



Micro/PX-2000, Micro/PXN-2000, and M2000PXNplus Point-to-Point Wiring Diagrams

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Adding the Micro/PX-2000, Micro/PXN-2000, and M2000PXNplus to a Secure Perfect[®] System

Figure 1. Secure Perfect Device Micro Form

Note: The change bar which is a vertical line in the margin visually identifies significant new or revised material.

The Micro/PX-2000, Micro/PXN-2000, and M2000PXNplus must be added to the Secure Perfect system at the host.

Note: The Micro/PXN-2000 is supported only by SP3.0 or later and the M2000PXNplus is supported only by Secure Perfect 6.1.1 or later.

1. Select **Main** menu, then **Device**, then **Micro**.
2. The **Micro Form, Micro Definition** tab will appear. Define your micro in the usual manner, selecting MPX2000, MPXN2000, or MicroPXNPlus2000 as the **Micro type** on the **Micro Definition** screen.

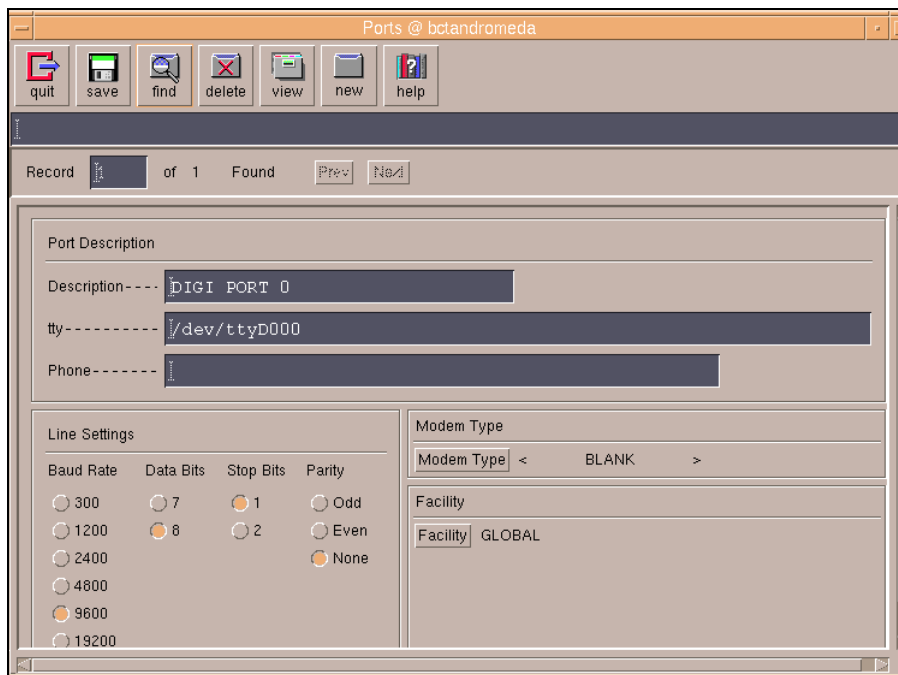
Your **Micro Configuration** screen should look similar to *Figure 1*.

3. Press **Save**. The following devices will be added: 4 readers, 8 DO points, and 10 DI points.

Note: Secure Perfect 6.0 and later provides an additional DI point for a total of eleven.

Adding the Micro/PX-2000, Micro/PXN-2000, and the M2000PXNplus to a Picture Perfect™ System

Figure 2. Picture Perfect 2.0 Ports UI (User Interface)



For Picture Perfect 2.0

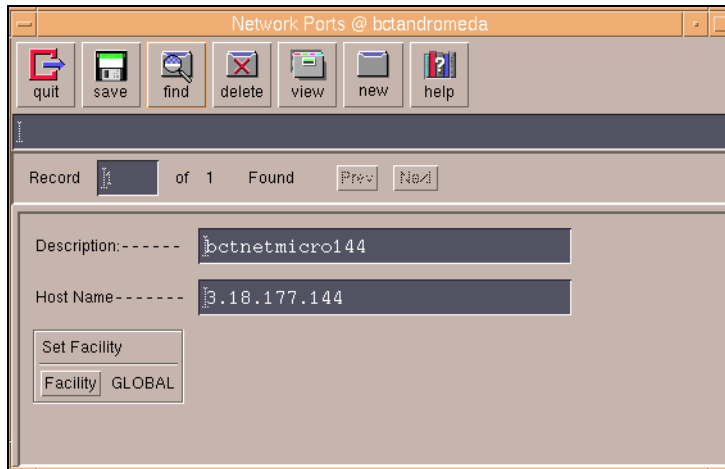
The Micro/PX-2000, Micro/PXN-2000, and M2000PXNplus must be added to the Picture Perfect system at the host. The following is intended to be used by experienced microcontroller installers and includes an abbreviated list of the installation steps.

Port setup (For direct-connect or dial-up micros)

If using a network micro, go to [Network port setup \(For network micros only\)](#) on page 3.

1. Select **Devices**, and then **Ports**.
2. On the **Ports** UI, give your port a description. Define the tty port as it is defined in the operating system. Use the full path name of the port (MUST be in lower-case characters).
Example for AIX: `/dev/tty2`
Example for Linux: `/dev/ttyD002`
3. Select your **Line Settings**.
Example: **Baud Rate** 19200 **Data Bits** 8
 Stop Bits 1 **Parity** 0
4. Select your **Modem Type**. This should be set to NONE for direct-connect micros.
5. Select your **Facility**.
6. Press **Save**, and then **Quit**.
7. Go to [Micro setup](#) on page 4.

Figure 3. Picture Perfect 2.0 Network Micro Ports UI



Network port setup (For network micros only)

1. Select **Devices**, and then **Network Micro Ports**.
2. On the **Network Micro Ports** UI, give your port a **Description**.
3. Enter the **Host Name**. This is the IP address or node name of the Micro/PXN-2000 or M2000PXNplus.
4. Select your **Facility**.
5. Press **Save**, and then **Quit**.

Figure 4. Picture Perfect 2.0 Micros UI - top

Figure 5. Picture Perfect 2.0 Micros UI - bottom

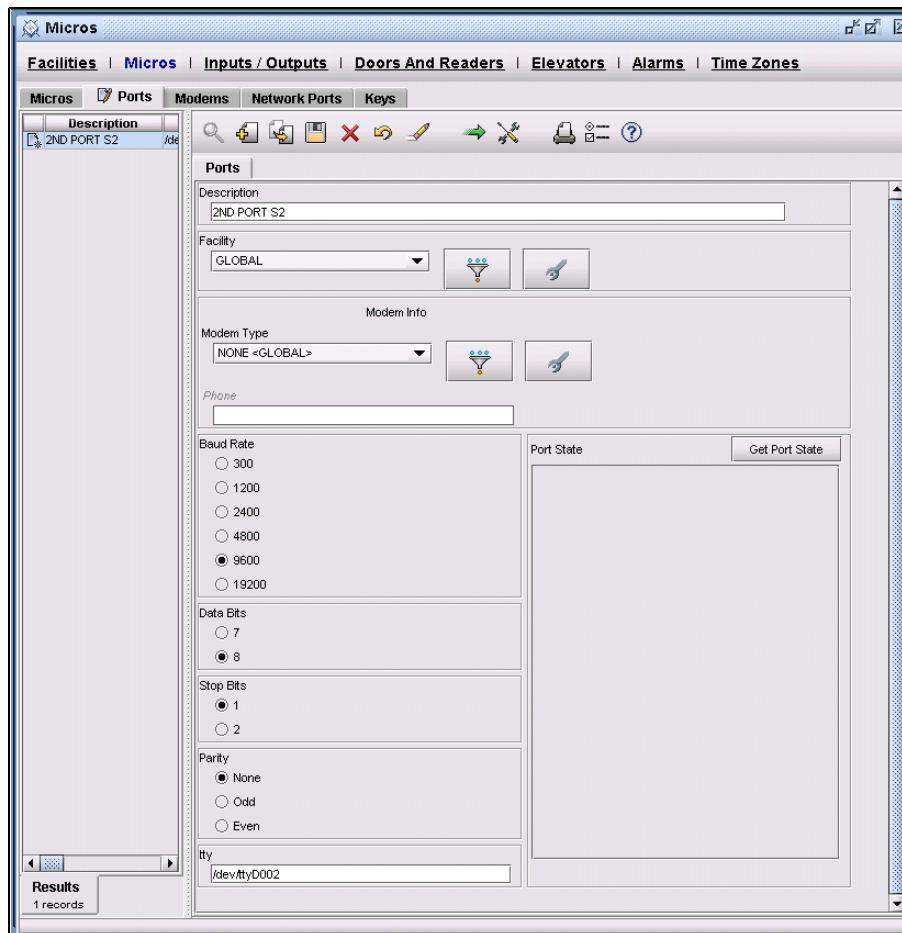
Input Groups	
Badge History Overflow	BADGE HISTORY OVERFLOW <GLOBAL>
Alarm History Overflow	ALARM HISTORY OVERFLOW <GLOBAL>
Upstream Comm Failure	HOST TO MICRO 0 COMM FAIL <GLOBAL>
Downstream Comm Failure	M0 DOWNSTREAM MICRO COMM FAIL <GLOBAL>
Reader Comm Failure	M0 READER COMM FAIL <GLOBAL>

Micro setup

Note: For detailed micro installation instructions, refer to the Picture Perfect Administration Guide (Chapter 9, Adding a Micro).

1. From the main menu, select **Devices**, and then **Micros**.
2. On the **Micros** UI, configure the micro in the usual manner. Required fields include **Description**, **Micro Address**, **Time Zone Correction**, **Badge History Threshold**, and **Alarm History Threshold**.
3. Put the micro **Online** and select **Type**.
4. Select your **Facility**.
5. Complete the **Times in Seconds** section required fields: **Upstream Retries**, **Upstream Retry Interval**, **Host-micro Retries**, **Host-micro Retry Interval**, and **Polling Interval**.
6. Enter **Primary Port**, **Secondary Port**, **Upstream Micro**, and **Downstream Micro**.
7. If you DO NOT set the **Input Groups**, you will not see communication and reader alarms.
8. Press **Save** to save the record, and then **Quit**.
9. On the main menu, select **Control**, and then **Generators**. Set up readers on the micro using the **Generator** utility.

Figure 6. Picture Perfect 3.0 Ports UI (User Interface)



For Picture Perfect 3.0

The Micro/PX-2000, Micro/PXN-2000, and M2000PXNplus must be added to the Picture Perfect system at the host. The following is intended to be used by experienced microcontroller installers and includes an abbreviated list of the installation steps.

Port setup (For direct-connect or dial-up micros)

If using a network micro, go to [Network port setup \(For network micros only\)](#) on page 6.

1. Select **Configuration**, **Micros**, and then **Ports**.
2. Click **New**.
3. On the **Ports** UI, give your port a description.
4. Select your **Facility**.
5. Select your **Modem Type**. This should be set to NONE for direct-connect micros.
6. Select your **Baud Rate**, **Data Bits**, **Stop Bits**, and **Parity**.

Example: **Baud Rate** 19200 **Data Bits** 8
Stop Bits 1 **Parity** None

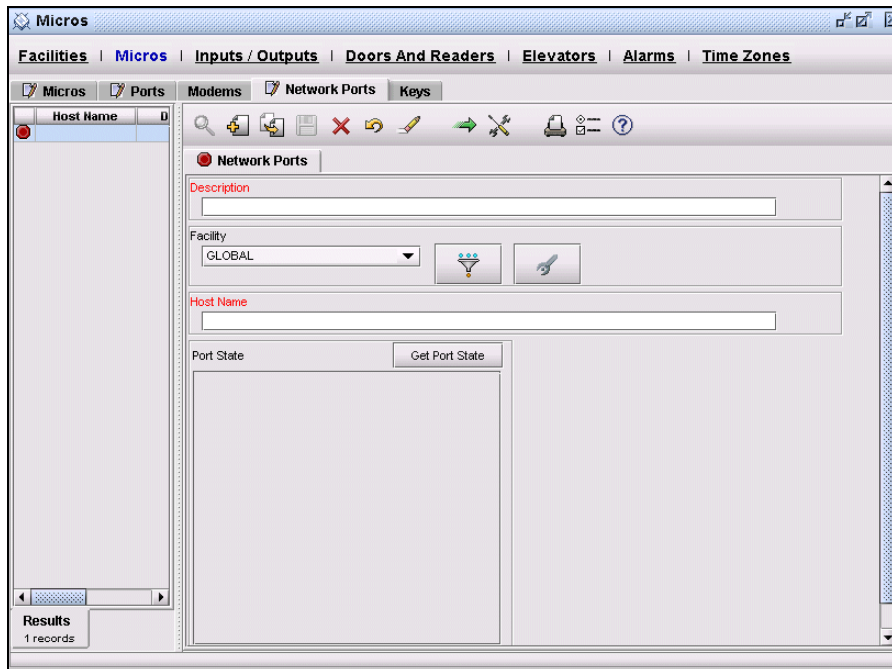
7. Define the tty port as it is defined in the operating system. Use the full path name of the port (MUST be in lower-case characters).

Example for:

- AIX: /dev/tty2
- Linux 3.0: /dev/ttyD002
- Linux 4.0 /dev/ttya02

8. Press **Save**.
9. Go to [Micro setup](#) on page 7.

Figure 7. Picture Perfect 3.0 Network Micro Ports UI



Network port setup (For network micros only)

1. Select **Configuration**, **Micros**, and then **Network Ports**.
2. Click **New**.
3. On the **Network Ports** UI, give your port a **Description**.
4. Enter the **Host Name**.

Note: In the **Host Name** text box, enter the IP address or node name of the Micro/PXN-2000 or M2000PXNplus.

5. Select your **Facility**.
6. Click **Save**.

Figure 8. Picture Perfect 3.0 Micros UI

The screenshot shows the 'Micros' configuration window in the Picture Perfect 3.0 software. The window has a menu bar with 'Facilities', 'Micros', 'Inputs / Outputs', 'Doors And Readers', 'Elevators', 'Alarms', and 'Time Zones'. Below the menu bar is a toolbar with icons for adding, deleting, and editing records. The main configuration area is divided into several sections: 'Description' (with a text field), 'Facility' (a dropdown menu set to 'GLOBAL'), 'Micro Address' (a text field), 'Upstream Micro' and 'Downstream Micro' (dropdown menus), 'Type' (radio buttons for 'Normal' and 'Elevator'), 'Configure' (radio buttons for 'Online', 'Offline', and 'Nonexistent'), 'Time Zone' (a dropdown menu), 'Primary Port' and 'Secondary Port' (dropdown menus), 'Firmware Version' and 'Facility Code' (text fields), 'Shunt Code' and 'Alarm Response Code' (text fields), and 'Badge History Threshold' and 'Alarm History Threshold' (text fields). At the bottom left, there is a 'Results' section showing '1 records' and a 'Network Map' button. At the bottom right, a status bar indicates 'New record is ready'.

Micro setup

Note: For detailed micro installation instructions, refer to the Picture Perfect User Manual (Chapter 8, Defining Micros).

1. From the **Configuration** menu, select **Micros**, and then the **Micros** tab.
2. Click **New**.
3. On the **Micros** UI, configure the micro in the usual manner. Required fields include **Description**, **Facility**, **Micro Address**, **Upstream Micro**, **Downstream Micro**, **Time Zone**, **Primary Port**, **Secondary Port**, **Badge History Threshold**, **Alarm History Threshold**, **Upstream Retries**, **Upstream Retry Interval**, **Downstream Retries**, **Downstream Retry Intervals**, **Host-Micro Retries**, **Host-Micro Retry Interval**, and **Polling Interval**. (If you DO NOT set the input groups, you will not see communication and reader alarms.)
4. Put the micro online.
5. Press **Save** to save the record.
6. Set up readers on the micro using the Readers UI or create a reader record template.

Figure 9. Typical hardware configuration - Micro/PX-2000, Micro/PXN-2000, and M2000PXNplus

I

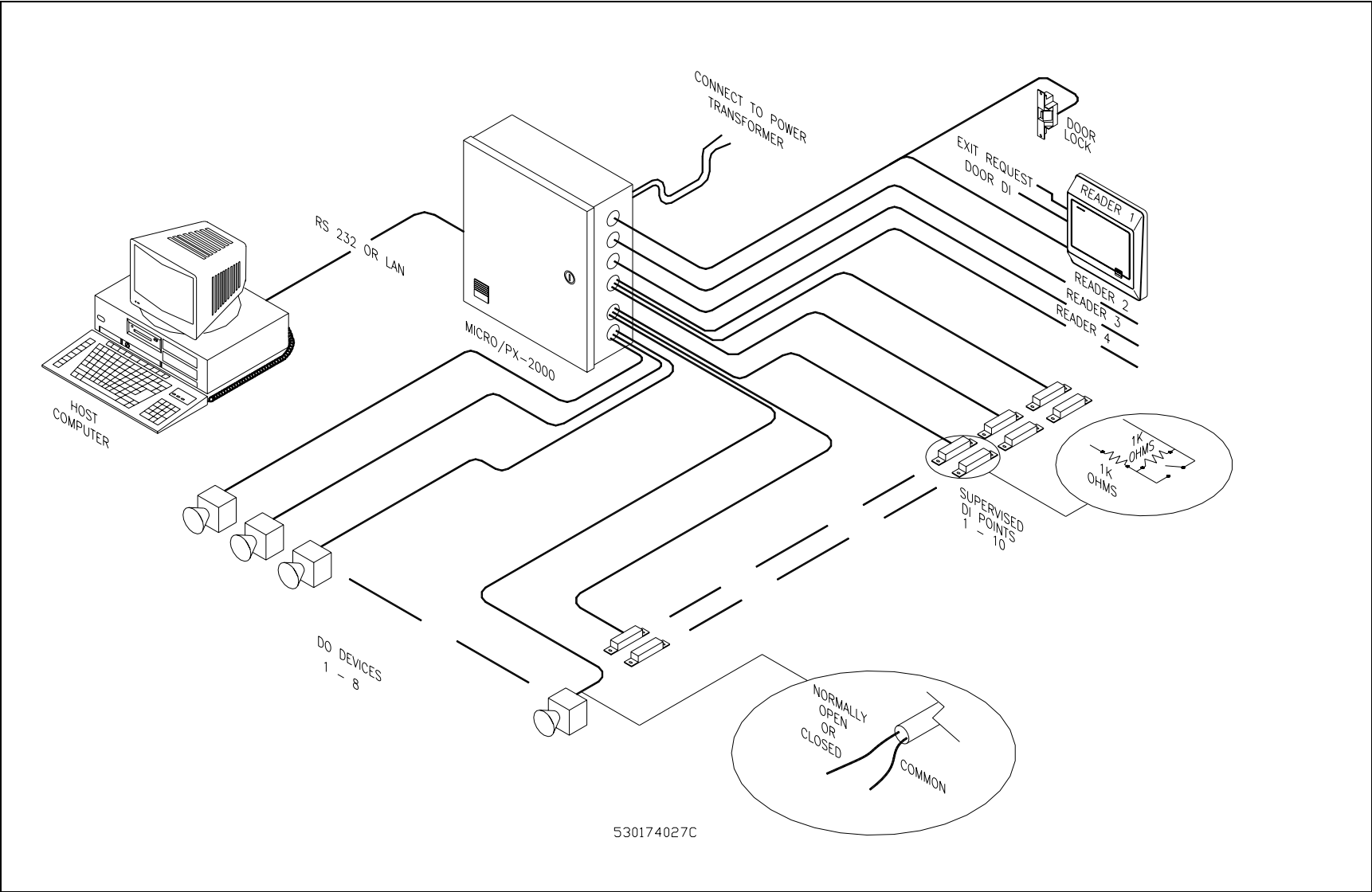


Figure 10. Typical hardware configuration - Micro/PX-2000, Micro/PXN-2000, and M2000PXNplus with Micro/Reader Junction Box

I

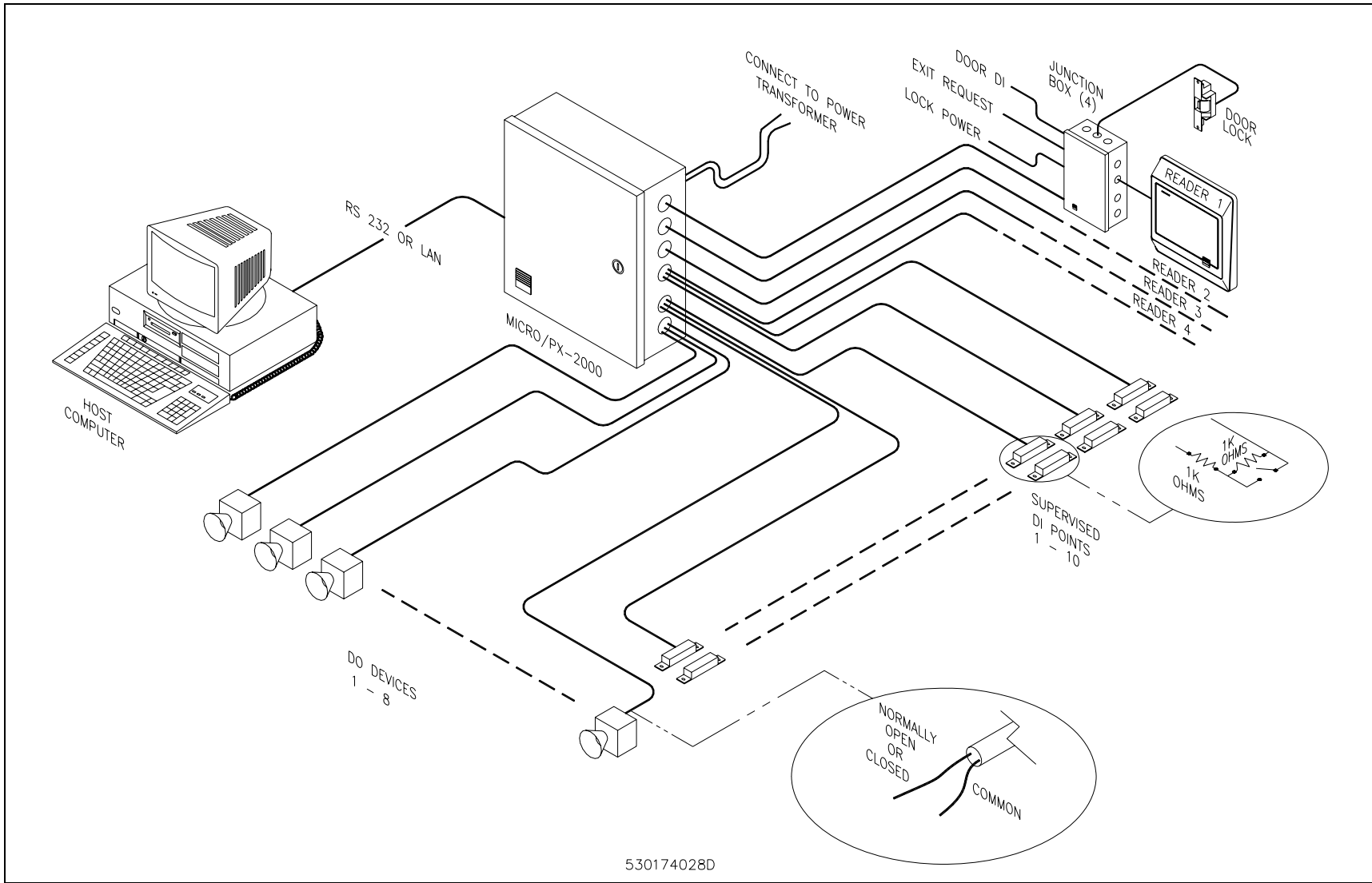


Figure 11. Assembly drawing of Micro/PX-2000, Micro/PXN-2000, and M2000PXNplus with components

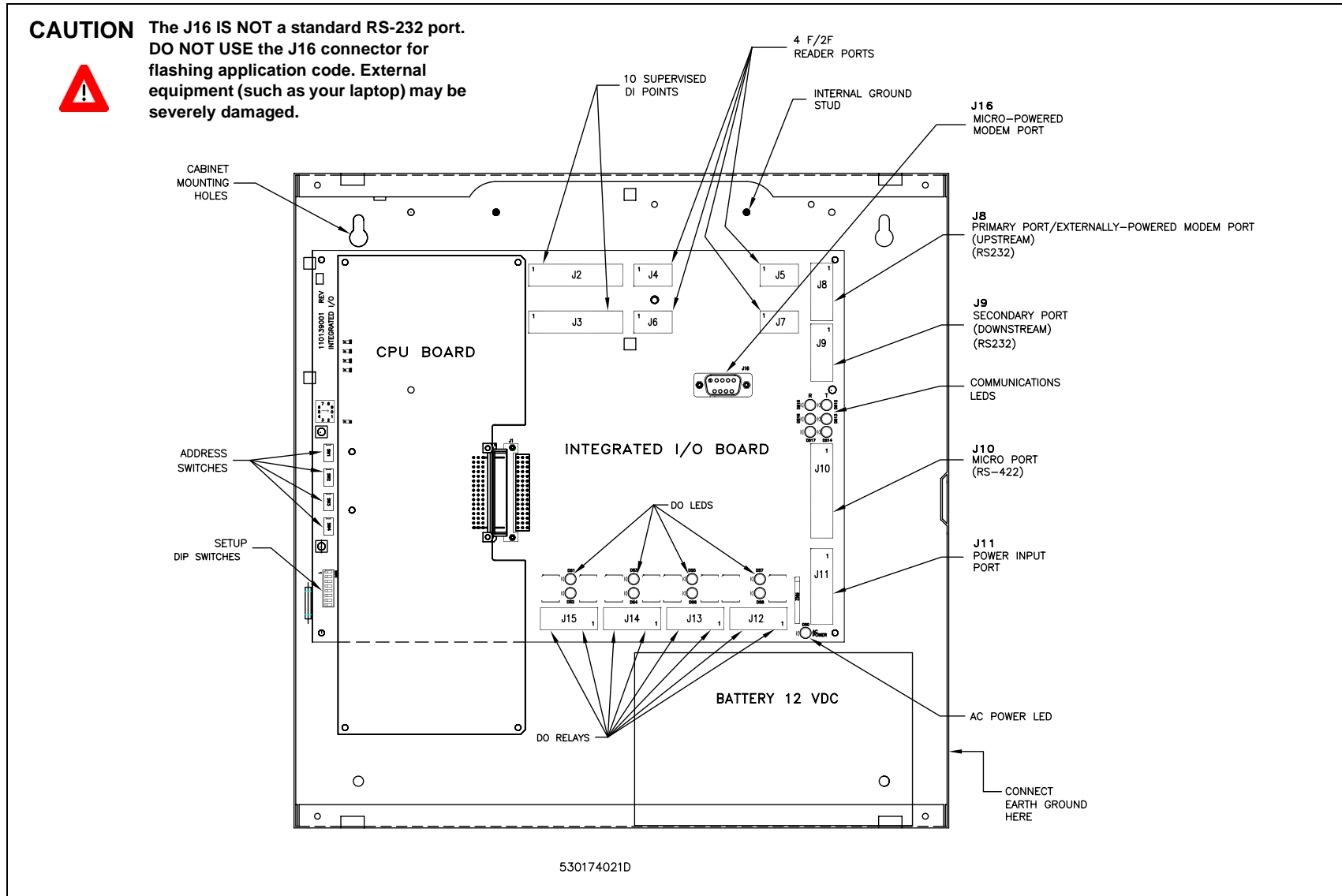


Figure 12. Layout of the Power/Communications connectors

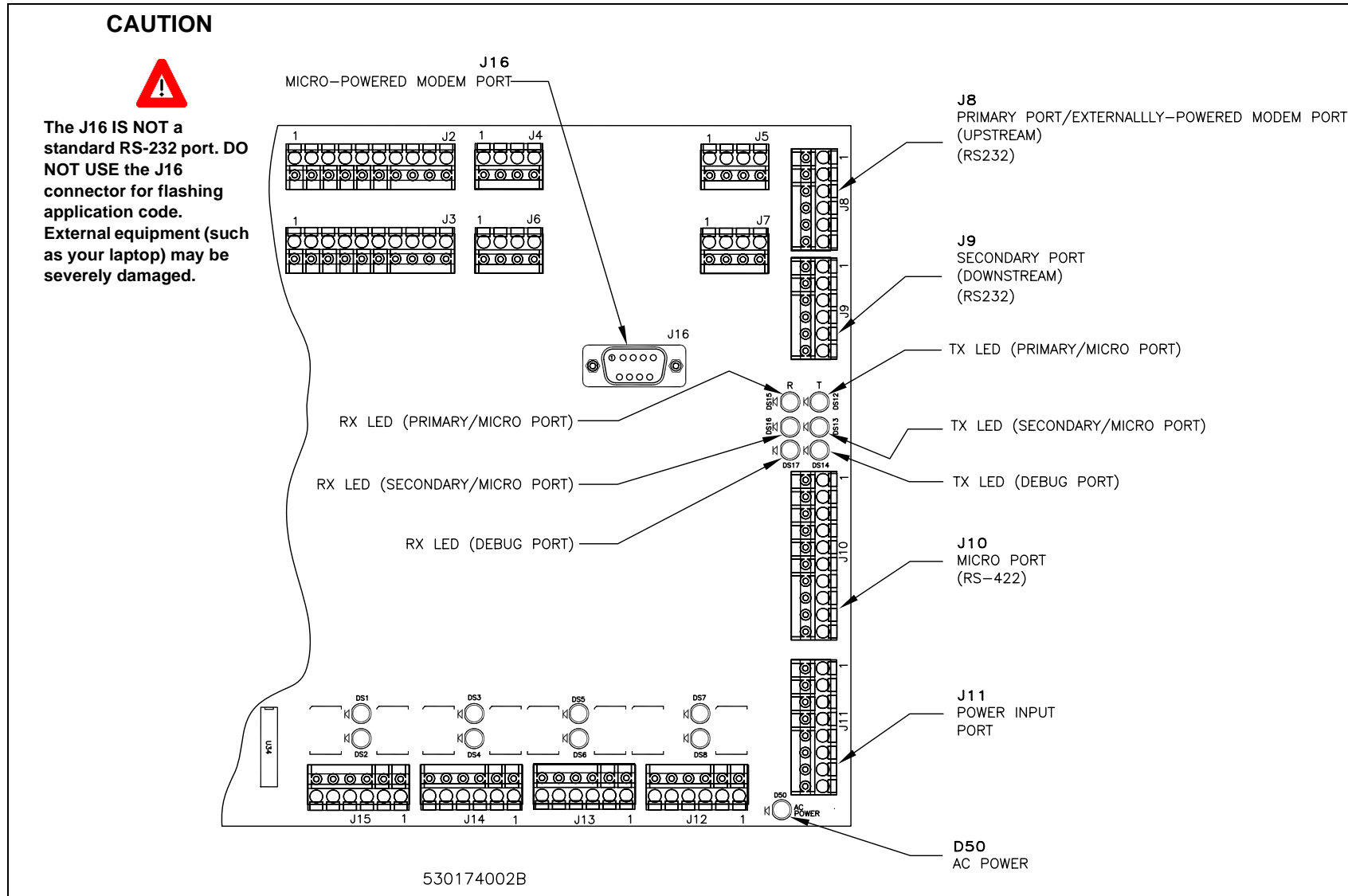
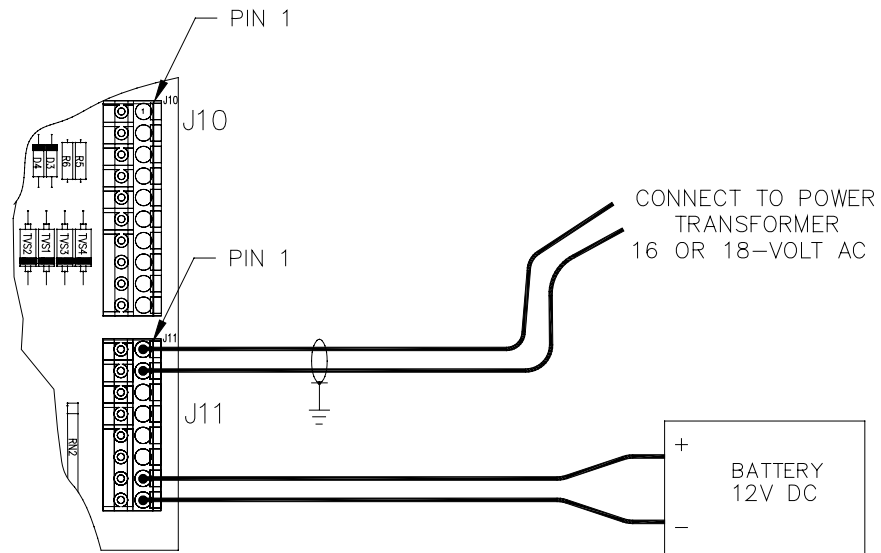


Figure 13. Wiring the power supply



NOTE : THE MICRO/PX-2000 ENCLOSURE MUST BE CONNECTED
TO EARTH GROUND TO MEET SAFETY AND EMISSIONS
REQUIREMENTS (UL, FCC, AND CE COMPLIANT).

530174010C

Figure 14. Overview - Transition Reader, Micro/Reader Junction Box, Micro/PX-2000, Micro/PXN-2000, and M2000PXNplus

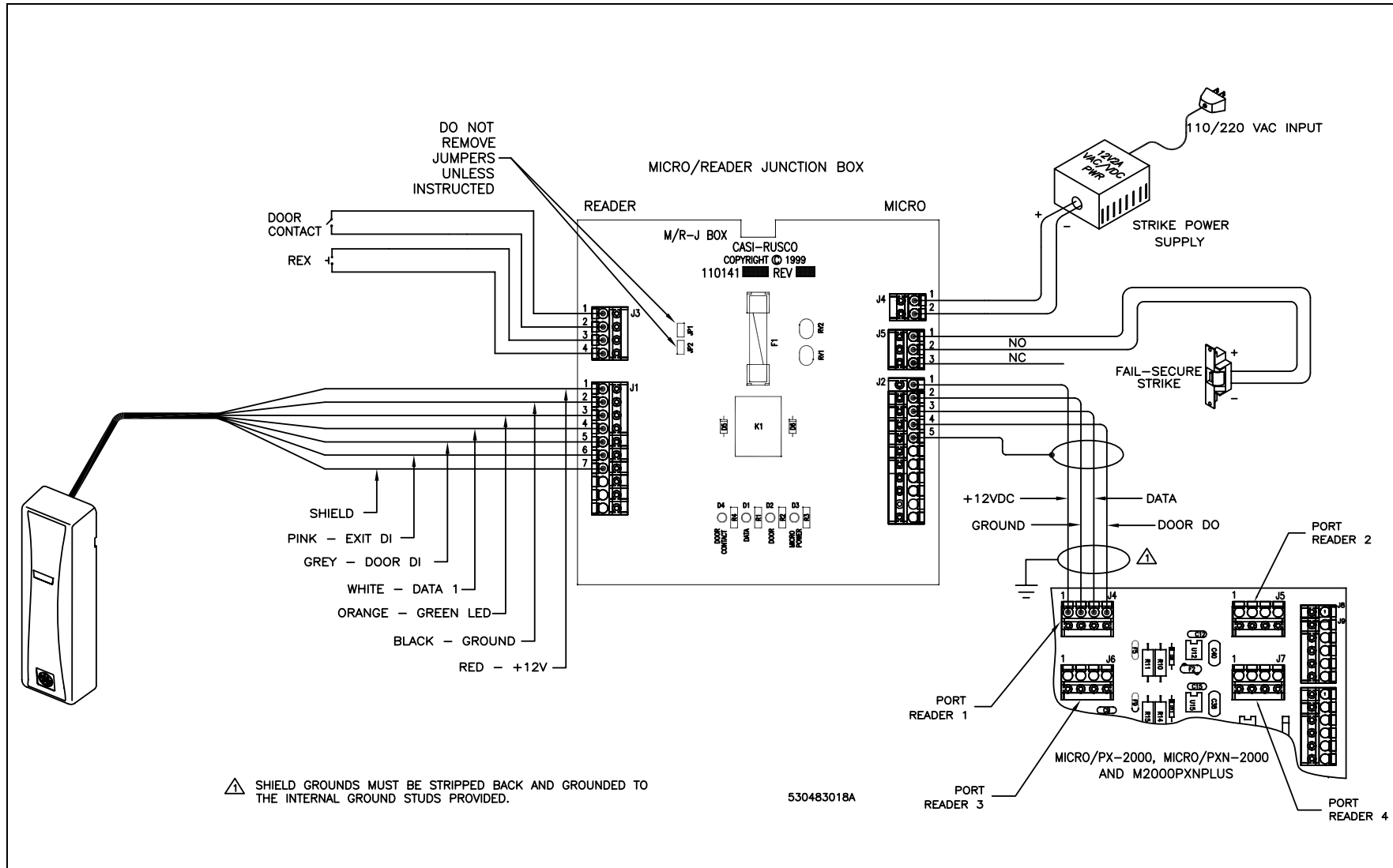


Figure 15. Wiring an output device to a DO relay point

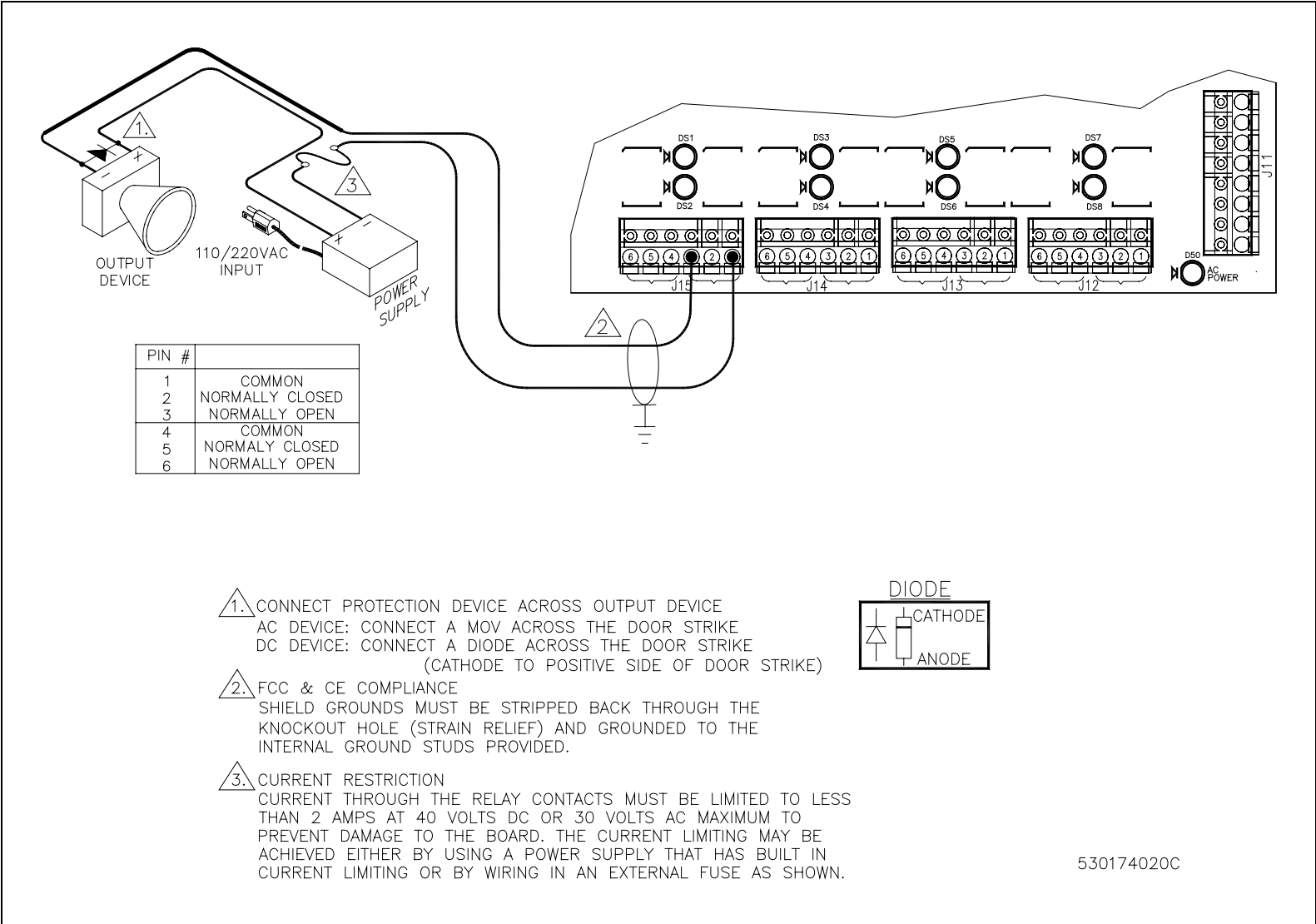


Figure 16. Wiring a DI point

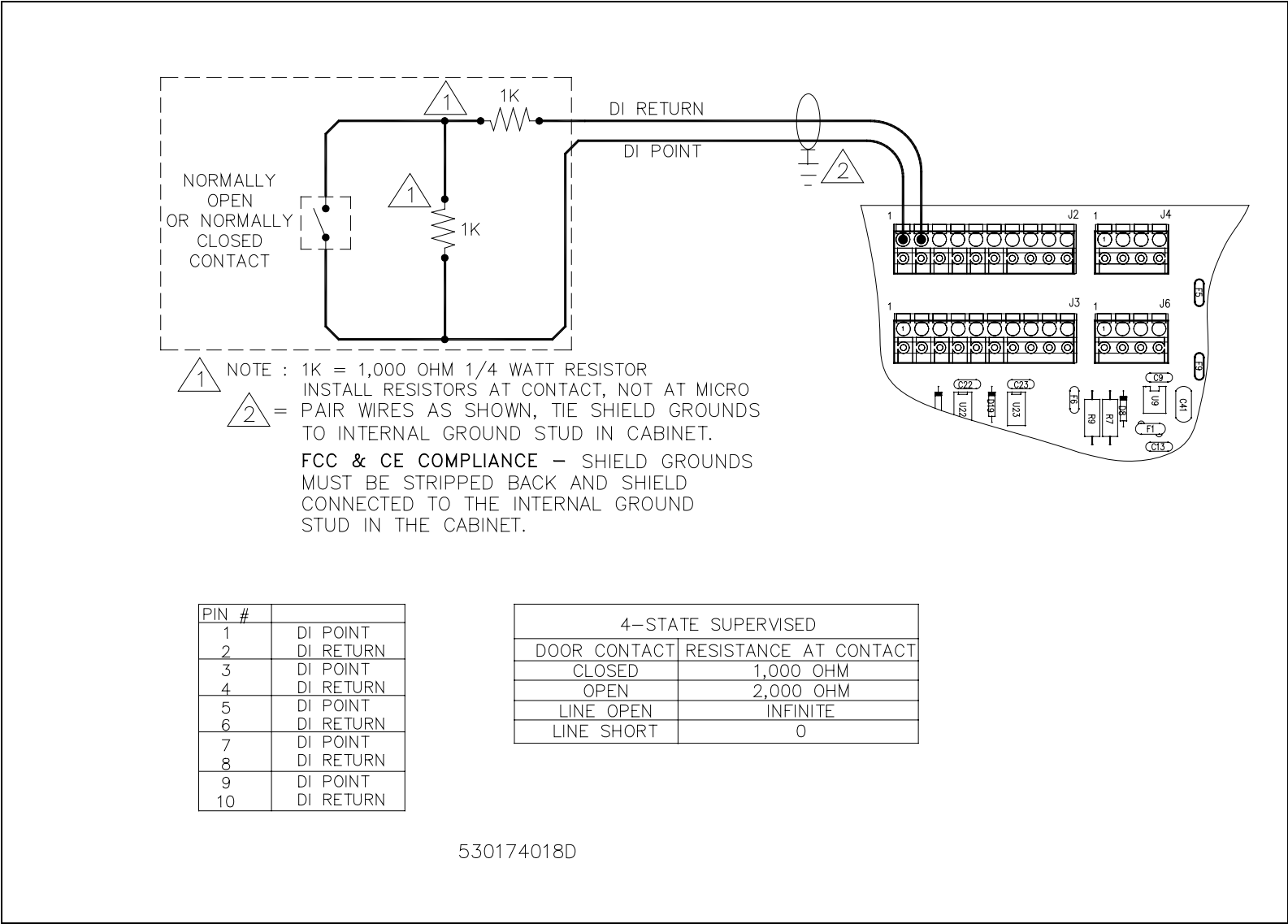


Figure 17. Wiring Integrated Input/Output door strike - external relay

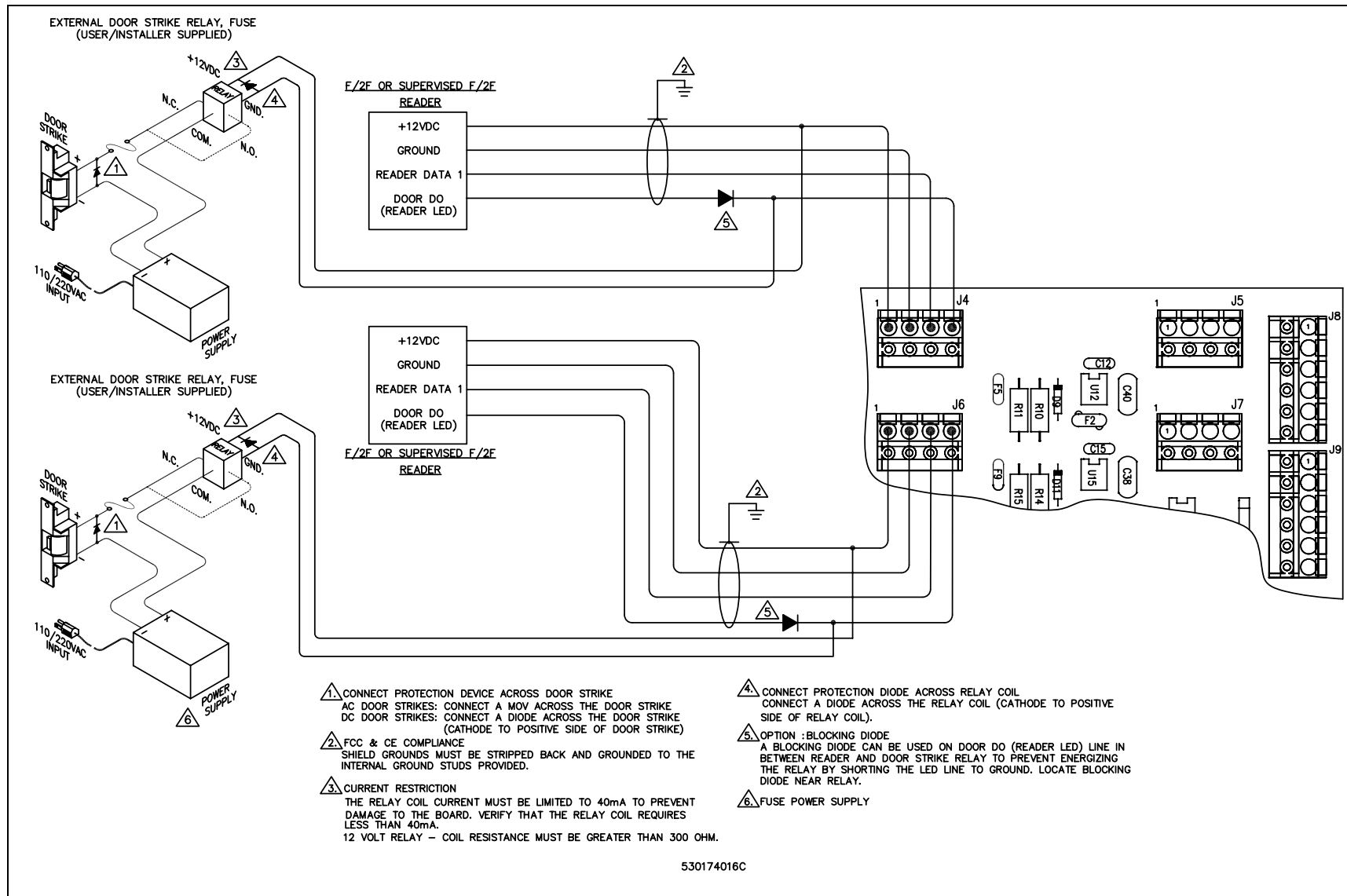
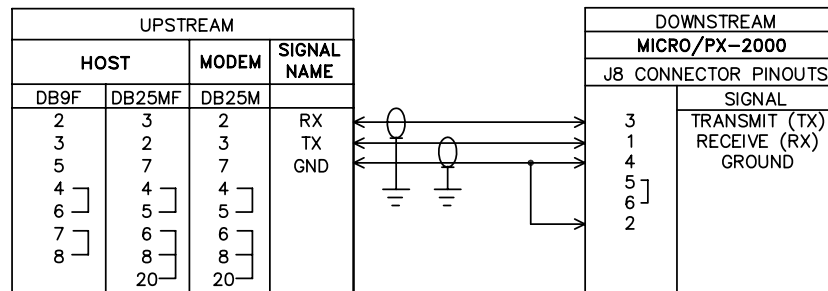


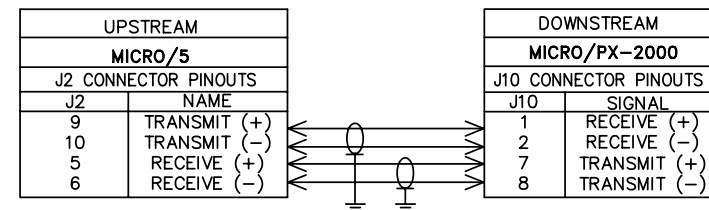
Figure 18. Wiring pinouts for communications hookups

COMMUNICATIONS HOOKUPS

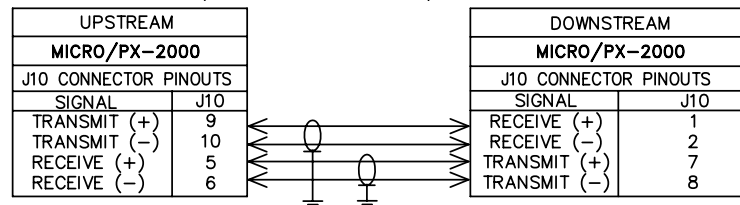
WIRING UPSTREAM TOWARD THE HOST USING RS-232



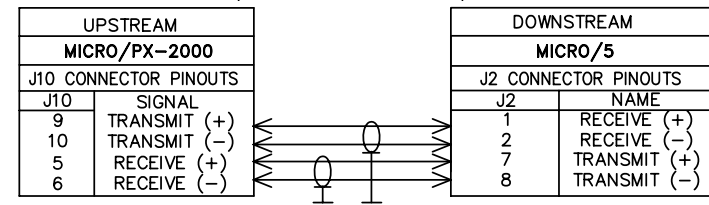
WIRING MICRO/5 TO MICRO/PX-2000 USING RS-422



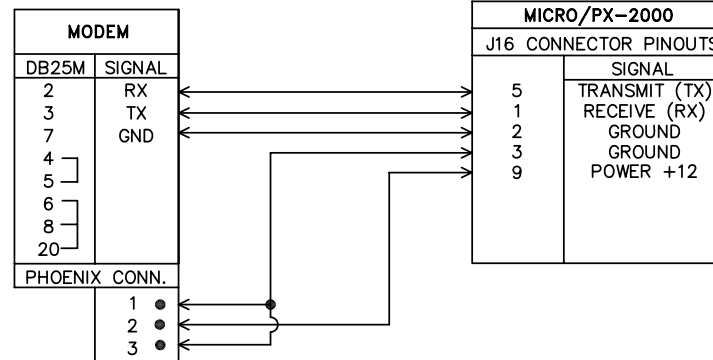
WIRING MICRO/PX-2000 TO MICRO/PX-2000 USING RS-422



WIRING MICRO/PX-2000 TO MICRO/5 USING RS-422



MODEM PINOUTS



P/N 1032035C

Technical support

Toll-free: 888.GESECURITY (888.437.3287 in the US, including Alaska and Hawaii; Puerto Rico; Canada).
Outside the toll-free area: Contact your local dealer.

www.gesecurity.com