IBM

@server

iSeries

Setting Up Your
0578, 5074, 5078 or 5079
Expansion Unit

Version 5

SA41-5149-02

IBM

@server

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> **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 51.

Contents

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)

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Laser Compliance

All Lasers are certified in the U.S. to conform to the requirements of DHHS 21 CFR Subchapter J for class 1 laser products. Outside the U.S., they are certified to be in compliance with the IEC 825 (first edition 1984) and as a class 1 laser product. Consult the label on each part for laser certification numbers and approval information.

Laser Safety Information

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

CAUTION:
All IBM laser modules are designed so that there is never any human access to laser radiation above a class 1 level during normal operation, user maintenance, or prescribed service conditions. Data processing environments can contain equipment transmitting on system links with laser modules that operate at greater than class 1 power levels. For this reason, never look into the end of an optical fiber cable or open receptacle. Only trained service personnel should perform the inspection or repair of optical fiber cable assemblies and receptacles. (RSFTC243)

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 your 0578, 5074, 5078 or 5079 Expansion Unit (SA41–5149)

This book contains installation about setting up your expansion unit. You may elect to set up your new expansion unit yourself. It will take approximately one to three hours to install the hardware

You also may elect not to install the expansion unit yourself. You may contact IBM or an authorized dealer to make arrangements for them to install it for a fee.

Who should read this book

You should be familiar with the iSeries 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 iSeries Information Center as your starting point for looking up iSeries technical information.

You can access the Information Center two ways:
* From the following Web site:

  http://www.ibm.com/eserver/iseries/infocenter
* From CD-ROMs that ship with your Operating System/400 order:

  iSeries Information Center, SK3T-4091-02. This package also includes the PDF versions of iSeries manuals, *iSeries Information Center: Supplemental Manuals*, SK3T-4092-01, which replaces the Softcopy Library CD-ROM.

The iSeries Information Center contains advisors and important topics such as Java, TCP/IP, Web serving, secured networks, logical partitions, clustering, CL commands, and system application programming interfaces (APIs). It also includes links to related IBM Redbooks and Internet links to other IBM Web sites such as the Technical Studio and the IBM home page.

With every new hardware order, you receive the *iSeries Setup and Operations CD-ROM*, SK3T-4098-01. This CD-ROM contains IBM @server iSeries Access for Windows and the EZ-Setup wizard. iSeries Access offers a powerful set of client and server capabilities for connecting PCs to iSeries servers. The EZ-Setup wizard automates many of the iSeries setup tasks.

iSeries Navigator

IBM iSeries Navigator is a powerful graphical interface for managing your iSeries servers. iSeries Navigator functionality includes system navigation, configuration, planning capabilities, and online help to guide you through your tasks. iSeries Navigator makes operation and administration of the server easier and more productive and is the only user interface to the new, advanced features of the OS/400 operating system. It also includes Management Central for managing multiple servers from a central system.

You can find more information on iSeries Navigator in the iSeries Information Center and at the following Web site:

http://www.ibm.com/eserver/iseries/navigator/

How to send 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 iSeries 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 readers' 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, Canada, and Puerto Rico: 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
  - Comments on the iSeries Information Center:

    RCHINFOC@us.ibm.com

Be sure to include the following:

- The name of the book or iSeries Information Center topic.
- The publication number of the book.
- The page number or topic of a book to which your comment applies.

Chapter 1. Preparing to set up your 5074 or 5079 Expansion Unit

This chapter explains what you need to do before you set up your 5074 or 5079 Expansion Unit. This includes the following tasks:

1. Unpack your expansion unit (refer to the instructions for unpacking that came with your expansion unit).
2. Plan layouts for your cables.
3. Power down your system unit.

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 *iSeries Information Center* Web site

```
http://www.ibm.com/eserver/iseries/infocenter
```

and select `Plan for hardware and software`

Hardware requirements

If you are installing your new expansion unit directly to your system unit, you should remember these rules:

- You need to have an available or unused high speed link (HSL) connector.
- You need to have an unused or available system power control network (SPCN) connector.

Site planning considerations for the 5079

Weight and Size of the 5079

Table 1 shows the weight and dimensions of the 5079 Expansion Unit.

Table 1. 5079 Weight and Size descriptions

Weight (fully configured)	1600 lb (725 kg)
Width	25.5 in (650 mm)
Depth	40 in (1020 mm)
Height	71 in (1800 mm)

The 5079 has a floor loading of 86 lb/ft^2 (420 kg/m^2). Because of the size and weight of the 5079, you should do the following:

CAUTION:
Overlapping the clearance defined below with adjacent equipment results in a significant increase in the amount of floor loading.

- Contact your facility or structural engineer to determine a safe site for your 5079.
- Leave 30 in. (762 mm) of clearance to the front and back of the 5079.
- Leave 5 in. (127 mm) of clearance to the left and right of the 5079.

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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 expansion unit. Your system uses SPCN cables to control power to your expansion unit.

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

Table 2. HSL Cables

Feature Number	CCIN Number	Length	Part Number
1460 (copper)	0343	3 Meters	44L0005
1461 (copper)	0361	6 Meters	97H7490
1462 (copper)	0368	15 Meters	97H7491
1470 (optical)	1470	6 Meters	21P5014
1471 (optical)	1471	30 Meters	21P5015
1472 (optical)	1472	100 Meters	21P5016
1473 (optical)	1473	250 Meters	21P6326
1474 (copper)	1474	6 Meters	21P5477
1475 (copper)	1475	15 Meters	21P5458
1481 (copper)	1481	1 Meter	21P5454
1482 (copper)	1482	3.5 Meters	53P2676
1483 (copper)	1483	10 Meters	21P5456
1485 (copper)	1485	15 Meters	21P5457

Table 3. SPCN Cables

Feature Number	CCIN number	Length	Part Number
1463	9206	2 Meters	87G6235
1464	9219	6 Meters	21F9469
1465	9213	15 Meters	21F9358
1466	9214	30 Meters	21F9359
0369 (optical)	0369	100 Meters	21F9415
1468 (optical)	1468	250 Meters	21P6325

Planning your cable layout

When you decide where to place your cables, follow your site plan and keep the following things in mind:

- Refer to

  `http://www.ibm.com/eserver/iseries/infocenter`

  and select `Plan for hardware and software—Cabling instructions`
- Avoid creating a safety hazard.
- Avoid damaging the cables.
- Avoid placing cables parallel to high-voltage lines.

Placing power cords for the 5079

You need to provide the appropriate receptacles for the power cords shipped with your 5079. The usable length of the upper unit power cord is 4 ft. (1.2 m) shorter than the length of the lower unit power cord.

Redundant links

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.

Your new expansion unit has disk units. 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.

Refer to Figure 1 to see how to plan your cables with a redundant link configuration with one expansion unit. If you are linking two, expansion units refer to Figure 2 on page 4. If you are setting up a 5079, refer to Figure 3 on page 4.
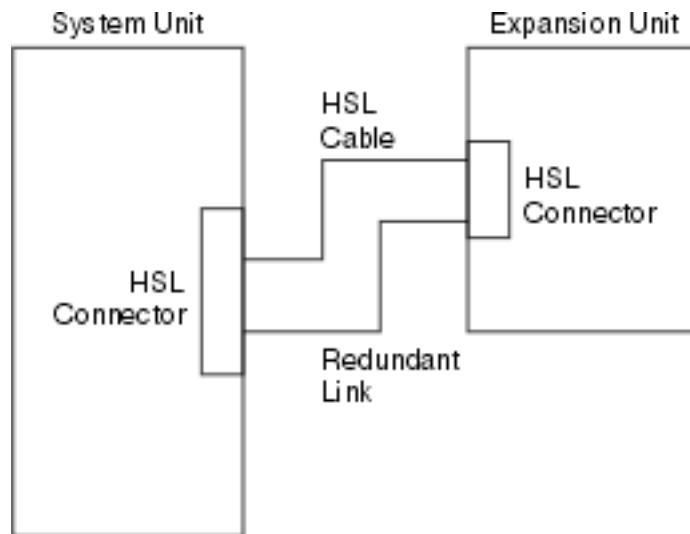

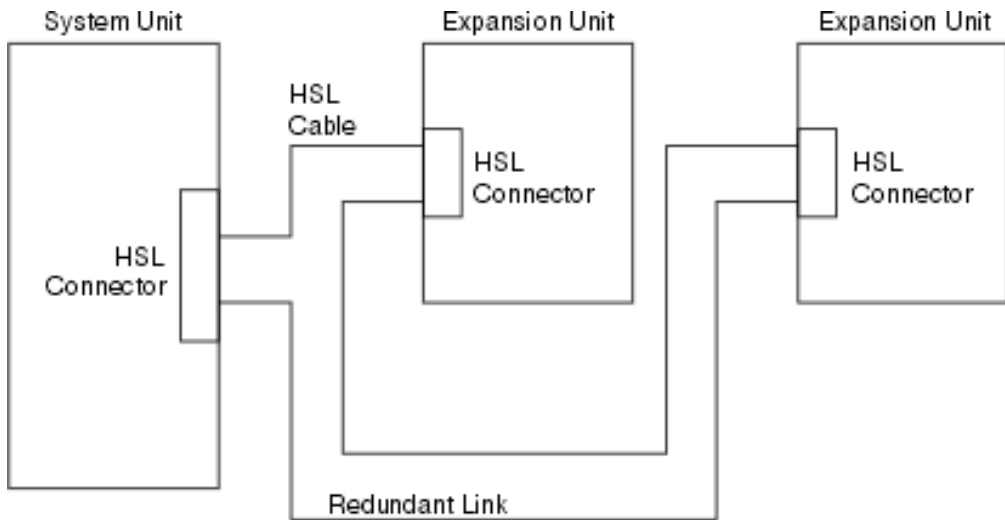*Figure 1. Planning for redundant link one expansion unit*

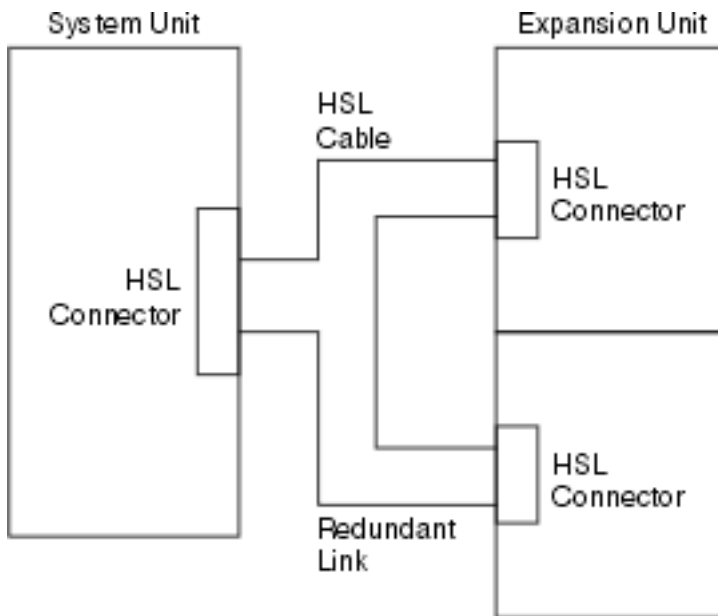*Figure 2. Planning for redundant link with two expansion units*

Figure 3. Planning for redundant link with stacked expansion units (5079)

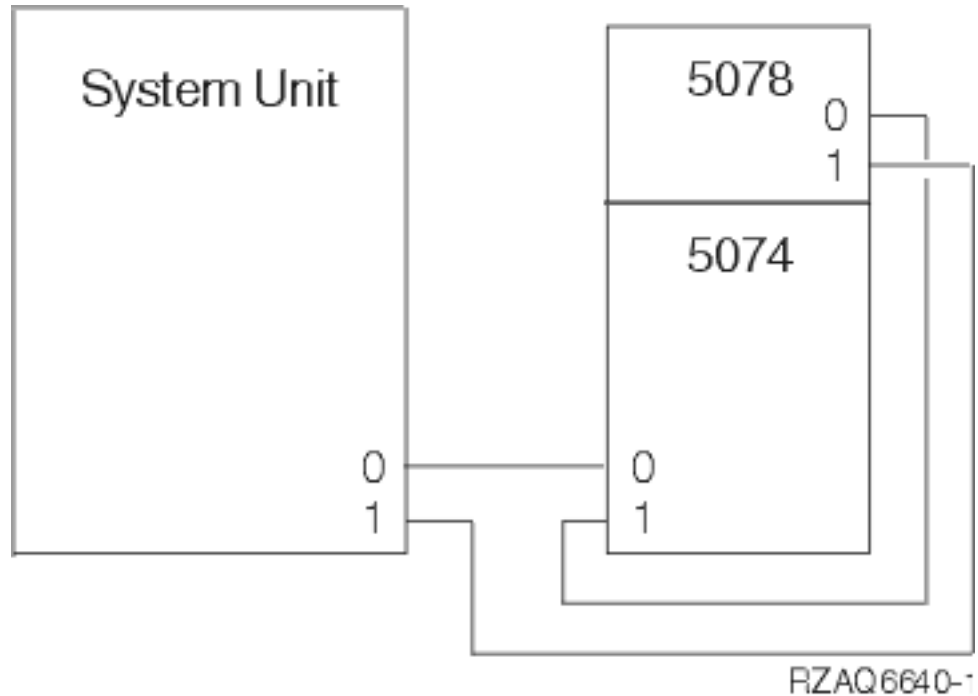**4** Setting up your 0578, 5074, 5078 or 5079 Expansion Unit V5R2

Figure 4. Planning for redundant link with a expansion unit and 5078

Configuration rules

When you set up your expansion unit, observe the rules in Table 4.

Table 4. Configuration rules

System or expansion unit	Configuration rules

General	• When connecting HSL cables from the system unit to an expansion unit:
	   – Connect the first HSL cable between connector A0 on the system unit (or the first available set of connectors) and connector 0 on your expansion unit.
	   – Connect the last HSL cable between connector A1 on the system unit (or the first available set of connectors) and connector 1 on your expansion unit.
	 • When connecting HSL cables between expansion units:
	   – Connect the HSL cable to connector 1 on the first expansion unit and to connector 0 on the next expansion unit.
	 • Connect an SPCN cable from J15 on the system unit to J15 on the expansion unit.
	 • Connect an SPCN cable from J16 on the expansion unit to J15 on the next expansion unit.

5079 expansion unit	• The 5079 expansion unit counts as two 5074 expansion units.
iSeries 820	• The 820 can have up to five expansion units in one HSL loop.

Chapter 1. Preparing to set up your 5074 or 5079 Expansion Unit **5**

Table 4. Configuration rules (continued)

System or expansion unit	Configuration rules
iSeries 830	• The 830 can have a maximum of 13 expansion units on four HSL loops. • Connect HSL loops to the 830 in this order (see Appendix B, "Connector Locations" on page 35): 　1. B0 and B1 　2. C0 and C1 　3. D0 and D1 　4. A0 and A1 • Connectors A0 and A1, can have one 5074. • Connectors B0 and B1; C0 and C1; D0 and D1, can have up to four expansion units. • These rules apply for all expansion units except migration units which always go on A0 and A1.
iSeries 840	• The 840 can have a maximum of 23 expansion units. • The 840 can have a maximum of eight HSL loops. • Each HSL loop can have a maximum of four expansion units.
iSeries 890	• The 890 can have a maximum of 47 expansion units. • The 890 can have a maximum of 32 external xSeries servers. • The 890 can have a maximum of 12 HSL loops on a 24–way and 14 HSL loops on a 32–way. • The 890 can have a maximum of five external xSeries servers per loop.

Powering down your iSeries system unit

You need to power down your system unit before you can connect your new expansion unit to it. Follow the steps below to power down your system unit.

__ 1. Ensure that you have a current backup of your operating system and licensed programs. If you have backed up the operating system and licensed programs since the last time you applied program temporary fixes (PTFs), that backup is acceptable.

__ 2. If you have installed logical partitions on your system unit, refer to *Logical partitions* in the *iSeries Information Center*. In the *iSeries Information Center* you can find instructions on powering down a system with logical partitions.

__ 3. Ensure that all jobs are complete.

__ 4. When all jobs are complete, type `pwrdwnsys *immed` on an command line and press the Enter key.

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

__ 5. After your system unit has completely powered down, power off all PCs and devices, such as printers and display stations, that are connected to the system unit.

__ 6. Unplug any power cords, such as for printers, expansion units, and display stations, that are connected to the system unit.

__ 7. Unplug the power cord for the system unit from the electrical outlet.

If you are setting up a 5074 Expansion Unit, go to Chapter 2, "Setting up your 5074 expansion unit" on page 9.

If you are setting up a 5079 Expansion Unit, go to Chapter 4, "Setting up your 5079 Expansion Unit" on page 19.

Chapter 2. Setting up your 5074 expansion unit

This chapter describes how to set up your 5074 Expansion Unit. If you are setting up a 5079 Expansion Unit, go to Chapter 4, "Setting up your 5079 Expansion Unit" on page 19.

If you have not powered down your system unit, go to "Powering down your iSeries system unit" on page 6. Once you have powered down your system unit, return here.

Removing the covers

See Appendix A, "Removing the back covers" on page 31 if you need help removing the covers on your expansion units or system unit.

Connector locations

See Appendix B, "Connector Locations" on page 35 if you need help finding the connectors on your expansion units or system unit.

Systems with a migration unit or 9079 Expansion Unit

If your system unit has a migration unit or 9079 Expansion Unit, read Appendix D, "Cabling rules for systems with a migration unit or the 9079 and 9094 expansion unit" on page 45 before you proceed.

Connecting your 5074 directly to your system unit

This section describes how to connect your 5074 directly to your iSeries system unit. If you are connecting a 5074 to a loop with other expansion units, skip this chapter and go to "Connecting your 5074 to another expansion unit" on page 10.

Note: This note only applies if your system unit is an iSeries server 830. Connect HSL loops to the 830 in this order:
1. B0 and B1
2. C0 and C1
3. D0 and D1
4. A0 and A1

Connect HSL loops A0 and A1 only after the other three sets of HSL connectors are used.

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

__ 1. Locate available HSL connectors on your system unit.

    __ a. Remove or open the back cover for your system unit. See Appendix A, "Removing the back covers" on page 31 if you need instructions.

    __ b. Find the first set of unused HSL connectors on the back of your system unit (Appendix B, "Connector Locations" on page 35).

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If you have just one set of HSL connectors on your system unit, they are labeled A0 and A1.

If you have more than one set of HSL connectors on your system unit, the first set is labeled A0 and A1. The remaining HSL connectors are labeled alphabetically. For example, if you have an 830, there are four sets of HSL connectors on your system. They are labeled A0 and A1; B0 and B1; C0 and C1; D0 and D1.

Unused HSL connectors are covered with metal clips. Remove the clips before you install the HSL cables.

__ c. Write down which set of HSL connectors are available here: _____ , _____.

__ 2. Connect the cables to your 5074.

    __ a. Find the HSL cables, SPCN cable, and power cable that is shipped with your expansion unit.

    __ b. Attach a label to each end of the HSL cables.

    __ c. Label one HSL cable 0 at both ends.

    __ d. Label the other HSL cable 1 at both ends.

    __ e. Remove the back cover for your expansion unit. See Appendix A, "Removing the back covers" on page 31 if you need information about removing the cover.

    __ f. Connect the HSL cable that is labeled 0 to the HSL connector that is labeled 0 on your 5074.

    __ g. Connect the HSL cable that is labeled 1 to the HSL connector that is labeled 1 on your 5074.

    __ h. Connect the SPCN cable to connector J15 on your 5074.

    __ i. Connect the power cable. **Do not** plug into the wall outlet.

    __ j. Close or replace the back cover to your 5074.

__ 3. Connect the cables from your 5074 to your system unit.

    __ a. Connect the HSL cable that is labeled 0 to the corresponding HSL connector that you found in step 1c.

    __ b. Connect the HSL cable that you labeled 1 to the corresponding HSL connector that you found in step 1c.

    __ c. Connect the SPCN cable that comes from your expansion unit to the connector that is labeled J15.

__ 4. If you are installing a new iSeries server with this expansion unit, return to the *Cabling instructions*.

__ 5. Go to Chapter 5, "Completing your installation" on page 27.

Connecting your 5074 to another expansion unit

This section contains instructions for connecting your 5074 expansion unit to a loop with other expansion units. You can only connect your 5074 with other expansion units that have HSL hardware.

This section contains three separate procedures. Follow the procedure that best matches your system's configuration:

- "Connecting your 5074 at the beginning of a loop" on page 11.
- "Connecting your 5074 to the middle of a loop" on page 13.
- "Connecting your 5074 to the end of a loop" on page 14.

Notes:

1. The graphics that follow designate the HSL connectors for the system unit as 0 and 1. These designations represent which set of connectors on your system unit the HSL loop is connected to (for example B0 and B1).

2. These procedures are intended as a guide. Some steps in the following procedures may vary depending on the number of HSL connectors you received in your order. Make sure that you follow the configurations rules in Table 4 on page 5.

Connecting your 5074 at the beginning of a loop

Use this procedure to connect your 5074 in the first position in a loop of expansion units. In this procedure you will connect your 5074 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 5 and Figure 6.
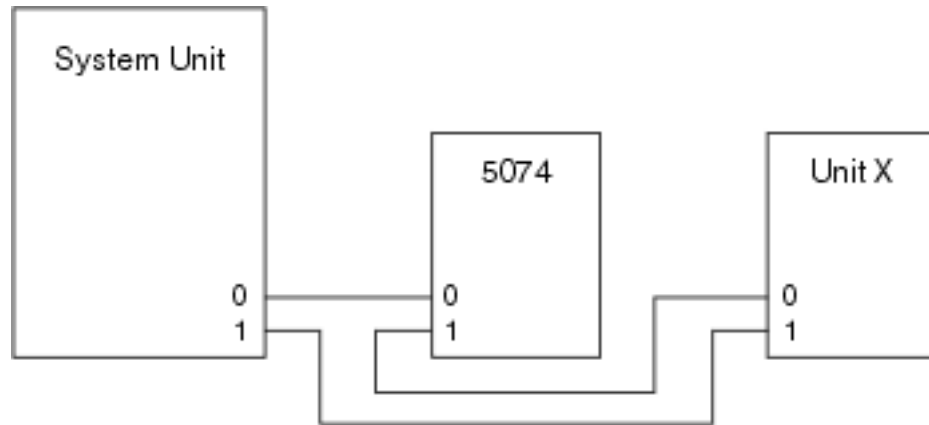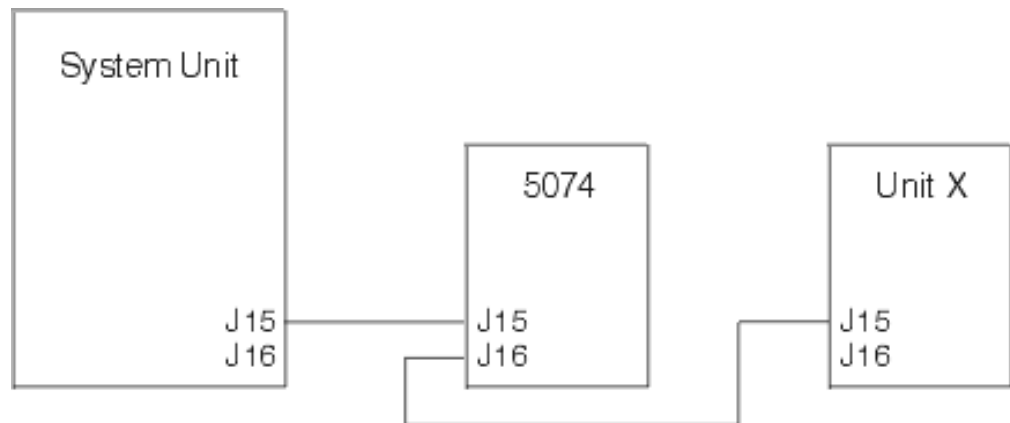

Figure 5. HSL connections
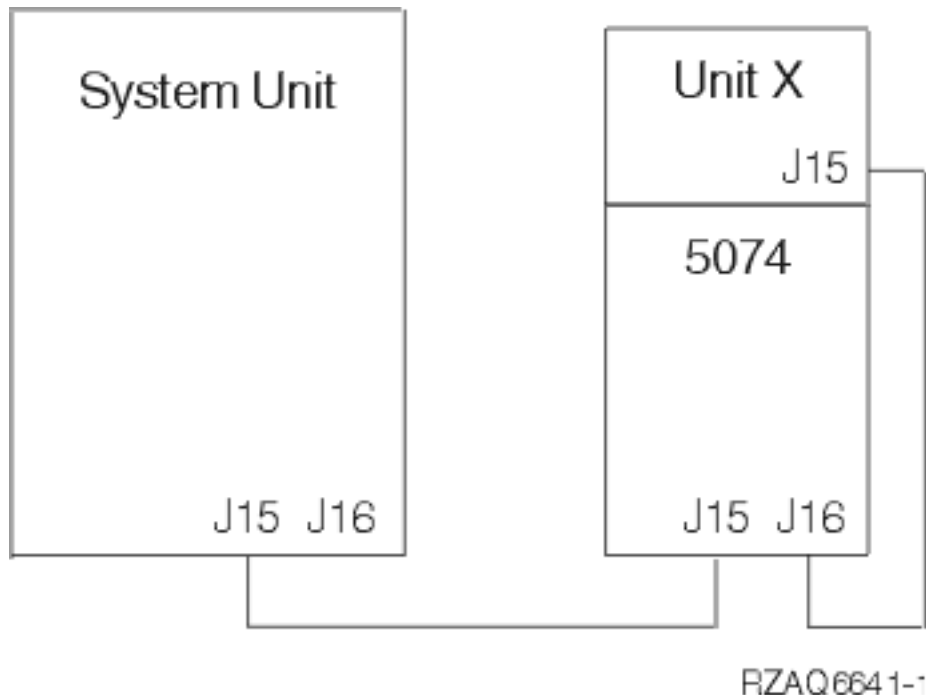

RZAQ6615-1

Figure 6. SPCN connections

RZAQ6641-1

Figure 7. 5078 connections

__ 1. Remove or open the back cover from your 5074. See Appendix A,
"Removing the back covers" on page 31 if you need instructions.

__ 2. Connect the cables to the 5074. See Appendix B, "Connector Locations" on
page 35 if you need information about finding connectors.

    __ a. Connect a new HSL cable to HSL connector 1.

    __ b. Connect a new SPCN cable to connector J16.

    __ c. Connect the power cable. **Do not** plug into the wall outlet.

__ 3. Remove the back cover from your system unit.

__ 4. Remove the back cover from unit X.

__ 5. At unit X, remove the HSL cable from HSL connector 0. This cable is the
HSL cable that runs between unit X and your system unit.

__ 6. At unit X, remove the SPCN cable from connector J15. This cable is the
SPCN cable that runs between unit X and your system unit.

__ 7. Connect the HSL cable from your system unit to the HSL connector 0 on
your 5074. This cable should now run between your system unit and your
5074.

__ 8. Connect the SPCN cable from your system unit to the SPCN connector J15
on your 5074. This cable should now run between your system unit and
your 5074.

__ 9. Connect the HSL cable from your 5074 HSL connector 1 to HSL connector 0
on unit X. This cable should now run between your 5074 and Unit X.

__ 10. Connect the SPCN cable from your 5074 connector J16 to connector J15 on
unit X. This cable should now run between your 5074 and Unit X.

__ 11. Install or close the covers on unit X, your 5074, and your system unit.

__ 12. Go to Chapter 5, "Completing your installation" on page 27.

Connecting your 5074 to the middle of a loop

Use this procedure if you are connecting your 5074 to the middle of a loop. In other words, you are connecting your 5074 between two other expansion units. Refer to these expansion units as unit X and unit Y as is shown in Figure 8 and Figure 9.
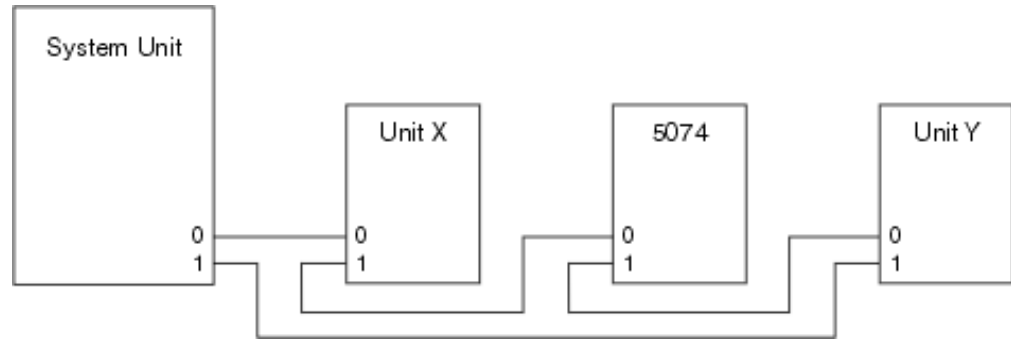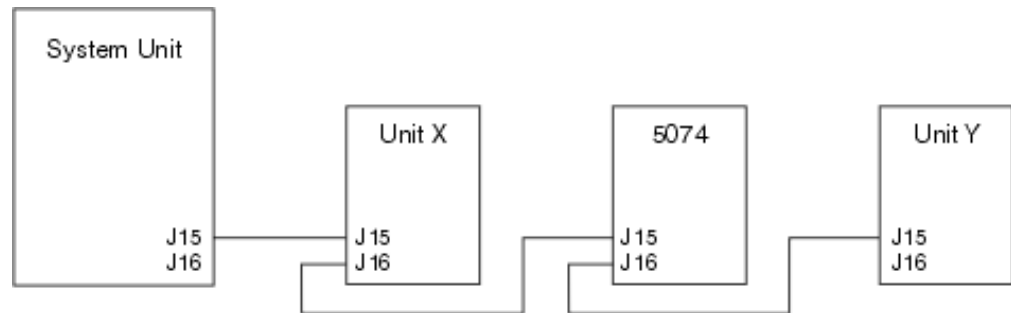

Figure 8. HSL connections

Figure 9. SPCN connections

__ 1. Remove the back cover from unit X, unit Y, and your 5074. See Appendix A, "Removing the back covers" on page 31 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 5074. See Appendix B, "Connector Locations" on page 35 if you need information about finding connectors.

    __ a. Connect a new HSL cable to HSL connector 1.

    __ b. Connect a new SPCN cable to connector J16.

    __ c. Connect the power cable. **Do not** plug into the wall outlet.

__ 5. Connect the HSL cable from unit X to the HSL connector 0 on your 5074. This cable now runs between unit X and your 5074.

__ 6. Connect the SPCN cable from unit X to the SPCN connector J15 on your 5074. This cable now runs between unit X and your 5074.

__ 7. Connect the HSL cable that you installed to connector 1 on your 5074 from your 5074 to connector 0 on unit Y.

__ 8. Connect SPCN cable that you installed to connector J16 on your 5074 to connector J15 on your unit Y.

__ 9. Install or close the back cover of your 5074, unit X, and unit Y.

__ 10. Go to Chapter 5, "Completing your installation" on page 27.

Connecting your 5074 to the end of a loop

Use this procedure to connect your 5074 in the last position in a loop of expansion units. In this procedure you will connect your 5074 between your system unit and the expansion unit which is currently in the last position. Refer the expansion unit which is currently in the last position as unit Y as is shown in Figure 10 and Figure 11.
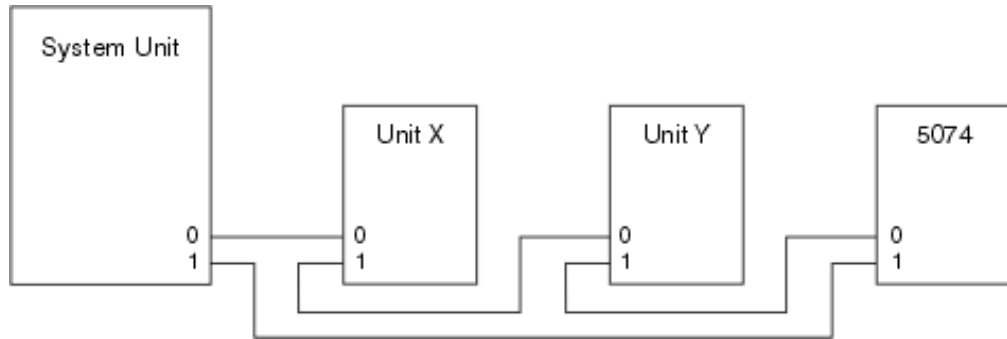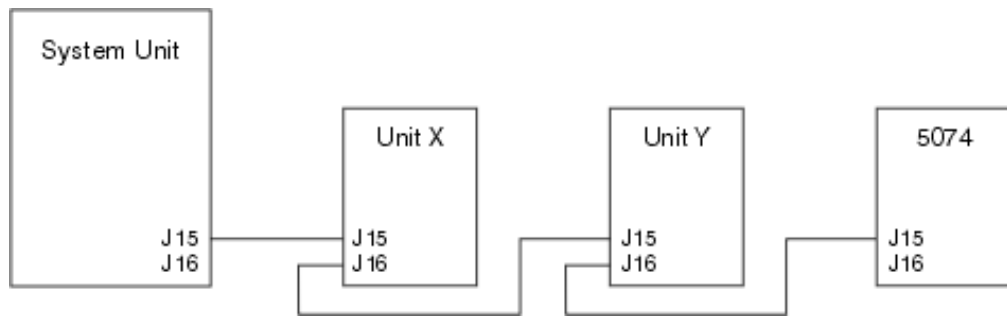
Figure 10. HSL Connections

Figure 11. SPCN Connections

__ 1. Remove or open the back cover from your 5074. See Appendix A, "Removing the back covers" on page 31 if you need directions.

__ 2. Connect the cables to the 5074. See Appendix B, "Connector Locations" on page 35 if you need information about finding connectors.

    __ 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 wall outlet.

__ 3. Remove the back cover from your system unit.

__ 4. Remove the back cover from unit Y.

__ 5. At unit Y, remove the HSL cable at connector 1. This cable currently runs between unit Y and your system unit.

__ 6. Connect the HSL cable from your system unit to the HSL connector 1 on your 5074.

__ 7. Connect the HSL cable from your 5074 HSL connector 0 to HSL connector 1 on unit Y.

__ 8. Connect the SPCN cable from your 5074 connector J15 to connector J16 on unit Y.

__ 9. Install or close the covers on unit Y, your 5074, and your system unit.

__ 10. Go to Chapter 5, "Completing your installation" on page 27.

Chapter 3. Setting up your 0578 expansion unit

This chapter describes how to set up your 0578 Expansion Unit.

If you have not powered down your system unit, go to "Powering down your iSeries system unit" on page 6. Once you have powered down your system unit, return here.

Removing the covers

See Appendix A, "Removing the back covers" on page 31 if you need help removing the covers on your expansion units or system unit.

Connector locations

See Appendix B, "Connector Locations" on page 35 if you need help finding the connectors on your expansion units or system unit.

Systems with a migration unit or 9079 Expansion Unit

If your system unit has a migration unit or 9079 Expansion Unit, read Appendix D, "Cabling rules for systems with a migration unit or the 9079 and 9094 expansion unit" on page 45 before you proceed.

Connecting your 0578 directly to your system unit

This section describes how to connect your 0578 directly to your iSeries system unit.

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

15

__ 1. Locate available HSL connectors on your system unit.
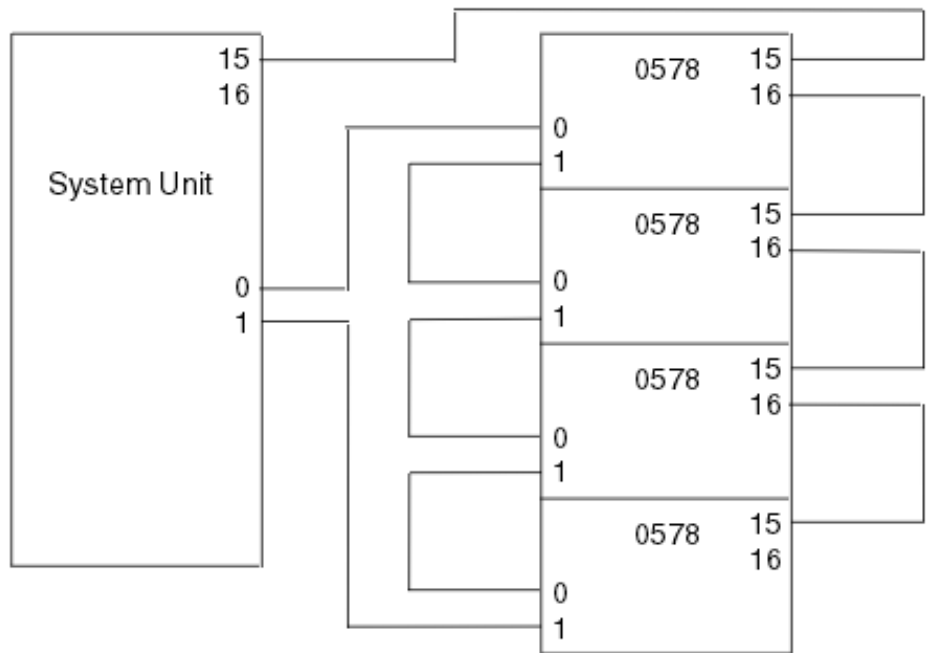

```
                                    ┌─────────────────────┐
   ┌──────────────────┐             │  0578          15   │──
   │              15  │─────────────│                16   │──
   │              16  │             │  0               │
   │                  │             │  1               │
   │                  │             ├─────────────────────┤
   │  System Unit     │             │  0578          15   │──
   │                  │             │                16   │──
   │                  │             │  0               │
   │               0  │─────────────│  1               │
   │               1  │             ├─────────────────────┤
   │                  │             │  0578          15   │──
   │                  │             │                16   │──
   │                  │             │  0               │
   │                  │             │  1               │
   │                  │             ├─────────────────────┤
   │                  │             │  0578          15   │──
   │                  │             │                16   │──
   │                  │             │  0               │
   └──────────────────┘             │  1               │
                                    └─────────────────────┘
                                             RZAQ6639-1
```

   __ a. Remove or open the back cover for your system unit. See
       Appendix A, "Removing the back covers" on page 31 if you need
       instructions.

   __ b. Find the first set of unused HSL connectors on the back of your
       system unit (Appendix B, "Connector Locations" on page 35).

       If you have just one set of HSL connectors on your system unit, they
       are labeled A0 and A1.

       If you have more than one set of HSL connectors on your system
       unit, the first set is labeled A0 and A1. The remaining HSL connectors
       are labeled alphabetically. For example, if you have an 830, there are
       four sets of HSL connectors on your system. They are labeled A0 and
       A1; B0 and B1; C0 and C1; D0 and D1.

       Unused HSL connectors are covered with metal clips. Remove the
       clips before you install the HSL cables.

   __ c. Write down which set of HSL connectors are available here: _____ ,
       _____.

__ 2. Connect the cables to your 0578.

   __ a. Find the HSL cables, SPCN cable, and power cable that is shipped
       with your expansion unit.

   __ b. Attach a label to each end of the HSL cables.

   __ c. Label one HSL cable 0 at both ends.

   __ d. Label the other HSL cable 1 at both ends.

   __ e. Remove the back cover for your expansion unit. See Appendix A,
       "Removing the back covers" on page 31 if you need information
       about removing the cover.

   __ f. Connect the HSL cable that is labeled 0 to the HSL connector that is
       labeled 0 on your 0578.

   __ g. Connect the HSL cable that is labeled 1 to the HSL connector that is
       labeled 1 on your 0578.

    __ h. Connect the SPCN cable to connector J15.

    __ i. Connect the power cable. **Do not** plug into the wall outlet.

    __ j. Close or replace the back cover to your 0578.

__ 3. Connect the cables from your 0578 to your system unit.

    __ a. Connect the HSL cable that is labeled 0 to the corresponding HSL connector that you found in step 1c on page 16.

    __ b. Connect the HSL cable that you labeled 1 to the corresponding HSL connector that you found in step 1c on page 16.

    __ c. Connect the SPCN cable that comes from your expansion unit to the connector that is labeled J15.

__ 4. If you are installing a new iSeries server with this expansion unit, return to the *Cabling instructions*.

__ 5. Go to Chapter 5, "Completing your installation" on page 27.

Chapter 4. Setting up your 5079 Expansion Unit

This chapter describes how to set up your 5079 Expansion Unit. If you are setting up a 5074 Expansion Unit go, to Chapter 2, "Setting up your 5074 expansion unit" on page 9.

If you have not powered down your system unit, go to "Powering down your iSeries system unit" on page 6. Once you have powered down your system unit, return here.

Removing the covers

See Appendix A, "Removing the back covers" on page 31 if you need help removing the covers from your expansion units or system unit.

Connector locations

See Appendix B, "Connector Locations" on page 35 if you need help finding the connectors on your expansion units or system unit.

Systems with migration units or 9079 Expansion Units

If your system unit has a migration unit or 9079 Expansion Unit, read Appendix D, "Cabling rules for systems with a migration unit or the 9079 and 9094 expansion unit" on page 45 before you proceed.

Connecting your 5079 directly to your system unit

Use the procedure below to connect your 5079 to your system unit.

Your 5079 consists of two independent 5074 Expansion Units in a single frame. This procedure refers to the upper 5079 as **5079–002** and the lower 5074 as **5079–001**.

You can set up 5079–002 and 5079–001 to your system unit on two separate HSL loops if you have enough HSL cables and HSL connectors. Follow the steps in "Connecting your 5074 directly to your system unit" on page 9 for each expansion unit.

Refer to Figure 12 on page 20 and Figure 13 on page 20 before you start.

Note: This note only applies if your system unit is an iSeries server 830. Connect HSL loops to the 830 in this order:
   1. B0 and B1
   2. C0 and C1
   3. D0 and D1
   4. A0 and A1

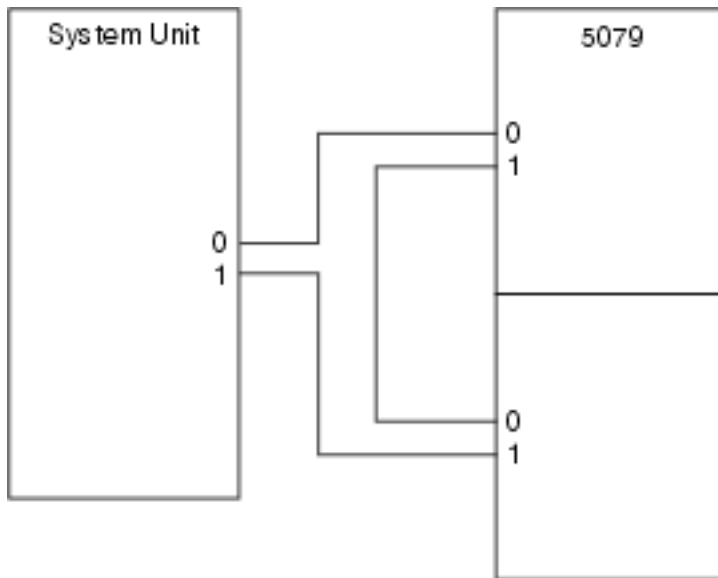Connect HSL loops A0 and A1 only after the other three sets of HSL connectors are used.
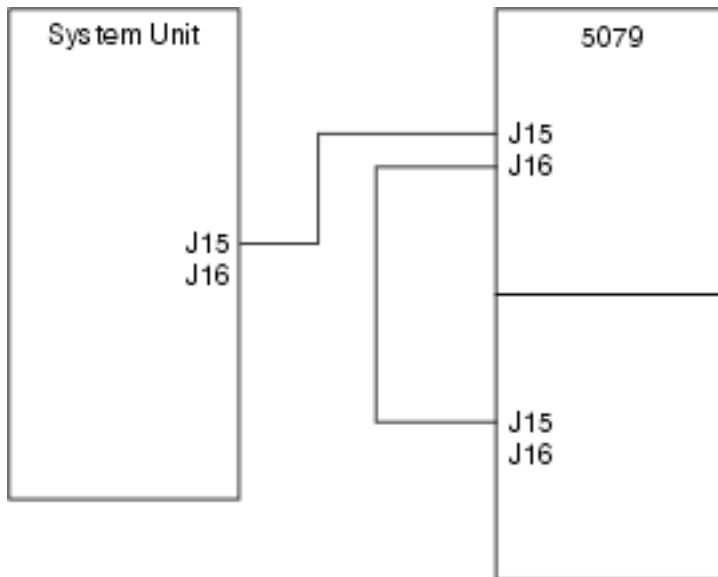
Figure 12. HSL Connections

Figure 13. SPCN Connections

__ 1. Find the HSL cables and the SPCN cables in the information that is shipped with your expansion unit. You will use three HSL cables and two SPCN cables to perform this procedure.

__ 2. Attach a label to each end of the cables. Label each of the cables as follows:

    __ a. Label the two ends of the first cable 0.

    __ b. Label one end of the second cable 0 and the other end 1. If you have different length cables, this cable should be the shortest one.

    __ c. Label the two ends of the third cable 1.

__ 3. Locate an available HSL connector on your system unit.

    __ a. Remove or open the back cover on your system unit. See Appendix A, "Removing the back covers" on page 31 if you need instructions.

    __ b. Find the first set of available HSL connectors on the back of your system unit.

        If you have just one set of HSL connectors on your system unit, they are labeled A0 and A1.

        If you have more than one set of HSL connectors on your system unit, the first set is labeled A0 and A1. The remaining HSL connectors are labeled alphabetically. For example, if you have an 830, there are four sets of HSL connectors on your system. They are labeled A0 and A1; B0 and B1; C0 and C1; D0 and D1.

    __ c. Write down which set of HSL connectors are available here: _____ , _____.

__ 4. Connect one end of an HSL cable that is labeled 0 on both ends to the HSL connector that you found in step 3c.

    For example, if the next available HSL connectors are B0 and B1, connect the HSL cable to connector B0.

__ 5. Open the back cover on your 5079. See Appendix A, "Removing the back covers" on page 31 if you need instructions.

__ 6. On unit 5079–002 locate the HSL connectors that are labeled **0** and **1** (Figure 27 on page 39)

__ 7. On unit 5079–002, install the other end of the HSL cable to the connector that is labeled **0**.

__ 8. On the unit 5079–002, install the end that is labeled **1** on the HSL cable that is labeled **1** and **0** to the connector that is labeled **1**.

__ 9. On unit 5079-001, install the other end of the HSL cable to the HSL connector that is labeled **0**.

__ 10. On unit 5079-001, install one end of a the HSL cable that is labeled 1 at both ends to the HSL connector that is labeled **1**.

__ 11. Install the other end of the HSL cable to the other HSL connector that you found in step 3c.

    For example, if the next available HSL connectors are B0 and B1, connect the HSL cable to connector B1.

__ 12. On your system unit, install one end of an SPCN cable to an available SPCN connector. The SPCN connector is labeled J15 or J16.

__ 13. Tighten the thumbscrews.

__ 14. On unit 5079–002, connect the other end of the SPCN cable to the SPCN connector that is labeled J15.

__ 15. Tighten the thumbscrews.

__ 16. On unit 5079-002, connect another SPCN cable to the SPCN connector that is labeled J16.

__ 17. Tighten the thumbscrews.

__ 18. On unit 5079-001, connect the other end of the second SPCN cable to the SPCN connector that is labeled J15.

__ 19. Tighten the thumbscrews.

__ 20. On your 5079 connect a power cable to each power connector.

__ 21. Do not plug into an electrical outlet.

__ 22. Go to Chapter 5, "Completing your installation" on page 27.

Connecting your 5079 to another expansion unit

This section contains instructions for connecting your 5079 expansion unit to a loop with other expansion units. You can only connect your 5079 with other expansion units that have HSL hardware.

Your 5079 consists of two independent 5074 Expansion Units in a single frame. These procedures refer to the upper 5074 as **5079–002** and the lower 5074 as **5079–001**.

Notes:

1. The graphics that follow designate the HSL connectors for the system unit as 0 and 1. These designations represent which set of connectors on your system unit the HSL loop is connected to (for example B0 and B1).

2. These procedures are intended as a guide. Some steps in the following procedures may vary depending on the number of HSL connectors you received in your order. Make sure that you follow the configurations rules in Table 4 on page 5.

This section contains three separate procedures. Follow the procedure that best matches your system's configuration:

- "Connecting your 5079 at the beginning of a loop".
- "Connecting your 5079 in the middle of a loop" on page 24.
- "Connecting your 5079 to the end of a loop" on page 25.

Connecting your 5079 at the beginning of a loop

Use this procedure to connect your 5079 in the first position in a loop of expansion units. In this procedure you will connect your 5079 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 14 and Figure 15 on page 23.
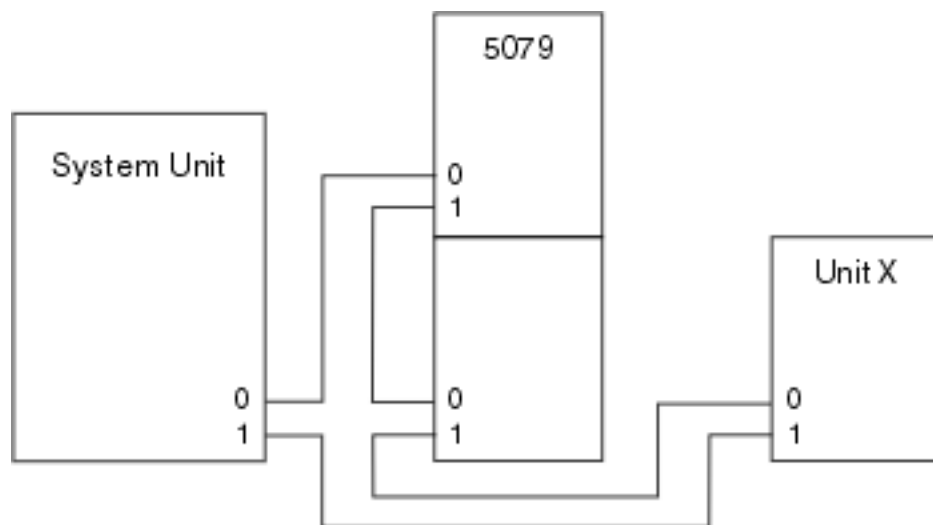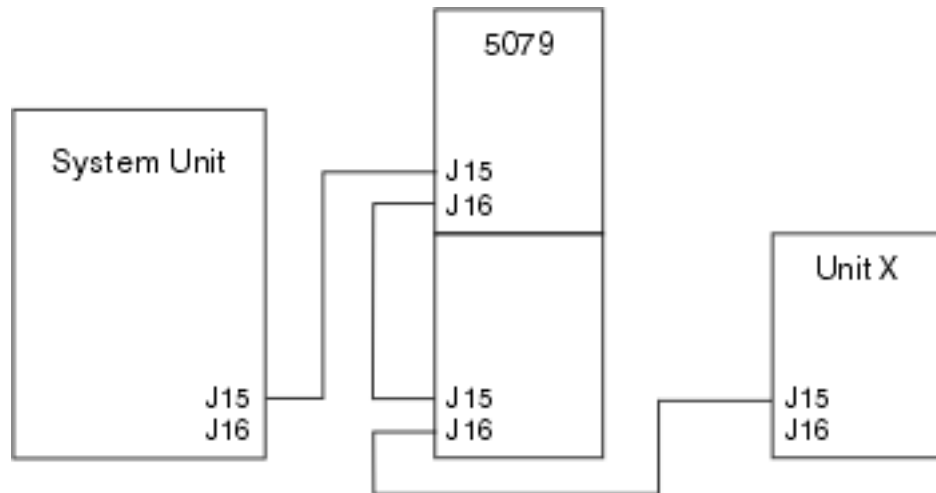

Figure 14. HSL connections

Figure 15. SPCN connections

__ 1. Open the back cover on your 5079. See Appendix A, "Removing the back covers" on page 31 if you need instructions.

__ 2. Connect the cables to the 5079–002 (the upper unit). See Appendix B, "Connector Locations" on page 35 if you need information about finding connectors.

    __ a. Connect a new HSL cable to HSL connector 1. If you have different length cables, this cable should be the shortest one.

    __ b. Connect a new SPCN cable to connector J16.

    __ c. Connect the power cable. **Do not** plug into the wall outlet. If your power cables for the 5079 are two different lengths, connect the longer cable to 5079–002.

__ 3. Connect the cables to the 5079–001 (the lower unit).

    __ a. Connect the HSL cable that you installed in step 2a to HSL connector 0.

    __ b. Connect another HSL cable to HSL connector 1.

    __ c. Connect the SPCN cable that you installed in step 2b to SPCN connector J15.

    __ d. Connect another SPCN cable to connector J15.

    __ e. Connect the power cable. **Do not** plug into the wall outlet. If your power cables for the 5079 are two different lengths, connect the shorter cable to 5079–001.

__ 4. Remove or open the back cover on your system unit.

__ 5. Remove or open the back cover on unit X.

__ 6. At unit X, remove the HSL cable from HSL connector 0. This cable is the HSL cable that runs between unit X and your system unit.

__ 7. At unit X, remove the SPCN cable from connector J15. This cable is the SPCN cable that runs between and your system unit.

__ 8. Connect the HSL cable from your system unit to the HSL connector 0 on 5079–002. This cable should now run between your system unit and your 5079–002.

__ 9. Connect the SPCN cable from your system unit to the SPCN connector J15 on 5079–002. This cable should now run between your system unit and your 5079–002.

Chapter 4. Setting up your 5079 Expansion Unit **23**

__ 10. Connect the HSL cable from 5079–001 HSL connector 1 to HSL connector 0 on unit X. This cable should now run between 5079–001 and Unit X.

__ 11. Connect the SPCN cable from 5079–001 connector J16 to connector J15 on unit X. This cable should now run between your 5079–001 and Unit X.

__ 12. Install the covers on unit X, your 5079, and your system unit.

__ 13. Go to Chapter 5, "Completing your installation" on page 27.

Connecting your 5079 in the middle of a loop

Use this procedure if you are connecting your 5079 to the middle of a loop. In other words, you are connecting your 5079 between two other expansion units. These instructions refer to these expansion units as unit X and unit Y as is shown in Figure 8 on page 13 and Figure 17.
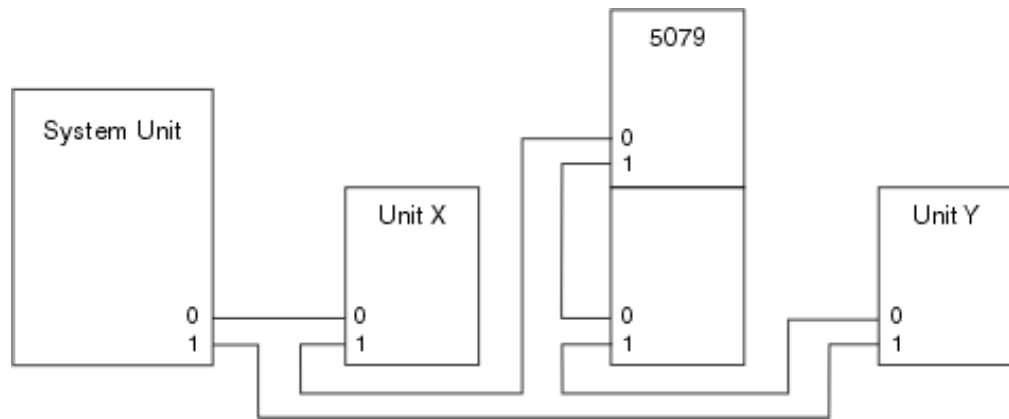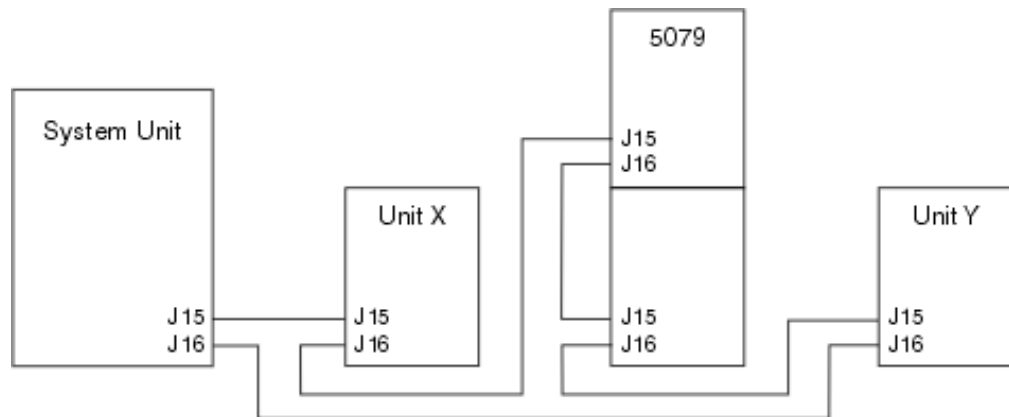

Figure 16. HSL connections

Figure 17. SPCN connections

__ 1. Remove or open the back cover on unit X and unit Y. See Appendix A, "Removing the back covers" on page 31 if you need instructions.

__ 2. At unit Y remove the SPCN cable from connector J15. See Appendix B, "Connector Locations" on page 35 if you need information about finding connectors.

__ 3. At unit Y remove the HSL cable from connector 0.

__ 4. Open the back cover on your 5079.

__ 5. Connect the cables to 5079–002 (the upper unit).

         __ a. Connect a new HSL cable to HSL connector 1. If you have different length cables, this cable should be the shortest one.

         __ b. Connect a new SPCN cable to connector J16.

         __ c. Connect the power cable. **Do not** plug into the wall outlet. If your power cables for the 5079 are two different lengths, connect the longer cable to 5079–002.

__ 6. Connect the cables to the 5079–001 (the lower unit).

         __ a. Connect the HSL cable that you installed in step 5a to HSL connector 0.

         __ b. Connect a new HSL cable to HSL connector 1.

         __ c. Connect the SPCN cable that you installed in step 5b to connector J15.

         __ d. Connect a new SPCN cable to connector J16.

         __ e. Connect the power cable. **Do not** plug into the wall outlet. If your power cables for the 5079 are two different lengths, connect the shorter cable to 5079–001.

__ 7. Connect the HSL cable from unit X to the HSL connector 0 on 5079–002. This cable now runs between unit X and your 5079–002.

__ 8. Connect the SPCN cable from unit X to the SPCN connector J15 on 5079–002. This cable now runs between unit X and your 5079–002.

__ 9. Connect the HSL cable from HSL connector 1 on 5079–001 to HSL connector 0 on unit Y.

__ 10. Connect SPCN cable from connector J16 on your 5079–001 to connector J15 on unit Y.

__ 11. Install or close the back cover of your 5079, unit X, and unit Y.

__ 12. Go to Chapter 5, "Completing your installation" on page 27.

Connecting your 5079 to the end of a loop

Use this procedure to connect your 5079 in the last position in a loop of expansion units. In this procedure you will connect your 5079 between your system unit and the expansion unit which is currently in the last position. These instructions refer to the expansion unit which is currently in the last position as unit Y as is shown in Figure 18 and Figure 19 on page 26.
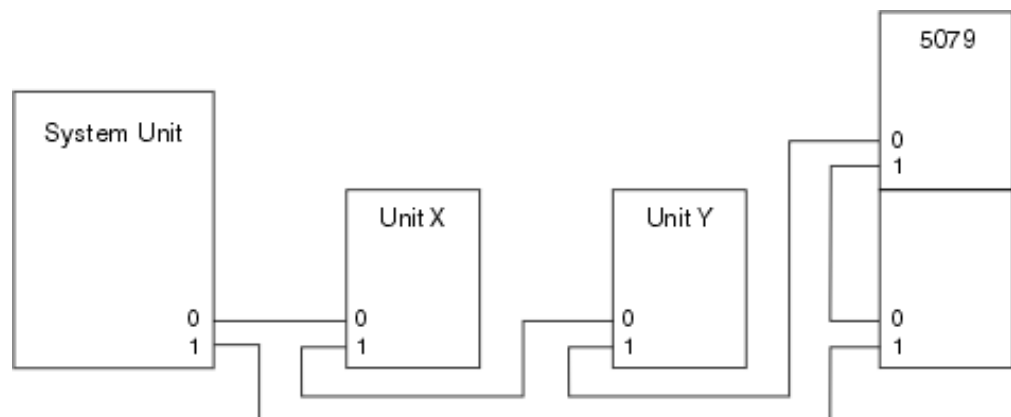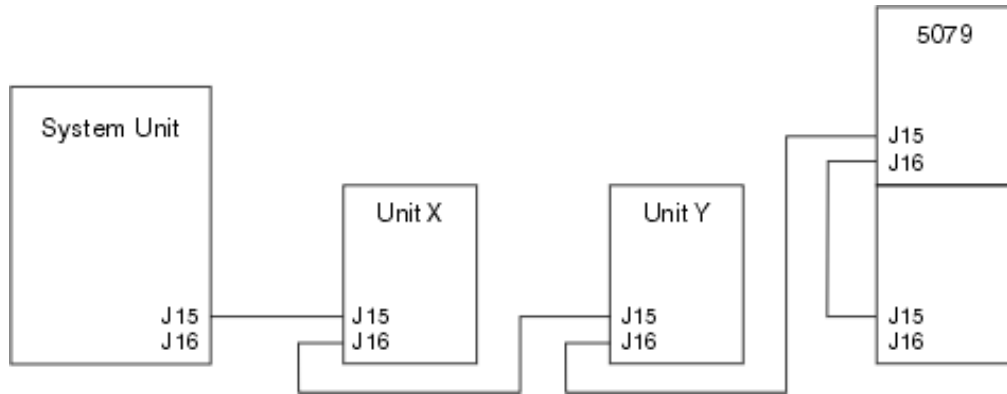

Figure 18. HSL connections

Figure 19. SPCN connections

__ 1. Open the back cover on your 5079. See Appendix A, "Removing the back covers" on page 31 if you need instructions.

__ 2. Connect the cables to 5079–002 (the upper unit). See Appendix B, "Connector Locations" on page 35 if you need information about finding connectors.

    __ a. Connect a new HSL cable to HSL connector 0.

    __ b. Connect a new HSL cable to HSL connector 1. If you have different length cables, this cable should be the shortest one.

    __ c. Connect a new SPCN cable to connector J15.

    __ d. Connect a new SPCN cable to connector J16.

    __ e. Connect the power cable. **Do not** plug into the wall outlet. If your power cables for the 5079 are two different lengths, connect the longer cable to 5079–002.

__ 3. Connect the cables to the 5079–001 (the lower unit).

    __ a. Connect the HSL cable that you installed in step 2b to HSL connector 0.

    __ b. Connect the SPCN cable that you installed in step 2d to connector J15.

    __ c. Connect the power cable. **Do not** plug into the wall outlet. If your power cables for the 5079 are two different lengths, connect the shorter cable to 5079–001.

__ 4. Remove or open the back cover on your system unit.

__ 5. Remove or open the back cover on unit Y.

__ 6. At unit Y, remove the HSL cable at connector 1. This cable currently runs between unit Y and your system unit.

__ 7. Connect the HSL cable from your system unit to the HSL connector 1 on 5079–001.

__ 8. Connect the HSL cable from 5079–002 HSL connector 0 to HSL connector 1 on unit Y.

__ 9. Connect the SPCN cable from 5079–002 connector J15 to connector J16 on unit Y.

__ 10. Install or close the covers on unit Y, your 5079, and your system unit.

__ 11. Go to Chapter 5, "Completing your installation" on page 27.

Chapter 5. Completing your installation

Perform the following steps to return complete your installation:

__ 1. Make sure that you have reinstalled all of the covers on the following system components:

    __ a. iSeries 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 performing 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. Look at the Function/Data display on the control panel. See Appendix C, "System unit control panel" on page 43 if you need information about your control panel.

__ 5. Does `01 B V=S` appear in the Function/Data display and OK is illuminated?

    Note: If you are using Operations Console remote control panel, it may be necessary to click Enter to verify IPL speed.

    Yes   **No**

    ↓   Do the following:

        __ a. Press the Mode Select button until the Manual indicator (a small hand) lights up.

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

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

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

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

        __ f. Press the Increment/Decrement push button until `S` appears in the Function/Data display

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

     __ h. Press the Mode Select button until the Normal indicator (**OK**) lights up.

     __ i. Press the Increment/Decrement push button until **01** appears in the Function/Data display.

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

          01 B S should appear in the Function/Data display and OK is illuminated. If it does not, repeat steps 5a on page 27 through 5i.

     __ k. Go to step 6.

__ 6. Power on your system unit by pushing the white power-on button.

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

__ 7. Sign on your system unit. Ensure that you have service tools authority.

__ 8. Go to Chapter 6, "Verifying Your New Configuration" on page 29.

Chapter 6. Verifying Your New Configuration

Verify your new configuration by performing the following:

___ 1. Type **strsst** on the command line. Press Enter.

___ 2. Type **your service tools userid and service tools password** on the *System Service Tools (SST) Sign On* display.

Press Enter.

___ 3. Select **Start a service tool** from the *Start a Service Tools* display and press Enter.

___ 4. Select **Hardware service manager** on the *Start a Service Tool* display.

Press Enter.

___ 5. Select **Packaging hardware resources (system, frames, cards...)** on the *Hardware Service Manager* display.

Press Enter.

Your new 0578, 5074, 5078 or 5079 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 expansion unit.

   ___ b. Make sure that you installed the cables correctly. Refer to Chapter 2, "Setting up your 5074 expansion unit" on page 9, Chapter 3, "Setting up your 0578 expansion unit" on page 15 or Chapter 4, "Setting up your 5079 Expansion Unit" on page 19.

___ 6. You can verify vital product data (VPD) for your new expansion unit:

   ___ a. Press F3 to return to the *Hardware Service Manager* display.

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

   ___ c. Press the Enter key twice.

   ___ d. To update VPD data, do the following:

      1) If you installed a 5079, you need to find the Frame ID for both 5079–002 and 5079–001 and the system Serial Number.

      2) You can also find the Frame ID by looking at the display on the expansion unit. For example, if the Frame ID for your 5079–002 (the upper unit) is 4, a *04 will appear on the display.

   ___ e. Enter a **3** (*Write VPD*) for your expansion unit. Press Enter.

   Example: If the Frame ID for your expansion unit is 2, enter option **3**, as is shown in the example below. Use the Frame ID with a **0** in the *Unit* field.

```
                    System Power Control Network

Battery capacity test . . . . . . . : Enabled


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


                                       Serial
Opt     Frame      Unit      Type      Number        Fault
        01         0                   00-00000      No
        01         1                   00-00000      No
        03         0         ....      00-00000      No
        03         1         ....      00-00000      No
   3    02         0         ....      00-00000      No
        02         1         ....      00-00000      No
```

    __ f. At the *Write Vital Product Data (VPD)* display enter the following information:

        __ 1) At the *Type* field enter **0578, 5074. 5078** or **5079**.

        __ 2) At the *Model* field, enter **001**. If you have a 5079, enter **001** for 5079–001 (the lower unit) or **002** for the 5079–002 (the upper unit).

        __ 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.

__ 7. Press F3 to return to the *Hardware Service Manager* display.

__ 8. From the *Hardware Service Manager* display press F6 (print the configuration) to print the configuration list.

__ 9. For future reference place the configuration list in this book.

__ 10. To return to the Main menu, press F3 (Exit) two times and press the Enter key.

Appendix A. Removing the back covers

5075 and 820 back cover

Remove the back cover for the system unit by gripping the upper corners of the cover and pulling it up and toward you.
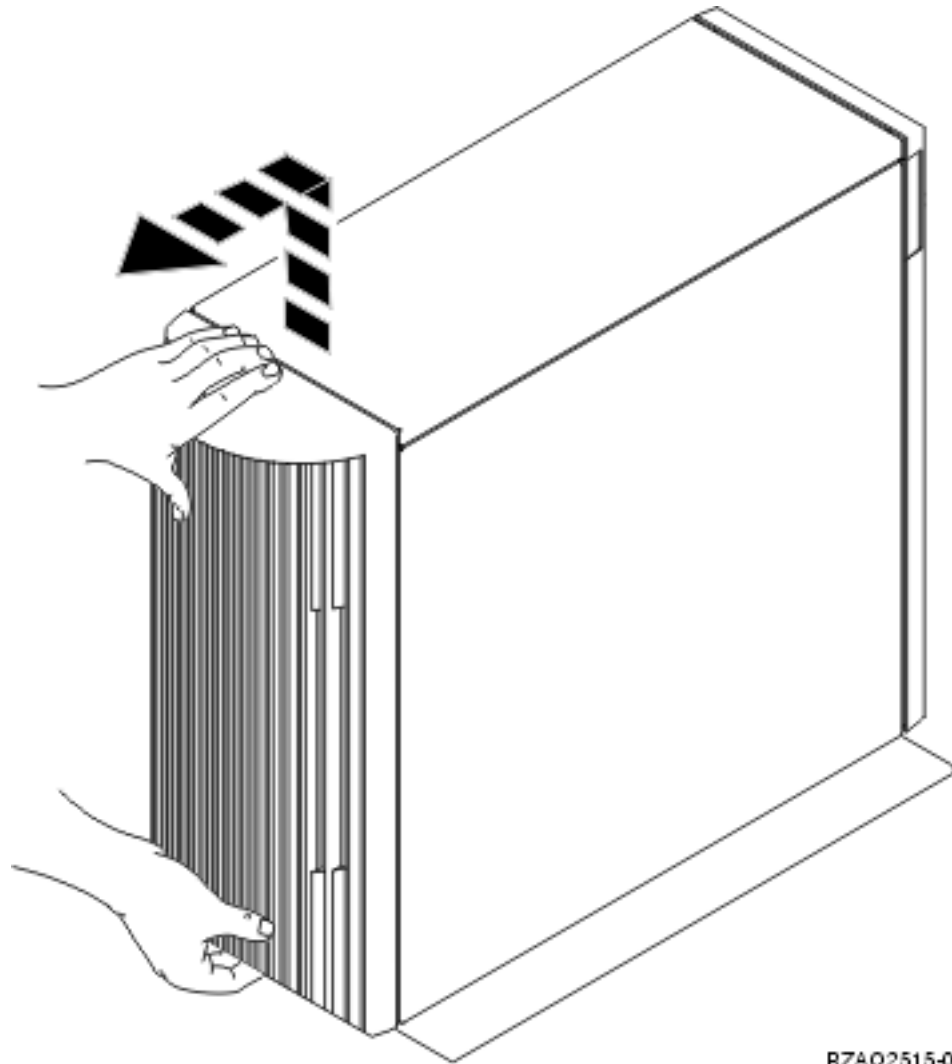
RZAQ2515-0

Figure 20. Removing the 5075 and 820 back cover

5074, 830 and 890 back cover

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

Note: The 5074 and 830 back covers do not look the same. However, the procedure to open them is the same.

31
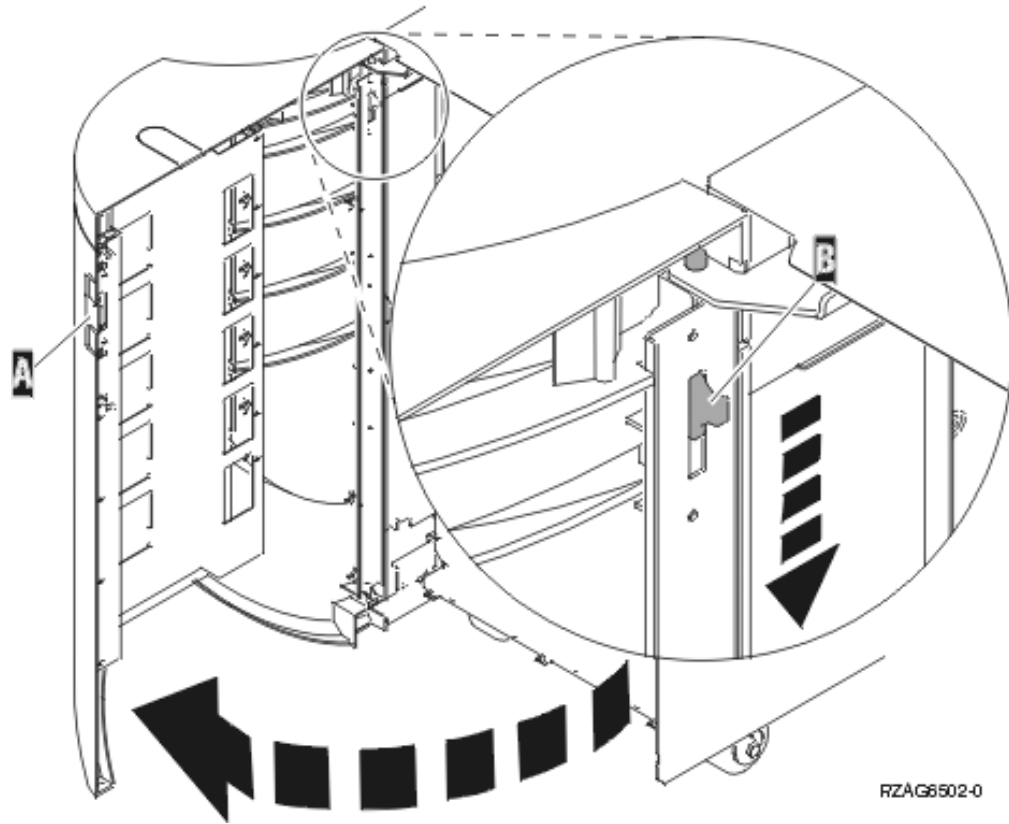
Figure 21. Removing the 5074 and 830 back cover

5079 and 840 back cover

Open the back cover on your 5079 by pressing the latch at **A** .
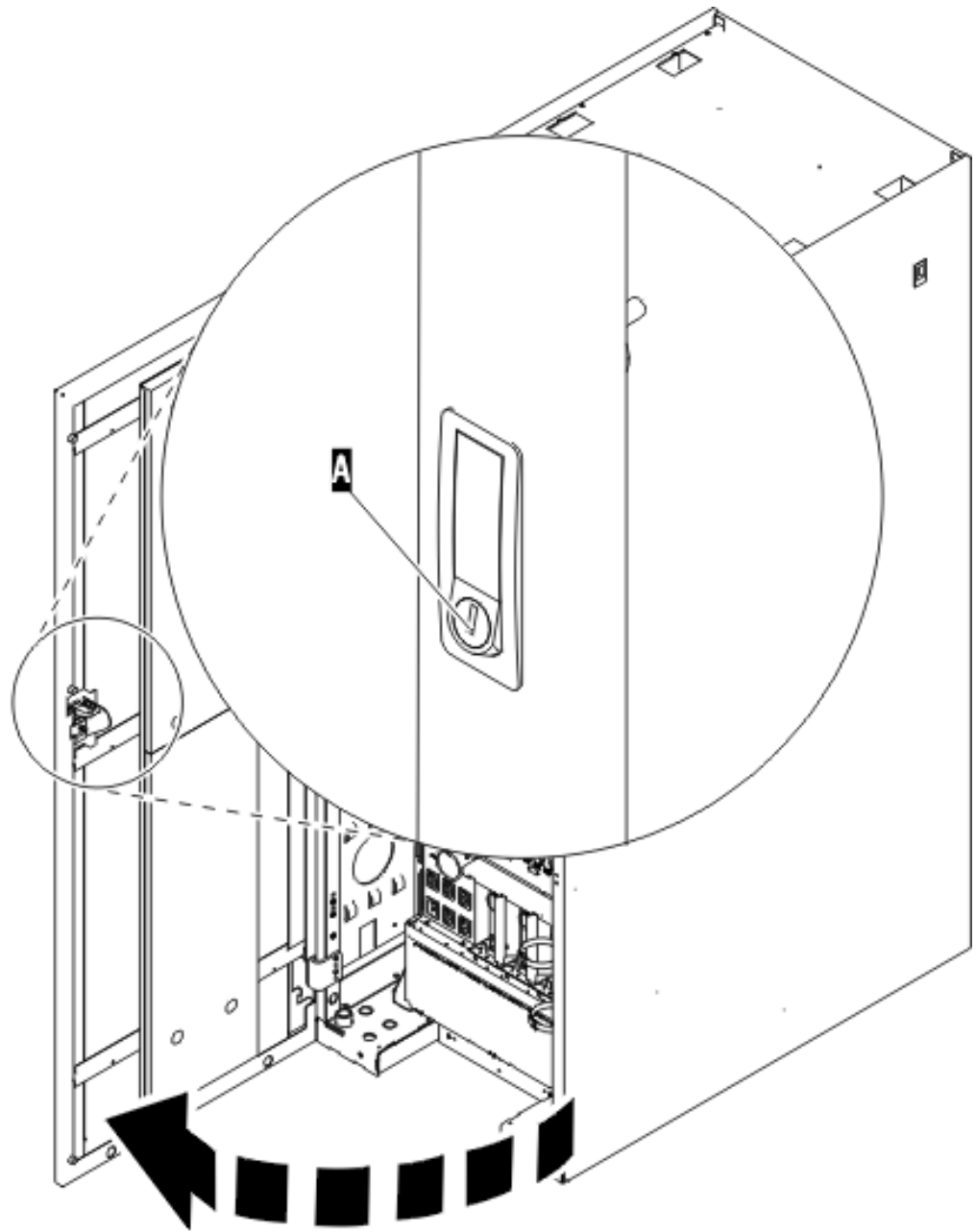
Figure 22. Opening the 5079 and 840 back cover

Accessing units in a rack

1. Move to the back of the rack, press latch **A**, and open the back door of the rack.

RZAC2559-0
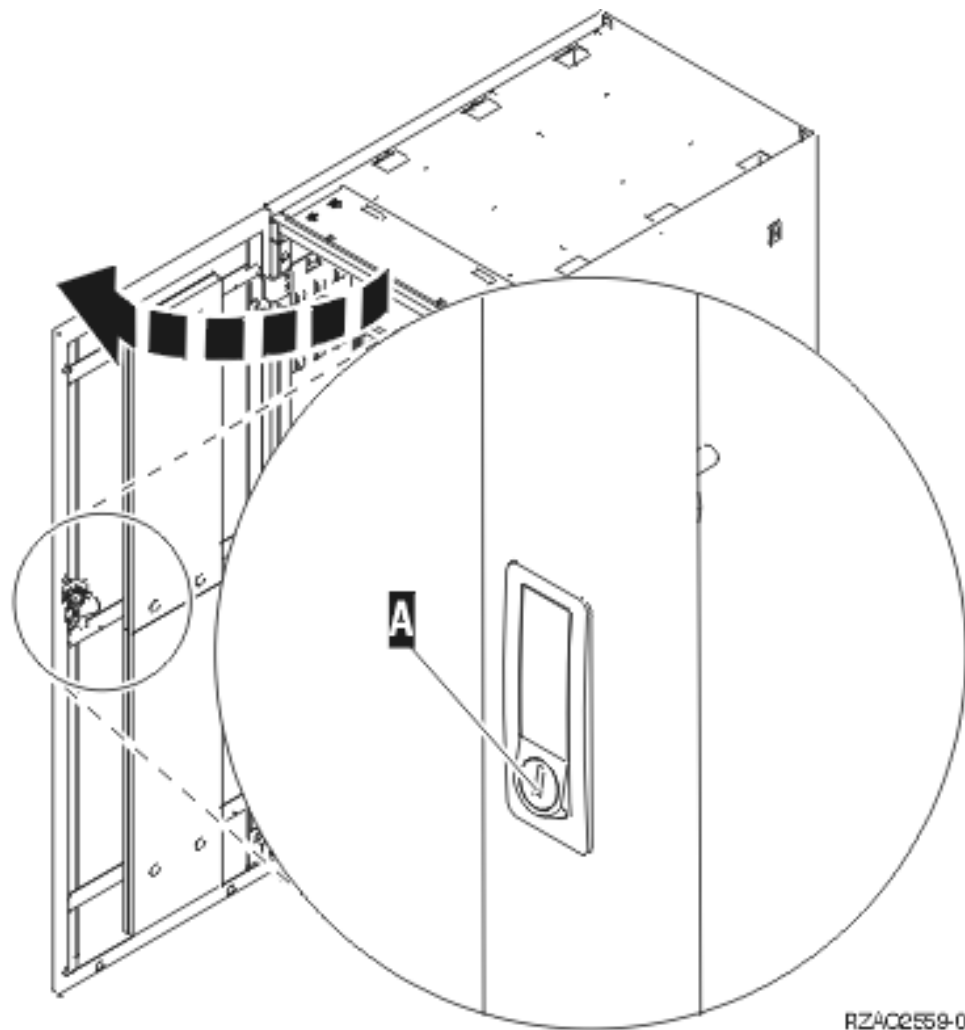
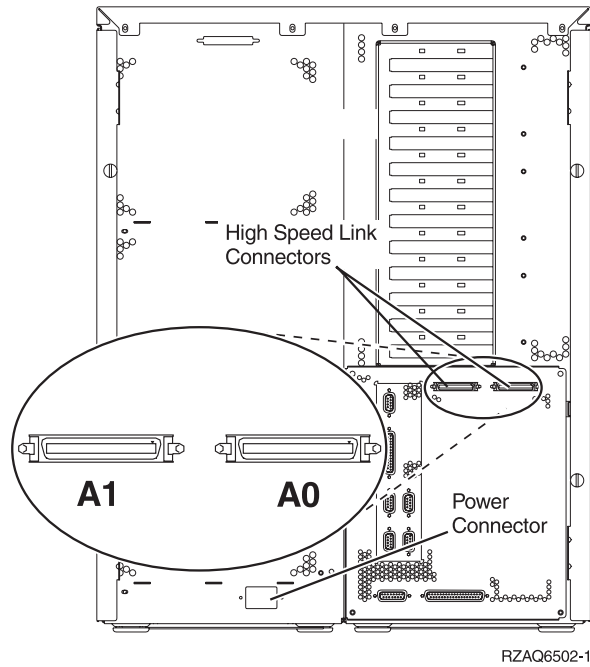# Appendix B. Connector Locations

820 HSL connector locations

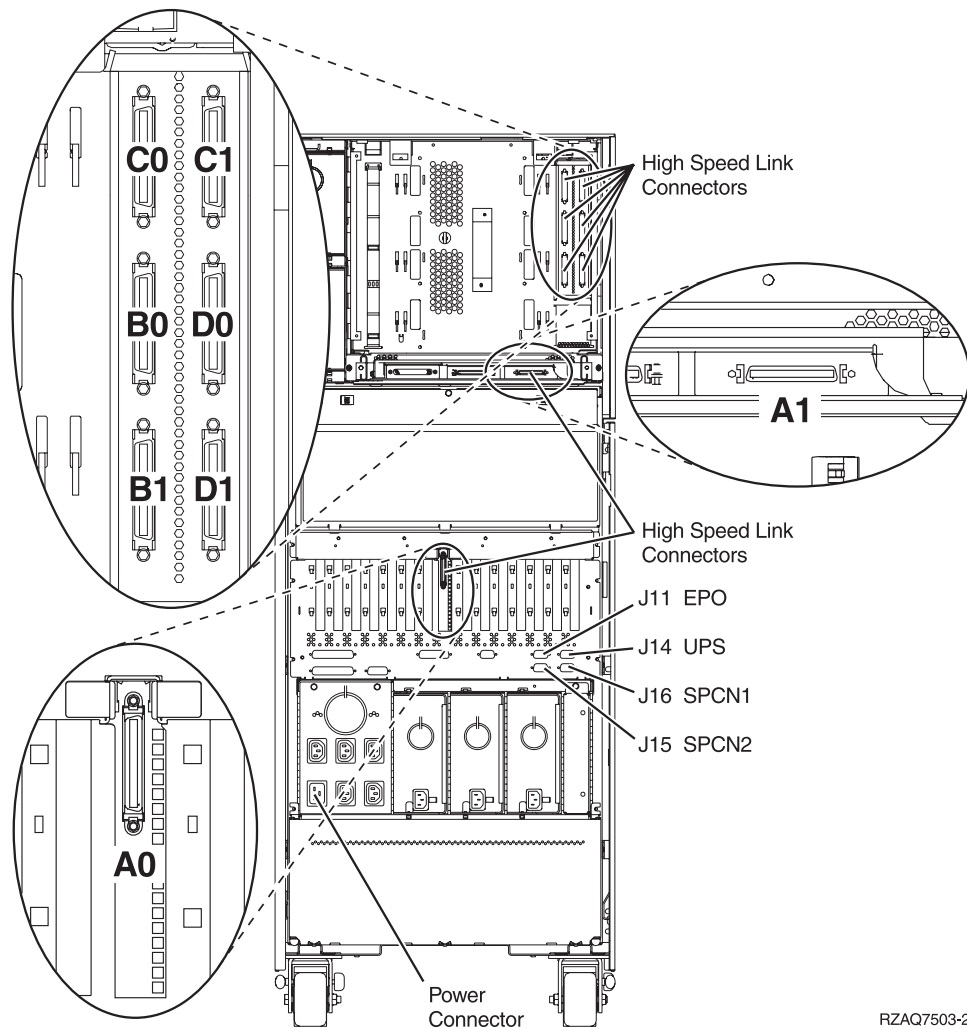*Figure 23. 820 HSL connector locations*

830 HSL connector locations

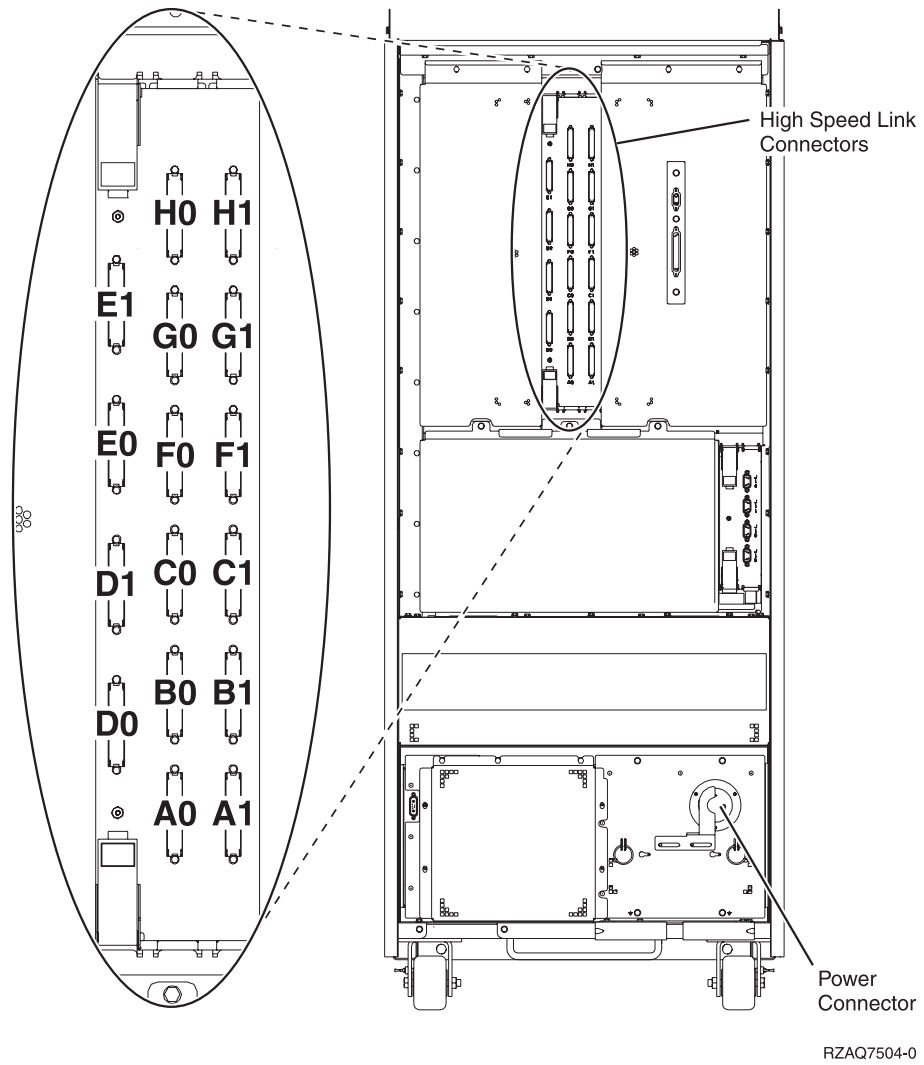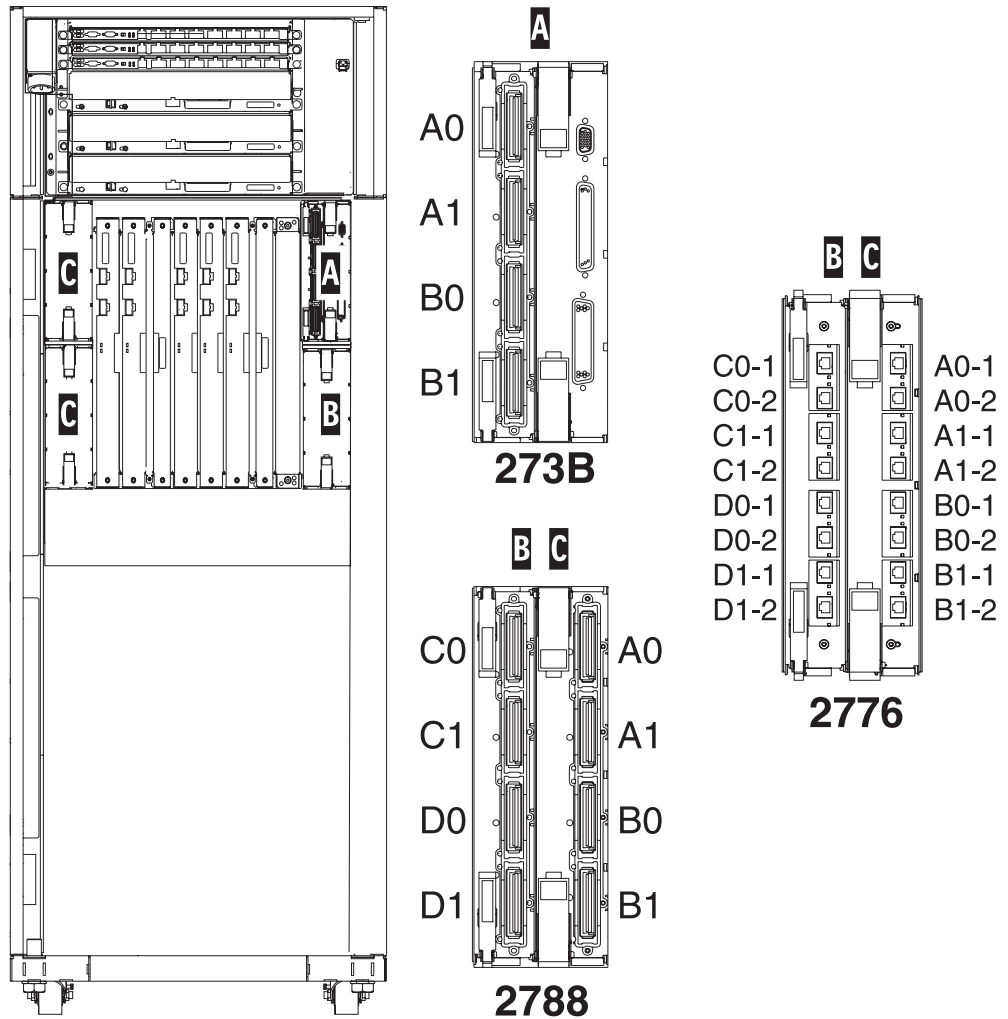*Figure 24. 830 HSL connector locations*

840 HSL connector locations

H0 H1

E1

G0 G1

E0 F0 F1

D1 C0 C1

B0 B1
D0

A0 A1

High Speed Link
Connectors

Power
Connector

RZAQ7504-0

Figure 25. 840 HSL connector locations

890 HSL connector locations

A0
A1
B0
B1

273B

C0   A0
C1   A1
D0   B0
D1   B1

2788

C0-1   A0-1
C0-2   A0-2
C1-1   A1-1
C1-2   A1-2
D0-1   B0-1
D0-2   B0-2
D1-1   B1-1
D1-2   B1-2

2776

Note: Connector Positions in Location C will be rotated 180 degrees.

RZAQ7513-0

Figure 26. 890 HSL connector locations

5079 connector locations
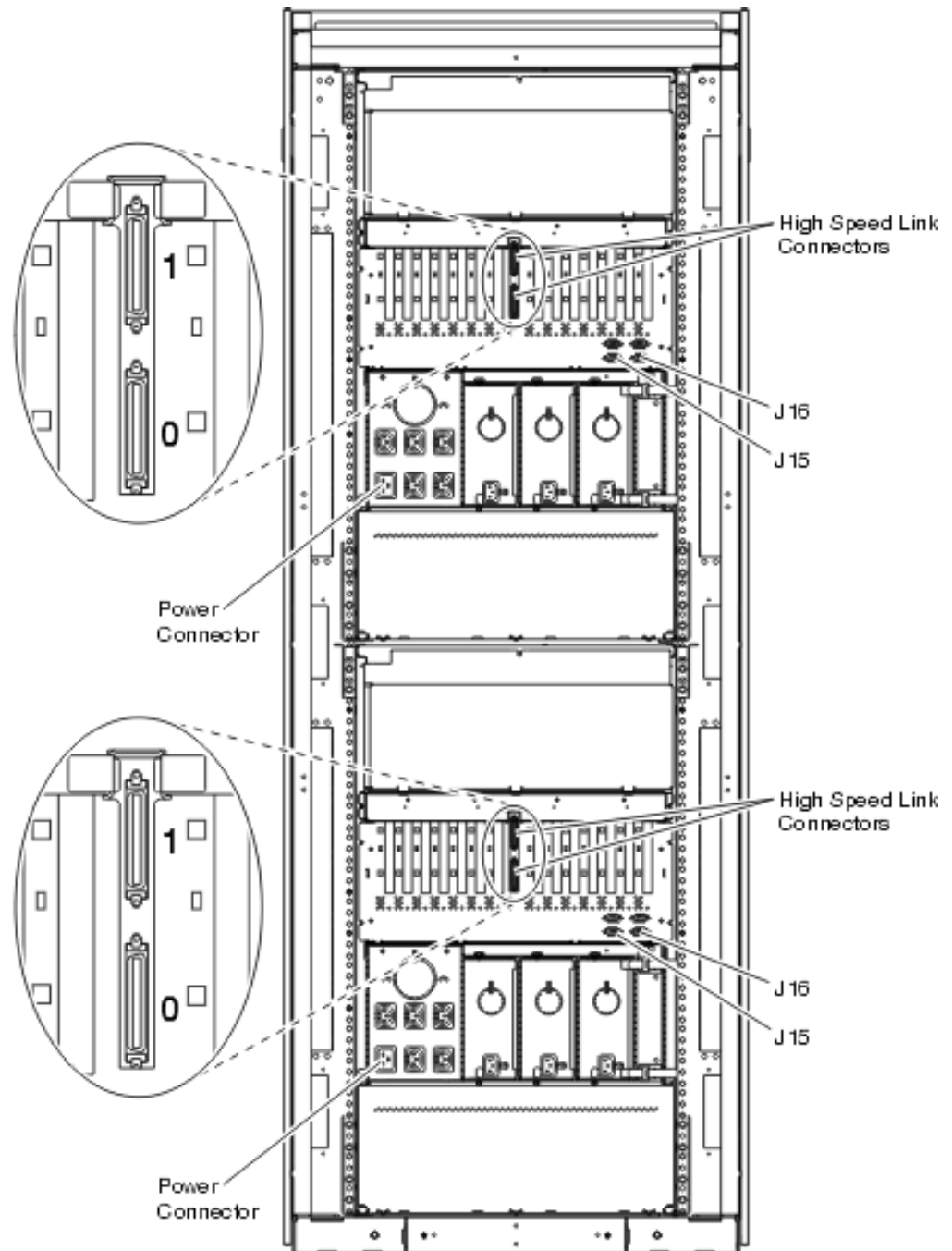

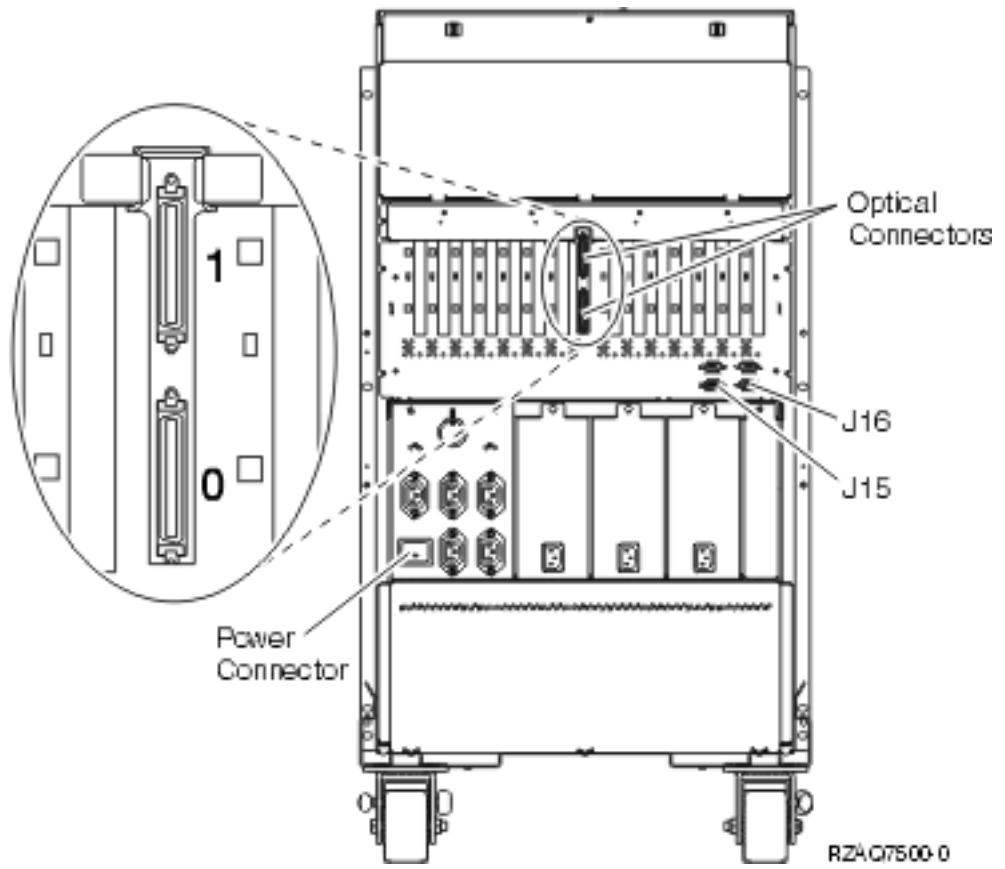*Figure 27. 5079 connector locations*

5074 connector locations

Figure 28. 5074 connector locations
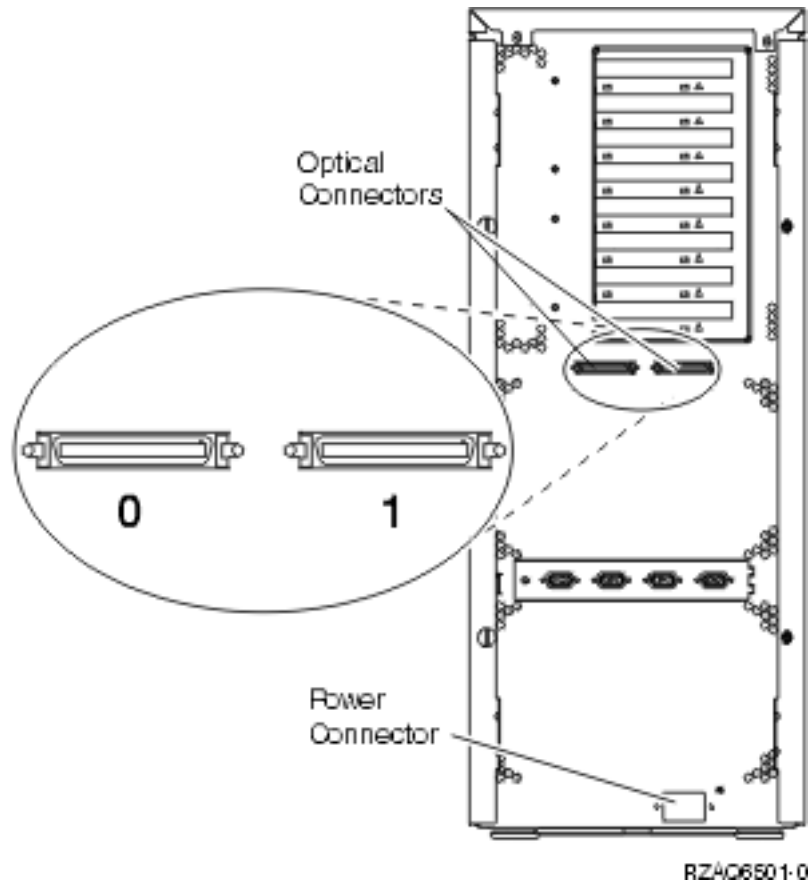
5075 connector locations

Figure 29. 5075 connector locations
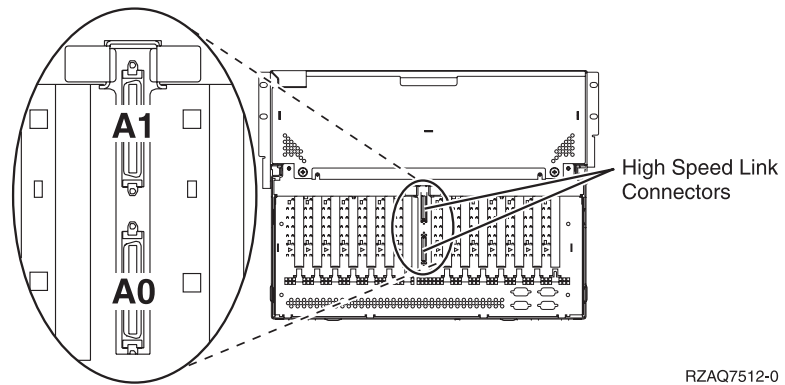
# 5078 connector locations

Figure 30. 5078 connector locations

Appendix C. System unit control panel

1. Go to the front of your iSeries system unit. Open the control panel door.
2. Before you can use **F** Increment/Decrement Buttons and **G** Enter Push button, you need to press **H** Mode Select to select manual mode **K** .

   You will use the push buttons on the control panel. Familiarize yourself with the control panel on your unit.
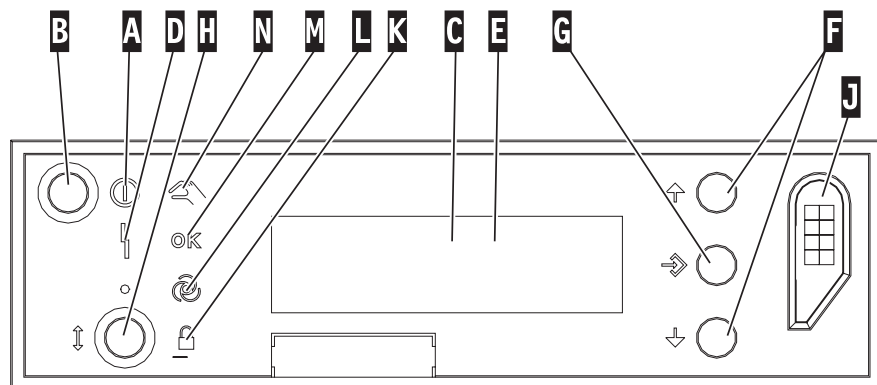
RZACD507-1

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

K   Secure

L   Auto

M   Normal

N   Manual

Appendix D. Cabling rules for systems with a migration unit or the 9079 and 9094 expansion unit

If you already have a migration unit or a 9079 Expansion Unit set up on your system, there are special cabling rules that you must follow. On the table below, find your system unit and follow the rule that apply to your system unit.

System unit	Rule
iSeries 820	• A 503x migration unit must be in the first position of the HSL loop if there are a total of three external units or fewer. The first position is the position that is closest to connector A0 on the system unit. See Figure 31 on page 46 and Figure 32 on page 46. • 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 33 on page 47 and Figure 34 on page 47. • The 5079 counts as two independent 5074s. If you have two 5079s and one 503x, follow the cabling diagram that is shown in Figure 35 on page 47. • The 503x must be in the last position of the SPCN loop. See Figure 36 on page 48.
iSeries 830	• You cannot install a 5074 or 5079 on the same HSL loop as the 503x or 5077 migration unit. Use the next available HSL connector. • The 503x must be in the last position of the SPCN loop. See Figure 36 on page 48. • Set up the SPCN cable for your 5074 in the same SPCN loop as the 5077. This is true even though you are connecting the 5074 to a different HSL loop than the 5077. You can do this by connecting the SPCN cable from J15 of your new expansion unit to J16 of the 5077. See Figure 37 on page 48.
iSeries 840	• You cannot install a 5074 or 5079 to the same HSL loop as the 5077. • You can install up to two 5074s or one 5079 with a 9079 on the first loop (A0 and A1). • Set up the SPCN cable for your 5074 or 5079 in the same SPCN loop as the 5077 or 9079. This is true even though you are connecting the 5074 or 5079 to a different HSL loop than the 5077 or 9079. You can do this by connecting the SPCN cable from J15 of your new expansion unit to J16 of the 5077 or 9079. See Figure 37 on page 48.

| System unit	Rule
iSeries 890	• You can install up to two 5074s or one 5079 with a 9094 on the first loop (A0 and A1). • Set up the SPCN cable for your 5074 or 5079 in the same SPCN loop as the 9094. This is true even though you are connecting the 5074 or 5079 to a different HSL loop than the 9094. You can do this by connecting the SPCN cable from J15 of your new expansion unit to J16 of the 9094. See Figure 38 on page 49.
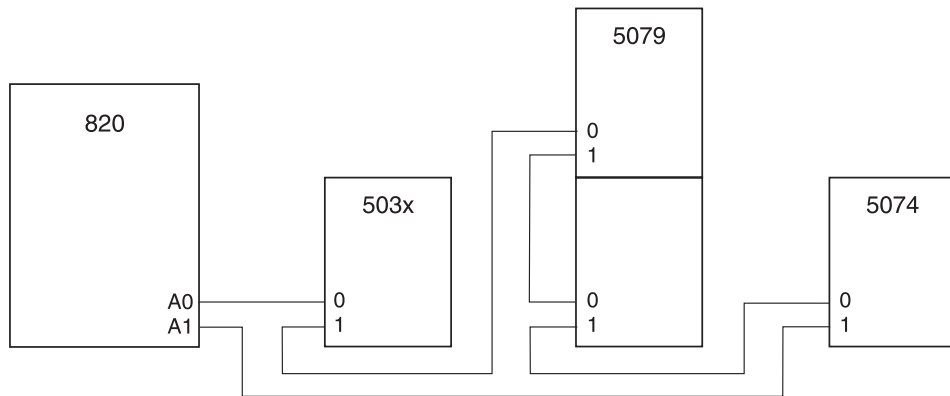
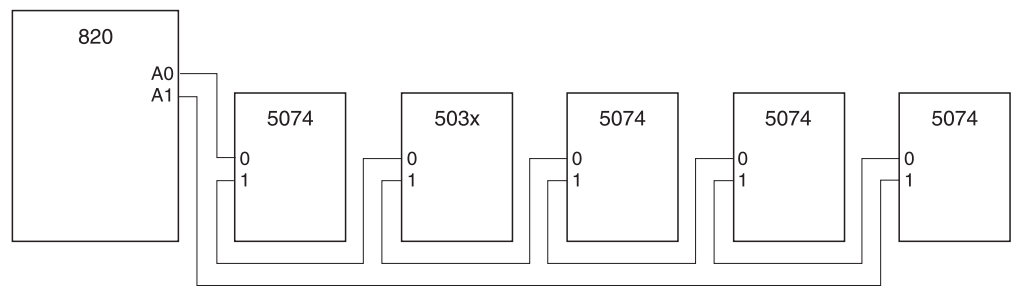
RZAQ6630-0

Figure 31. HSL loop with 503x
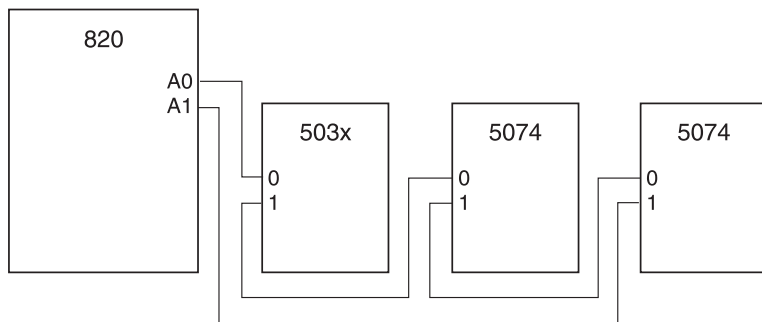
RZAQ6635-0

Figure 32. HSL loop with three external units
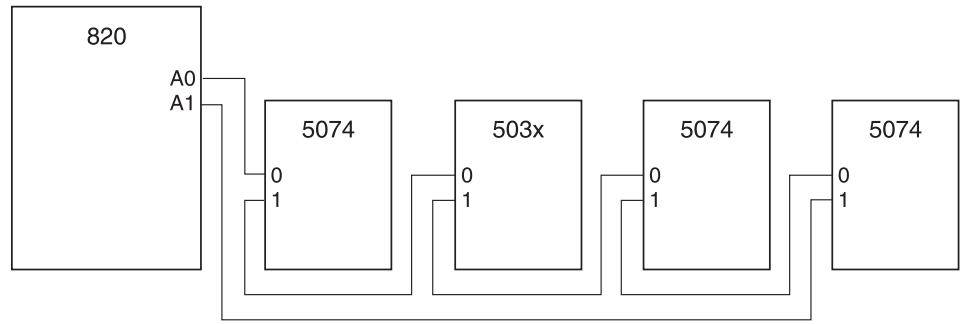
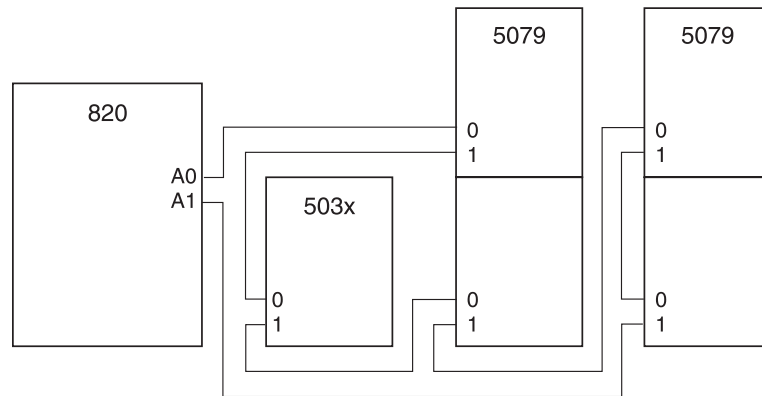RZAQ6636-0

Figure 33. HSL loop with four external units

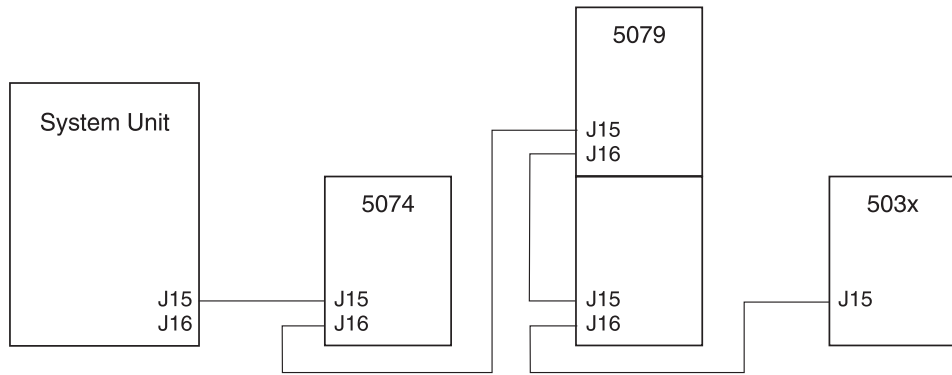RZAQ6637-0

Figure 34. HSL loop with five external units

RZAQ6638-0

Figure 35. HSL loop with two 5079s and a 503x
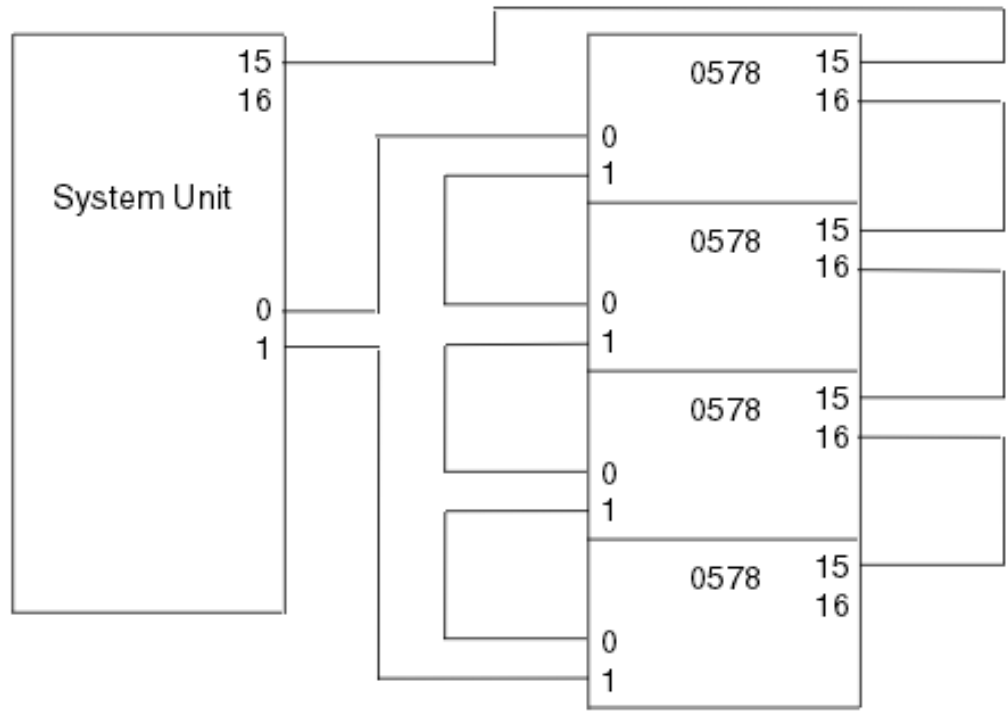
Appendix D. Cabling rules for systems with a migration unit or the 9079 and 9094 expansion unit **47**

Figure 36. SPCN loop with 503x
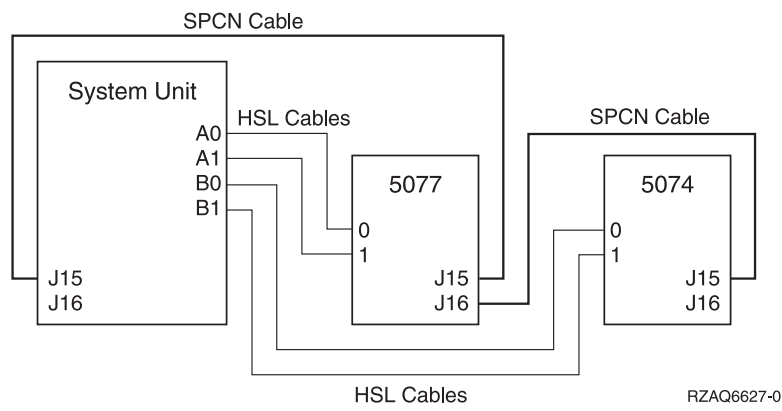
Figure 37. SPCN and HSL loop with 5077

Figure 38. HSL loop with 0578

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