



Allen-Bradley

DeviceNet PCI Communication Interface Card

1784-PCID, 1784-PCIDS

**Installation
Instructions**

**Rockwell
Automation**

Important User Information

Because of the variety of uses for the products described in this publication, those responsible for the application and use of these products must satisfy themselves that all necessary steps have been taken to assure that each application and use meets all performance and safety requirements, including any applicable laws, regulations, codes and standards. In no event will Rockwell Automation be responsible or liable for indirect or consequential damage resulting from the use or application of these products.

Any illustrations, charts, sample programs, and layout examples shown in this publication are intended solely for purposes of example. Since there are many variables and requirements associated with any particular installation, Rockwell Automation does not assume responsibility or liability (to include intellectual property liability) for actual use based upon the examples shown in this publication.

Allen-Bradley publication SGI-1.1, *Safety Guidelines for the Application, Installation and Maintenance of Solid-State Control* (available from your local Rockwell Automation office), describes some important differences between solid-state equipment and electromechanical devices that should be taken into consideration when applying products such as those described in this publication.

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Throughout this publication, notes may be used to make you aware of safety considerations. The following annotations and their accompanying statements help you to identify a potential hazard, avoid a potential hazard, and recognize the consequences of a potential hazard:

WARNING

Identifies information about practices or circumstances that can cause an explosion in a hazardous environment, which may lead to personal injury or death, property damage, or economic loss.

ATTENTION

Identifies information about practices or circumstances that can lead to personal injury or death, property damage, or economic loss.

IMPORTANT

Identifies information that is critical for successful application and understanding of the product.

ATTENTION**Environment and Enclosure**

This equipment is intended for use in a Pollution Degree 2 industrial environment, in overvoltage Category II applications (as defined in IEC publication 60664-1), at altitudes up to 2000 meters without derating.

This equipment is considered Group 1, Class A industrial equipment according to IEC/CISPR Publication 11. Without appropriate precautions, there may be potential difficulties ensuring electromagnetic compatibility in other environments due to conducted as well as radiated disturbance.

This equipment is supplied as "open type" equipment. It must be mounted within an enclosure that is suitably designed for those specific environmental conditions that will be present and appropriately designed to prevent personal injury resulting from accessibility to live parts. The interior of the enclosure must be accessible only by the use of a tool. Subsequent sections of this publication may contain additional information regarding specific enclosure type ratings that are required to comply with certain product safety certifications.

See NEMA Standards publication 250 and IEC publication 60529, as applicable, for explanations of the degrees of protection provided by different types of enclosure. Also, see the appropriate sections in this publication, as well as the Allen-Bradley publication 1770-4.1 ("Industrial Automation Wiring and Grounding Guidelines"), for additional installation requirements pertaining to this equipment.

Rockwell Automation Support

Before you contact Rockwell Automation for technical assistance, we suggest you please review the troubleshooting information contained in this publication first.

If the problem persists, call your local Rockwell Automation representative or contact Rockwell Automation in one of the following ways:

| | | |
|-----------------|------------------------------|--|
| Phone | United States/Canada | 1.440.646.5800 |
| | Outside United States/Canada | You can access the phone number for your country via the Internet: <ol style="list-style-type: none">1. Go to http://www.ab.com2. Click on <i>Product Support</i> (http://support.rockwellautomation.com)3. Under <i>Support Centers</i>, click on <i>Contact Information</i> |
| Internet | ⇒ | <ol style="list-style-type: none">1. Go to http://www.ab.com2. Click on <i>Product Support</i> (http://support.rockwellautomation.com) |

Your Questions or Comments on This Manual

If you find a problem with this manual, please notify us of it on the enclosed How Are We Doing form.

What Is a PCI Card?

The 1784-PCID and -PCIDS cards are peripheral component interconnect (PCI) open-bus interface cards that provide DeviceNet monitoring, configuration, and I/O scan capabilities.

Purpose of This Manual

Use this document to learn how to install and use the DeviceNet PCI communication interface cards, 1784-PCID and 1784-PCIDS.

Intended Audience

Read this manual before you install or use the DeviceNet PCI communication interface cards. You should be familiar with DeviceNet technology when applying products such as those described in this publication.

Terminology

| this term | means |
|------------------|---|
| DeviceNet | networking standard maintained by Open DeviceNet Vendor Association |
| PCI | peripheral component interconnect |
| 1784-PCID | DeviceNet PCI messaging card |
| 1784-PCIDS | DeviceNet PCI scanner and messaging card |

System Requirements

You must use a Separated Extra Low Voltage (SELV) or a Protected Extra Low Voltage (PELV) power supply to comply with CE Low Voltage Directives.

In North America, use a UL listed or CSA Certified computer chassis. The DeviceNet network must use a UL listed or CSA Certified Class 2 power supply. You also need:

- Microsoft Windows NT 4.0 with Service Pack 5 or later, Windows 2000 with Service Pack 1 or later, or Windows XP
- one open PCI slot
- approximately 2 MB disk space
- RSNetWorx for DeviceNet V2.11.51 or later
- RSLinx V2.10.118 or later

Communication on DeviceNet

You must have IOLinx for the 1784-PCIDS Card or RSLinx application software to communicate on a DeviceNet network with a PCIDS card. The PCID card is compatible only with RSLinx software.

For details about communicating on a DeviceNet network, see your application software documentation.

Use Care When Handling the Card

ATTENTION**Preventing Electrostatic Discharge**

This equipment is sensitive to electrostatic discharge, which can cause internal damage and affect normal operation. Follow these guidelines when you handle this equipment:

Touch a grounded object to discharge potential static.

Wear an approved grounding wriststrap.

Do not touch connectors or pins on component boards.

Do not touch circuit components inside the equipment.

If available, use a static-safe workstation.

When not in use, store the equipment in appropriate static-safe packaging.

Verify the Contents of Your 1784-PCID/PCIDS Order

With this package you should receive:

- 1784-PCID or 1784-PCIDS card
- terminal block connector
- Driver and utility (IOLinx) CD for the 1784-PCIDS or a floppy disk for the 1784-PCID
- DeviceNet PCI Communication Interface Card Installation Instructions, publication 1784-IN004

Notes:

Chapter 1

Install the 1784-PCID and 1784-PCIDS Communication

Interface Cards

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|---|------|
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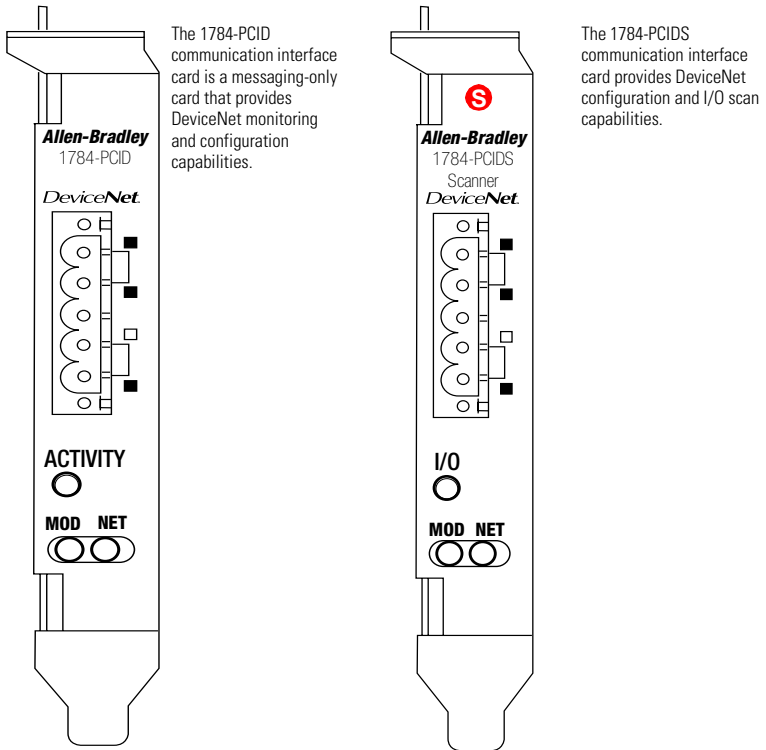
Install the 1784-PCID and 1784-PCIDS Communication Interface Cards

| For information on this topic: | Refer to page: |
|---|-----------------------|
| Introducing the 1784-PCID/PCIDS Communication Interface Cards | 1-1 |
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Introducing the 1784-PCID/PCIDS Communication Interface Cards

The 1784-PCID and the 1784-PCIDS communication interface cards, with appropriate software, are peripheral component interconnect (PCI) open-bus interface cards. See Figure 1.1 on page 1-2.

Figure 1.1 1784-PCID and 1784-PCIDS Communication Interface Cards



Install the 1784-PCID or 1784-PCIDS Card

IMPORTANT

Be certain that you know how to:

- install hardware in your computer
- configure the computer's options before you install the card

Consult your computer's documentation for specific information.

WARNING

If you insert or remove the card while host power is on, an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding.

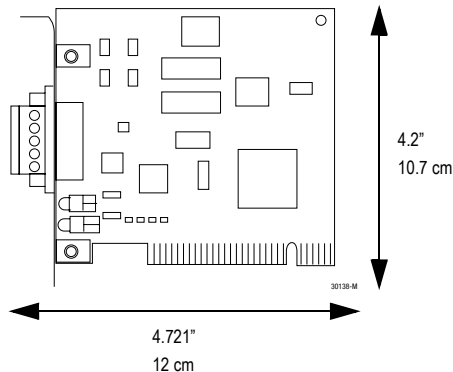
You need a Phillips-head or a flat-head screwdriver, depending on your system.

To install the card:

1. Gain access to the computer's expansion slots.
2. Insert the card into an open PCI slot in the computer.

IMPORTANT

The 1784-PCID/PCIDS card is 4.2" (10.7 cm) high and 4.721" (12 cm) long.



Access the Computer's Expansion Slots

To install the PCID/PCIDS card, you must access the computer's expansion slots. Refer to your computer's user guide for instructions on how to:

1. Power down the host computer by turning off the power switch.
2. Remove the computer's cover.
3. Select a vacant PCI expansion slot.
4. Remove the slot's expansion cover by loosening the screw on the back (rear bracket) of the computer.

Insert the Card

To insert the card inside the computer:

1. Follow the card handling instructions described in the Preface of this manual.
2. Insert the PCID/PCIDS card into the edge connector and tighten the expansion slot screw.
3. Turn on the computer to make sure it powers up correctly.
4. Replace the CPU cover (when computer comes up correctly).

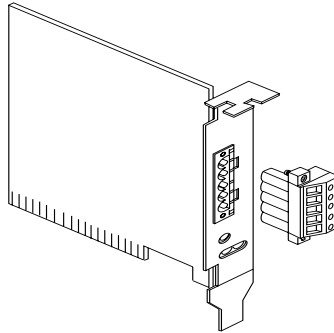
Connect to the Network

WARNING



If you connect or disconnect the DeviceNet cable with power applied to this module or any device on the network, an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding.

Figure 1.2 and the following table show the necessary network connections you make to the card. The label (on the retaining bracket) is color-coded for easy wiring.

Figure 1.2 Wiring the Card

20139-M

| pin number | wire color | abbreviation | description |
|------------|------------|--------------|-----------------------|
| 1 | black | V- | 24V dc power return |
| 2 | blue | CAN_L | data low - data line |
| 3 | bare | DRAIN | shield |
| 4 | white | CAN_H | data high - data line |
| 5 | red | V+ | +24V dc |

Notes:

Install the Driver in Windows NT

| For information on this topic: | Refer to page: |
|--|----------------|
| Install the 1784-PCID Driver and Driver Software | 2-1 |
| Install the 1784-PCIDS Driver and IOLinx | 2-3 |

Install the 1784-PCID Driver and Driver Software

IMPORTANT

Be sure that your PCID card is properly installed. Refer to Chapter 1 of this manual to install the card.

Uninstall the Previous Version of the Driver Software

IMPORTANT

Before you install the new Driver Software, you must uninstall any earlier versions. If you do not currently have PCID Driver Software installed, go to Install the New Driver and Driver Software on page 2-2.

1. Shut down all applications that use the PCID Driver, including RSLinx.
2. Select **Start** ⇒ **Settings** ⇒ **Control Panel**.
3. Double-click the **Add/Remove Programs** icon.
4. Double-click on **Allen-Bradley 1784-PCID Driver**.

5. Select **Yes** to uninstall the Driver.

TIP



If you are prompted to remove unused shared files, select **No to All**.

6. Reboot the computer.

Install the New Driver and Driver Software

IMPORTANT

We recommend that you exit all Windows programs before running this Setup program.

1. Choose the location from which you wish to install the Driver and Driver Software.

| if | then |
|---|--|
| you are installing from a floppy disk | Insert the floppy disk into the computer's floppy disk drive. |
| you are installing from a compressed file | download from http://support.rockwellautomation.com and unzip the files into a temporary directory |

2. Select **Start** ⇒ **Run**.
3. At the Run pop-up menu, type **x:\setup** where **x** is the drive where the installation files are stored.
4. Click **OK** and follow the on-screen instructions for installing the 1784-PCID Driver and Driver Software.

Install the 1784-PCIDS Driver and IOLinx

IMPORTANT

Be sure that your PCIDS card is properly installed. Refer to Chapter 1 of this manual to install the card.

Uninstall the Previous Version of IOLinx

IMPORTANT

Before you install the new Driver and IOLinx, you must uninstall any earlier versions of IOLinx. If you do not currently have IOLinx installed, go to Install the New Driver and IOLinx on page 2-4.

1. Shut down all applications that use the IOLinx DeviceNet Driver, including RSLinx and SoftLogix.
2. Select **Start** ⇒ **Settings** ⇒ **Control Panel**.
3. Double-click the **Add/Remove Programs** icon.
4. Depending on which previous version of IOLinx was installed, double-click on one of the following to remove it:
 - **1784-PCIDS Drivers for IOLinx**
 - **IOLinx for the 1784-PCIDS Card**
5. Select **Yes** to uninstall IOLinx.

TIP

If you are prompted to remove unused shared files, select **No to All**.



Install the New Driver and IOLinx

IMPORTANT

We recommend that you exit all Windows programs before running this Setup program.

TIP



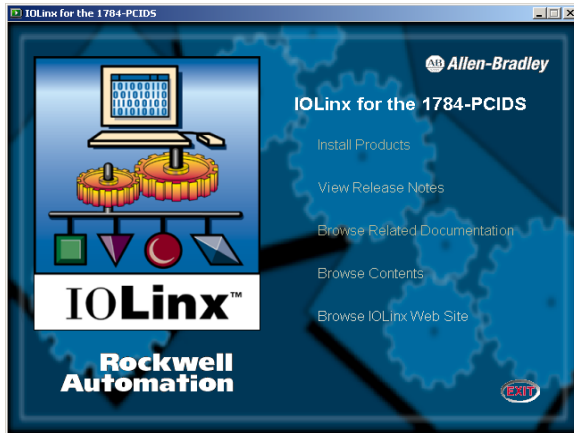
The CD-ROM supports Windows Autorun. If you have Autorun configured, once the CD is inserted into the CD-ROM drive, the installation will automatically start at the first setup screen.

1. Choose the location from which you wish to install the Driver and IOLinx.

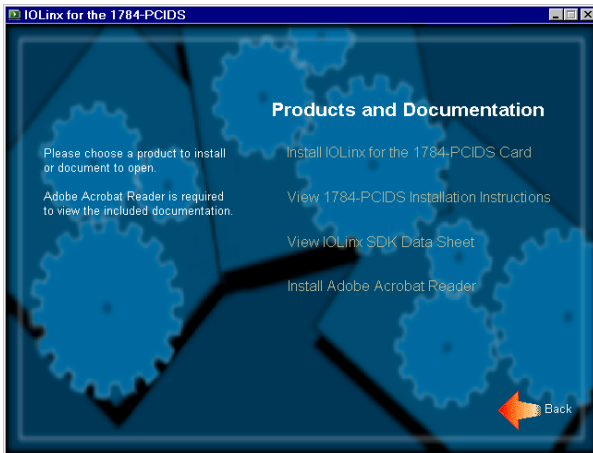
| if | then |
|--|--|
| you are installing from CD-ROM and Auto Insert Notification (a.k.a. Autorun) is enabled on your CD-ROM drive | insert the CD-ROM into the computer's CD-ROM drive the Setup Utility will start automatically. Go to step 5. |
| you are installing from a compressed file | download IOLinx from http://www.ab.com/networks/iolinx and unzip the files into a temporary directory |

2. Select **Start** ⇒ **Run**.
3. At the Run pop-up window, type **x:\setup** where **x** is the drive where the installation files are stored.
4. Click **OK**.

5. You see the IOLinx for the 1784-PCIDS screen.



6. Click on **Install Products**. You see this screen:



7. Click on **Install IOLinx for the 1784-PCIDS Card**.
8. Follow the on-screen instructions to install the Driver and IOLinx.

Notes:

Install the Driver in Windows 2000

| For information on this topic: | Refer to page: |
|---|-----------------------|
| Install the 1784-PCID Driver and Driver Software in Windows 2000 for the First Time | 3-1 |
| Update the 1784-PCID Driver and Driver Software in Windows 2000 | 3-5 |
| Install the 1784-PCIDS Driver and IOLinx in Windows 2000 for the First Time | 3-10 |
| Update the 1784-PCIDS Driver and IOLinx in Windows 2000 | 3-15 |

Install the 1784-PCID Driver and Driver Software in Windows 2000 for the First Time

IMPORTANT

Use this procedure only if this is the first time that you are installing the PCID Driver and Driver Software on this computer. Otherwise, use the Update the 1784-PCID Driver and Driver Software in Windows 2000 procedure on page 3-5 instead of this procedure.

IMPORTANT

Be sure that your PCID card is properly installed. Refer to Chapter 1 to install the PCID card.

Install the New 1784-PCID Driver

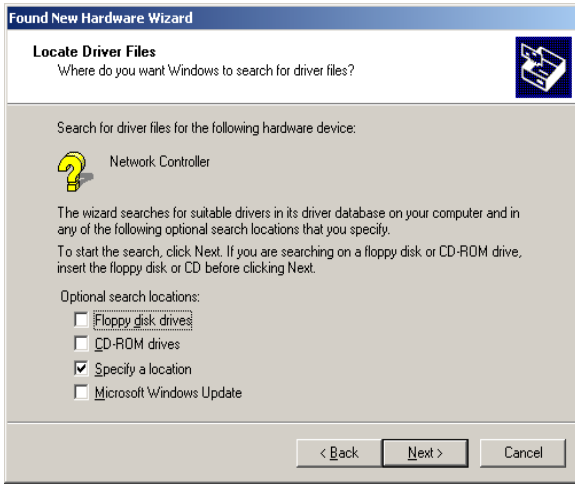
1. When you boot up your computer for the first time after installing your PCID card, you see the Found New Hardware Wizard.



2. Click **Next**.
3. Click on **Search for a suitable driver for my device (recommended)**.



4. Click **Next**.



5. Select **Specify a Location**.

6. Click **Next**.

| if | then |
|---|--|
| you are installing from a floppy disk | insert the floppy disk into the computer's floppy disk drive and go to step 7 below |
| you are installing from a compressed file | download from http://support.rockwellautomation.com and unzip the files into a temporary directory |

7. Click **Browse** and browse to this location:

x:\abpcid.inf

where x is the drive where the installation files are stored.

8. Click **Open**.

9. Click **OK**.

10. Follow the on-screen instructions for installing the 1784-PCID Driver.

11. Go to the next section, Install 1784-PCID Driver Software, on page 3-4.
-

IMPORTANT

To ensure that the card works properly, you must install the Driver Software as described on page 3-4.

Install 1784-PCID Driver Software

IMPORTANT

We recommend that you exit all Windows programs before running this Setup program.

1. Insert the floppy disk in the computer's floppy disk drive, or access the compressed file you downloaded and saved to a temporary directory.
2. Select **Start** ⇒ **Run**.
3. At the Run pop-up window, type **x:\setup** where **x** is the drive where the installation files are stored.
4. Click **OK** and follow the on-screen instructions to install the 1784-PCID Driver Software.

Update the 1784-PCID Driver and Driver Software in Windows 2000

IMPORTANT

Use this procedure only if you have previously installed the PCID Driver and Driver Software on this computer. If you have not previously installed the PCID Driver and Driver Software on this computer, use the Install the 1784-PCID Driver and Driver Software in Windows 2000 for the First Time procedure on page 3-1 instead of this procedure.

Uninstall the Previous Version of 1784-PCID Driver Software

IMPORTANT

Use this procedure only if you have previously installed the PCID Driver and Driver Software on this computer. If you have not previously installed the PCID Driver and Driver Software on this computer, use the Install the 1784-PCID Driver and Driver Software in Windows 2000 for the First Time procedure on page 3-1 instead of this procedure

IMPORTANT

Before you update the new Driver and Driver Software, you must uninstall any earlier versions of PCID Driver Software. If you do not currently have PCID Driver Software installed, go to the Update the 1784-PCID Driver procedure on page 3-6.

1. Shut down all applications that use the PCID Driver, including RSLinx.
2. Select **Start** ⇒ **Settings** ⇒ **Control Panel**.
3. Double-click on the **Add/Remove programs** icon.
4. Double-click on **Allen-Bradley 1784-PCID Driver**.
5. Select **Yes** to uninstall Driver Software.

TIP

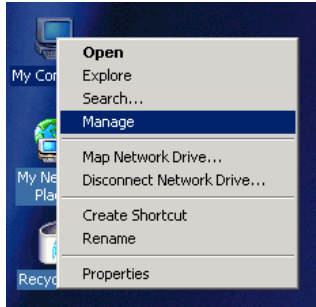
If you are prompted to remove unused shared files, select **No to All**.



6. Reboot the computer.

Update the 1784-PCID Driver

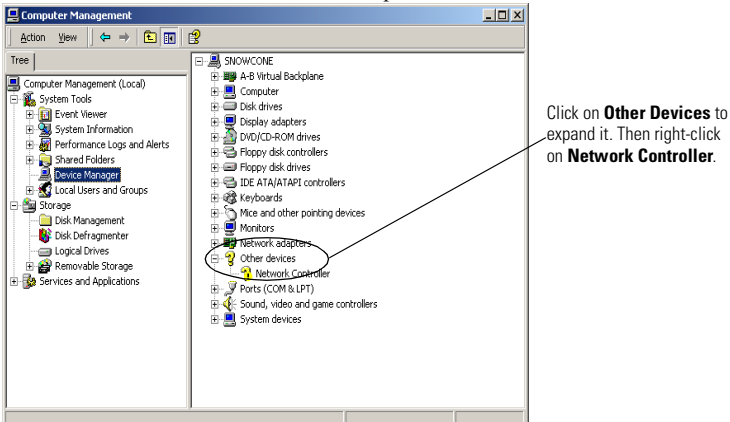
1. Right-click on **My Computer**.
2. Select **Manage**.



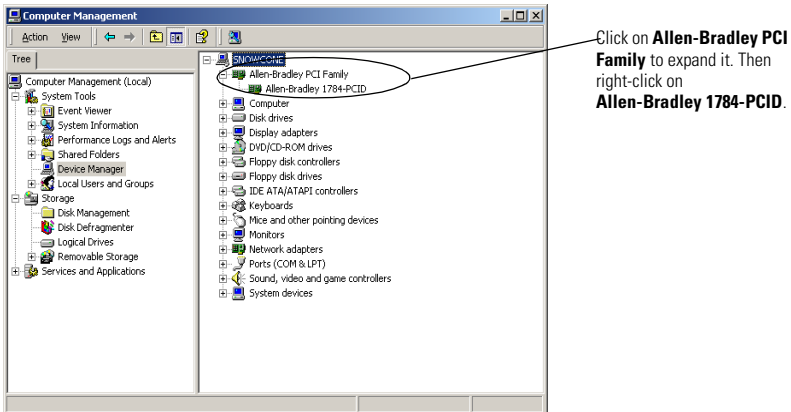
3. On the Computer Management window that appears, select **Device Manager**.

| if | then |
|---|--------------------------|
| Driver software version 1.23 or earlier was installed | go to step 4 on page 3-7 |
| Driver software version 4.00 or later was installed | go to step 5 on page 3-7 |

4. If Driver Software version 1.23 or earlier was installed, follow this procedure:
 - a. Click on **Other Devices** to expand the list.



- b. Right-click on the **Network Controller** that corresponds to the PCID card that you are updating and select **Properties**.
 - c. Go to step 6.
5. If Driver Software version 4.00 or later was installed, follow this procedure:
 - a. Click on **Allen-Bradley PCI Family** to expand the list.



- b. Right-click on the **Allen-Bradley 1784-PCID** that corresponds to the PCID card you are updating and select **Properties**.
 - c. Go to step 6.

6. Click on the **Driver** tab, then click **Update Driver**. You see the Upgrade Device Driver Wizard.



7. Click **Next**.
8. Select the **Display a list of known drivers for this device so that I can choose a specific driver** radio button.
9. Click **Next**.

| if | then |
|---|--|
| you are installing from a floppy disk | insert the floppy disk into the computer's floppy disk drive and go to step 10, below |
| you are installing from a compressed file | download from http://support.rockwellautomation.com and unzip the files into a temporary directory |

10. Select the **Have Disk...** button.

11. Click **Browse** and browse to this location:

x:\abpcid.inf

where x:\ is the drive where the installation files are stored.

12. Click **Open**.
13. Click **OK**.
14. Follow the on-screen instructions for installing the Driver.

TIP

When you close the Properties screen, you may be prompted to restart your computer. If you get this prompt, restart your computer before using this updated Driver.

15. Go to the next section, Install 1784-PCID Driver Software, on page 3-9.
-

IMPORTANT

To ensure that the card works properly, you must install Driver Software as described on page 3-9.

Install 1784-PCID Driver Software

IMPORTANT

We recommend that you exit all Windows programs before running this Setup program.

1. Insert the floppy disk in the computer's floppy disk drive, or access the compressed file you downloaded and saved to a temporary directory.
2. Select **Start** ⇒ **Run**.
3. At the Run pop-up window, type **x:\setup** where **x** is the drive where the installation files are stored.
4. Click **OK** and follow the on-screen instructions to install the 1784-PCID Driver Software.
5. Click **Next**.

Install the 1784-PCIDS Driver and IOLinx in Windows 2000 for the First Time

IMPORTANT

Use this procedure only if this is the first time that you are installing the PCIDS Driver and IOLinx on this computer. Otherwise, use the Update the 1784-PCIDS Driver and IOLinx in Windows 2000 procedure on page 3-15 instead of this procedure.

IMPORTANT

Be sure that your PCIDS card is properly installed. Refer to Chapter 1 of this manual to install the card.

Install the New 1784-PCIDS Driver

1. When you boot up your computer for the first time after installing your PCIDS card, you see the Found New Hardware Wizard.

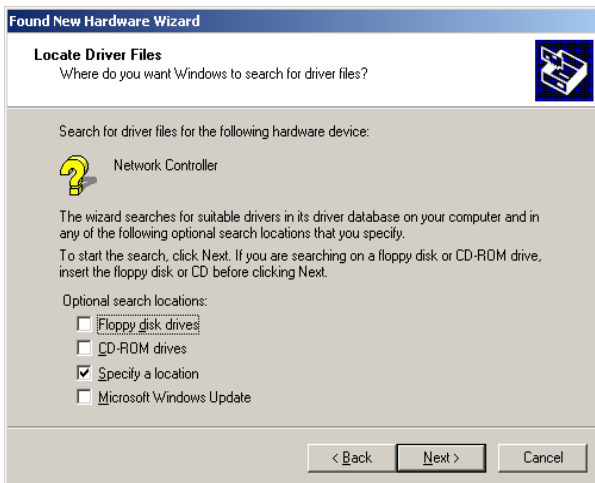


2. Click **Next**.

3. Click on **Search for a suitable driver for my device (recommended)**.



4. Click **Next**.



5. Select **Specify a Location**.

6. Click **Next**.

| if | then |
|--|--|
| you are installing from CD-ROM and Auto Insert Notification (a.k.a. Autorun) is enabled on your CD-ROM drive | insert the CD-ROM into the computer's CD-ROM drive the Setup Utility will start automatically. Click anywhere in the Wizard screen to bring it back on top of the Setup Utility window. |
| you are installing from a compressed file | download from http://www.ab.com/networks/iolinx and unzip the files into a temporary directory |

7. In the Found New Hardware Wizard, click **Browse** and browse to this location:

x:\IOLinx for DeviceNet\abpcids.inf

where x is the drive where the installation files are stored.

8. Click **Open**.
9. Click **OK**.
10. Follow the on-screen instructions for installing the Driver.
11. Go to the next section, Install IOLinx, on page 3-13.

IMPORTANT

To ensure that the card works properly, you must install IOLinx as described on page 3-13.

Install IOLinx

IMPORTANT

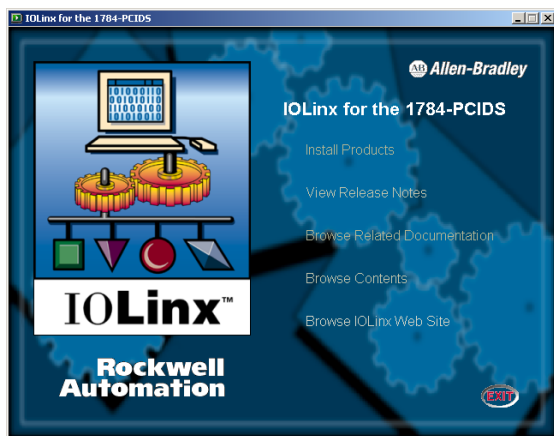
We recommend that you exit all Windows programs before running this Setup program.

TIP

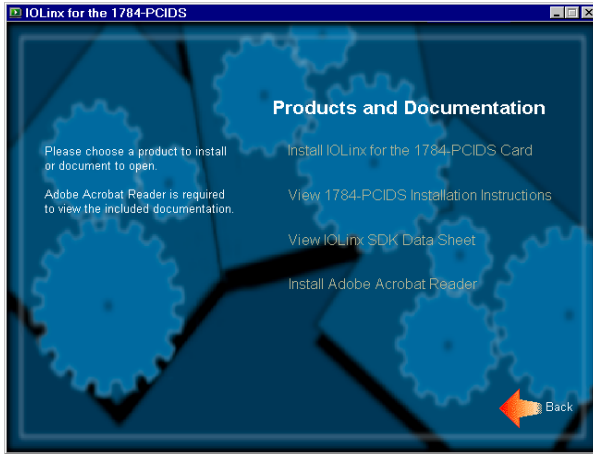


The CD-ROM supports Windows Autorun. If you have Autorun configured, once the CD is inserted into the CD-ROM drive, the installation will automatically start at the first setup screen.

1. Insert the CD in the computer's CD-ROM drive or access the compressed file you downloaded and saved to a temporary directory.
2. If you are installing from CD-ROM and Autorun is enabled for your CD-ROM drive, go to step 6 on page 3-13.
3. Select **Start** ⇒ **Run**.
4. At the Run pop-up window, type **x:\setup** where **x** is the drive where the installation files are stored.
5. Click **OK**.
6. You see the IOLinx for the 1784-PCIDS screen.



7. Click on **Install Products**. You see this screen:



8. Click on **Install IOLinx for the 1784-PCIDS Card**.
9. Follow the on-screen instructions to install IOLinx.

Update the 1784-PCIDS Driver and IOLinx in Windows 2000

IMPORTANT

Use this procedure only if you have previously installed the PCIDS Driver and IOLinx on this computer. If you have not previously installed the PCIDS Driver and IOLinx on this computer, use the Install the 1784-PCIDS Driver and IOLinx in Windows 2000 for the First Time procedure on page 3-10 instead of this procedure.

Uninstall the Previous Version of IOLinx

IMPORTANT

Before you update the new Driver and IOLinx, you must uninstall any earlier versions of IOLinx. If you do not currently have IOLinx installed, go to the Update the 1784-PCIDS Driver procedure on page 3-16.

1. Shut down all applications that use the IOLinx DeviceNet Driver, including RSLinx and SoftLogix.
2. Select **Start** ⇒ **Settings** ⇒ **Control Panel**.
3. Double-click the **Add/Remove Programs** icon.
4. Depending on which previous version of IOLinx was installed, double-click on one of the following to remove it:
 - **1784-PCIDS Drivers for IOLinx**
 - **IOLinx for the 1784-PCIDS Card**
5. Select **Yes** to uninstall IOLinx.

TIP

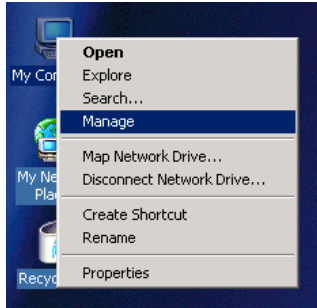
If you are prompted to remove unused shared files, select **No to All**.



6. Reboot the computer.

Update the 1784-PCIDS Driver

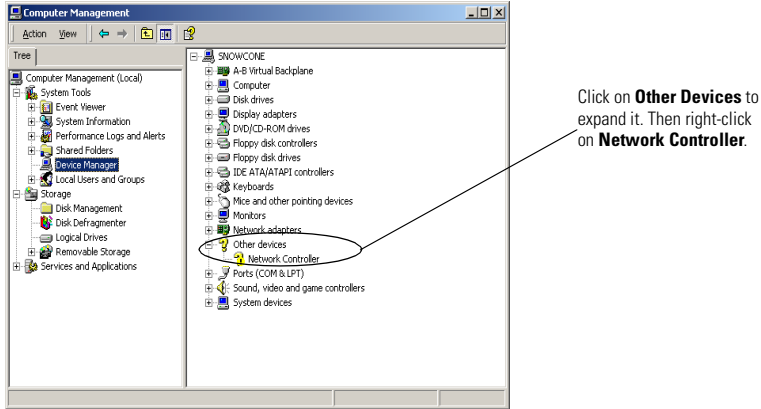
1. Right-click on **My Computer**.
2. Select **Manage**.



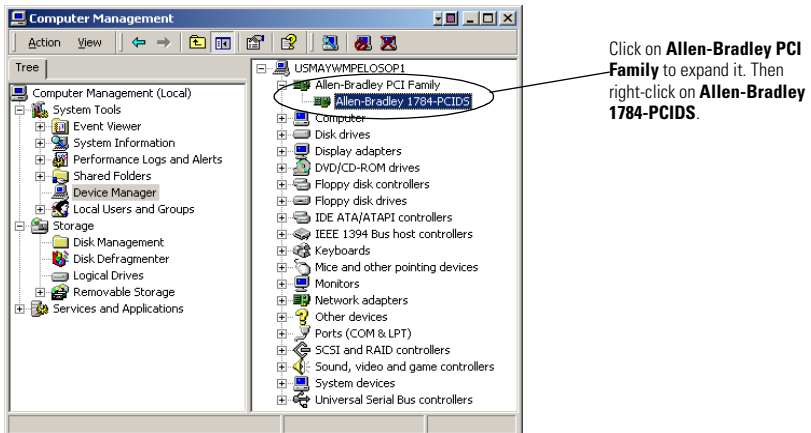
3. On the Computer Management window that appears, select **Device Manager**.

| if | then |
|--|---------------------------|
| IOLinx version 1.14 or earlier was installed | go to step 4 on page 3-17 |
| IOLinx version 1.15 or later was installed | go to step 5 on page 3-17 |

4. If IOLinx version 1.14 or earlier was installed, follow this procedure:
 - a. Click on **Other Devices** to expand the list.



- b. Right-click on the **Network Controller** that corresponds to the PCIDS card that you are updating and select **Properties**.
 - c. Go to step 6.
5. If IOLinx version 1.15 or later was installed, follow this procedure:
 - a. Click on **Allen-Bradley PCI Family** to expand the list.



- b. Right-click on the **Allen-Bradley 1784-PCIDS** that corresponds to the PCIDS card you are updating and select **Properties**.
 - c. Go to step 6.

6. Click on the **Driver** tab, then click **Update Driver**. You see the Upgrade Device Driver Wizard.



7. Click **Next**.
8. Select the **Display a list of known drivers for this device so that I can choose a specific driver** radio button.
9. Click **Next**.

| if | then |
|--|--|
| you are installing from CD-ROM and Auto Insert Notification (a.k.a. Autorun) is enabled on your CD-ROM drive | insert the CD-ROM into the computer's CD-ROM drive the Setup Utility will start automatically. Click anywhere in the Wizard screen to bring it back on top of the Setup Utility window. |
| you are installing from a compressed file | download from http://www.ab.com/networks/iolinx and unzip the files into a temporary directory |

10. Select the **Have Disk...** button.

11. Click **Browse** and browse to this location:

x:\IOLinx for DeviceNet\abpcids.inf

where x:\ is the drive where the installation files are stored.

12. Click **Open**.
13. Click **OK**.
14. Follow the on-screen instructions for installing the Driver.

TIP

When you close the Properties screen, you may be prompted to restart your computer. If you get this prompt, restart your computer before using this updated Driver.

15. Go to the next section, Install IOLinx, on page 3-20.
-

IMPORTANT

To ensure that the card works properly, you must install IOLinx as described on page 3-20.

Install IOLinx

IMPORTANT

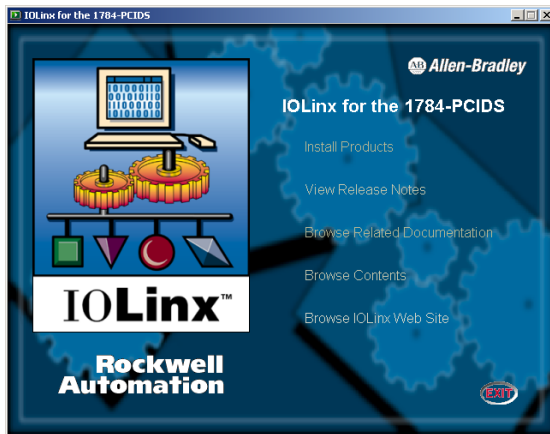
We recommend that you exit all Windows programs before running this Setup program.

TIP

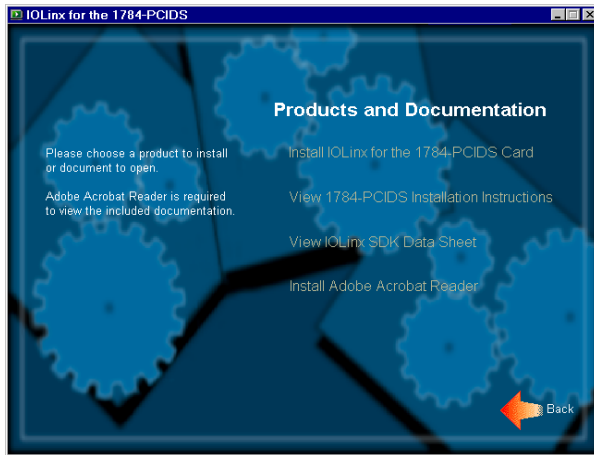


The CD-ROM supports Windows Autorun. If you have Autorun configured, once the CD is inserted into the CD-ROM drive, the installation will automatically start at the first setup screen.

1. Insert the CD in the computer's CD-ROM drive or access the compressed file you downloaded and saved to a temporary directory.
2. If you are installing from CD-ROM and Autorun is enabled for your CD-ROM drive, go to step 6 on page 3-20.
3. Select **Start** ⇒ **Run**.
4. At the Run pop-up window, type **x:\setup** where **x** is the drive where the installation files are stored.
5. Click **OK**.
6. You see the IOLinx for the 1784-PCIDS screen.



7. Click on **Install Products**. You see this screen:



8. Click on **Install IOLinx for the 1784-PCIDS Card**.
9. Follow the on-screen instructions to install IOLinx.

Notes:

Install the Driver in Windows XP

| For information on this topic: | Refer to page: |
|---|-----------------------|
| Install the 1784-PCID Driver and Driver Software in Windows XP for the First Time | 4-1 |
| Update the 1784-PCID Driver and Driver Software in Windows XP | 4-4 |
| Install the 1784-PCIDS Driver and IOLinx in Windows XP for the First Time | 4-9 |
| Update the 1784-PCIDS Driver and IOLinx in Windows XP | 4-13 |

Install the 1784-PCID Driver and Driver Software in Windows XP for the First Time

IMPORTANT

Use this procedure only if this is the first time that you are installing the PCID Driver and Driver Software on this computer. Otherwise, use the Update the 1784-PCID Driver and Driver Software in Windows XP procedure on page 4-4 instead of this procedure.

IMPORTANT

Be sure that your PCID card is properly installed. Refer to Chapter 1 of this manual to install the card.

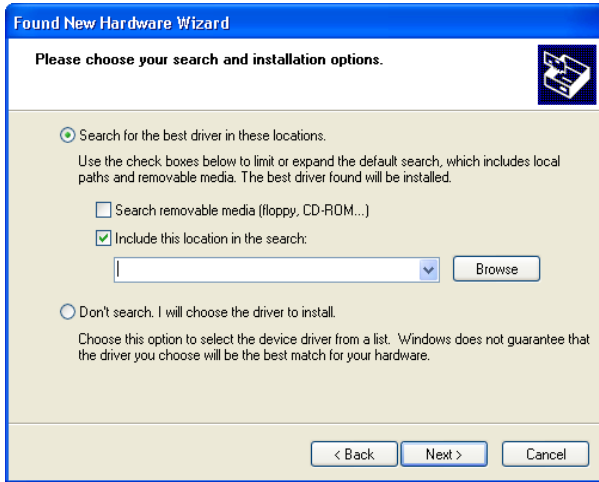
Install the New 1784-PCID Driver

1. When you boot up your computer for the first time after installing your PCID card, you see the Found New Hardware Wizard.



2. Click on the **Install from a list or specific location (Advanced)** radio button.
3. Click **Next**.

- Click the **Search for the best driver in these locations** radio button.



- Select the **Include this location in the search** checkbox.

| if | then |
|---|--|
| you are installing from floppy disk | insert the floppy disk into the computer's floppy disk drive and go to step 6, below |
| you are installing from a compressed file | download from http://support.rockwellautomation.com and unzip the files into a temporary directory |

- Click **Browse** and browse to the folder that contains the installation files.
- Click **OK**.
- Click **Next**.
- Follow the on-screen instructions for installing the PCID Driver.
- Go to the next section, Install 1784-PCID Driver Software, on page 4-4.

IMPORTANT

To ensure that the card works properly, you must install Driver Software as described on page 4-4.

Install 1784-PCID Driver Software

IMPORTANT

We recommend that you exit all Windows programs before running this Setup program.

1. Insert the floppy disk in the computer's floppy disk drive, or access the compressed file you downloaded and saved to a temporary directory.
2. Select **Start** ⇒ **Run**.
3. At the Run pop-up window, type **x:\setup** where **x** is the drive where the installation files are stored.
4. Click **OK** and follow the on-screen instructions to install the 1784-PCID Driver Software.

Update the 1784-PCID Driver and Driver Software in Windows XP

IMPORTANT

Use this procedure only if you have previously installed the PCID Driver and Driver Software on this computer. If you have not previously installed the PCID Driver and Driver Software on this computer, use the Install the 1784-PCID Driver and Driver Software in Windows XP for the First Time procedure on page 4-1 instead of this procedure.

Uninstall the Previous Version of 1784-PCID Driver Software

IMPORTANT

Before you update the new Driver and Driver Software, you must uninstall any earlier versions of PCID Driver Software. If you do not currently have PCID Driver Software installed, go to the Update the 1784-PCID Driver procedure on page 4-5.

1. Shut down all applications that use the PCID Driver, including RSLinx.
2. Select **Start** ⇒ **Control Panel**.
3. Double-click the **Add/Remove programs** icon.
4. Double-click the **Allen-Bradley 1784-PCID Driver**.

5. Select **Yes** to uninstall the Driver Software.

TIP

If you are prompted to remove unused shared files, select **No to All**.



Update the 1784-PCID Driver

1. Select **Start**.
2. Right-click on **My Computer**.
3. Select **Manage**.

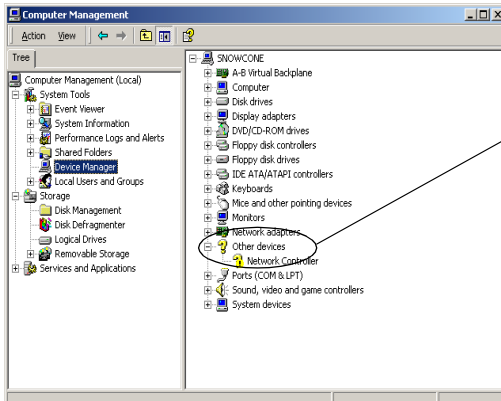


4. On the Computer Management window that appears, select **Device Manager**.

| if | then |
|---|--------------------------|
| Driver software version 1.23 or earlier was installed | go to step 5 on page 4-5 |
| Driver software version 4.00 or later was installed | go to step 6 on page 4-6 |

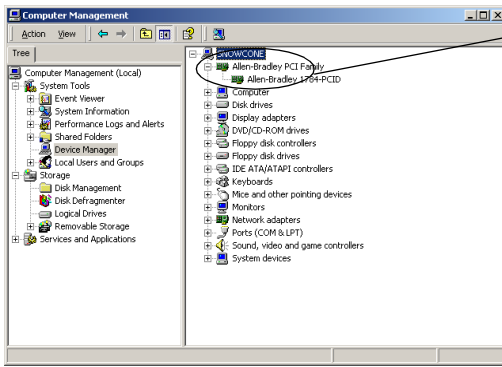
5. If Driver Software version 1.23 or earlier was installed, follow this procedure:

- a. Click on **Other Devices** to expand the list.



Click on **Other Devices** to expand it. Then right-click on **Network Controller**.

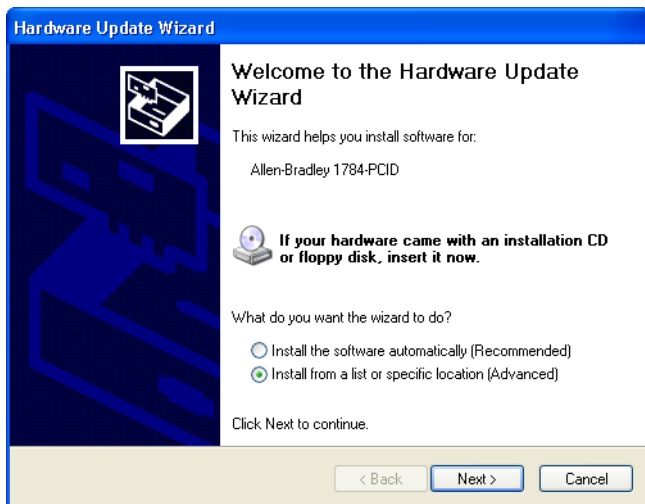
- b. Right-click on the **Network Controller** that corresponds to the PCID card that you are updating and select **Properties**.
 - c. Go to step 7.
6. If Driver Software version 4.00 or later was installed, follow this procedure:
- a. Click on **Allen-Bradley PCI Family** to expand the list.



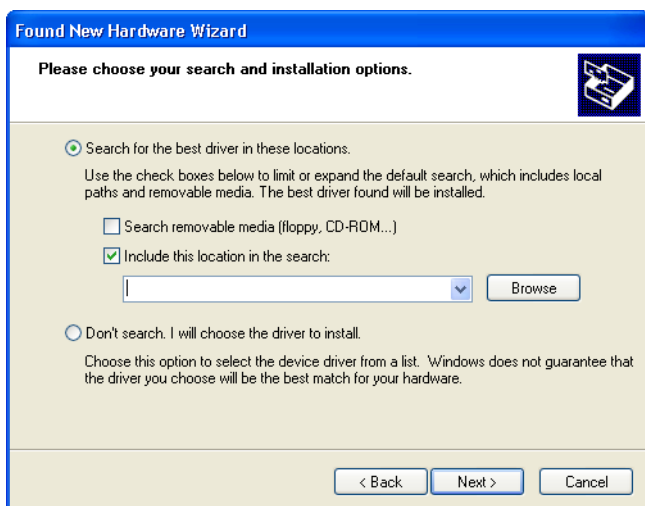
Click on **Allen-Bradley PCI Family** to expand it. Then right-click on **Allen-Bradley 1784-PCID**.

- b. Right-click on the **Allen-Bradley 1784-PCID** that corresponds to the PCID card you are updating and select **Properties**.
- c. Go to step 7.

- Click on the **Driver** tab, then click **Update Driver**. You see the Hardware Update Wizard.



- Select the **Install from a list or specific location (Advanced)** radio button.
- Click **Next**.
- Click the **Search for the best driver in these locations** radio button.



11. Select the **Include this location in the search** checkbox.

| if | then |
|---|--|
| you are installing from a floppy disk | insert the floppy disk into the computer's floppy disk drive and go to step 12, below |
| you are installing from a compressed file | download from http://support.rockwellautomation.com and unzip the files into a temporary directory |

12. Click **Browse** and browse to the folder that contains the installation files.
13. Click **OK**.
14. Click **Next**.
15. Follow the on-screen instructions for installing the PCID Driver.
16. Go to the next section, Install 1784-PCID Driver Software, on page 4-8.

IMPORTANT

To ensure that the card works properly, you must install Driver Software as described on page 4-8.

Install 1784-PCID Driver Software

IMPORTANT

We recommend that you exit all Windows programs before running this Setup program.

1. Insert the floppy disk in the computer's floppy disk drive, or access the compressed file you downloaded and saved to a temporary directory.
2. Select **Start** ⇒ **Run**.
3. At the Run pop-up window, type **x:\setup** where **x** is the drive where the installation files are stored.
4. Click **OK** and follow the on-screen instructions to install the 1784-PCID Driver Software.

Install the 1784-PCIDS Driver and IOLinx in Windows XP for the First Time

IMPORTANT

Use this procedure only if this is the first time that you are installing the PCIDS Driver and Driver Software on this computer. Otherwise, use the Update the 1784-PCIDS Driver and IOLinx in Windows XP procedure on page 4-13 instead of this procedure.

IMPORTANT

Be sure that your 1784-PCIDS card is properly installed. Refer to Chapter 1 of this manual to install the card.

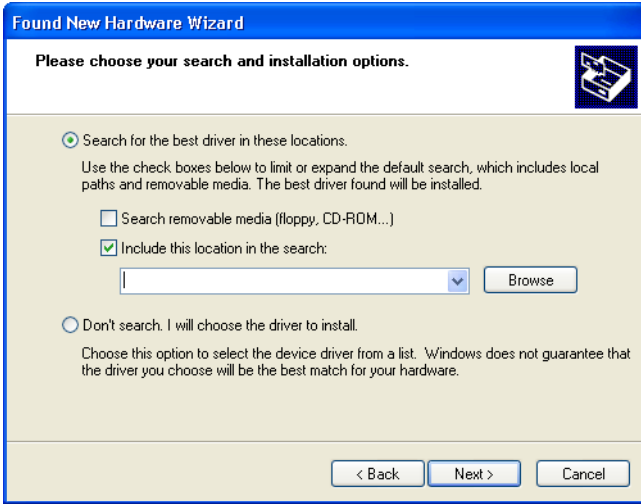
Install the New 1784-PCIDS Driver

1. When you boot up your computer for the first time after installing your 1784-PCIDS card, you see the Found New Hardware Wizard.



2. Click on the **Install from a list or specific location (Advanced)** radio button.
3. Click **Next**.

- Click the **Search for the best driver in these locations** radio button.



- Select the **Include this location in the search** checkbox.

| if | then |
|--|--|
| you are installing from CD-ROM and Auto Insert Notification (a.k.a. Autorun) is enabled on your CD-ROM drive | insert the CD-ROM into the computer's CD-ROM drive the Setup Utility will start automatically. Click anywhere in the Wizard screen to bring it back on top of the Setup Utility window. |
| you are installing from a compressed file | download from http://www.ab.com/networks/iolinx and unzip the files into a temporary directory |

- In the Found New Hardware Wizard, click **Browse** and browse to this location:

x:\IOLinx for DeviceNet

where x is the drive where the installation files are stored.

7. Click **OK**.
8. Click **Next**.
9. Follow the on-screen instructions for installing the PCIDS Driver.
10. Go to the next section, Install IOLinx on page 4-11.

Install IOLinx

IMPORTANT

We recommend that you exit all Windows programs before running this Setup program.

TIP



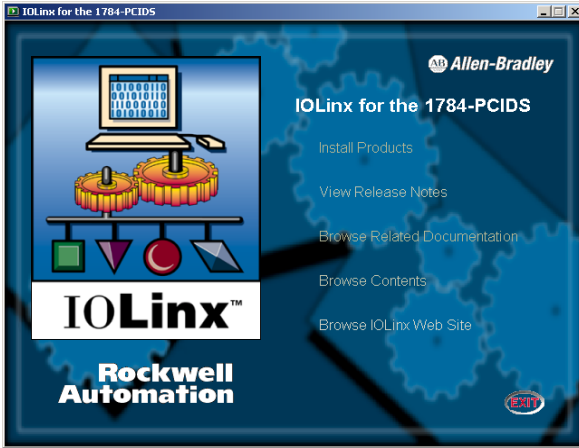
The CD-ROM supports Windows Autorun. If you have Autorun configured, once the CD is inserted into the CD-ROM drive, the installation will automatically start at the first setup screen.

1. Choose the location from which you wish to install the Driver and IOLinx.

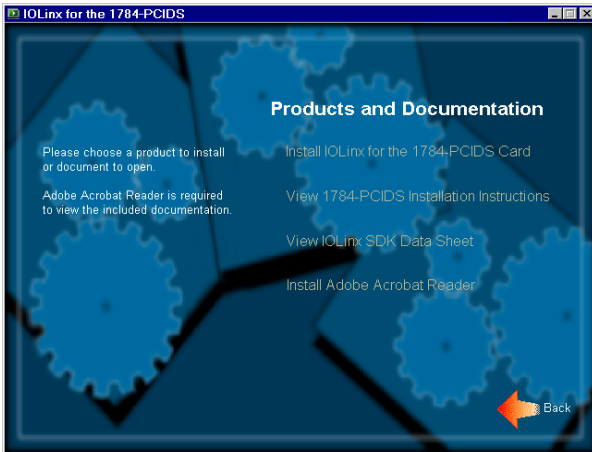
| if | then |
|--|--|
| you are installing from CD-ROM and Auto Insert Notification (a.k.a. Autorun) is enabled on your CD-ROM drive | insert the CD-ROM into the computer's CD-ROM drive the Setup Utility will start automatically. Go to step 5. |
| you are installing from a compressed file | download IOLinx from http://www.ab.com/networks/iolinx and unzip the files into a temporary directory |

2. Select **Start** ⇒ **Run**.
3. At the Run pop-up window, type **x:\setup** where **x** is the drive where the installation files are stored.
4. Click **OK**.

5. You see the IOLinx for the 1784-PCIDS screen.



6. Click on **Install Products**. You see this screen:



7. Click on **Install IOLinx for the 1784-PCIDS Card**.
8. Follow the on-screen instructions to install the Driver and IOLinx.

Update the 1784-PCIDS Driver and IOLinx in Windows XP

IMPORTANT

Use this procedure only if you have previously installed the PCIDS Driver and IOLinx on this computer. If you have not previously installed the PCIDS Driver and IOLinx on this computer, use the Install the 1784-PCIDS Driver and IOLinx in Windows XP for the First Time procedure on page 4-9 instead of this procedure.

Uninstall the Previous Version of IOLinx

IMPORTANT

Before you update the new Driver and IOLinx, you must uninstall any earlier versions of IOLinx. If you do not currently have IOLinx installed, go to the Update the 1784-PCIDS Driver procedure on page 4-13.

1. Shut down all applications that use the IOLinx DeviceNet Driver, including RSLinx and SoftLogix.
2. Select **Start** ⇒ **Control Panel**.
3. Double-click the **Add/Remove Programs** icon.
4. Depending on which previous version of IOLinx was installed, double-click on one of the following to remove it:
 - **1784-PCIDS Drivers for IOLinx**
 - **IOLinx for the 1784-PCIDS Card**
5. Select **Yes** to uninstall IOLinx.

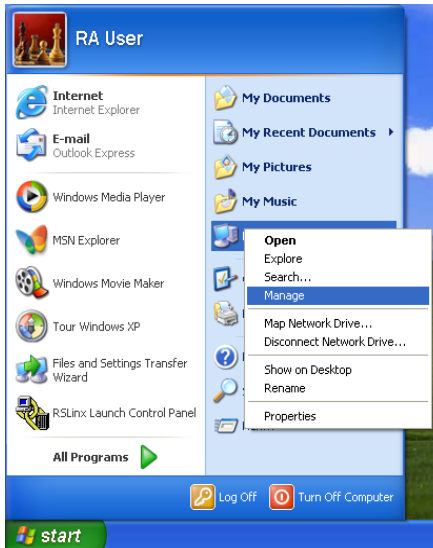
TIP

If you are prompted to remove unused shared files, select **No to All**.



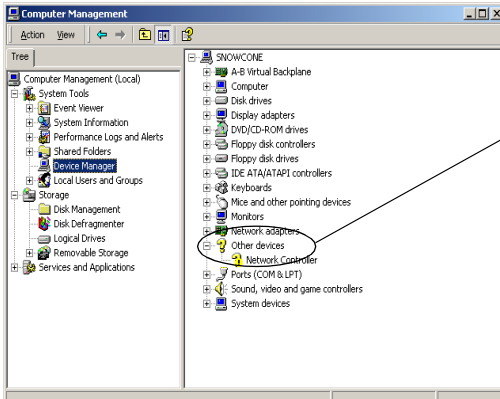
Update the 1784-PCIDS Driver

1. Select **Start**.
2. Right-click on **My Computer**.
3. Select **Manage**.
4. On the Computer Management window that appears, select **Device Manager**.



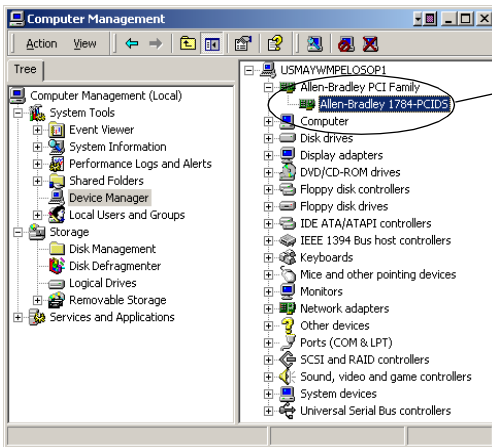
| if | then |
|--|---------------------------|
| IOLinx version 1.14 or earlier was installed | go to step 5 on page 4-15 |
| IOLinx version 1.15 or later was installed | go to step 6 on page 4-15 |

5. If IOLinx version 1.14 or earlier was installed, follow this procedure:
 - a. Click on **Other Devices** to expand the list.



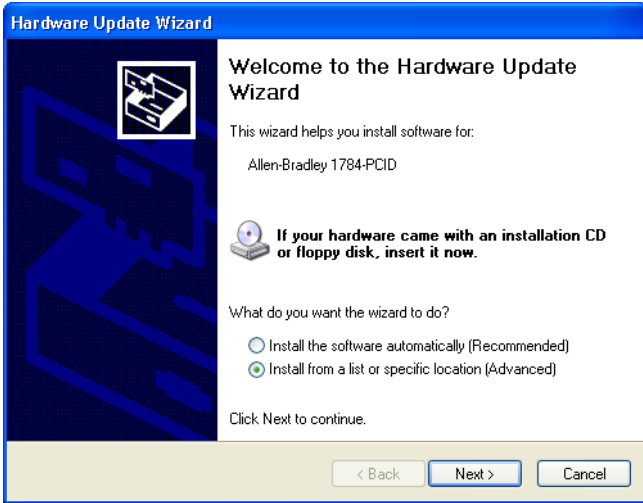
- b. Right-click on the **Network Controller** that corresponds to the PCIDS card that you are updating and select **Properties**.
 - c. Go to step 7.

6. If IOLinx version 1.15 or later was installed, follow this procedure:
 - a. Click on **Allen-Bradley PCI Family** to expand the list.

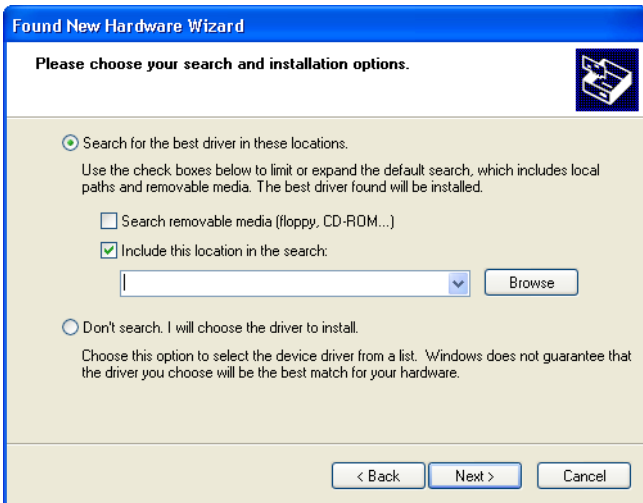


- b. Right-click on the **Allen-Bradley 1784-PCIDS** that corresponds to the PCIDS card you are updating and select **Properties**.
 - c. Go to step 7.

7. Click on the **Driver** tab, then click **Update Driver**. You see the Hardware Update Wizard.



8. Select the **Install from a list or specific location (Advanced)** radio button.
9. Click **Next**.
10. Click the **Search for the best driver in these locations** radio button.



11. Select the **Include this location in the search** checkbox.

| if | then |
|--|--|
| you are installing from CD-ROM and Auto Insert Notification (a.k.a. Autorun) is enabled on your CD-ROM drive | insert the CD-ROM into the computer's CD-ROM drive The Setup Utility will start automatically. Click anywhere in the Wizard screen to bring it back on top of the Setup Utility window. |
| you are installing from a compressed file | download from http://www.ab.com/networks/iolinx and unzip the files into a temporary directory |

12. Click **Browse** and browse to this location:

x:\IOLinx for DeviceNet

where x is the drive where the installation files are stored.

13. Click **OK**.
14. Click **Next**.
15. Follow the on-screen instructions for installing the PCIDS Driver.
16. Go to the next section, Install IOLinx, on page 4-17.

IMPORTANT

To ensure that the card works properly, you must install Driver Software as described on page 4-17.

Install IOLinx

IMPORTANT

We recommend that you exit all Windows programs before running this Setup program.

TIP

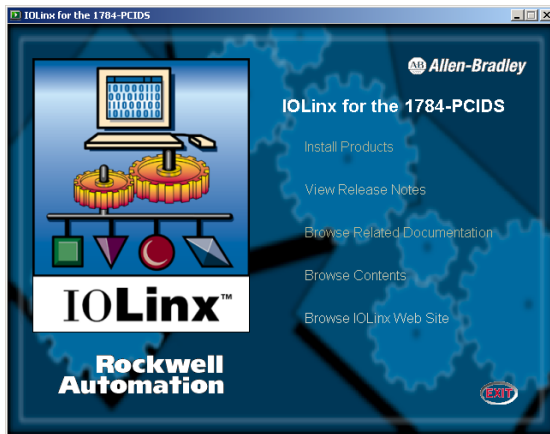


The CD-ROM supports Windows Autorun. If you have Autorun configured, once the CD is inserted into the CD-ROM drive, the installation will automatically start at the first setup screen.

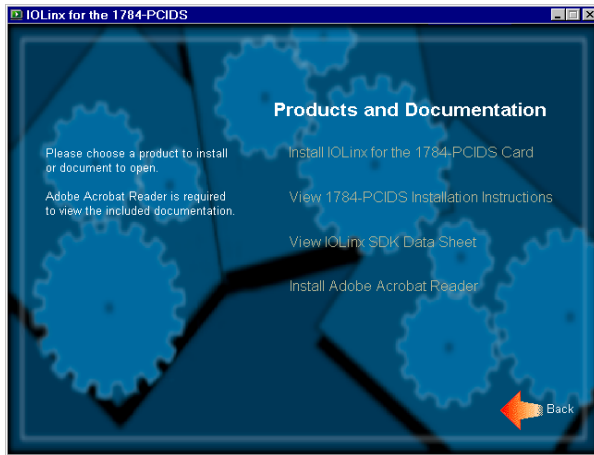
1. Choose the location from which you wish to install the Driver and IOLinx.

| if | then |
|--|---|
| you are installing from CD-ROM and Auto Insert Notification (a.k.a. Autorun) is enabled on your CD-ROM drive | insert the CD-ROM into the computer's CD-ROM drive the Setup Utility will start automatically. Go to step 5. |
| you are installing from a compressed file | download IOLinx from http://www.ab.com/networks/iolinx and unzip the files into a temporary directory |

2. Select **Start** ⇒ **Run**.
3. At the Run pop-up window, type **x:\setup** where **x** is the drive where the installation files are stored.
4. Click **OK**.
5. You see the IOLinx for the 1784-PCIDS screen.



6. Click on **Install Products**. You see this screen:



7. Click on **Install IOLinx for the 1784-PCIDS Card**.
8. Follow the on-screen instructions to install IOLinx.

Notes:

Use the DeviceNet Test Application for 1784-PCIDS Diagnostics

| For information on this topic: | Refer to page: |
|---------------------------------------|-----------------------|
| Start the Test Application | 5-2 |
| Configure the Port | 5-2 |
| Create a View | 5-3 |
| Change the Scanner Mode | 5-3 |
| Read Inputs | 5-3 |
| Write Outputs | 5-4 |
| Use the Device Status Screen | 5-4 |

Included with the IOLinx for 1784-PCIDS driver CD is a stand-alone test application (DNetTest.exe) that lets you diagnose simple problems over the network before the control application may be available for integration.

In addition, you can use the application to make certain that the PCIDS module has been correctly installed and is functioning in the PC.

IMPORTANT

The DeviceNet Test Application and diagnostic utility is restricted for use on the 1784-PCIDS scanner card only.

The test application provides the features described on pages 2 through 4, which include:

- configuring the port
- creating a view
- using scanner mode
- reading inputs
- writing outputs
- using the device status screen

Start the Test Application

The test application is automatically installed as part of the driver installation procedure, although it does not show up as a shortcut on your screen.

To start the test application, click **Start ⇒ Programs ⇒ Rockwell Software ⇒ IOLinx ⇒ IOLinx for DeviceNet ⇒ DeviceNet Test**.

The test application assumes that you have the card installed, the network is powered, and a scan list is loaded into the 1784-PCIDS using RSNetWorx for DeviceNet V2.11.51 or later. If the driver cannot establish communication with the module, an error message is displayed.

Configure the Port

You must configure the port the first time you use a PCIDS card.

To configure the port, follow these steps:

1. Select **Configure Port...** from the Setup menu.
2. Select **Allen-Bradley 1784-PCIDS** from the DeviceNet Driver Selection dialog.
3. Click on **OK**.
4. Set Node Address (0 - 63).
5. Set Baud Rate (125/250/500 kbs).
6. Click **OK**. You see a dialog box that says Operation was successful followed by a similar message box that tells you that Port "DeviceNet Port A" has been configured.

Create a View

To go online and create a view, follow these steps:

1. From the **Setup** menu, select **Create View...**
2. Select **Port Names**.
3. Select **Message Type (Input, Output, or Input/Output)**.
4. Select **Privilege (Read Only, Read/Write)**.
5. Click **OK**. You see a message box that tells you that the operation was successful.

Change the Scanner Mode

The Port Mode window displays the current mode of the scanner: Run, Idle, No View.

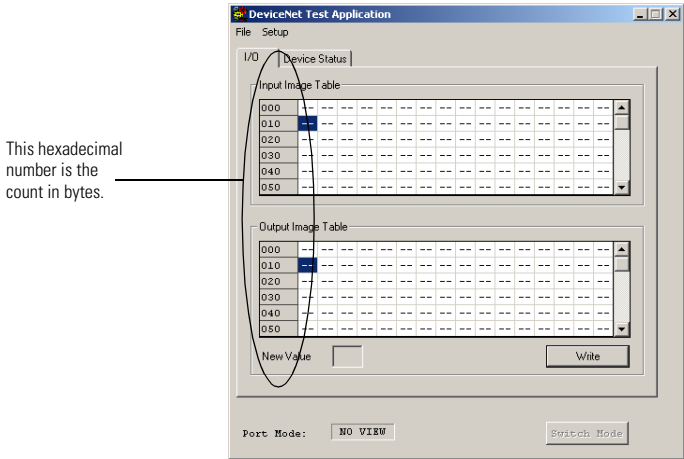
Once you create a view, you can use the Switch Mode button to change the mode between Run and Idle.

Read Inputs

Read Inputs lets you read as many as 2048 bytes from the input image table of the 1784-PCIDS. A simple dialog box with scrolling capability (shown in the figure below) is displayed and is automatically updated when inputs change.

TIP

The hexadecimal number on the left side of the input or output table is the count in bytes.



Write Outputs

Write Outputs lets you write as many as 2048 bytes to the output image table of the scanner using manual data entry in a dialog box. The scanner must be in Run Mode for writes to be seen at the output device.

1. Select the desired byte(s).
2. Type in the desired value(s).
3. Press the **Write** button. The transfer is performed.

Use the Device Status Screen

The Device Status screen displays an Idle/Failure Table where you can double-click on a node to see its status, i.e., MAC ID, status code, and status info, e.g., device stopped communicating.

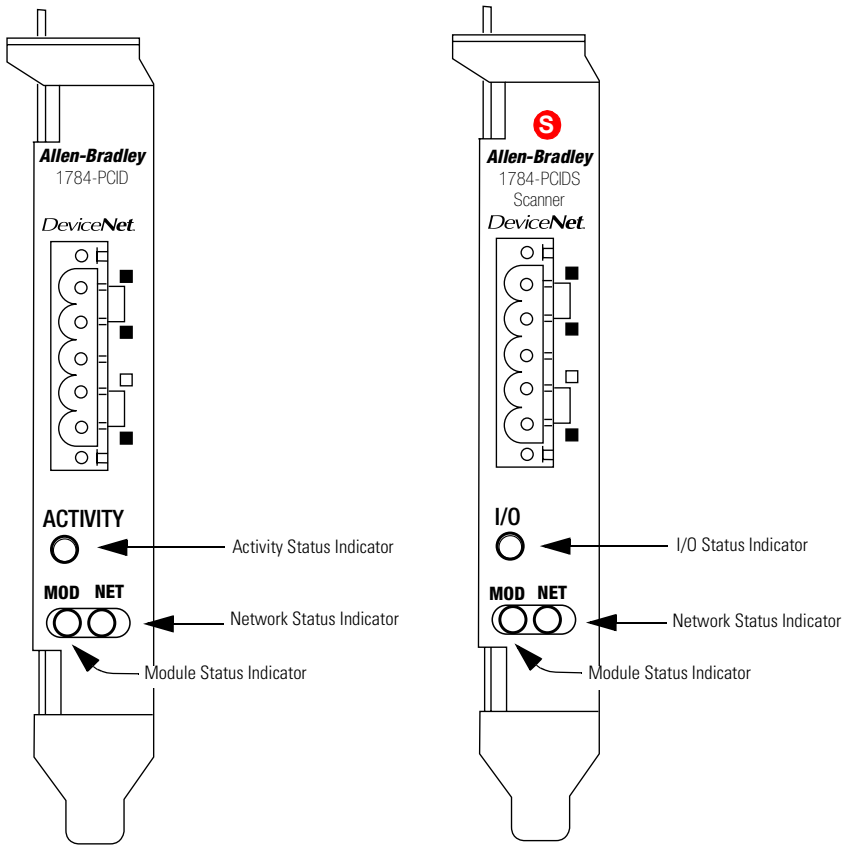
If you double-click on an empty node, you see the response, "OK or not in scan list."

Interpret Status Indicators (LEDs)

| For information on this topic: | Refer to page: |
|---------------------------------------|-----------------------|
| 1784-PCIDS I/O Status Indicator | 6-3 |
| 1784-PCID Activity Status Indicator | 6-3 |
| Module (MOD) Status Indicator | 6-4 |
| Network (NET) Status Indicator | 6-4 |

The three status indicators on the 1784-PCID and 1784-PCIDS cards give you information about your network and its connections. See Figure 6.1 for an illustration of each status indicator.

Figure 6.1 Status Indicators



The tables on pages 6-3 through 6-4 outline the indicator condition and the corresponding status, and explain what each condition means to you.

1784-PCIDS I/O Status Indicator

This bi-color (green/red) LED provides information concerning the states of inputs and/or outputs.

| condition | status | indicates |
|-----------------------------|---|---|
| off | output(s) inactive input(s) inactive | All Outputs are inactive. All inputs are inactive. |
| green | output(s) active | One or more outputs are active and under control, and no outputs are faulted. |
| | input(s) active | One or more inputs are active and producing data, and no inputs are faulted. |
| flashing green ¹ | output(s) idle | One or more outputs are idle and no outputs are active or faulted. |
| flashing red ¹ | output(s) faulted | One or more outputs are faulted, and may be in the fault state. |
| | input(s) faulted | One or more inputs are faulted, and may be in the fault state. |
| red | output(s) forced off | One or more outputs are forced off (may be an unrecoverable fault). |
| | input unrecoverable fault | One or more inputs has an unrecoverable fault. |

¹ The flash rate of the LED is approximately 1 flash per second. The LED should be on for approximately 0.5 seconds and off for approximately 0.5 seconds.

1784-PCID Activity Status Indicator

This LED provides information about the activity of the card and Driver .

| condition | indicates |
|------------------------------|---|
| off | Card is not receiving any commands from the Driver . |
| quick green flash (50 ms) | Card received packet from the Driver and is attempting to transmit the packet onto DeviceNet. |
| slow green flash (500 ms) | Card accepted a command from the Driver , such as go online / offline. |

Module (MOD) Status Indicator

This bi-color (green/red) LED provides device status. It indicates whether or not the device has power and is operating properly.

| condition | status | indicates |
|-----------------------------|--|--|
| off | no power | No power applied to device. |
| green | device operational | Device is operating in a normal condition. |
| flashing green ¹ | device in standby (device needs commissioning) | Device needs commissioning due to configuration missing, incomplete, or incorrect. Device may be in the standby state. Refer to the DeviceNet Specification, Volume II, Identity Object. |
| flashing red ¹ | recoverable fault | E.g., the device's scan list configuration does not match the actual network configuration. |
| red | unrecoverable fault | Device has an unrecoverable fault. Cycle power to the card by shutting down and cycling power to your computer. If the problem persists, the device may need to be replaced. |
| flashing red-green | device self testing | Device is in self test. Refer to the DeviceNet Specification, Volume II, Identity Object. |

¹ The flash rate of the LED is approximately 1 flash per second. The LED should be on for approximately 0.5 seconds and off for approximately 0.5 seconds.

Network (NET) Status Indicator

This bi-color (green/red) LED indicates the status of the communication link.

| condition | status | indicates |
|-----------------------------|------------------------------|---|
| off | not powered, not online | Device is not online. The device has not completed the Dup_MAC_ID test yet. The device may not be powered; look at the Module Status LED. |
| flashing green ¹ | online, not connected | Device is online, but has no connections in the established state. The device has passed the Dup_MAC_ID test, is online, but has no established connections to other nodes. |
| green | link okay, online, connected | The device is online and has connections in the established state. |

| condition | status | indicates |
|---------------------------|-----------------------|---|
| flashing red ¹ | connection time-out | One or more I/O connections are in the timed-out state. Not applicable for the PCID because the card does not support I/O connections. |
| red | critical link failure | Failed communication device. The device has detected an error that has rendered it incapable of communicating on the network (Duplicate MAC ID or Bus-off). Check network integrity and baud rate of all devices. Then cycle power to the card by shutting down and cycling power to your computer. |

¹ The flash rate of the LED is approximately 1 flash per second. The LED should be on for approximately 0.5 seconds and off for approximately 0.5 seconds.

Notes:

Specifications

| General Specifications | |
|--|---|
| PCI local bus | compliant to PCI Rev 2.1 |
| mechanical form factor | PCI 5V, 32-bit short card 4.2" (10.7 cm) H x 4.721" (12 cm) L |
| driver compatibility | Windows NT 4.0 with Service Pack 5 or later Windows 2000 with Service Pack 1 or later Windows XP |
| power requirements PC DeviceNet | 5V dc @ 625 mA max. ¹ +24V dc @ 90 mA max. Class 2 ² |
| conductors wire size | 24-12 AWG (0.205 - 3.31 mm ²) stranded copper 3/64 in. (1.2mm) insulation maximum Category 2 ³ |
| Environmental Conditions | |
| ambient slot temperature rating <ul style="list-style-type: none"> operating⁴ storage | IEC 60068-2-1 (Test Ad, Operating Cold) IEC 60068-2-2 (Test Bd, Operating Dry Heat) IEC 60068-2-14 (Test Nb, Operating Thermal Shock) 0 to 55°C (32 to 131°F) IEC 60068-2-1 (Test Ab, Un-packaged Non-operating Cold) IEC 60068-2-2 (Test Bb, Un-packaged Non-operating Dry Heat) IEC 60068-2-14 (Test Na, Un-packaged Non-operating Thermal Shock) -40 to 85°C (-40 to 185°F) |
| ambient humidity rating | IEC 60068-2-30 (Test Db, Un-packaged Non-operating Damp Heat) 5 to 95% non-condensing |
| vibration (operating) ⁴ | IEC60068-2-6 (Test Fc, Operating) 2g @ 10-500Hz |
| shock <ul style="list-style-type: none"> operating⁴ non-operating | IEC60068-2-27 (Test Ea, Unpackaged Shock) 30g 50g |
| emissions | CISPR 11 Group 1, Class A |
| ESD immunity | IEC 61000-4-2 4kV contact discharges 8kV air discharges |
| radiated RF immunity | IEC 61000-4-3 10V/m with 1kHz sine-wave 80%AM from 30MHz to 1000MHz |
| EFT/B immunity | IEC 61000-4-4 2kV at 5kHz on communications ports |

| | |
|--------------------------|--|
| surge transient immunity | IEC 61000-4-5 2kV line-earth (CM) on shielded ports |
| conducted RF immunity | IEC 61000-4-6 10Vrms with 1kHz sine-wave 80%AM from 150kHz to 30MHz |
| enclosure type rating | None (open-style) |

Certifications

| | |
|------------------------|--|
| when product is marked | <p>UL: UL Recognized Component Industrial Control Equipment CSA: CSA Accepted Component for Process Control Equipment CSA Accepted Component for Process Control Equipment in Class I, Division 2 Group A,B,C,D Hazardous Locations CE⁵: European Union 89/336/EEC EMC Directive, compliant with: EN 50082-2; Industrial Immunity EN 61326; Meas./Control/Lab., Industrial Requirements EN 61000-6-2; Industrial Immunity EN 61000-6-4; Industrial Emissions C-Tick⁵: Australian Radiocommunications Act, compliant with: AS/NZS 2064; Industrial Emissions ODVA: ODVA conformance tested to DeviceNet specifications</p> |
|------------------------|--|

¹This equipment must be powered from UL Listed Information Technology Equipment, UL Listed Industrial Control Equipment, CSA Certified Information Technology Equipment, or CSA Certified Process Control Equipment.

² The DeviceNet power supply must be compliant with the requirements for CLASS 2 as defined in NFPA-70 National Electrical Code and/or CSA C22.1 Canadian Electrical Code, Part 1.

³ Refer to the Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1.

⁴ The operating parameters describe the environment within the PCI slot. Refer to the documentation for your computer for environmental requirements. The PCID/PCIDS card should not exceed those specifications.

⁵ See the Product Certification link at www.ab.com for Declarations of Conformity, Certificates, and other certification details.

Hazardous Location Approval

The following information applies when operating this equipment in hazardous locations:

Products marked “CL I, DIV 2, GP A, B, C, D” are suitable for use in Class I Division 2 Groups A, B, C, D, Hazardous Locations and nonhazardous locations only. Each product is supplied with markings on the rating nameplate indicating the hazardous location temperature code. When combining products within a system, the most adverse temperature code (lowest “T” number) may be used to help determine the overall temperature code of the system. Combinations of equipment in your system are subject to investigation by the local authority that has jurisdiction at the time of installation.

WARNING



EXPLOSION HAZARD –

- Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous.
- Do not disconnect connections to this equipment unless power has been removed or the area is known to be nonhazardous. Secure any external connections that mate to this equipment by using screws, sliding latches, threaded connectors, or other means provided with this product.
- Substitution of components may impair suitability for Class I, Division 2.
- If this product contains batteries, they must only be changed in an area known to be nonhazardous.

Informations sur l'utilisation de cet équipement en environnements dangereux:

Les produits marqués «CL I, DIV 2, GP A, B, C, D» ne conviennent qu'à une utilisation en environnements de Classe I Division 2 Groupes A, B, C, D dangereux et non dangereux. Chaque produit est livré avec des marquages sur sa plaque d'identification qui indiquent le code de température pour les environnements dangereux. Lorsque plusieurs produits sont combinés dans un système, le code de température le plus défavorable (code de température le plus faible) peut être utilisé pour déterminer le code de température global du système. Les combinaisons d'équipements dans le système sont sujettes à inspection par les autorités locales qualifiées au moment de l'installation.

AVERTISSEMENT



RISQUE D'EXPLOSION –

- Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher l'équipement.
- Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher les connecteurs. Fixer tous les connecteurs externes reliés à cet équipement à l'aide de vis, loquets coulissants, connecteurs filetés ou autres moyens fournis avec ce produit.
- La substitution de composants peut rendre cet équipement inadapté à une utilisation en environnement de Classe I, Division 2.
- S'assurer que l'environnement est classé non dangereux avant de changer les piles.

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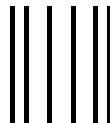
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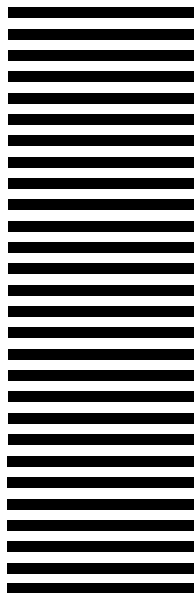
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