strap, remove the liner from the copper foil at the end.
>
> c. Attach the copper foil to an **exposed, unpainted** metal surface on the frame of the system unit (electrical ground).

__ 13. Did you receive a 2763, 4748, 4778 or 5705 IOA card?

> If **no**, go to step 24 on page 36.
>
> If **yes**, use the following table to determine where to install the IOA card.

Card received	Current position C01	Action needed
2763 or 2782	9767	Install 2763 or 2782 in position C02
	2763	Install new 2763 or 2782 in position C02
2748, 2757, 4778, or 5705	9767	Remove 9767 and install 2748, 2757, 4778 or 5705 in position C01
	2763	Remove 2763 and install 2748 2757, 4778 or 5705 in position C01

__ 14. Locate the adapter card positions inside your system unit.

__ 15. Does your unit have screws to secure the cards?

RV5B001-0
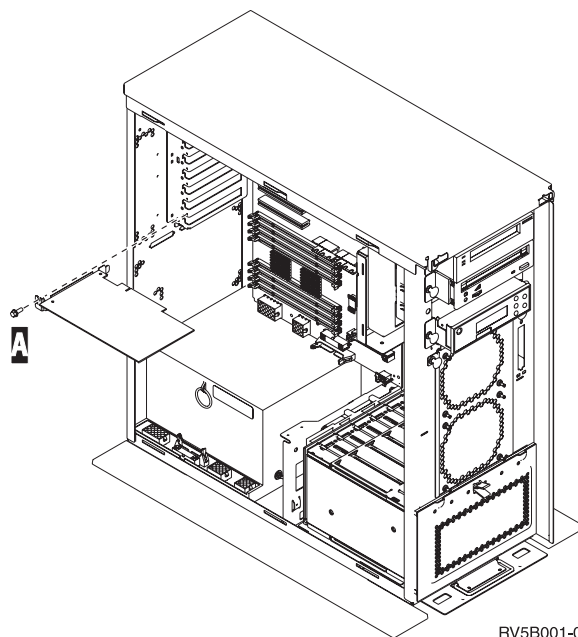
> __ **No**: Continue with the next step.
>
> __ **Yes**: Do the following:

___ a. Remove the screw from the card position where you plan to remove or install the card.

___ b. Go to step 17.

___ 16. Open the latch at the card position where you plan to remove or install the card. Move the latch counterclockwise and then swing the latch out.
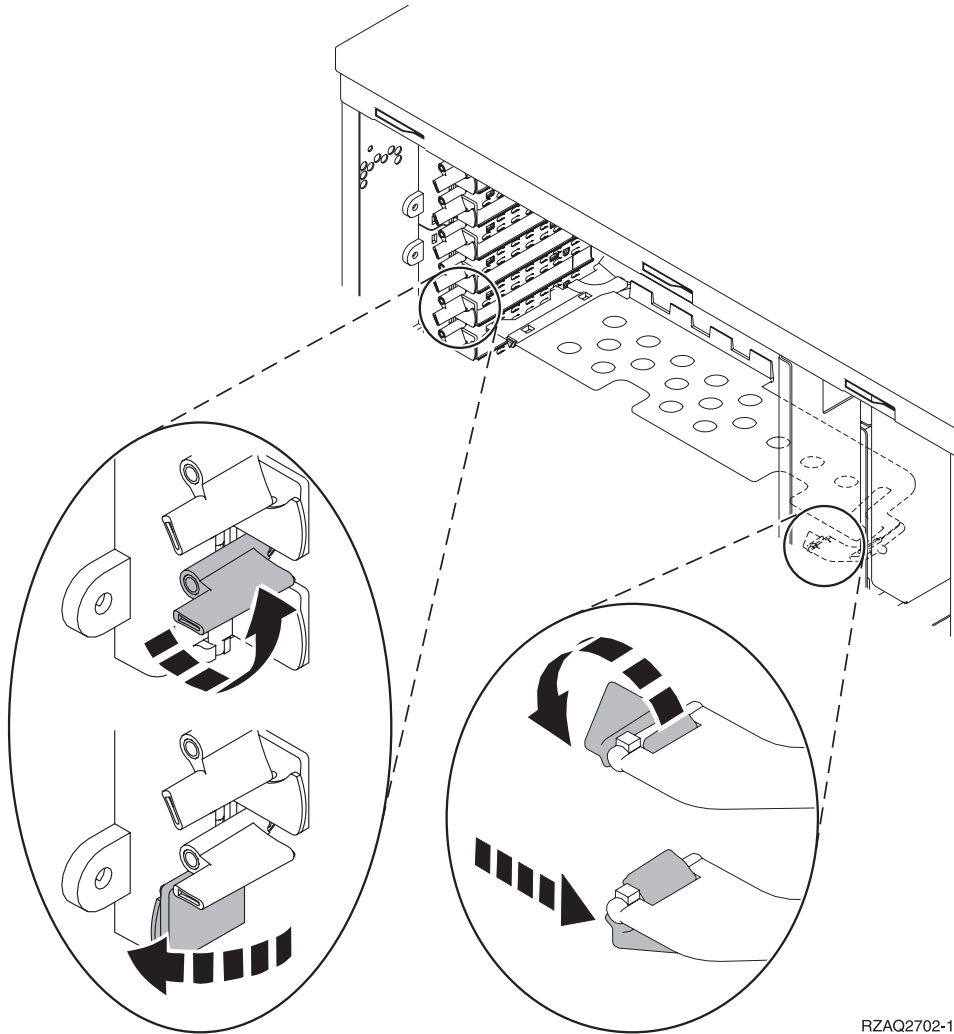
RZAQ2702-1

Figure 3. Example of Card Latch

___ 17. If removing a card, place it in a protective package.

___ 18. **Attention:** Adapter cards are fragile:

- Handle only by the edges
- Keep fingers off printed circuit area
- Use static strap when handling
- Leave in protective packaging until ready to install

___ 19. Locate the adapter card you want to install in this position.

___ 20. Align the adapter card with the card holders inside the system unit and push until it is connected securely.

___ 21. Swing the latch in and move the latch clockwise to secure the card.

___ 22. If you removed a card and need to determine the position to install it, refer to Install PCI Card in the *Information Center*.

__ 23. **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)**

Connect any cables and label the cables with the card position.

__ 24. Place the expansion unit and system unit side-by-side.

__ 25. Position the left side of the system expansion unit slightly ahead of the right side of the system unit.
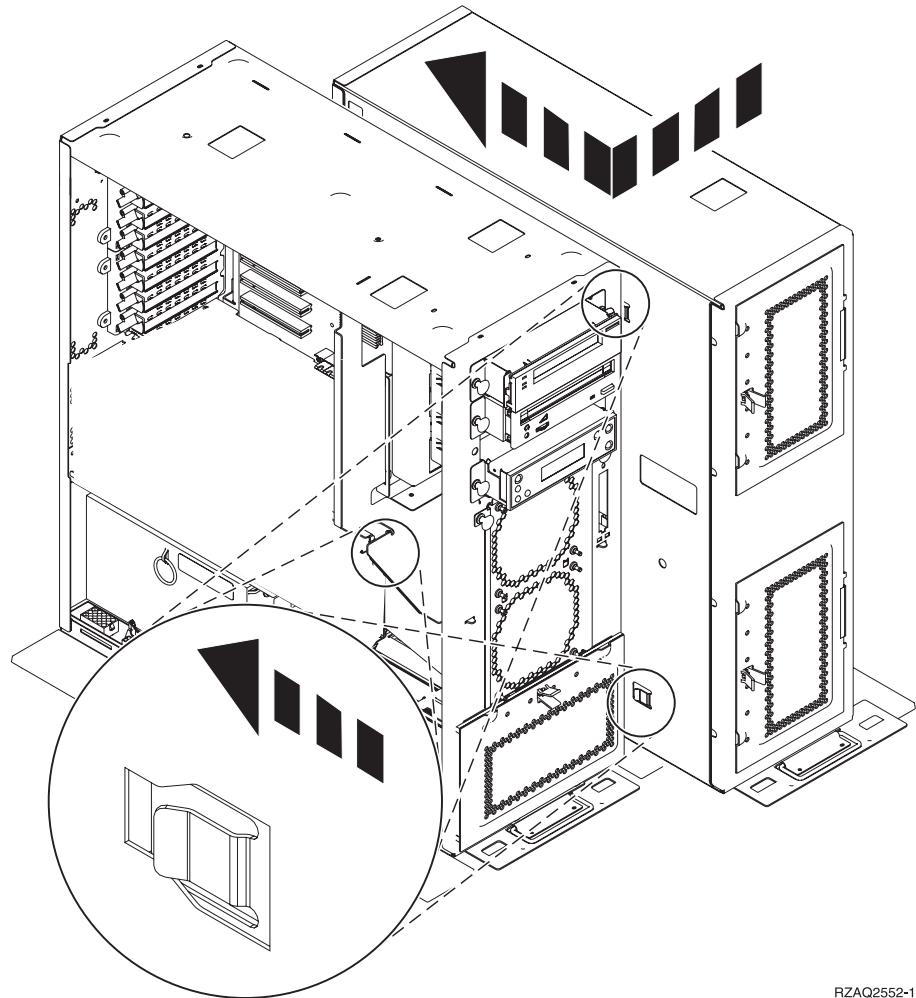
RZAQ2552-1

__ 26. The left side of the system expansion unit has connector hooks that must engage in the slots on the right side of the system unit frame.

__ 27. Slide the expansion unit back, engaging the connector hooks, until the units are aligned.

__ 28. Install the two thumbscrews **B** to secure the expansion unit to the system unit. Install the thumbscrews from the expansion unit side.

__ 29. Locate the data cable, part number 04N2273. Plug the end of the cable (opposite the white cable retainers) into the lower disk unit enclosure.

__ 30. Thread the cables, from the expansion unit, through the openings.

     A   Disk unit data cables (part number 04N2273)

     C   Air moving device cable (part number 04N5720)

D Power control cable (part number 04N5735)
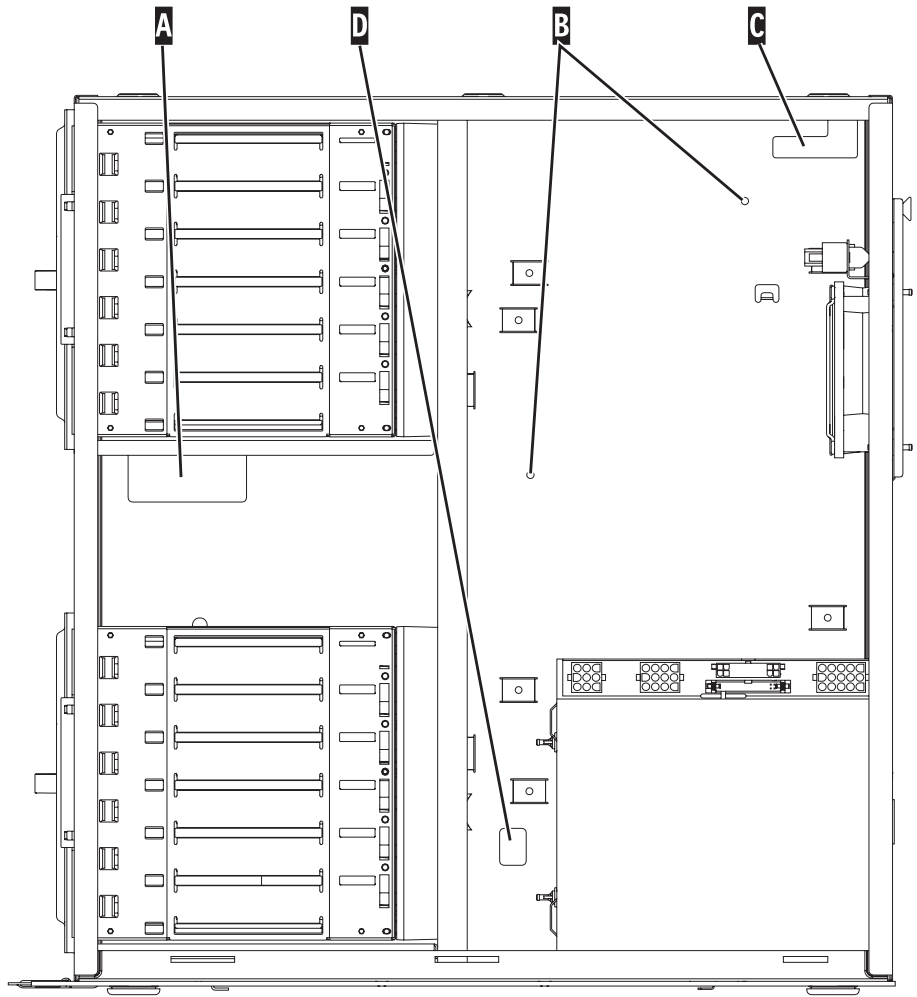
RZAQ2553-1

__ 31. Connect **A** disk unit data cables to the 2757, 2763, 2782, 2748, 4778, 5705 or 9767 cards in the system unit.
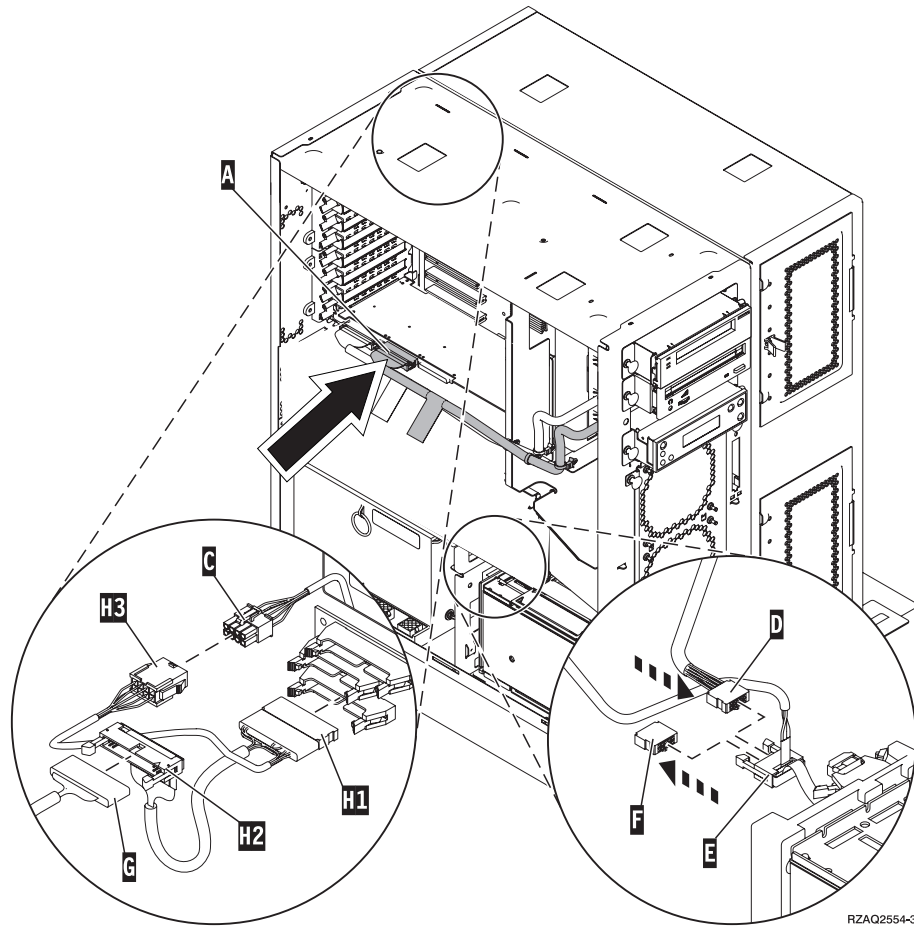
RZAQ2554-3

__ 32. Remove **G** DEBUG cable (part number P24L1883) from the system unit backplane.

__ 33. Plug in cable **H1** (part number P04N5595) that you received with the expansion unit, where you just removed the DEBUG cable from the backplane.

__ 34. Plug **G** into **H2** .

__ 35. Plug **C** (from expansion unit) into **H3** .

__ 36. Remove and discard the plug from **F** .

__ 37. Connect **D** (from expansion unit) and **E** .

__ 38. Is there a second disk unit enclosure installed in the upper position of the expansion unit?

    __ **No**: Continue with the next step.

    __ **Yes**: Do the following:

        __ a. Connect the additional disk unit data cable to the back of the disk unit enclosure.

__ b. Route the disk unit data cable through the opening **A** following the route of the existing data cable.

A
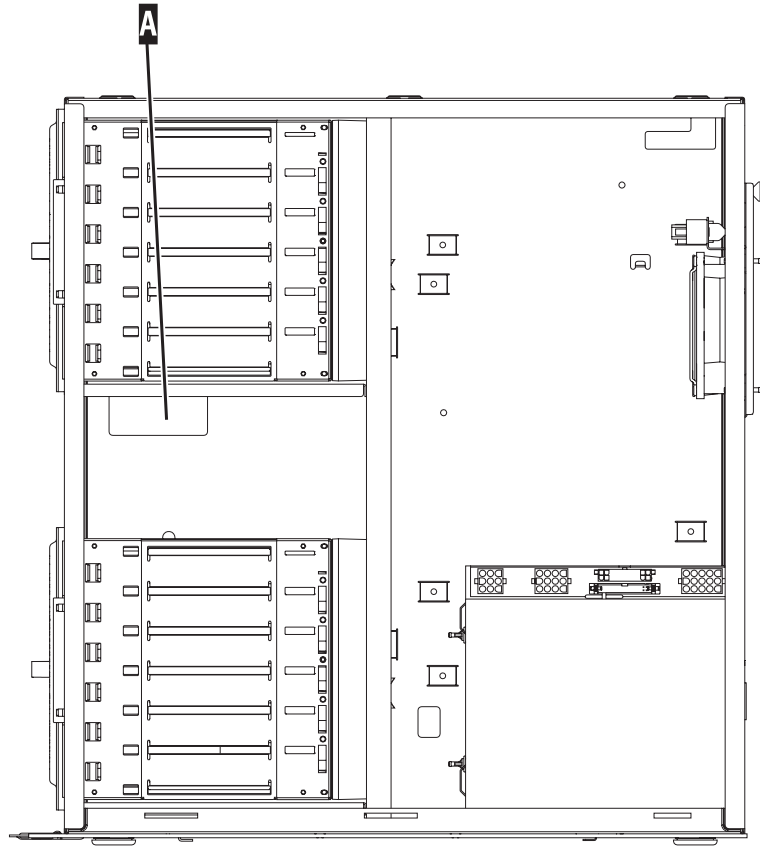
RZAQ2558-0

__ c. Connect the disk unit data cable to the next available port on the 2757, 2763, 2782, 2748, 4778, 5705 or 9767 cards.
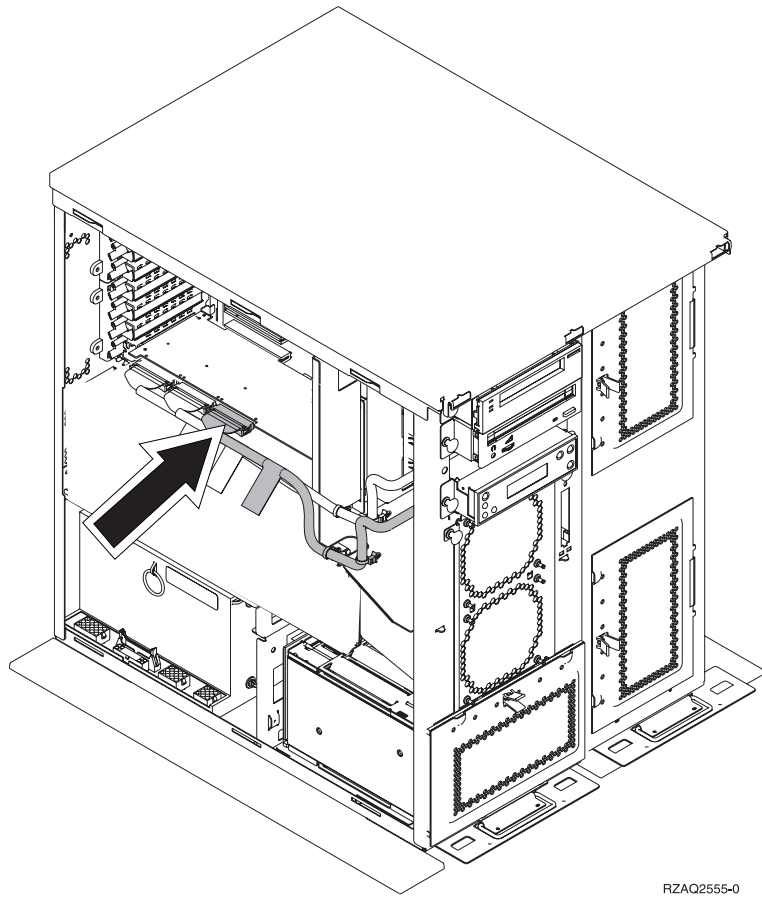
RZAQ2555-0

__ 39. Install the new top cover. Slide the cover from back to front (three screws on back).

__ 40. Install the right side cover (two thumbscrews).

__ 41. Install the left side cover that was on the system unit, on the left side of the expansion unit (two screws).

__ 42. Install the new front cover.

__ 43. Plug the power cord into the back of the 7104 or 7116 expansion unit.

__ 44. Install the new back cover if you have one.

__ 45. You may want to store the old covers from the 270 or 810 unit for possible use in the future, discard the old covers according to local regulations, or recycle them where facilities exist.

__ 46. Go to "Your system is powered off during installation" on page 8 to install disk units.

Install the 7123 or 7136 disk unit enclosure

The 7123 disk unit enclosure is installed on its side in the 270 system expansion unit. The 7136 disk unit enclosure is installed on its side in the 810 system expansion unit.

__ 1. Ensure that all jobs are complete.

__ 2. When all jobs are complete, type **pwrdwnsys *immed** on a command line and press Enter.

__ 3. When the unit 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 and expansion unit power cords from the electrical outlets.

__ 6. Remove the front cover. Refer to "270, 810, 820, or 5075 front cover" on page 17.

__ 7. Remove the back cover. Refer to "Remove the side and back cover" on page 53.

__ 8. Remove the right side cover (two thumbscrews).

__ 9. Remove the left side cover (two screws).

__ 10. **Attach the disposable wrist strap to prevent electrostatic discharge from damaging a device.** View video. Attach the adhesive part of the foil to an unpainted surface on the frame of the unit.

   Notes:

   a. Follow the same precautions you would use without the wrist strap. The 2209 Disposable Wrist Strap is for static control. It will not increase nor decrease your risk of receiving electric shock when using or working on electrical equipment.

   b. Remove the liner from the copper foil at the end when you unroll the strap.

   c. Attach the copper foil to an **exposed, unpainted** metal surface on the frame of the system unit (electrical ground).

__ 11. Remove the four screws securing the metal plate located above the existing disk unit enclosure. Keep the four screws. They will be used to secure the new disk unit enclosure.

__ 12. Find the package that contains the new disk unit enclosure and remove it from the static–protective package.

__ 13. Hold the disk unit enclosure so that disk unit position 6 is the top position.

__ 14. Slide the disk unit enclosure into the opening.

View **1**
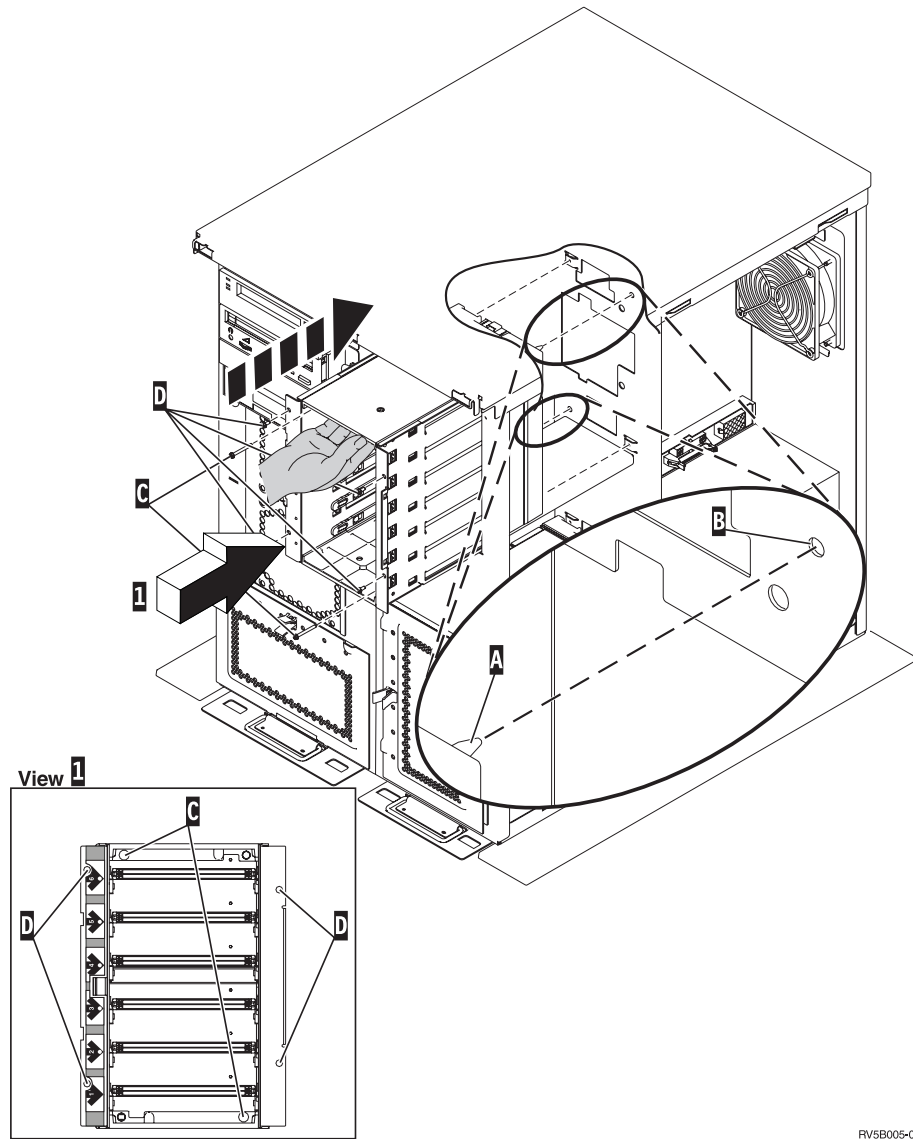
RV5B005-0

__ 15. Align the guide pin **A** on the disk unit enclosure with **B** in the expansion unit.

__ 16. Start installing, but do not tighten, the four screws **D** to secure the disk unit enclosure to the expansion unit.

__ 17. Install the two screws **C** inside the disk unit enclosure. Use the tool that was shipped with the disk unit enclosure to install these two screws shown in View **1**.

__ 18. Finish tightening the four screws **D**.

__ 19. Connect **A** power cables, **B** disk unit data cable (part number 04N2273), and **C** power control cable to the disk unit enclosure.
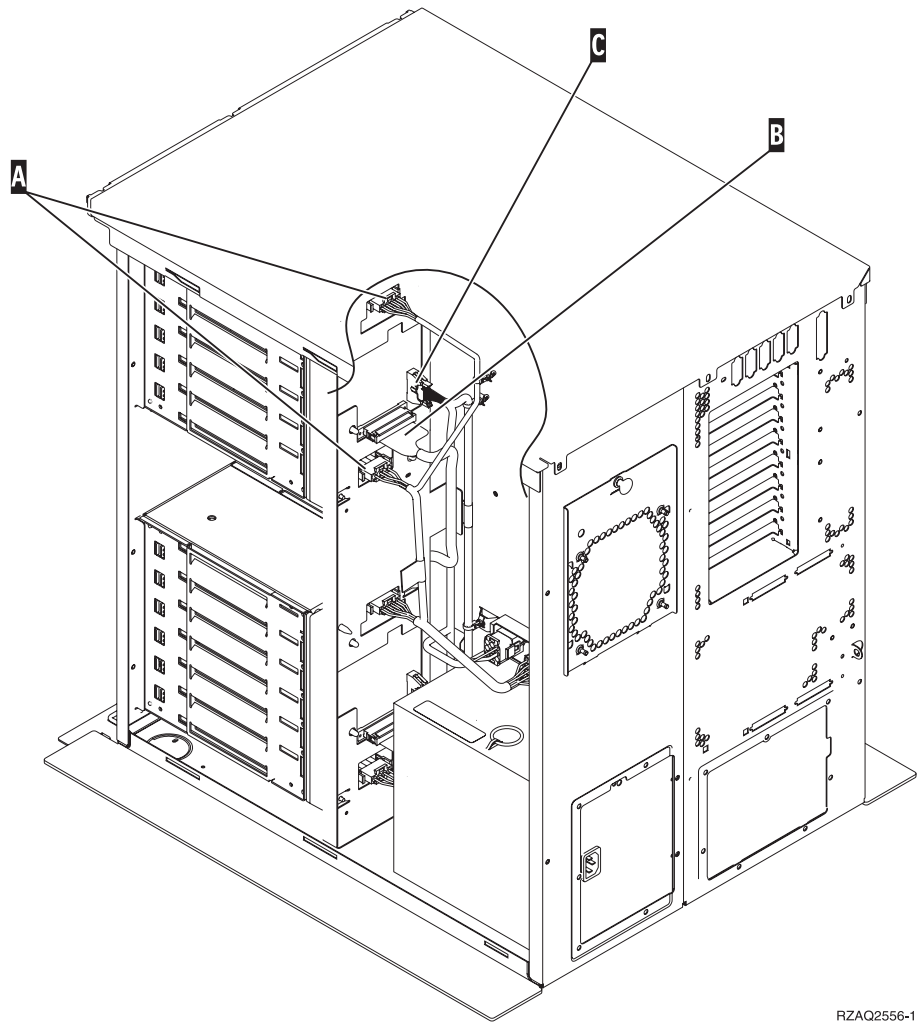
RZAQ2556-1

__ 20. Route the disk-unit-enclosure data cable through the opening **A** following the route of the existing data cable.
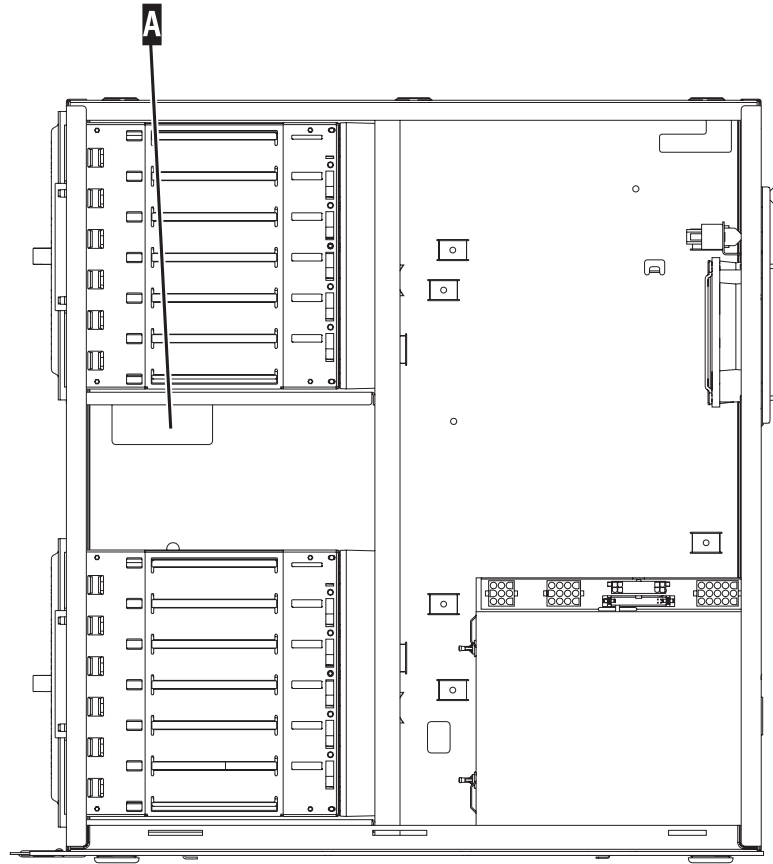
RZAQ2558-0

__ 21. Connect the disk-unit data cable to the next available port on the 2757, 2763, 2782, 2748, 4778, or 9767 cards.
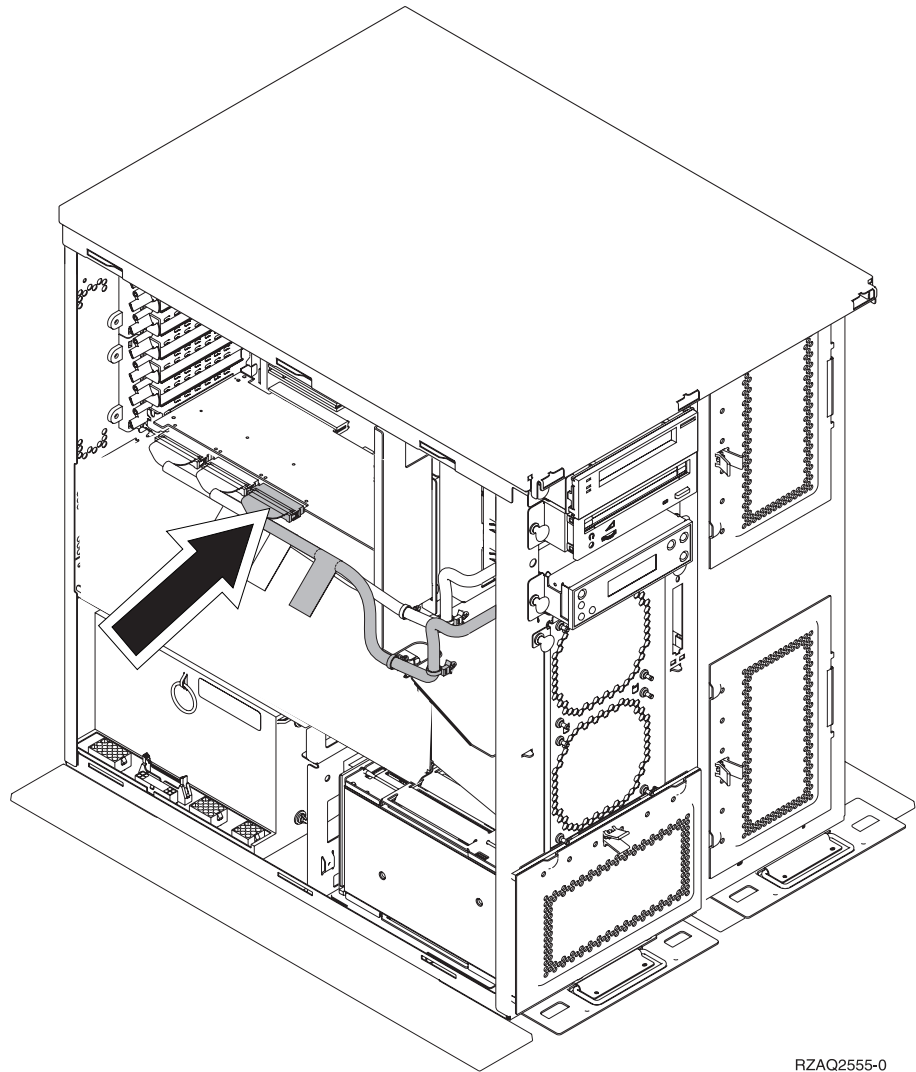
RZAQ2555-0

__ 22. Install the right side cover (two thumbscrews).

__ 23. Install the left side cover (two screws).

__ 24. Install the front cover.

__ 25. Install the back cover.

__ 26. Go to "Your system is powered off during installation" on page 8 to install disk units.

Install the 7124 or 7127 disk unit enclosure

The 7127 disk unit enclosure is installed in the upper position of the 820 system unit. The 7124 disk unit enclosure is installed in the upper two positions of the 825 system unit.

__ 1. Ensure that all jobs are complete.

__ 2. When all jobs are complete, type **pwrdwnsys *immed** on an iSeries command line and press Enter.

__ 3. When the iSeries 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 and expansion unit power cords from the electrical outlets.

__ 6. Remove or open the front cover. Refer to "Open or remove the front cover" on page 17.

__ 7. Remove the back cover if you have one. Refer to "Remove the side and back cover" on page 53.

__ 8. Remove the left side cover.

__ 9. Remove the right side cover.

__ 10. **Attach the disposable wrist strap to prevent electrostatic discharge from damaging a device.** View video. Attach the adhesive part of the foil to an unpainted surface on the frame of the unit.

    Notes:

    a. Follow the same precautions you would use without the wrist strap. The 2209 Disposable Wrist Strap is for static control. It will not increase nor decrease your risk of receiving electric shock when using or working on electrical equipment.

    b. Remove the liner from the copper foil at the end when you unroll the strap.

    c. Attach the copper foil to an **exposed, unpainted** metal surface on the frame of the system unit (electrical ground).

__ 11. Remove the four screws securing the metal plate located above the existing disk unit enclosure. Keep the four screws. They will be used to secure the disk unit enclosure.

__ 12. Find the package that contains the new disk unit enclosure and remove it from the static–protective package.

__ 13. Attach control cable (part number 24L1761) to location **A** , attach power cables (part number 04N2920) to locations **B** and **C** , and data cable (part number 04N2273) to connector **D** at the back of the disk unit
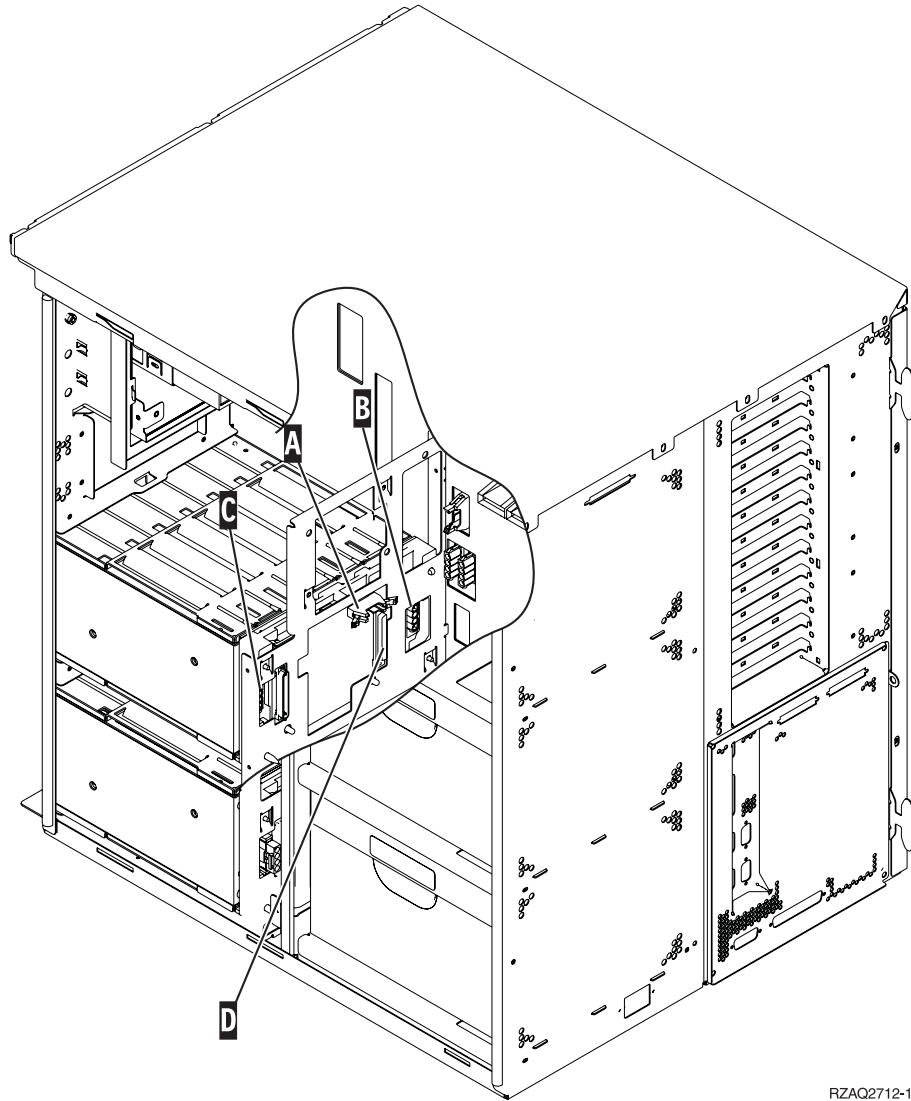
enclosure.

RZAQ2712-1

__ 14. Slide the disk unit enclosure into the opening that guides the cables through the frame openings.

View **1**

RZAQ2708-2
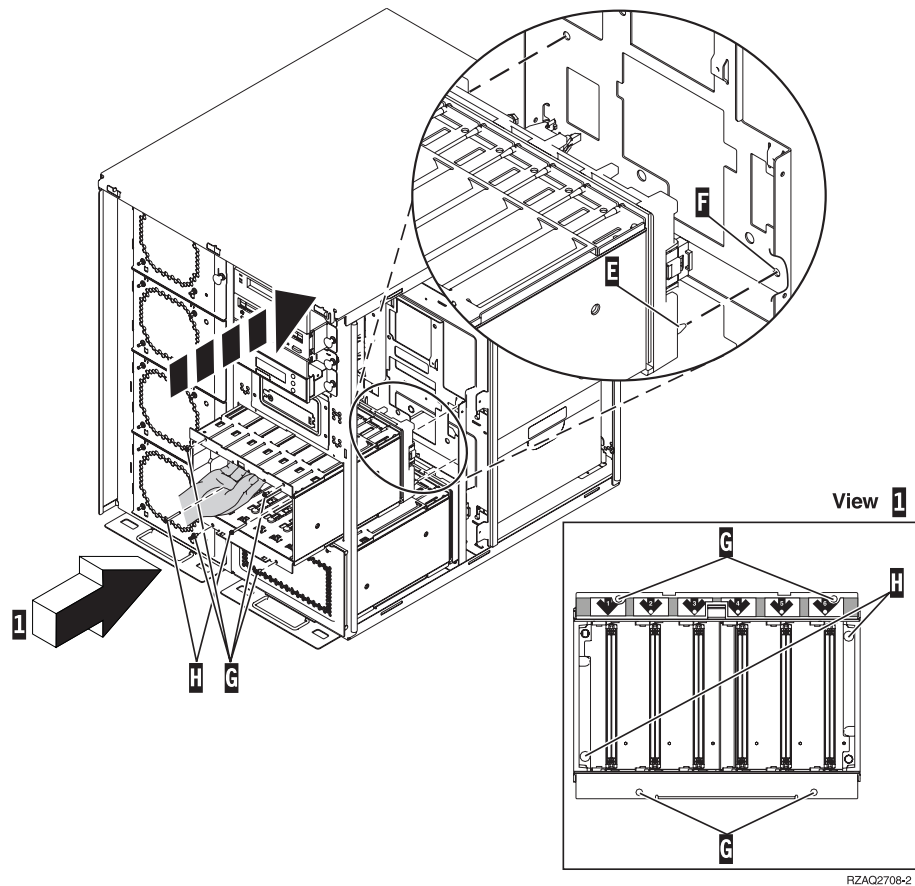
__ 15. Connect the cables to the system unit as show in Figure 4 on page 50. **A** to **A** , **B** to **B** , and **C** to **C** .

__ 16. Align the guide pin **E** on the disk unit enclosure with **F** in the system unit.

__ 17. Start installing but do not tighten the four screws **G** that secure the disk unit enclosure to the system unit.

__ 18. Install the two screws **H** . Use the tool that was shipped with the disk unit enclosure to install the two screws **H** shown in View **1** .
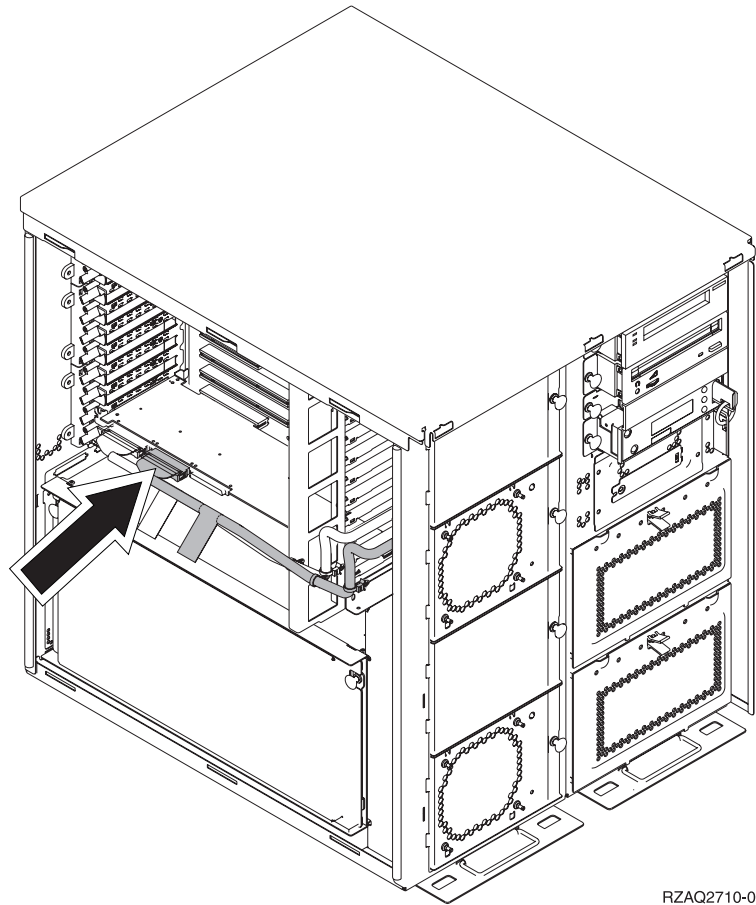
__ 19. Finish tightening the four screws **G** .
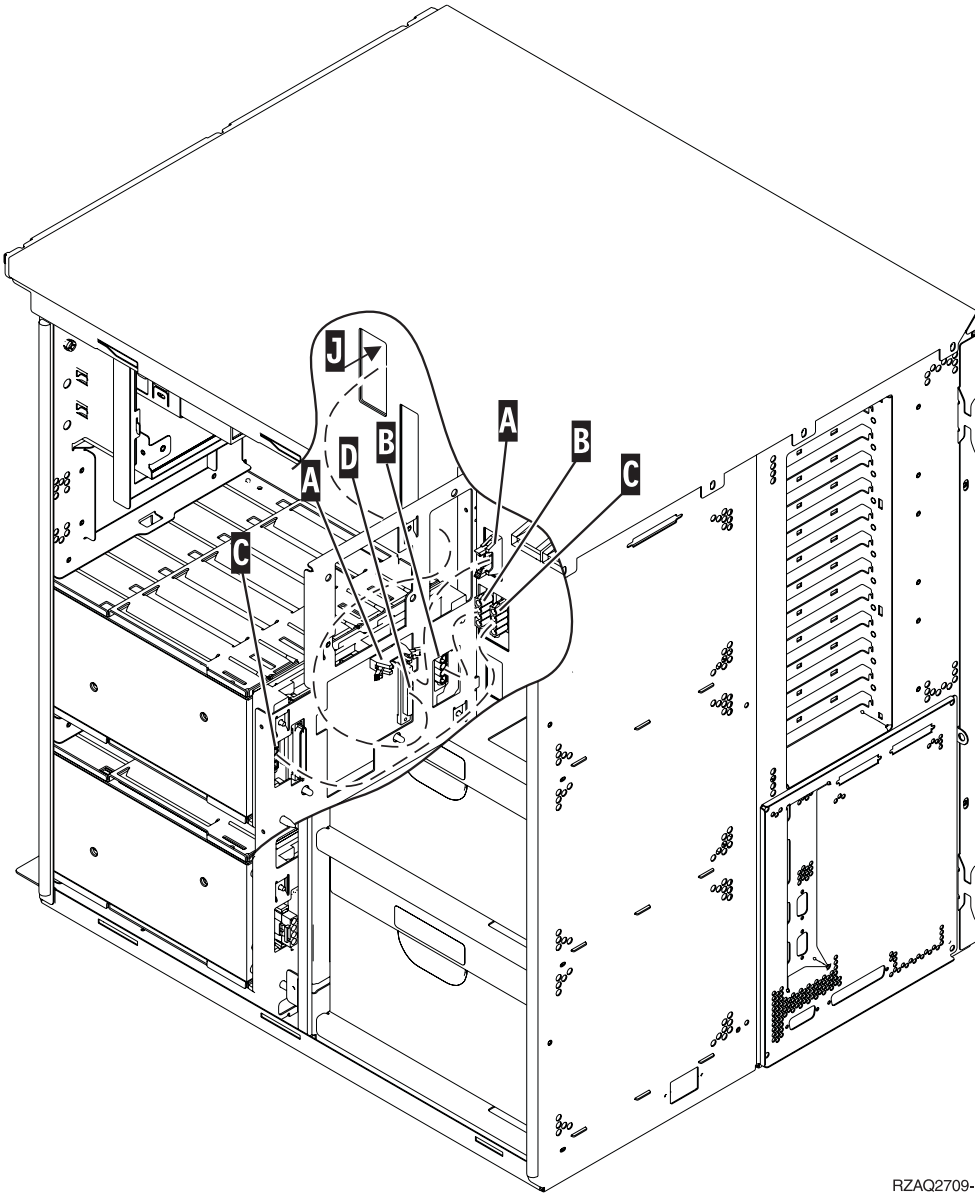
RZAQ2709-1

Figure 4. Connecting the cables to the system unit

__ 20. Route the disk unit data cable through the frame opening **J** following the route of the existing disk unit data cable.

__ 21. Connect the disk unit controller cable to the next available port on the
2748, 2757, 2763, 2782, 4778 or 5705 card.

RZAQ2710-0

__ 22. Go to "Install the power supply".

Install the power supply

__ 1. You will install the power supply into the next available area. Refer to
Figure 5 on page 52.

__ 2. Pull out on the button to remove the power supply filler plate.

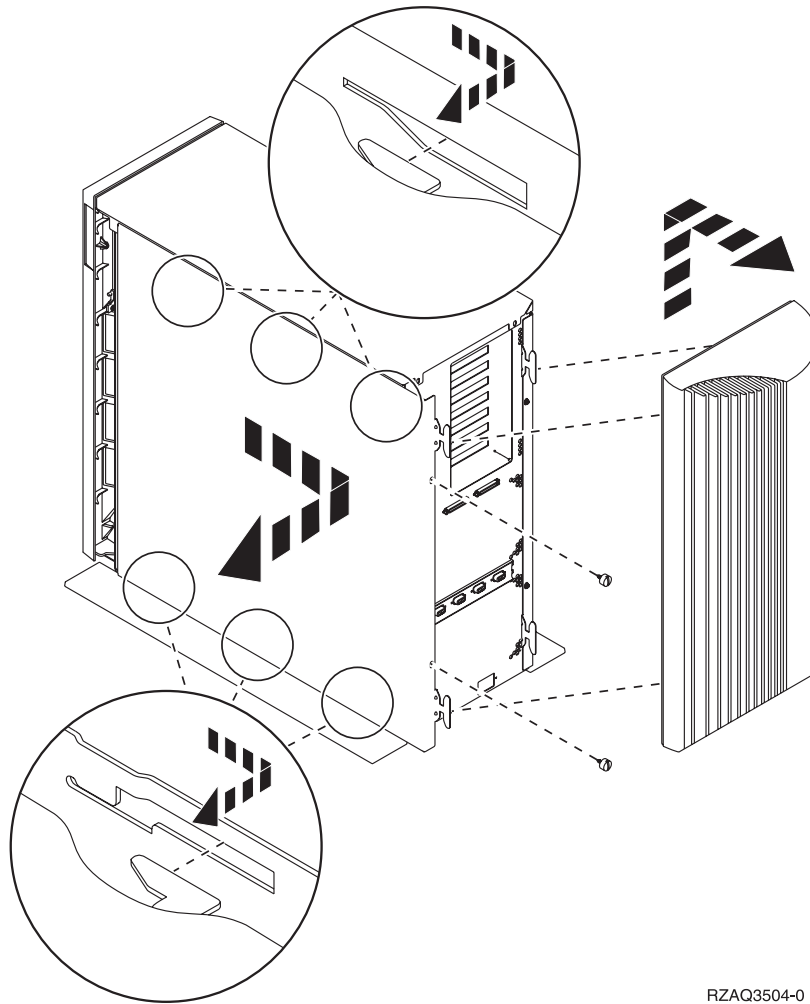__ 3. Pull the handle down on the power supply.
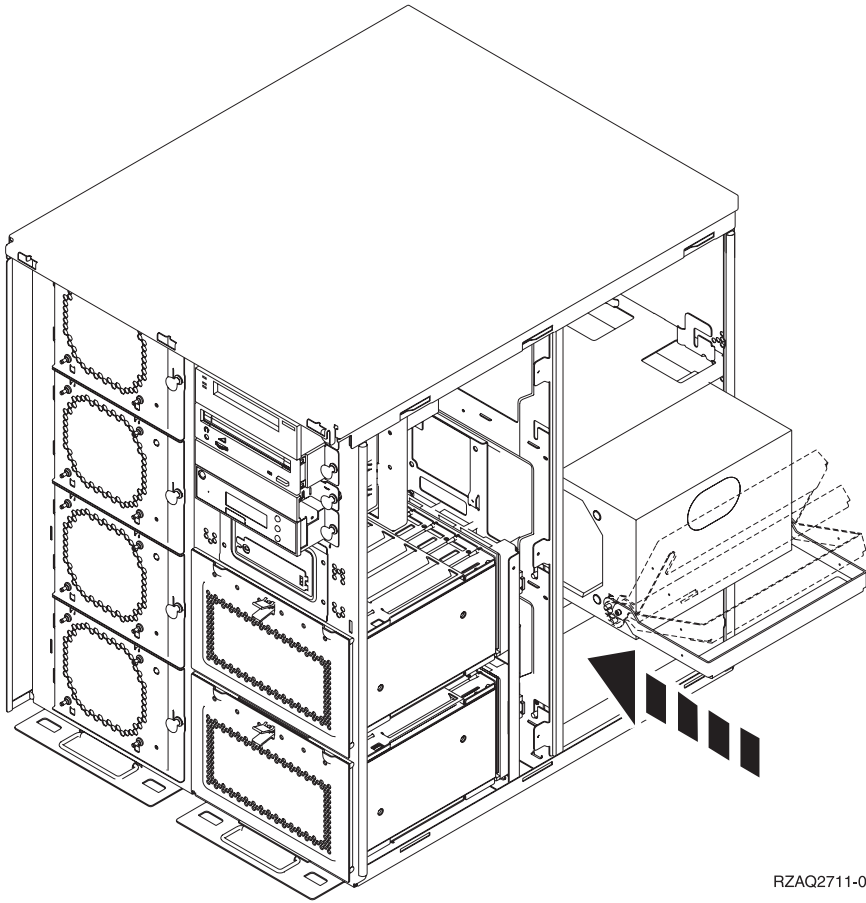
RZAQ2711-0

Figure 5. Installing the power supply

   __ 4. Slide the power supply into the system unit.

   __ 5. Move the handle up to lock in place.

   __ 6. Install the side covers.

   __ 7. Install the back cover.

   __ 8. To install disk units in your disk expansion unit, go to "Your system is powered off during installation" on page 8.

Remove the side and back cover

__ 1. Place your hand near the bottom of the back cover, if you have one, and lift up and out.

__ 2. Remove the right side cover by removing the thumbscrews and sliding the cover from front to back until it stops.

__ 3. Remove the left side cover by removing the screws.

__ 4. Pull the cover out.

View video of these steps.

RZAQ3504-0

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