Setting Up Your 5075 Expansion Unit

Version 4
Setting Up Your 5075 Expansion Unit

Version 4
Note
Before using this information and the product it supports, be sure to read the information in "Safety and Environmental Notices" on page v and "Notices" on page 3.
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Safety and Environmental Notices

Danger Notices

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

**DANGER**

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

**DANGER**

To prevent a possible electrical shock when installing the system, ensure that the power cords for all devices are unplugged before installing signal cables. (RSFTD202)

**DANGER**

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

**DANGER**

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

**DANGER**

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

Caution Notices

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

**CAUTION:**

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

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

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

Battery Return Program

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

Environmental Design

The environmental efforts that have gone into the design of the system signify IBM’s commitment to improve the quality of its products and processes. Some of these accomplishments include the elimination of the use of Class I ozone-depleting chemicals in the manufacturing process, reductions in manufacturing wastes, and increased product energy efficiency. For more information, contact an IBM account representative.
About Setting Up The 5075 Expansion Unit (SA41–5148)

This book contains information about setting up the 5075 Expansion Unit. You can install your 5075 Expansion Unit yourself. It will take approximately one to three hours to install the hardware.

You can choose not to install the expansion unit yourself. You can contact IBM or an Authorized Dealer to make arrangements for them to install it for a fee.

The following list is an overview for installing the 5075 Expansion Unit:
- Prepare for your 5075 Expansion Unit installation.
- Power down your system unit.
- Connect cables:
  - Connect cables to your 5075 Expansion Unit.
  - Connect to your AS/400e server 270 or 820, or;
  - Connect cables to another expansion unit.
- Power up your 270 or 820 and your 5075 Expansion Unit.
- Verify your new configuration.

Who should read this book

You should be familiar with the AS/400 system, display, and keyboards. You should also know how to power down the system and perform a system initial program load. You should also know how to power down system peripherals such as printers, monitors, and PCs.

Prerequisite and related information

Use the AS/400 Information Center as your starting point for looking up AS/400 technical information. You can access the Information Center from the AS/400e Information Center CD-ROM (English version: SK3T-2027) or from one of these Web sites:
http://www.as400.ibm.com/infocenter

The AS/400 Information Center contains advisors and important topics such as CL commands, system application programming interfaces (APIs), logical partitioning, clustering, Java, TCP/IP, Web serving, and secured networks. It also contains Internet links to Web sites such as the AS/400 Online Library, AS/400 redbooks, and the AS/400 Technical Studio.

How to send us your comments

Your feedback is important in helping to provide the most accurate and high-quality information. If you have any comments about this book or any other AS/400 documentation, fill out the readers’ comment form at the back of this book.
- If you prefer to send comments by mail, use the readers’ comment form with the address that is printed on the back. If you are mailing a reader’s comment form
from a country other than the United States, you can give the form to the local IBM branch office or IBM representative for postage-paid mailing.

- If you prefer to send comments by FAX, use either of the following numbers:
  - United States and Canada: 1-800-937-3430
  - Other countries: 1-507-253-5192

- If you prefer to send comments electronically, use one of these e-mail addresses:
  - Comments on books:
    RCHCLERK@us.ibm.com
    IBMMAIL, to IBMMAIL(usib56rz)
  - Comments on the AS/400 Information Center:
    RCHINFOC@us.ibm.com

Be sure to include the following:
- The name of the book.
- The publication number of the book.
- The page number or topic to which your comment applies.
Chapter 1. Preparing to set up your 5075 Expansion Unit

This chapter explains what you need to do before you set up your 5075 Expansion Unit. This includes the following tasks:

1. Unpack your 5075 (refer to the instructions for unpacking that came with your expansion unit).
2. Plan layouts for your cables.
3. Power down your system unit.
4. Install the 7002 cable (if needed).

Before you begin the installation process, carefully plan where you will install your new expansion unit. You should consider several factors that include size, security, and environmental factors. Before you set up your new expansion unit, refer to the AS/400 Site Preparation guide at the Technical Studio web site:

http://www.as400.ibm.com/tstudio

Hardware requirements

You can connect your 5075 directly to your system unit if it is an AS/400e server 270 or 820. If your system unit is an AS/400e server 820, you also may connect your 5075 to another expansion unit.

If you are connecting your 5075 directly to your system unit, you need to have these prerequisites:

- An unused system power control network (SPCN) connector.
- An unused high speed link (HSL) connector.

If you are connecting your 5075 to another expansion unit, your 820 can have a maximum of five expansion units in a loop.

Planning your cable layout

When you decide where to place your cables, do the following:

- Refer to the AS/400 Site Preparation guide or web site.
- Follow your site plan.
- Avoid creating a safety hazard.
- Avoid damaging the cable.
- Avoid placing cables parallel to high-voltage lines.

Identifying HSL and SPCN Cables

Use the following tables to identify your High Speed link (HSL) and System Power Control Network cables. Your system uses HSL cables to communicate with your 5075. SPCN cables are used to control power to your 5075.

Depending on your requirements, you might not have every HSL or SPCN cable listed below.
Table 1. HSL Cables

<table>
<thead>
<tr>
<th>CCIN number</th>
<th>Length</th>
<th>Part Number</th>
</tr>
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<tbody>
<tr>
<td>0343</td>
<td>3 Meters</td>
<td>44L0005</td>
</tr>
<tr>
<td>0361</td>
<td>6 Meters</td>
<td>97H7490</td>
</tr>
<tr>
<td>0368</td>
<td>15 Meters</td>
<td>97H7491</td>
</tr>
</tbody>
</table>

Table 2. SPCN Cables

<table>
<thead>
<tr>
<th>CCIN number</th>
<th>Length</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>9206</td>
<td>2 Meters</td>
<td>87G6235</td>
</tr>
<tr>
<td>9219</td>
<td>6 Meters</td>
<td>21F9469</td>
</tr>
<tr>
<td>9213</td>
<td>15 Meters</td>
<td>21F9358</td>
</tr>
<tr>
<td>9214</td>
<td>30 Meters</td>
<td>21F9359</td>
</tr>
</tbody>
</table>

Using a redundant link

*A redundant link* is a secondary HSL connection that your system can use if the primary link experiences a failure. You can create a redundant link configuration by connecting an extra HSL cable link between the expansion units and the system unit.

To ensure continued access to your disk units in the event of a link failure, use a redundant link configuration when you plan your cable layout.

Connecting your 5075 directly to an AS/400 system-unit

*Figure 1* shows an example cable plan that uses a redundant link configuration.

![Figure 1](image)

*Figure 1. Planning for redundant link with one expansion unit*

Connecting your 5075 in a loop

*Figure 2 on page 3* shows an example cable plan that uses a redundant link configuration.
Powering down your system unit

You must power down your system unit before you install your 5075.

1. If you have logical partitions on your system unit, refer to the AS/400 Information Center to find instructions on powering down a system with partitions.

2. Ensure that all jobs are complete.

3. When all jobs are complete, type `pwrdwnsys *immed` on an AS/400 command line and press the Enter key.

4. After your system unit has completely powered down, power off all PCs and devices, such as printers and display stations, that are connected to it.

5. Unplug any power cords, such as for printers, expansion units, and display stations, that are connected to your system unit.

6. Unplug the power cord for your system unit from the electrical outlet.

7. Did you receive a 7002 internal flex cable with your 5075?
   
   Yes       No

   - Go to "Installing your 5075 directly to your system unit" on page 7 or "Connecting your 5075 to another expansion unit" on page 9.

8. Go to "Installing the 7002 cable".

Installing the 7002 cable

If your 5075 came with the 7002 internal flex cable, you need to install it into your AS/400 270 before you can set up your 5075. To install the 7002 cable follow these steps:

1. Remove the right side cover (view from back):
   
   a. Loosen the screws.
   
   b. Slide the cover from front to back until it stops.
   
   c. Pull the cover out.
Your system unit contains a battery that only trained personnel can replace.

**CAUTION:**
The battery is a lithium battery. Only trained service personnel may replace this battery using the instructions in the Problem Analysis, Repair, and Parts service manual. To avoid possible explosion, do not burn or charge the battery. Exchange only with the IBM-approved part. Discard the battery as instructed by local regulations. (RSFTC241)

2. Attach the disposable wrist strap to prevent electrostatic discharge from damaging a device. [Figure 4 on page 3] shows an example of where to attach the adhesive part of the foil on the wrist strap to an unpainted surface.
__3. Remove the tape covering the HSL cable ports at E (Figure 3 on page 6).__
__4. Place gasket D over connectors C. __
__5. Install connector C in HSL cable port at E. __
__6. Install retaining screws into connector B. __
__7. Plug connector B into backplane at A. __
8. Remove the wrist strap.
9. Figure 6 on page 7 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.
Chapter 2. Installing your 5075 directly to your system unit

This chapter describes how to install your 5075 directly to your AS/400 system unit. If you are installing a 5075 in a loop with other expansion units, skip this chapter and go to “Chapter 3. Connecting your 5075 to another expansion unit” on page 9.

Make sure that you have powered down your system unit before you begin. See “Powering down your system unit” on page 3 for instructions.

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

1. Remove the back covers from your system unit and your 5075. Go to "Appendix A. Removing the covers" on page 13 if you need instructions.
2. Connect an HSL cable to the HSL connector 0 on your 5075. Go to "Appendix B. Connector Locations" on page 23 for connector locations.
3. If you are installing a redundant link, connect an HSL cable to HSL connector 1 on your 5075.
4. Connect an SPCN cable to connector J15 on your 5075.
5. Install the power cable to your 5075. Do not plug it into the electrical outlet.
6. Connect the HSL cable from connector 0 on your expansion unit to connector A0 on your system unit.
7. If you are installing a redundant link, install the cable from connector 1 on your expansion unit to connector A1 on your system unit.
8. Connect the SPCN cable from connector J15 on your expansion unit to connector J15 on your system unit.
9. Install the back cover to your system unit and expansion unit.
10. Go to "Chapter 4. Completing your installation" on page 13
Chapter 3. Connecting your 5075 to another expansion unit

This section only applies to the AS/400e server 820. If your system unit is an AS/400e server 270, you can connect only one 5075. If your system unit is an AS/400e server 820, you can connect up to five expansion units in one loop. This section describes how to connect your 5075 expansion unit in a loop with other expansion units. You can only connect your 5075 with other expansion units that have HSL hardware.

When you connect your 5075 to a loop, there are three possible locations in the loop that it can go. The procedures below contain instructions for the three possible locations:

- “Connecting your 5075 to the beginning of a loop”
- “Connecting your 5075 to the middle of a loop” on page 11
- “Connecting your 5075 to the end of a loop” on page 13

Follow the procedure that best matches your system configuration.

Make sure that you have powered down your system unit before you begin. See “Powering down your system unit” on page 3 for instructions.

See “Appendix B. Connector Locations” on page 23 if you need help finding the connectors on your expansion units or system unit.

If your 820 has a 503x Migration Unit connected to it, read “Appendix D. Cabling rules for systems with a 503x Migration Unit” on page 29 before you proceed.

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

Connecting to a 503x migration unit

If your system unit has a 503x Migration Unit read “Appendix D. Cabling rules for systems with a 503x Migration Unit” on page 29 before you proceed.

Connecting your 5075 to the beginning of a loop

Use this procedure to connect your 5075 in the first position in a loop of expansion units. In this procedure you will connect your 5075 between your system unit and the expansion unit which is currently in the first position. These instructions refer to the expansion unit which is currently in the first position as unit X as is shown in Figure 7 on page 10 and Figure 8 on page 10.
1. Remove the back covers from your expansion units and system unit. Go to "Appendix A. Removing the covers" on page 19 if you need instructions.

2. Connect the cables to the 5075. Go to "Appendix B. Connector Locations" on page 23 for connector locations.
   a. Connect a new HSL cable to the HSL connector 1.
   b. Connect a new SPCN cable to connector J16.
   c. Connect the power cable. Do not plug into the electrical outlet.

3. At unit X, remove the HSL cable from HSL connector 0. This cable runs between unit X and your system unit.

4. At unit X, remove the SPCN cable from connector J15. This cable runs between Unit X and your system unit.

5. Connect the HSL cable from your system unit to the HSL connector 0 on your 5075. This cable should now run between your system unit and your 5075.

6. Connect the SPCN cable from your system unit to the SPCN connector J15 on your 5075. This cable should now run between your system unit and your 5075.

7. Connect the HSL cable from your 5075 HSL connector 1 to HSL connector 0 on unit X. This cable should now run between your 5075 and Unit X.

8. Connect the SPCN cable from your 5075 connector J16 to connector J15 on unit X. This cable should now run between your 5075 and Unit X.

9. Install the covers on all of your expansion units and your system unit.
Connecting your 5075 to the middle of a loop

Use this procedure if you are installing your 5075 in the middle of a loop. In other words, you are installing your 5075 between two other expansion units. Refer to these expansion units as unit X and unit Y as is shown in Figure 9 and Figure 10.

1. Remove the back covers from your other expansion units, 5075, and system unit. Go to "Appendix A. Removing the covers" on page 19 if you need instructions.
2. At unit Y remove the SPCN cable from connector J15.
3. At unit Y remove the HSL cable from connector 0.
4. Connect the cables to your 5075. Go to "Appendix B. Connector Locations" on page 23 for connector locations.
   a. Connect a new HSL cable to the HSL connector 1.
   b. Connect a new SPCN cable to connector J16.
   c. Connect the power cable. Do not plug into the electrical outlet.
5. Connect the HSL cable from unit X to the HSL connector 0 on your 5075. This cable now runs between unit X and your 5075.
6. Connect the SPCN cable from unit X to the SPCN connector J15 on your 5075. This cable now runs between unit X and your 5075.
__ 7. Connect the HSL cable that you installed to connector 1 on your 5075 to connector 0 on unit Y.

__ 8. Connect SPCN cable that you installed to connector J16 on your 5075 to connector J15 on your unit Y.

__ 9. Install the covers on all of your expansion units and your system unit.

__ 10. Go to "Chapter 4. Completing your installation" on page 15.

---

**Connecting your 5075 to the end of a loop**

Use this procedure to install your 5075 in the last position in a loop of expansion units. In this procedure you will install your 5075 between your system unit and the expansion unit which is currently in the last position. Refer to the expansion unit which is currently in the last position as unit Y as is shown in Figure 11 and Figure 12.

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**Figure 11. HSL connections**

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**Figure 12. SPCN connections**

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__ 1. Remove the back covers from your other expansion units, 5075, and system unit. Go to "Appendix A. Removing the covers" on page 19 if you need instructions.

__ 2. Connect the cables to the 5075. Go to "Appendix B. Connector Locations" on page 23 for connector locations.
   __ a. Connect a new HSL cable to the HSL connector 0.
   __ b. Connect a new SPCN cable to connector J15
   __ c. Connect the power cable. Do not plug into the electrical outlet.
3. At unit Y, remove the HSL cable at connector 1. This cable currently runs between unit Y and your system unit.

4. Connect the HSL cable from your 5075 HSL connector 0 to HSL connector 1 on unit Y.

5. Connect the SPCN cable from your 5075 connector J15 to connector J16 on unit Y.

6. Install the covers on all of the expansion units and your system unit.

7. Go to Chapter 4, Completing your installation on page 15.
Chapter 4. Completing your installation

Perform the following steps to complete your installation:

__ 1. Make sure that you have reinstalled all of the covers on the following system components:
   __ a. AS/400 system unit.
   __ b. All system expansion units.

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)

Note: The fans may start, and system reference codes will appear when you plug the power cord for your system unit. These actions are normal. They do not indicate that your system unit is doing an initial program load (IPL).

__ 2. Plug the power cords for the following system components into electrical outlets:
   __ a. Your system unit.
   __ b. All expansion units attached to the system.
   __ c. The system unit console.
   __ d. The system printer.

__ 3. Turn power on to each of the following system components by using the associated power-on button:
   __ a. The system printer (if present).
   __ b. The system control console.

__ 4. Is your system unit an AS/400e 270 or 820?
   270  820
   ↓  Go to step 7 on page 16

__ 5. Look at the Function/Data display on the control panel. See "Appendix C. System unit control panel” on page 22 if you need information about your control panel.

__ 6. Does 01 B N V=S appear in the Function/Data display?
   Yes  No
   ↓  Do the following:
   __ a. Press the Increment/Decrement push button until 02 appears in the Function/Data display.
   __ b. Press the Enter push button on the control panel.
   __ c. Press the Increment/Decrement push button until B appears in the Function/Data display.
   __ d. Press the Enter push button on the control panel.
   __ e. Press the Increment/Decrement push button until N appears in the Function/Data display.
__ f. Press the Enter push button on the control panel.
__ g. Press the Increment/Decrement push button until $ appears in the Function/Data display.
__ h. Press the Increment/Decrement push button until 01 appears in the Function/Data display.

  $01 BN$ should appear in the Function/Data display. If it does not, repeat steps 6 on page 15 through 6h.
__ i. Press the Enter push button on the control panel.
__ j. Go to step 6.

7. Look at the Function/Data display on the control panel. See “Appendix C System unit control panel” on page 27 if you need information about your control panel.

8. Does $01 BV=S$ appear in the Function/Data display?

Yes  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 $ appears in the Function/Data display.
__ g. Press the Mode Select button until the Normal indicator (OK) lights up.
__ 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.

  $01 BS$ should appear in the Function/Data panel. If it does not appear, not repeat steps 8 through 8h.
__ j. Go to step 6.

9. Power on your system unit by pushing the white power-on button.

Note: The time needed to do a complete IPL varies depending on AS/400 model and configuration.

10. Sign on your system unit. Ensure that you have service tools authority.

Chapter 5. Verifying Your New Configuration

Verify your new configuration by performing the following:

__1. On an AS/400 command line, type: STRSST. Press the Enter key.

__2. When the System Service Tools menu appears, select the Start a service tool option.

Press the Enter key.

__3. When the Start a Service Tool menu appears, select the Hardware service manager option.

Press the Enter key.

__4. When the Hardware Service Manager menu appears, select the Packaging hardware resources (system, frames, cards...) option.

Press the Enter key.

Your new Expansion Unit appears on the list. Record the Frame ID and Resource name here: ___________, ___________. If your expansion unit does not appear, you need to verify your installation by performing these steps:

__a. Make sure that you powered on your 5075.

__b. Make sure that you installed the cables correctly. Refer to "Chapter 2. Installing your 5075 directly to your system unit" on page 7 or "Chapter 3. Connecting your 5075 to another expansion unit" on page 9.

__5. You need to update vital product data (VPD) for your new 5075:

__a. Press F3 to return to the Hardware Service Manager display.

__b. At the Hardware Service Manager display, select the System power control network (SPCN).

__c. Press the Enter key twice.

__d. Locate your expansion unit on the System Power Control Network display by Frame ID.

__e. Enter a 3 (Write VPD) for the Frame ID with a 0 in the Unit field as is shown in the example below. Press Enter.

Example: If the Frame ID for your expansion unit is 2, put the cursor in front of the 02. Then enter a 3 (Write VPD), as is shown in the example below. Use the Frame ID with a 0 in the Unit field.
Battery capacity test . . . . . .: Enabled

Type options, press Enter.
3=Write VPD  5=Display detail  6=Display trace log
7=Test battery interface

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<td>No</td>
<td>00-00000</td>
<td>No</td>
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</table>

__f.  At the Write Vital Product Data (VPD) display enter the following information:
__ 1) At the Type field enter **5075**.
__ 2) At the Model field, enter **001**.
__ 3) Enter the serial number at the Serial Number field (located on the central panel label).
__g. Press the Enter key.

The message: Vital product data has been successfully written appears.

__6. Press F3 to return to the Hardware Service Manager display.
__7. From the Hardware Service Manager display press F6 (print the configuration) to print the configuration list.
__8. For future reference place the configuration list in this book.
__9. To return to the AS/400 Main Menu, press F3 (Exit) two times and press the Enter key.

Congratulations, you have completed your expansion unit installation.
Appendix A. Removing the covers

5075 and system unit back covers

Remove the back cover for both your 5075 and system unit by lifting up and out.

Note: The 5075, 270, and 820 back covers do not look identical. However, the procedure to remove them is the same.

5074 back cover

1. Use the latch shown at A to open the back cover on your expansion unit.
2. If needed, use the latch that is shown at B to remove the back cover.

Figure 13. Removing the system unit or expansion unit back cover
5079 back cover

Open the rear cover on your 5079 by pressing the latch at A.
Figure 15. Opening the 5079 rear cover
Appendix B. Connector Locations

270 HSL connector locations

Figure 16. 270 HSL connector locations
820 HSL connector locations

Figure 17. 820 HSL connector locations

5075 connector locations

Figure 18. 5075 connector locations
5074 connector locations

Figure 19. 5074 connector locations
Appendix C. System unit control panel

1. Go to the front of your AS/400 system unit. Open the control panel door.
2. Does your control panel look like the following?

No   Yes
△ You will use the push buttons on the control panel. Familiarize yourself
with the control panel on your unit.

3. Your control panel looks like the following. Before you can use F
Increment/Decrement Buttons and G Enter Push button, you need to press H
Mode Select to select manual mode J.
You will use the push buttons on the control panel. Familiarize yourself with
the control panel on your unit.

4.   A Power On Light
     • A blinking light indicates power to the unit.
     • A constant light indicates that the unit is up 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 Select
J  Electronic Keystick Slot
Appendix D. Cabling rules for systems with a 503x Migration Unit

These rules apply when you are setting up a new 5075 Expansion Unit in a system with a 503x Migration Unit.

<table>
<thead>
<tr>
<th>System unit</th>
<th>Rule</th>
</tr>
</thead>
</table>
| AS/400e 820 | • If there are three external units or fewer, the 503x must be in the first position of the HSL loop. The first position is the position closest to connector A0 on the system unit. See Figure 21 and Figure 22.  
• If there are four or five external units, the 503x must be in the second position of the HSL loop. There must be one expansion unit between A0 and the 503x. See Figure 23 on page 30 and Figure 24 on page 30.  
• The 503x must be in the last position of the SPCN loop. See Figure 25 on page 30. |

Figure 21. HSL loop with two external units

Figure 22. HSL loop with three external units
Figure 23. HSL loop with four external units

Figure 24. HSL loop with five external units

Figure 25. SPCN loop with 503x
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Publication No. SA41-5148-00

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