IntelliRupter® PulseCloser® Fault Interrupter
Outdoor Distribution (15.5 kV, 27 kV, and 38 kV)

Programming SpeedNet™ Radios
With LinkStart Software

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Instruction Sheet 766-567

Introduction

Qualified Persons

> ### ⚠ WARNING
>
> Only qualified persons who are knowledgeable in the installation, operation, and maintenance of overhead and underground electric distribution equipment, along with all associated hazards, may install, operate, and maintain the equipment covered by this publication. A qualified person is someone who is trained and competent in:
>
> - The skills and techniques necessary to distinguish exposed live parts from nonlive parts of electrical equipment
> - The skills and techniques necessary to determine the proper approach distances corresponding to the voltages to which the qualified person will be exposed
> - The proper use of special precautionary techniques, personal protective equipment, insulated and shielding materials, and insulated tools for working on or near exposed energized parts of electrical equipment
>
> These instructions are intended ONLY for such qualified persons. They are not intended to be a substitute for adequate training and experience in safety procedures for this type of equipment.

Read this Instruction Sheet

> ### *NOTICE*
>
> Thoroughly and carefully read this instruction sheet and all materials included in the product's instruction handbook before installing or operating your IntelliRupter® fault interrupter. Familiarize yourself with the Safety Information on page 3. The latest version of this publication is available online in PDF format at **sandc.com/en/support/product-literature/**.

Retain this Instruction Sheet

This instruction sheet is a permanent part of your IntelliRupter fault interrupter. Designate a location where you can easily retrieve and refer to this publication.

Proper Application

> ### ⚠ WARNING
>
> The equipment in this publication is only intended for a specific application. The application must be within the ratings furnished for the equipment. Ratings for the IntelliRupter fault interrupter are listed in the ratings table in Specification Bulletin 766-31. The ratings are also on the nameplate affixed to the product.

Warranty

The warranty and/or obligations described in S&C's Price Sheet 150, "Standard Conditions of Sale–Immediate Purchasers in the United States," (or Price Sheet 153, "Standard Conditions of Sale–Immediate Purchasers Outside the United States,") plus any special warranty provisions, as set forth in the applicable product-line specification bulletin, are exclusive. The remedies provided in the former for breach of these warranties shall constitute the immediate purchaser's or end user's exclusive remedy and a fulfillment of the seller's entire liability. In no event shall the seller's liability to the immediate purchaser or end user exceed the price of the specific product that gives rise to the immediate purchaser's or end user's claim. All other warranties, whether express or implied or arising by operation of law, course of dealing, usage of trade or otherwise, are excluded. The only warranties are those stated in Price Sheet 150 (or Price Sheet 153), and THERE ARE NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ANY EXPRESS WARRANTY OR OTHER OBLIGATION PROVIDED IN PRICE SHEET 150 (OR PRICE SHEET 153) IS GRANTED ONLY TO THE IMMEDIATE PURCHASER AND END USER, AS DEFINED THEREIN. OTHER THAN AN END USER, NO REMOTE PURCHASER MAY RELY ON ANY AFFIRMATION OF FACT OR PROMISE THAT RELATES TO THE GOODS DESCRIBED HEREIN, ANY DESCRIPTION THAT RELATES TO THE GOODS, OR ANY REMEDIAL PROMISE INCLUDED IN PRICE SHEET 150 (or PRICE SHEET 153).

Understanding Safety-Alert Messages

Several types of safety-alert messages may appear throughout this instruction sheet and on labels and tags attached to your IntelliRupter fault interrupter. Familiarize yourself with these types of messages and the importance of these various signal words:

⚠ DANGER

"DANGER" identifies the most serious and immediate hazards that will likely result in serious personal injury or death if instructions, including recommended precautions, are not followed.

⚠ WARNING

"WARNING" identifies hazards or unsafe practices that can result in serious personal injury or death if instructions, including recommended precautions, are not followed.

⚠ CAUTION

"CAUTION" identifies hazards or unsafe practices that can result in minor personal injury if instructions, including recommended precautions, are not followed.

NOTICE

"NOTICE" identifies important procedures or requirements that can result in product or property damage if instructions are not followed.

Following Safety Instructions

If you do not understand any portion of this instruction sheet and need assistance, contact your nearest S&C Sales Office or S&C Authorized Distributor. Their telephone numbers are listed on S&C's website **sandc.com**, or call the S&C Global Support and Monitoring Center at 1-888-762-1100.

NOTICE

Read this instruction sheet thoroughly and carefully before installing your IntelliRupter fault interrupter.

Replacement Instructions and Labels

If additional copies of this instruction sheet are needed, contact your nearest S&C Sales Office, S&C Authorized Distributor, S&C Headquarters, or S&C Electric Canada Ltd.

It is important that any missing, damaged, or faded labels on the equipment be replaced immediately. Replacement labels are available by contacting your nearest S&C Sales Office, S&C Authorized Distributor, S&C Headquarters, or S&C Electric Canada Ltd.

Overview

Introduction

The following procedure creates a PPP connection to enable configuration of a SpeedNet™ Radio installed in an IntelliRupter fault interrupter communication module through LinkStart software. Begin by installing LinkStart software, which is included with the IntelliRupter fault interrupter installer. Then, verify it can establish a Wi-Fi connection to the IntelliRupter fault interrupter. Access to an IntelliRupter fault interrupter, or the combination of a control module, communication module, and docking station, is required.

⚠ CAUTION

To prevent unexpected operation of an equipment team member during manual reconfiguration of the circuit (for example, during repairs), follow your company's operating procedures for disabling automatic operation of the IntelliTeam® SG or IntelliTeam® II Automatic Restoration System.

The IntelliTeam SG or IntelliTeam II Automatic Restoration System can be disabled by selecting **Restoration Prohibited** mode on the *IntelliTeam SG/II Operation > General > Team Summary* screen of any active team member.

Requirements

- LinkStart software (see S&C Instruction Sheet 766-566)
- An IntelliRupter fault interrupter or IntelliRupter fault interrupter docking station, communication module, and control module
- The SpeedNet Client Tool (see S&C Instruction Sheet 766-571)

The SpeedNet Radio serial port configuration must be set to PPP, the factory default. See Figure 1. If the radio serial port is not set to PPP, LinkStart software cannot be used for radio configuration, and the radio will have to be programmed over-the-air through the SpeedNet network.

Note: Administrator privileges are required for creating a PPP connection. After initial setup, non-administrator users will be able to establish a PPP connection to SpeedNet radios.
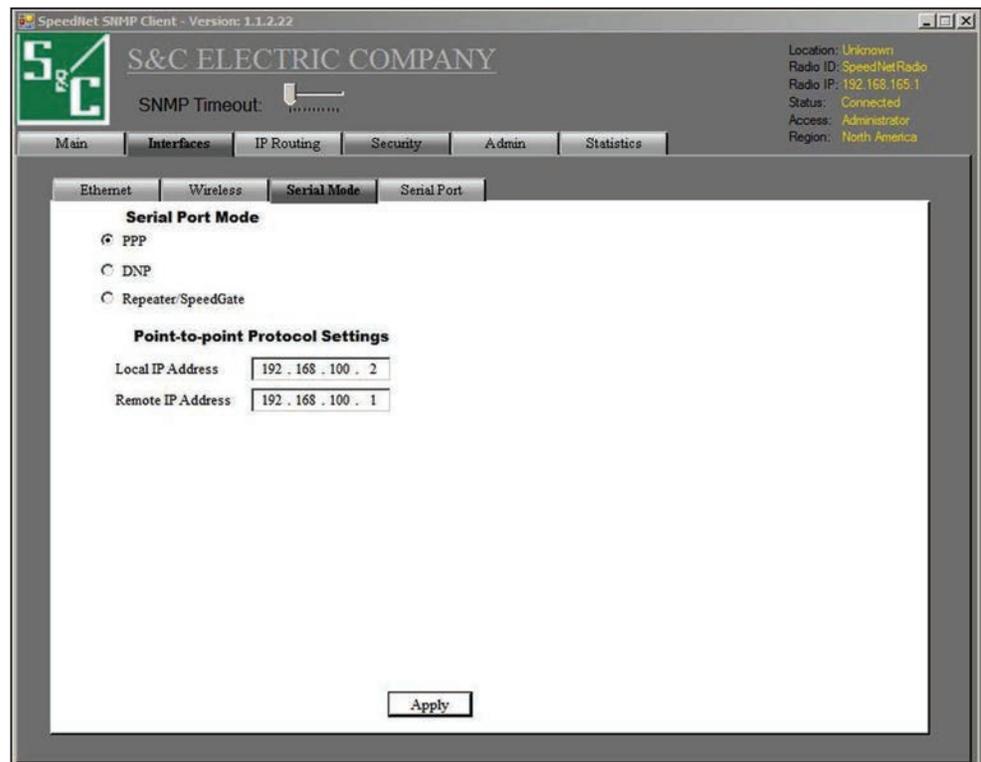

Figure 1. SpeedNet Serial Port set to PPP Mode.

Serial Port Configuration

Follow these steps to configure the serial port:

STEP 1. Open the LinkStart software and connect to the IntelliRupter fault interrupter.

STEP 2. Open the Control Panel and select the Phone and Modem applet, which can also be found by entering "modem" in the search box. See Figure 2.

Figure 2. Control Panel search for "modem."

Procedure

STEP 3. If the Phone and Modem dialog box does not show the **Modems** tab (see Figure 3), enter the location information in the **Dialing Rules** tab. Then, click on the **Add** button.
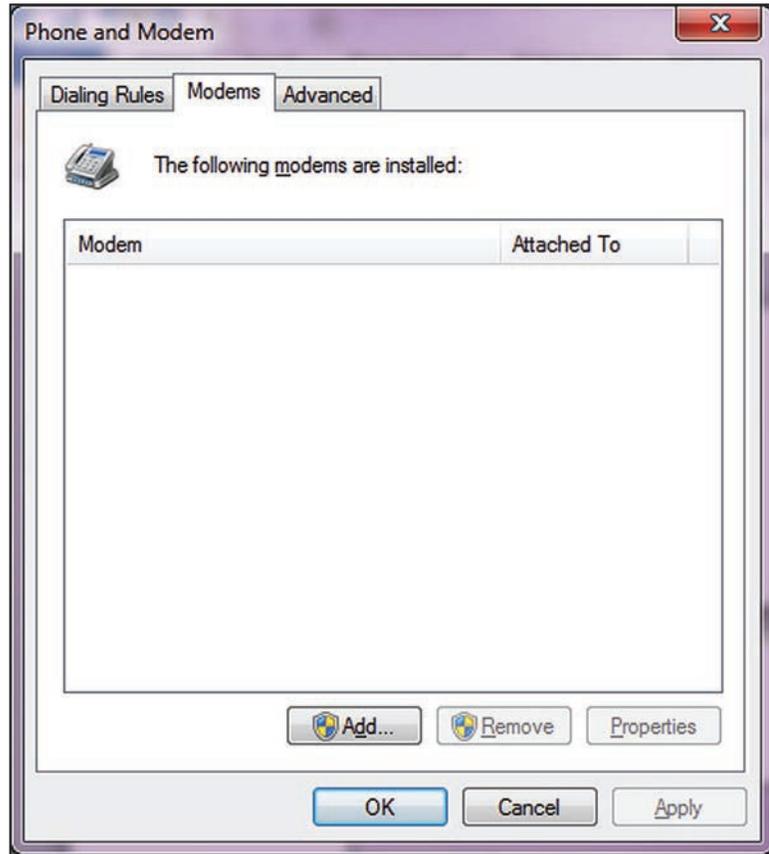
Figure 3. The Modems tab in the Phone and Modem dialog box.

STEP 4. In the Add Hardware Wizard dialog box, check "Don't detect my modem; I will select it from a list," and click on the **Next** button. See Figure 4.
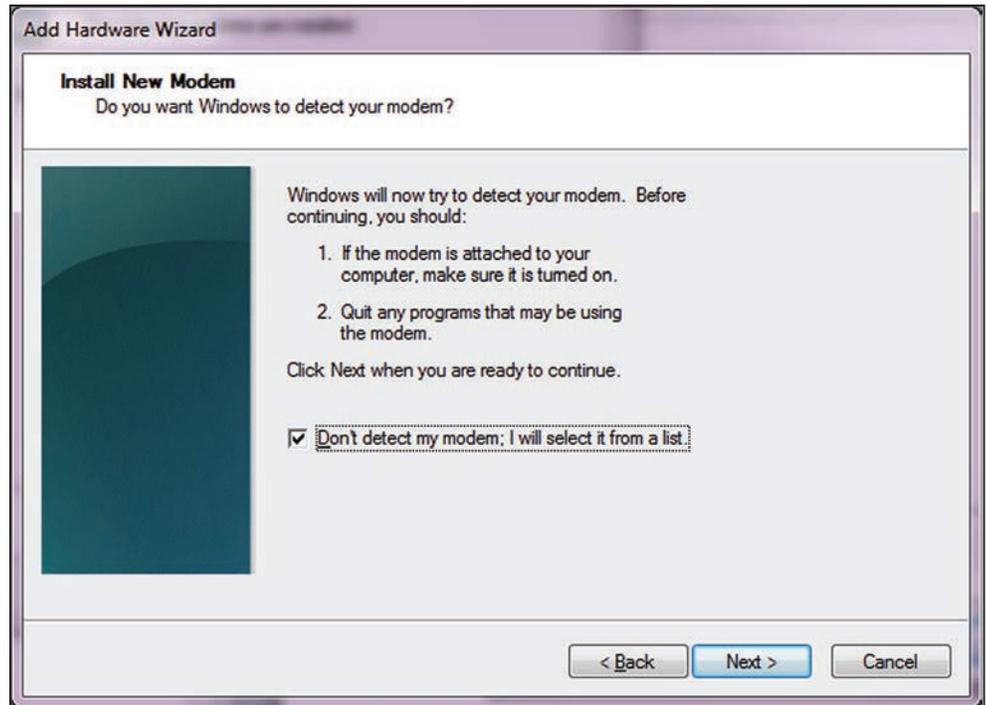
Figure 4. The Add Hardware Wizard dialog box.

STEP 5. From the list of modems, select "Communications cable between two Computers." Then, click on the **Next** button. See Figure 5.
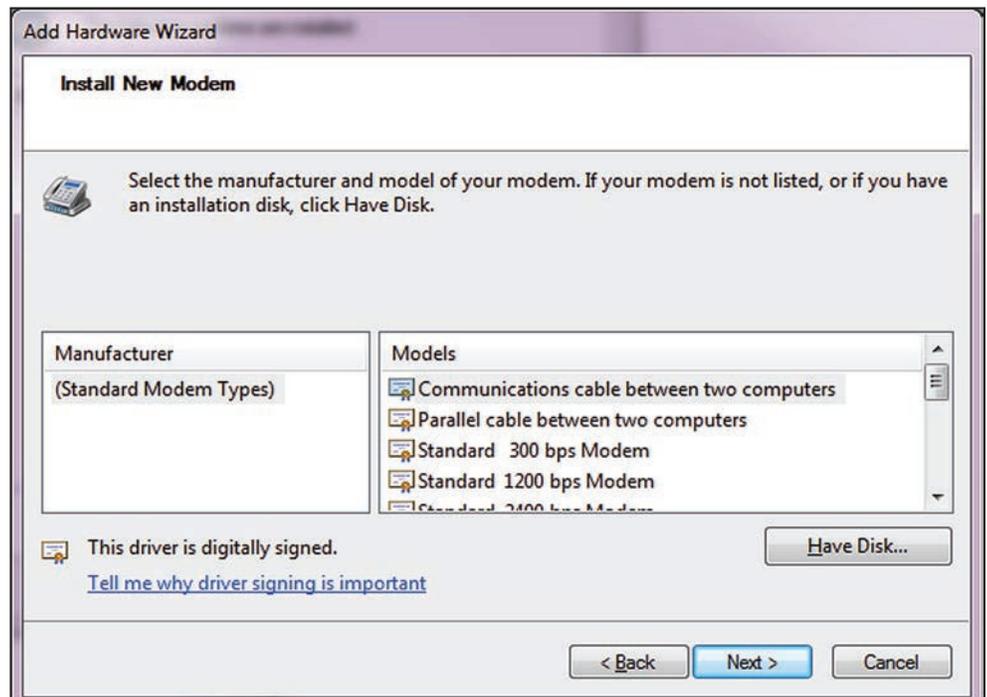
Figure 5. The Install New Modem dialog box.

Procedure

STEP 6. Select "COM18" for the Wi-Fi connection, and click on the **Next** button. See Figure 6. COM18 will not be available if the Wi-Fi connection to the IntelliRupter fault interrupter is not established and running.
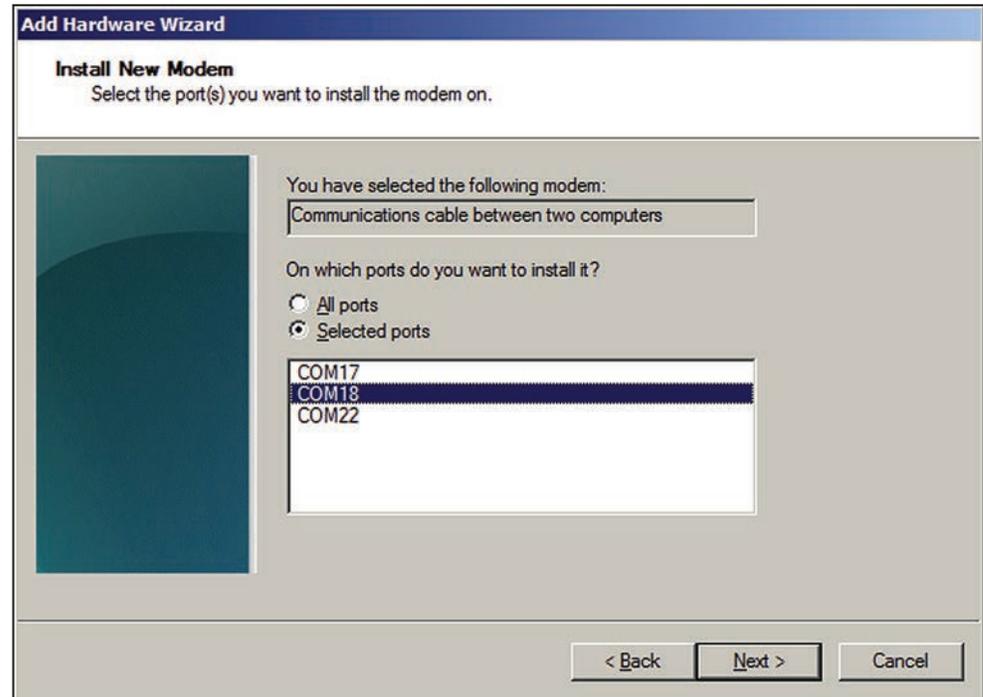
Figure 6. The Add Hardware Wizard dialog box showing the modem port selections.

STEP 7. Click on the **Finish** button to exit the Add Hardware Wizard dialog box. See Figure 7. Then, click on the **OK** button to close the Phone and Modem applet.
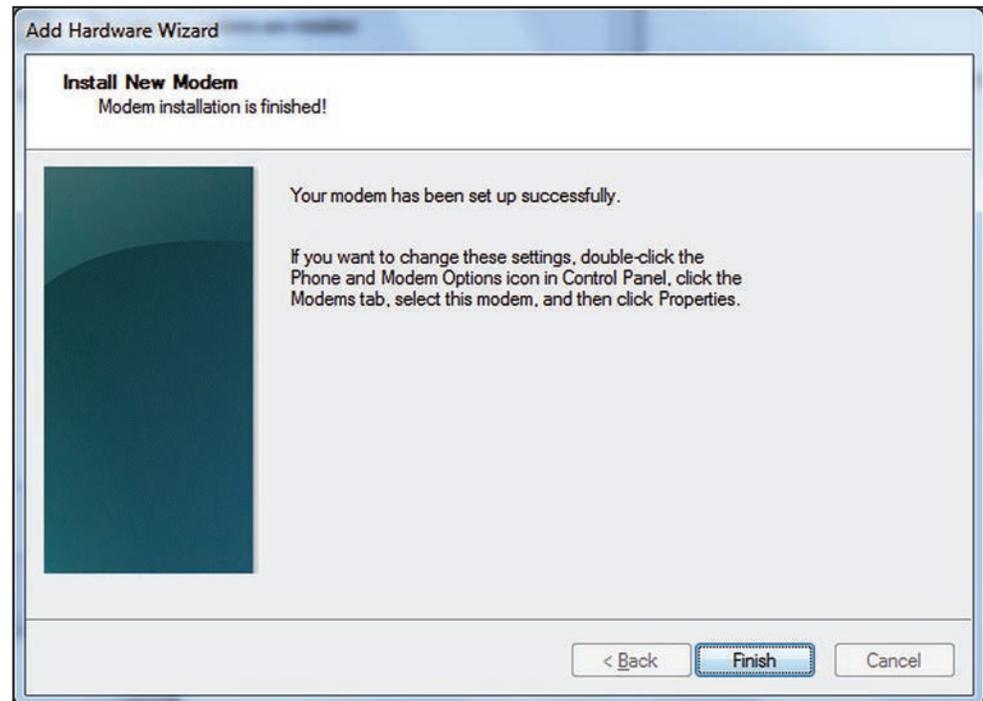
Figure 7. The dialog box showing the modem installation has completed successfully.

STEP 8. Check that the cable between the two computers is attached to COM18. See Figure 8.
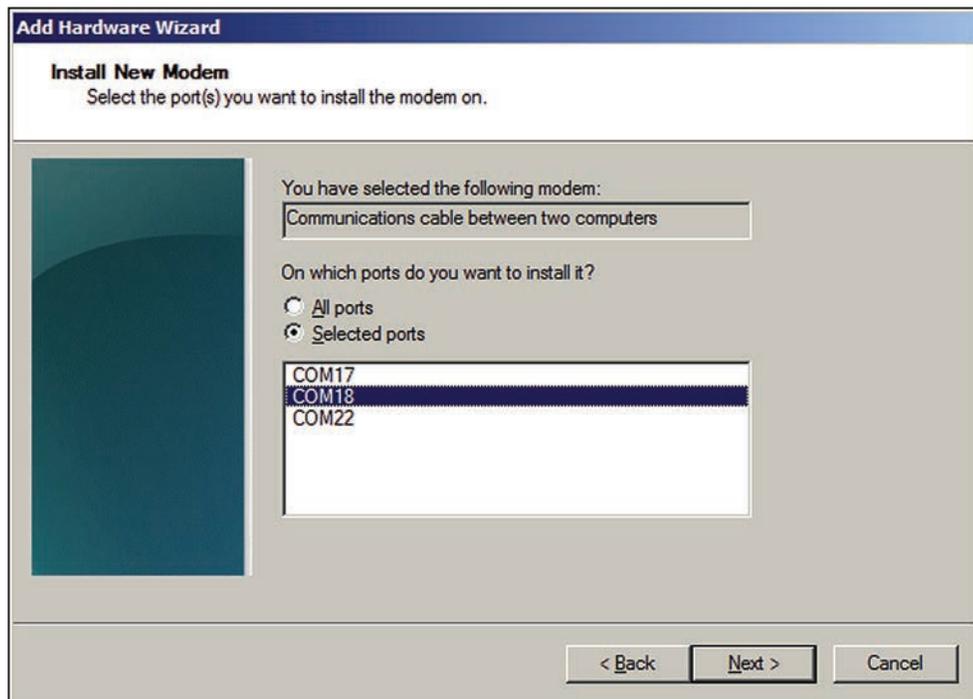
Figure 8. The Add Hardware Wizard dialog box for installing a new modem.

Network Configuration for Direct Cable Connection

Follow these steps to configure the network for direct cable connection:

STEP 1. Open the Control Panel and click on the **Network and Sharing Center** entry, or click on the Network icon in the system tray and select "Network and Sharing Center." Then, click on the "Setup a new connection or network" link. See Figure 9.
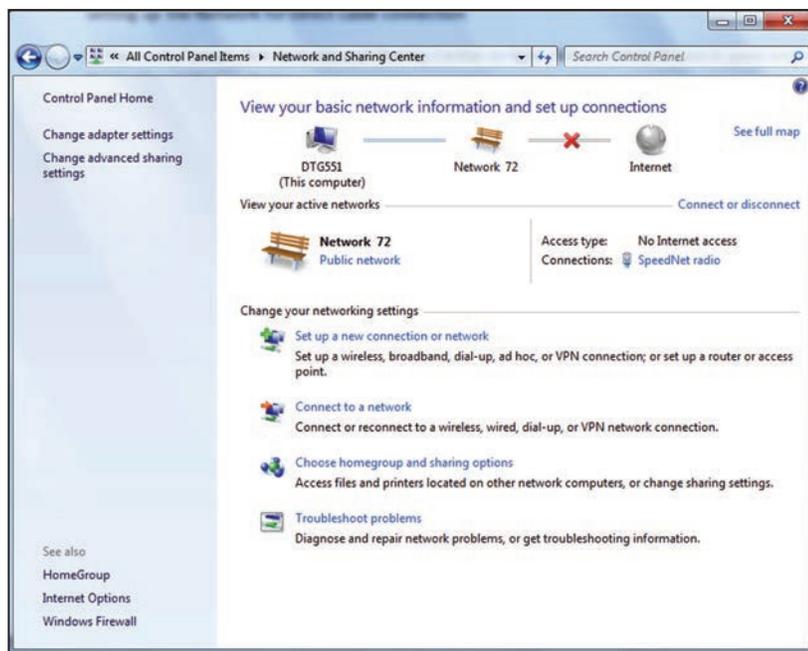
Figure 9. The Network and Sharing Center dialog box.

STEP 2. Click on the "Set up a dial-up connection" entry. See Figure 10.
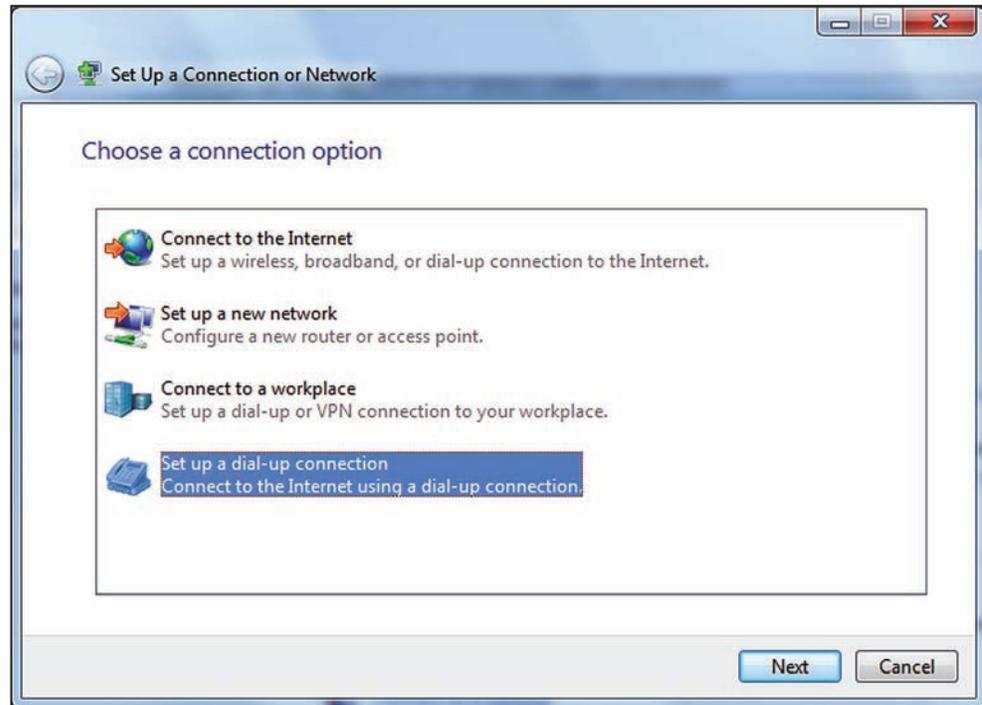
Figure 10. The Set Up a Connection or Network dialog box showing how to choose a connection option.

STEP 3. In the **Dial-up phone number** field, enter any number, and in the **Connection name** field, enter a descriptive name. See Figure 11.

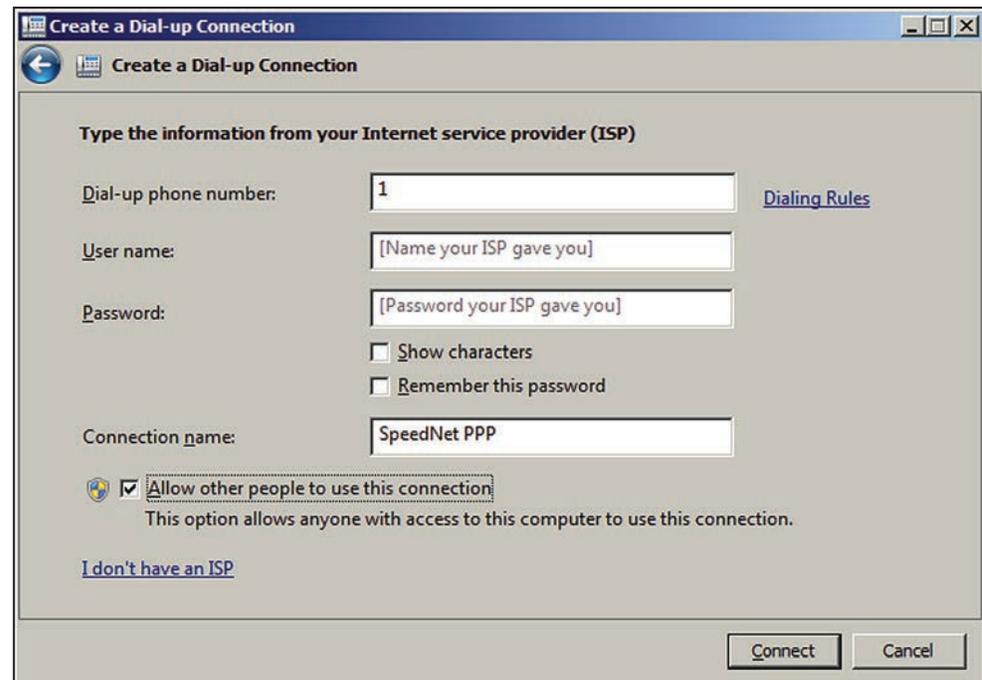**Figure 11. The Create a Dial-up Connection dialog box.**

STEP 4. Click on the **Connect** button. See Figure 11 on page 10. The Connecting to SpeedNet PPP... dialog box opens. See Figure 12.

Figure 12. The Create a Dial-up Connection dialog box showing a connection occurring to SpeedNet PPP.

STEP 5. During the connection test, click on the **Skip** button. Figure 13 shows the connection test stopping.

Figure 13. The Create a Dial-up Connection dialog box showing the connection test is stopping.

Procedure

STEP 6. When the Create a Dial-up Connection dialog box opens showing the connection is ready for use, click on the **Close** button. See Figure 14.
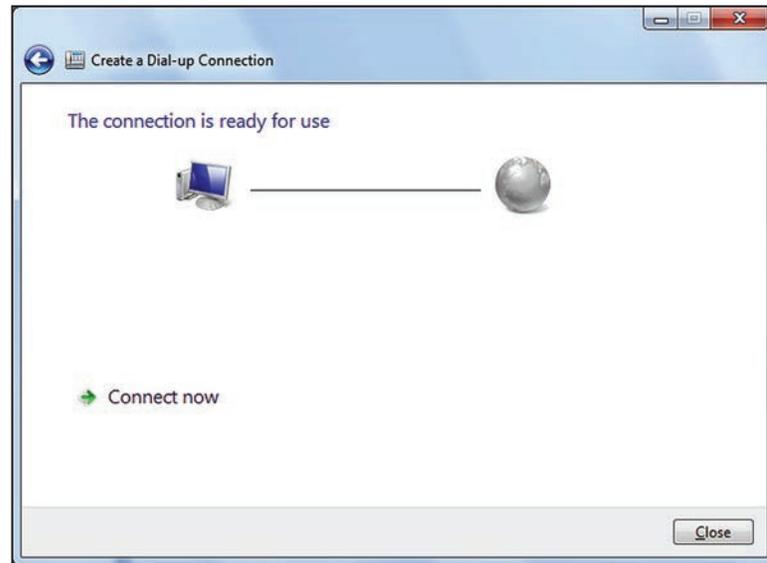
Figure 14. The Create a Dial-up Connection dialog box showing the connection is ready for use.

Adjusting Serial Port Properties

Follow these steps to adjust properties of the serial port:

STEP 1. Open the Control Panel and select the "Device Manager" entry. Click on the "Modems" entry to expand the tree and right click on the "Communications cable between two computers" entry. See Figure 15.
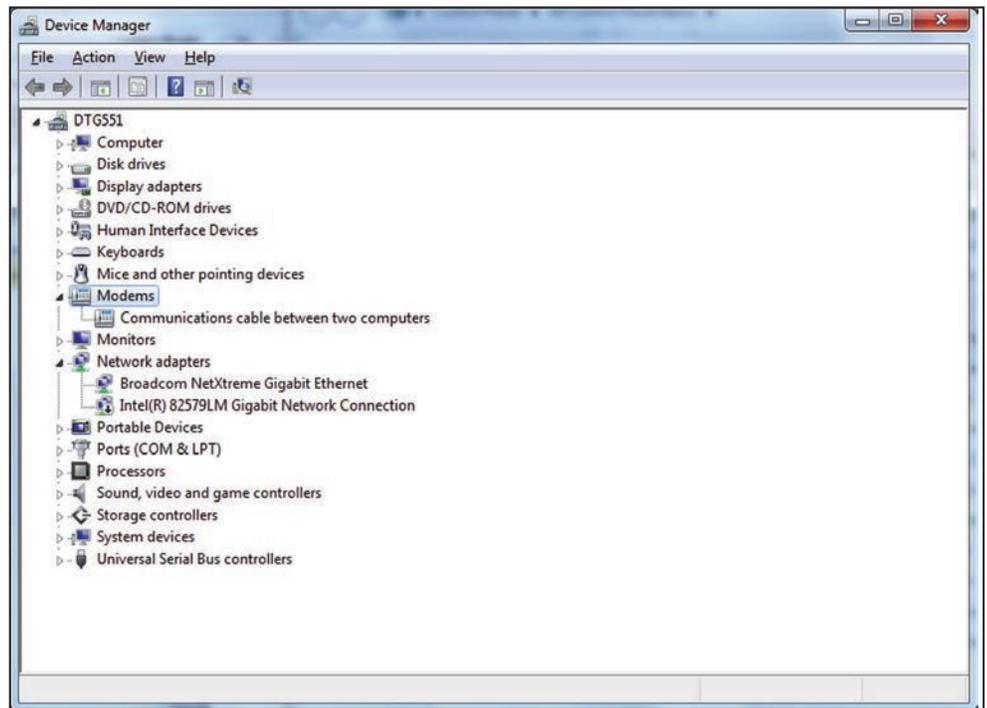
Figure 15. The Device Manager dialog box.

Procedure

STEP 2. Click on the "Properties" entry and select the **Advanced** tab in the communications cable between two computers Properties dialog box. See Figures 16 and 17.
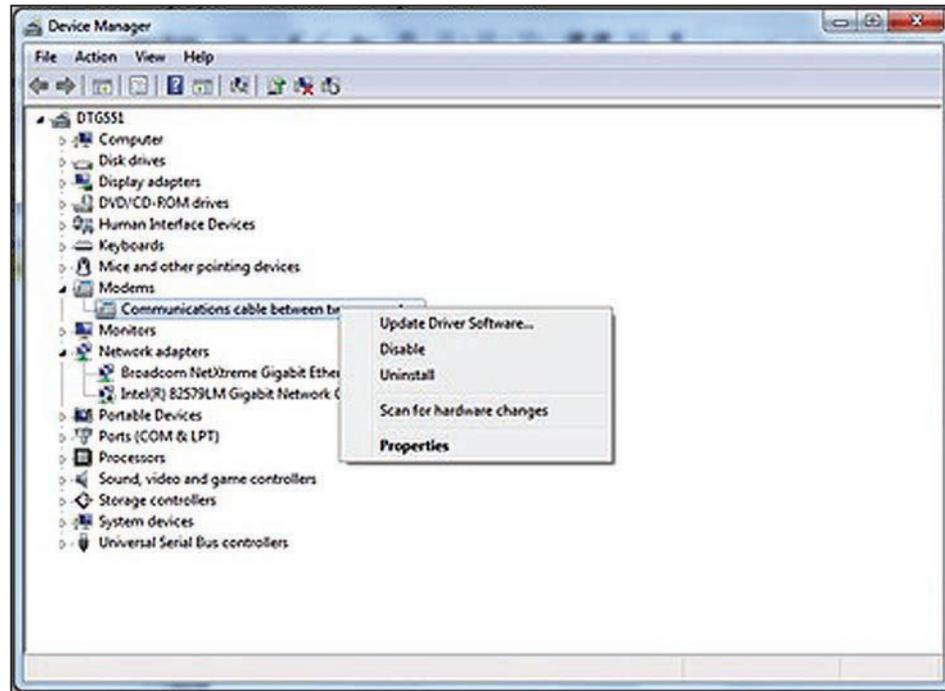
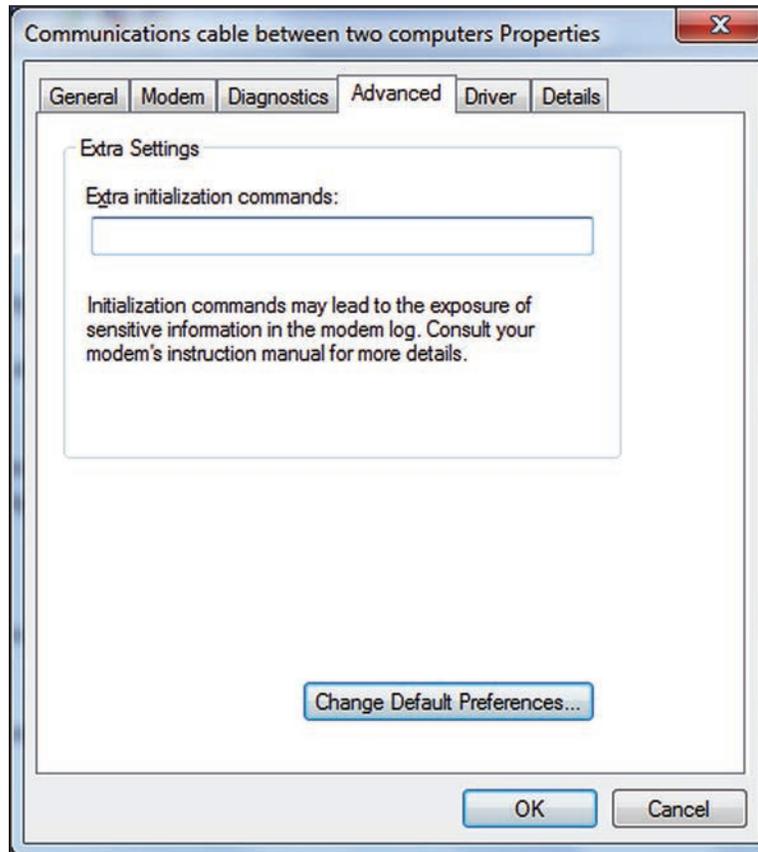**Figure 16. The Properties selection for communications cable between two computers.**

Figure 17. The communications cable between two computers Properties dialog box.

STEP 3. Click the **Change Default Preferences...** button. See Figure 17 on page 14. The **General** tab opens. See Figure 18.
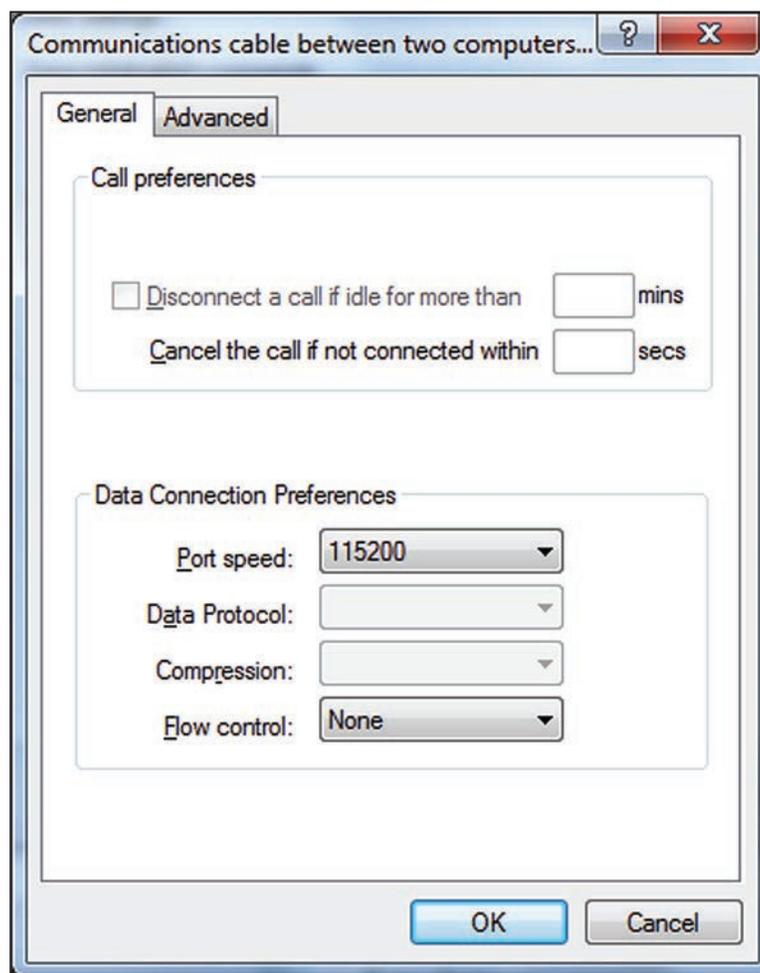

Figure 18. The communications cable between two computers dialog box showing how to adjust data-connection preferences.

STEP 4. Set the **Port speed** field to "115200" and the **Flow control** field to "None," as shown in Figure 18.

STEP 5. Click on the **OK** button twice to exit back to the Device Manager dialog box. Close the Device Manager and any other open applications.

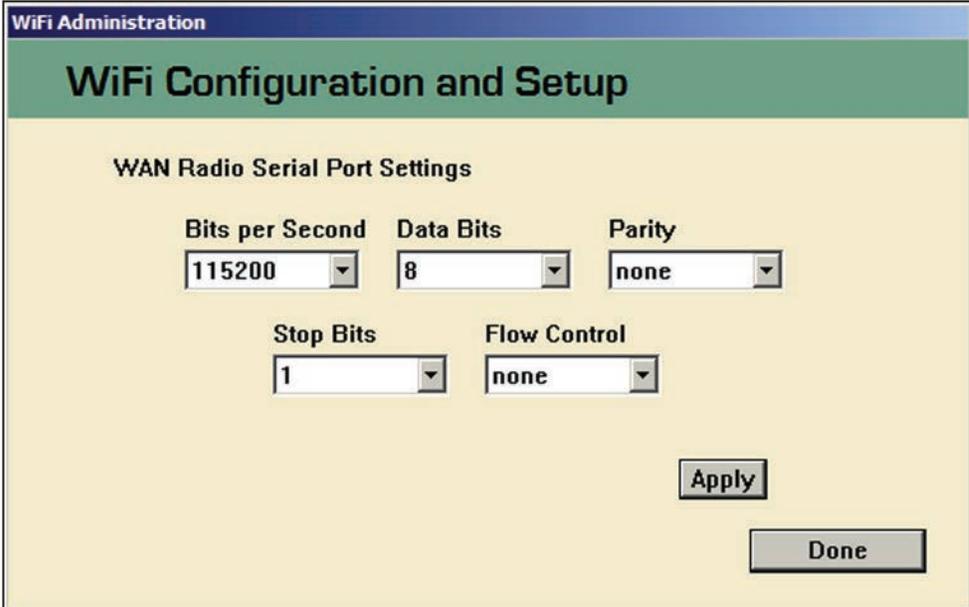**STEP 6.** Restart the computer.

Procedure

Start PPP Session

Follow these steps to start a PPP session:

STEP 1. Disable the firewall.

STEP 2. Open the LinkStart software and connect to the IntelliRupter fault interrupter. Verify the Wi-Fi WAN port configuration settings are as shown in Figure 19. If not, change them to match those in the Wi-Fi Administration dialog box showing where WAN Radio Serial Port Settings can be adjusted. To change the Wi-Fi WAN port configuration, click on the **Wi-Fi Admin** button on the *LinkStart Main* screen. Enter the password. Users should contact S&C to obtain their passwords. Click on the **WAN Port Setting** button.

Figure 19. The WAN Radio Serial Port Settings dialog box.

STEP 3. Go to the Open Network and Sharing Center dialog box. See Figure 20. Click on the "SpeedNet PPP" entry, and then click on the **Connect** button.

Figure 20. The Open Network and Sharing Center dialog box.

Procedure

STEP 4. The Connect SpeedNet PPP dialog box opens. See Figure 21. Enter the radio User name and Password. Users should contact S&C to obtain their passwords. Click on the **Properties** button. The SpeedNet PPP Properties dialog box opens. See Figure 22 on page 19.
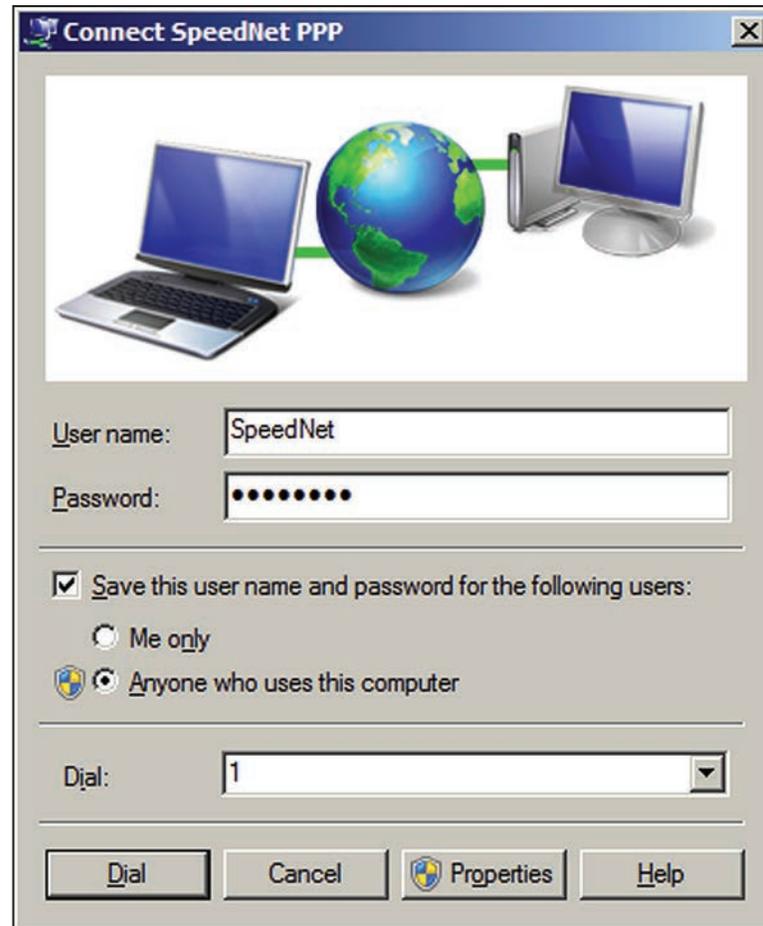

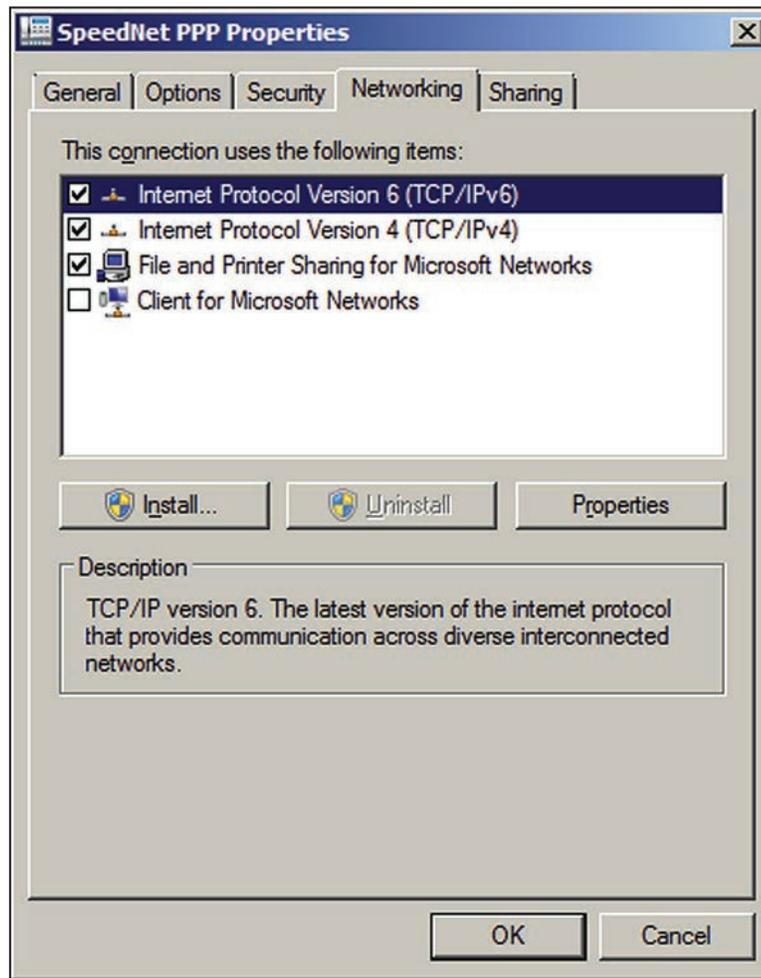**Figure 21. The Connect SpeedNet PPP dialog box.**

Figure 22. The SpeedNet PPP Properties dialog box.

STEP 5. Select the **Networking** tab and check the checkbox for "File and Printer Sharing for Microsoft Networks," if this checkbox is not already checked. Then, click on the **OK** button.

STEP 6. In the Connect SpeedNet PPP dialog box, click on the **Dial** button. See Figure 21 on page 18. A couple of dialog boxes will be quickly displayed, showing the log-in progress. See Figure 23. If the log-in attempt is successful, no error dialog boxes will open. To check the connection status, click on the Network Connection icon located on the system tray. The SpeedNet PPP connection will show a **Connected** status. See Figure 24.

Figure 23. The Connecting to SpeedNet PPP dialog box showing the connection log-in progress.

Figure 24. The Open Network and Sharing Center dialog box.

STEP 7. Start the SpeedNet Client Tool software and enter the appropriate login credentials. Figure 25 shows a sample login screen with factory default settings.
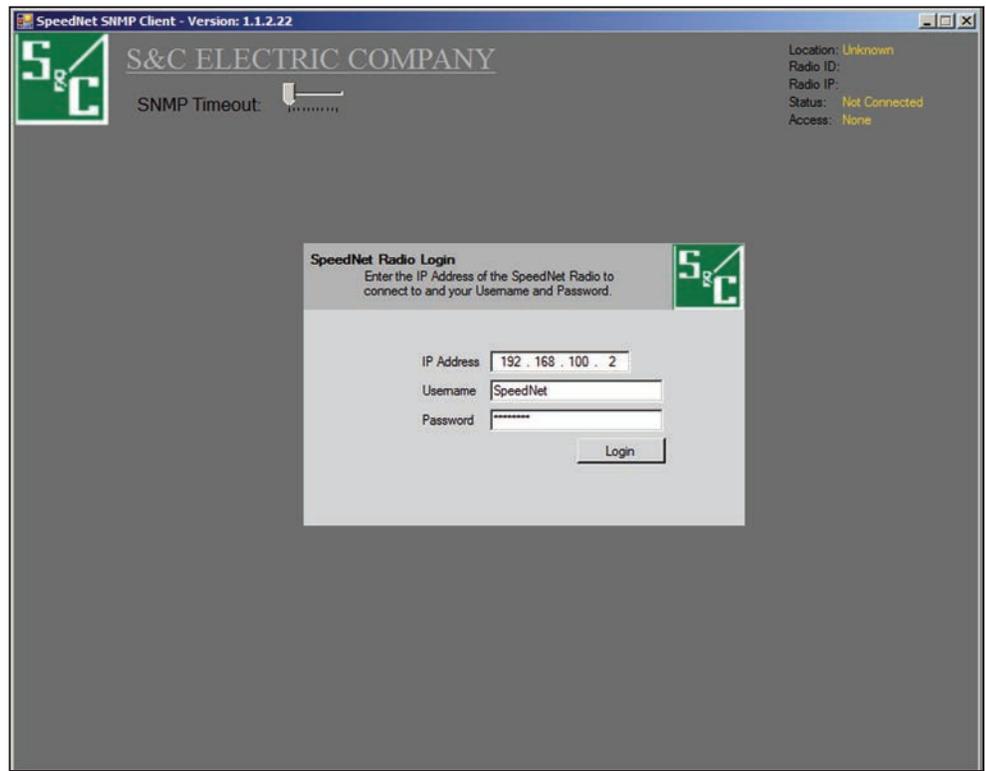

Figure 25. SpeedNet Radio Login dialog box.

STEP 8. After SpeedNet Radio configuration is complete and before you close the LinkStart software, close the PPP session. Go to the Open Network and Sharing Center dialog box, click on the "SpeedNet PPP" entry, and click on the **Disconnect** button. See Figure 26.
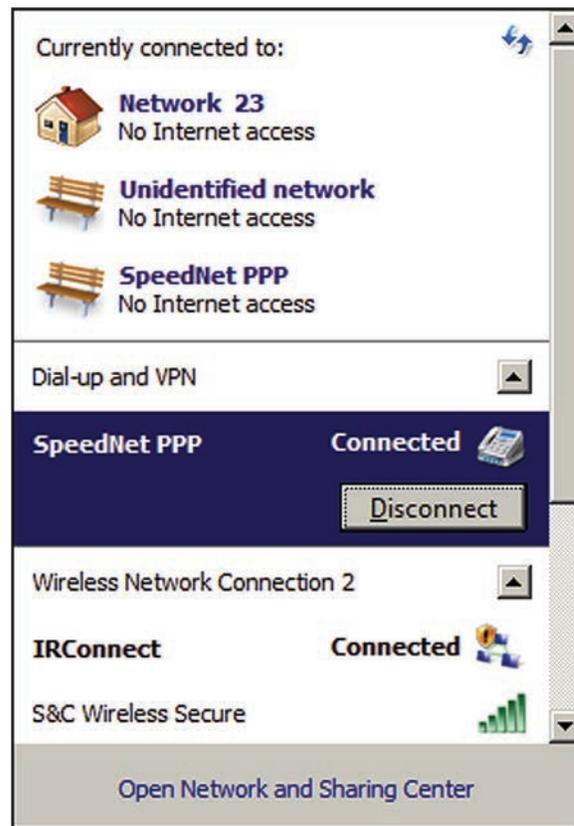

Figure 26. The Open Network and Sharing Center dialog box.