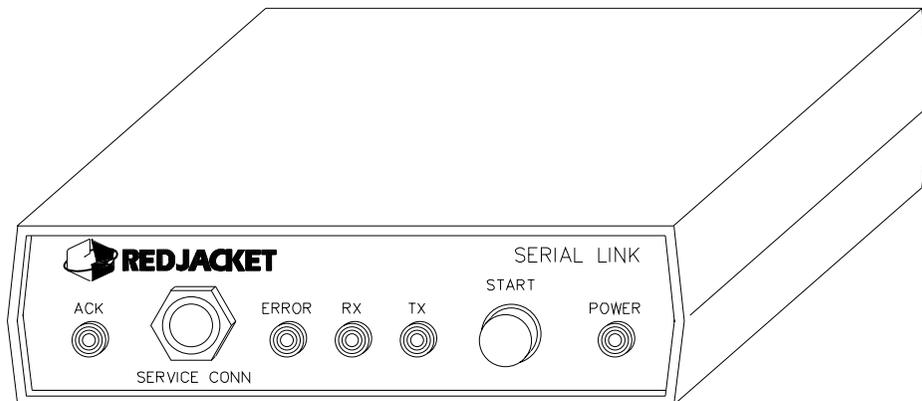


ProLink

Serial Link Printer Mode Installation Manual



 **REDJACKET**
ELECTRONICS



ProLink Fuel Management System

RE260-320
Rev B
June 99

Serial Link Printer Mode Installation Manual

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The ProLink has been approved by Underwriters Laboratories to carry the UL Listing Mark.

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About This Manual

This preface describes the organization of this manual, explains symbols and typographical conventions used, and defines vital terminology.

Organization

This manual is organized into two chapters:

Chapter 1: Serial Link Overview and Installation

Chapter 2: Connecting to a Network

It also includes a Parts List, and an Index.

Typographical Conventions

The various symbols and typographical conventions used in this manual are described here.

A numeric zero looks like 0 in this document. An uppercase letter “oh” is rendered as O.

Numeric Formats

A numeric one looks like 1 in this document. A lowercase letter “ell” is rendered as l. However, to prevent confusion, the abbreviation for milliliter includes a capital letter (mL).

Terminology

The following terms are used throughout this manual to bring attention to the presence of hazards of various risk levels, or to important information concerning use of the product.

DANGER!!

Indicates the presence of a hazard that **will** cause **severe** personal injury, death, or substantial property damage **if ignored**.

WARNING!

Indicates the presence of a hazard that **can** cause **severe** personal injury, death, or substantial property damage **if ignored**.

Caution

Indicates the presence of a hazard that **will** or **can** cause **minor** personal injury or property damage **if ignored**.

Notice

Indicates special instructions on installation, operation, or maintenance that are important but not related to personal injury hazards.

Chapter 1: Overview and Installation

This Chapter Explains

- **Overview**
 - Report Types
- **System Description**
- **Installing the Serial Link**

Overview of the Serial Link, Printer Mode

The Serial Link, Printer Mode is an electronic device that interfaces between a ProLink network and a serial printer.

This allows certain report types to be printed on demand at the site without the necessity of installing an on site PC.

Report Types:

The reports that are available through the Serial Link, Printer Mode are simple summary reports of recent activities and station status.

These reports can be requested or scheduled by using Pathway Plus. Reports can be printed on demand or at scheduled intervals. (For example, a station status report may be scheduled to print once a day at 6:00 AM.)

Alarm and Delivery reports will print when they occur.

Available reports are:

Serial Link Printer Mode Reports

Report Types	Description
Alarms on occurrence	Prints a report describing the alarm
Delivery on occurrence	Prints a report describing the delivery
Station Status on demand or scheduled This report can be printed on demand by pressing the START button on the front panel of the Serial Link	<ul style="list-style-type: none">• Current status of tanks and lines• Inventory levels• Last two inventory reports• Last two deliveries• Last two leak tests• Last alarm on tanks and lines• Number of days since last passed leak test

System Description

- The Serial Link is housed in a small enclosure (approx. 6 in × 6 in) which can be wall mounted with the supplied bracket, or located on a desk or shelf. Multiple Serial Links may be used.
- 6VDC power for the Serial Link is supplied by the included 120VAC 60Hz adapter. (For international applications, a 220VAC 50Hz model is available.)

Installing the Serial Link

Mount the Serial Link enclosure within 9-ft (depending on cable length) of the peripheral to be connected and within 6-ft of a 110 VAC electrical outlet. Use the wall mount bracket provided or locate the Serial Link on a desk or shelf. Be sure both front and rear panels are accessible. If using the wall mount bracket, attach the Serial Link to the bracket with the two screws provided. (wall mounting hardware not included) Do Not plug AC adapter into electrical outlet at this time.

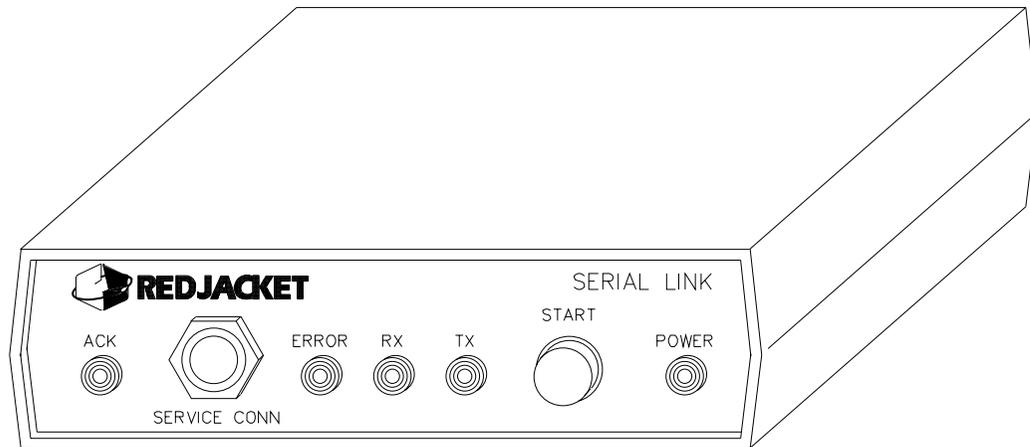


Figure 1.1 Serial Link, Front View

ACK Light: A red LED that reflects the state of the application (i.e., service acknowledge).

PCC-10 Jack: Jack for making a connection between a PCC-10 PCMCIA card on a laptop computer and the Serial Link to access the network.

Error Light: This is application-specific and *not* used by the Printer Mode application.

Receive (RX) Light: A red LED illuminates when the Serial Link is *receiving* data over the RS232 link.

Transmit (TX) light: A red LED illuminates when the Serial Link is *sending* data over the RS232 link.

Start Button: Prints a station status report on demand.

Power Light: A green LED that is lit when the Serial Link is energized.

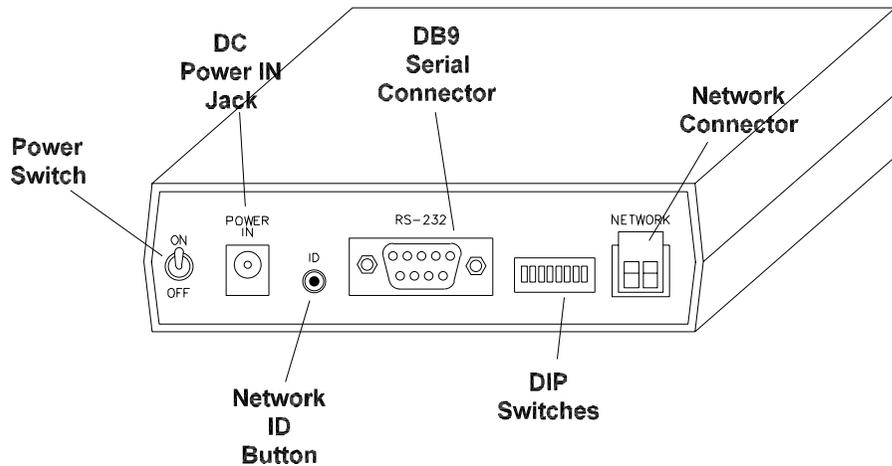


Figure 1.2 Serial Link, Rear View

On/Off switch: The toggle switch that turns the unit on or off.

Power In Jack: Jack for supplying DC power to the unit.

ID Button: Used to identify the individual Serial Link to the network configuration software.

DIP switches: used to configure network termination and battery backup.

Network Connector: 2-pin Phoenix type network cable connector.

DIP Switch Settings

The DIP switches are arranged from 1 - 6, left to right.

DIP Switch Number	Switch Position	Description
1	Down	Battery backup is enabled.
	Up	Battery backup is disabled.
2	Down	Undefined.
	Up	Undefined
3	Down	Undefined.
	Up	Undefined
4	Down	Undefined
	Up	Undefined
5	Down	Network termination is enabled
	Up	Network termination is disabled
6	Down	Network type is single-ended termination
	Up	Network type is double-ended termination

Notice

DIP switch positions 2, 3, and 4 are not used for the Printer Mode application.

Chapter 2: Connecting to a Network

This Chapter Explains

- **Network Connections**
- **Connecting to a CPT Controller**
 - Daisy Chaining CPT Controllers to the Serial Link
- **RS232 Connections**

Network Connections

The two terminal network connector (located on the back of the Serial Link enclosure) provides a method for connecting the Serial Link to other devices in the ProLink network. The Serial Link can also function as a network termination for the ProLink network.

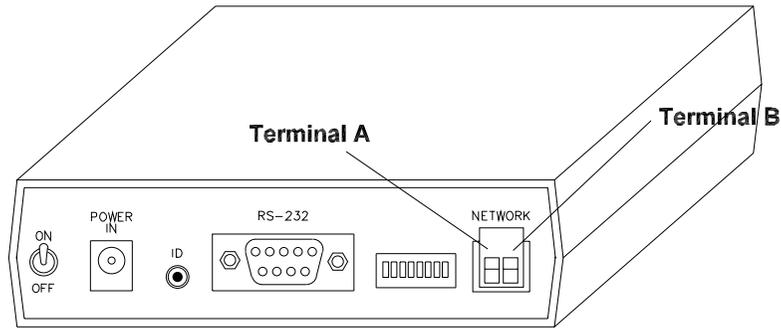


Figure 2.1 Serial Link Network Terminal Connector

The following sections show possible network connections for the Serial Link.

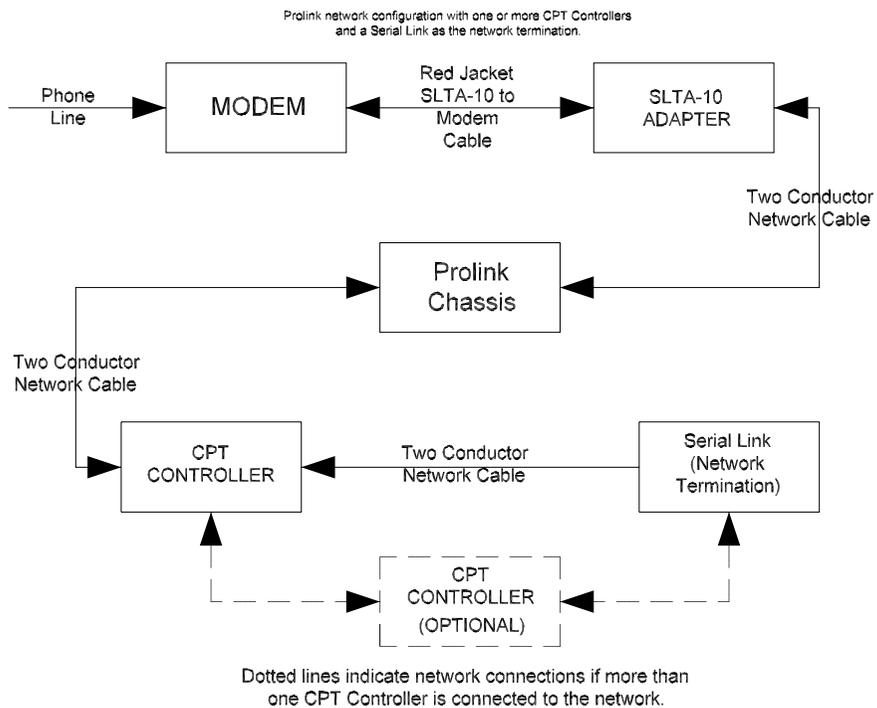
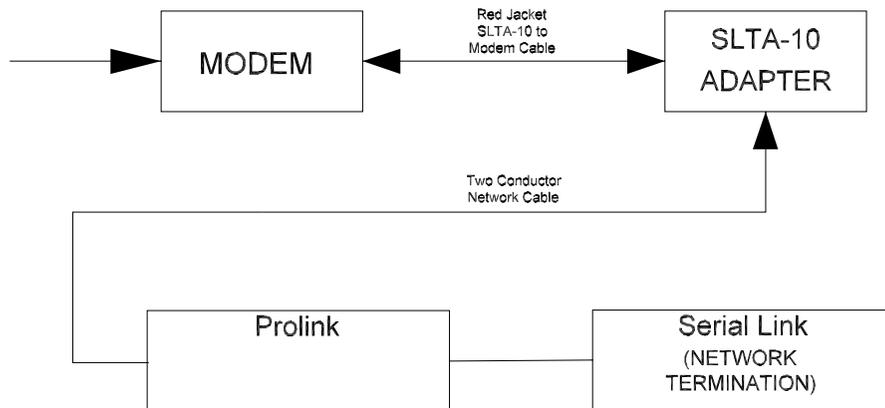


Figure 2.2 Prolink network with CPT Controller(s) and Serial Link

Basic Prolink Network with Serial Link



This is the simplest type of Prolink network. It consists of a modem, an SLTA-10 network adapter, and a Prolink chassis as the network terminator.

Figure 2.3 Prolink network using a Serial Link as the network termination

Notice

Single-ended termination on Serial Link is enabled by setting dip switches 5 and 6 to the down position.

Connecting to a CPT Controller

The Serial Link can also be connected to a CPT Controller(s) without being connected into a Prolink network.

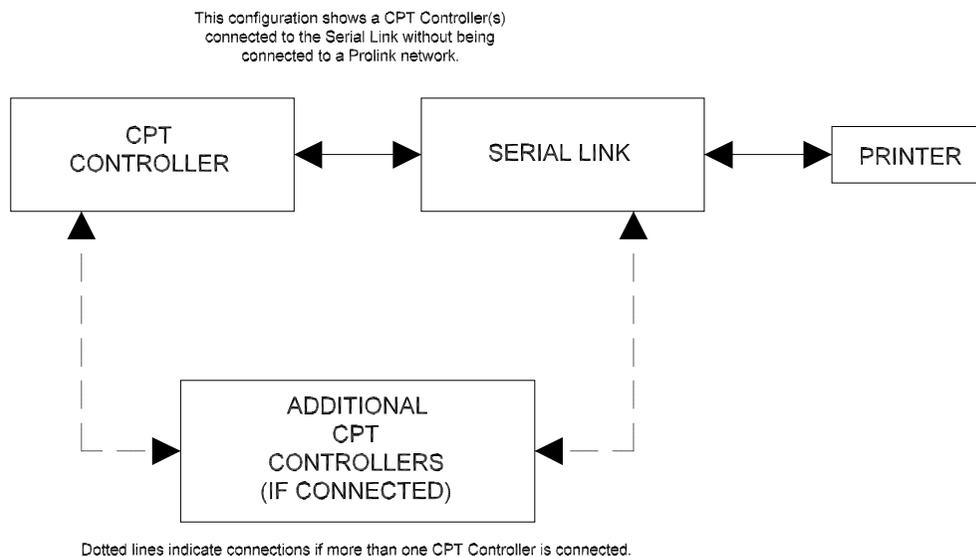


Figure 2.4 CPT Controller to Serial Link connections

WARNING!

Refer to the CPT Controller manual for instructions on powering the CPT Controller down.

Step 1: Disconnect power from the Serial Link and the CPT Controller.

Step 2: Run the network cable (see parts list) through the factory knockouts provided on the bottom of the CPT Controller. If *no* knockouts are available under the power supply use the tandem cable access knockout.

Step 3: Strip the outer insulation and shield from the shielded network cable (obtained from Red Jacket) approximately 1¼ -in. Strip both inner conductors the minimum amount to connect to the network connector. (approx. 1/8")

Notice

DO NOT connect the network cable shield to CPT Controller chassis ground!

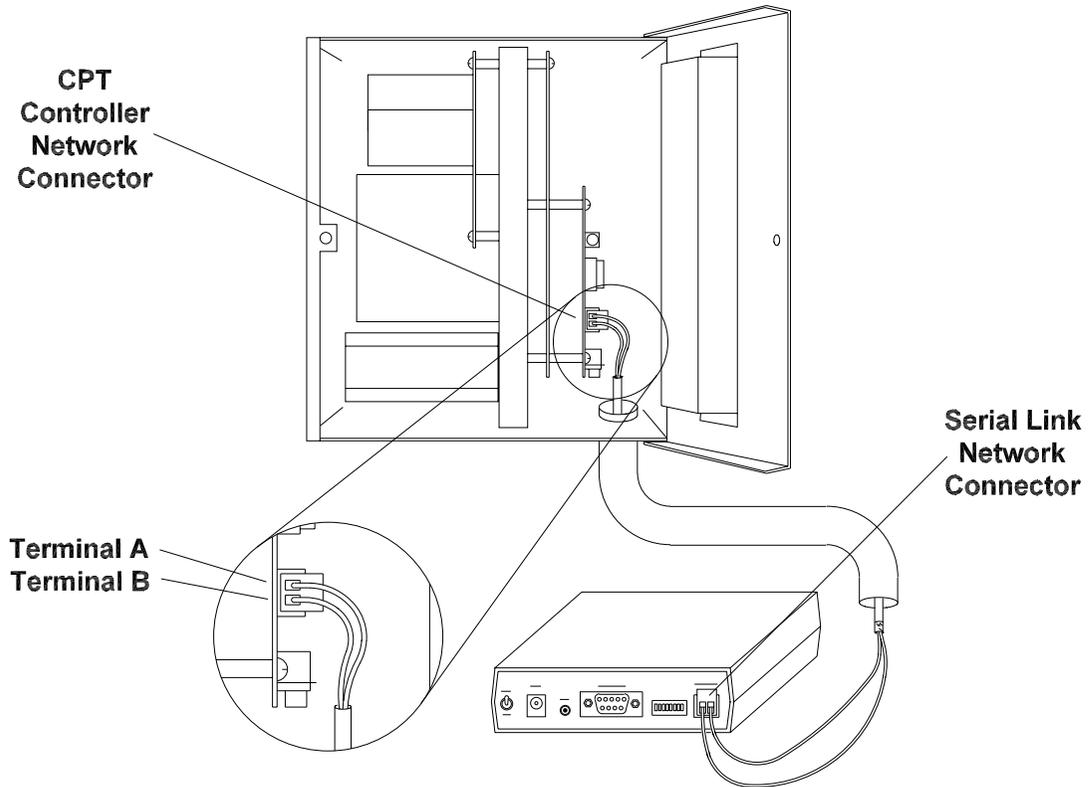


Figure 2.5 Connecting the Serial Link to the CPT Controller

Step 4: Connect the inner conductors to the network connector terminals. Polarity is not an issue, either conductor can go in either terminal.

Step 5: Set the dip switches on the Serial Link as shown below to enable network termination.

SW5	down enables termination
SW6	down-for single-ended termination

Step 6: Reconnect power to both systems.

Daisy Chaining CPT Controllers

The following instructions describe daisy chaining CPT Controllers. This is used when more than one CPT Controller is being connected to a Serial Link or a ProLink network. Refer to *figure 2.5* when performing this operation.

Step 1: Run both network cables (see parts list) through the factory knockouts provided on the bottom of each CPT Controller. If *no* knockouts are available under the power supply use the tandem access.

Step 2: Strip the outer insulation from the network cables (refer to parts list) approximately 1¼-in. Strip the inner conductors approximately ¼". Take one conductor from each network cable, twist them together, and insert them into the CPT Controller terminal **A** connector. Tighten the screw.

Step 3: Twist the second pair of conductors together and insert them into the CPT Controller terminal **B** connector. Tighten the screw.

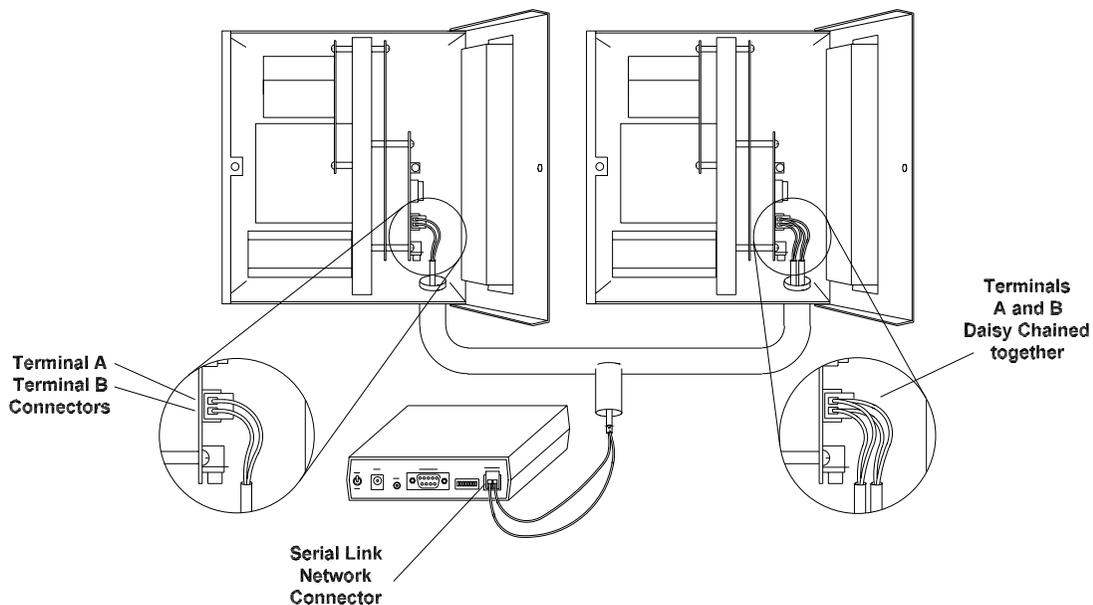


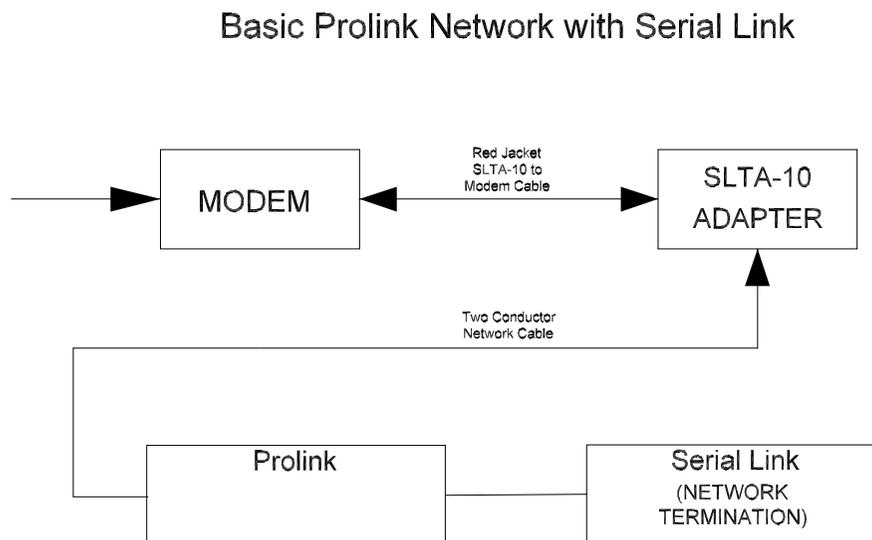
Figure 2.6 Daisy Chaining CPT Controllers

Step 4: Run the second network cable to either the Serial Link or another CPT Controller. Repeat the process above for adding to the daisy chain.

Prolink Network and RS-232 Connections

Connecting Serial Link to the Prolink

The following diagram shows the network connections to the Prolink network.



This is the simplest type of Prolink network.
It consists of a modem, an SLTA-10
network adapter, and a Prolink chassis as the
network terminator.

Figure 2.7 Prolink to Serial Link network connections

The following procedures should be followed when connecting the Serial Link to the Prolink chassis.

- Step 1:** Route the network cable into the Prolink enclosure through a free knockout on the bottom of the enclosure.
- Step 2:** Connect the two network cable conductors to the network terminals **A** and **B** on the Prolink power supply board. See *figure 2.7*.

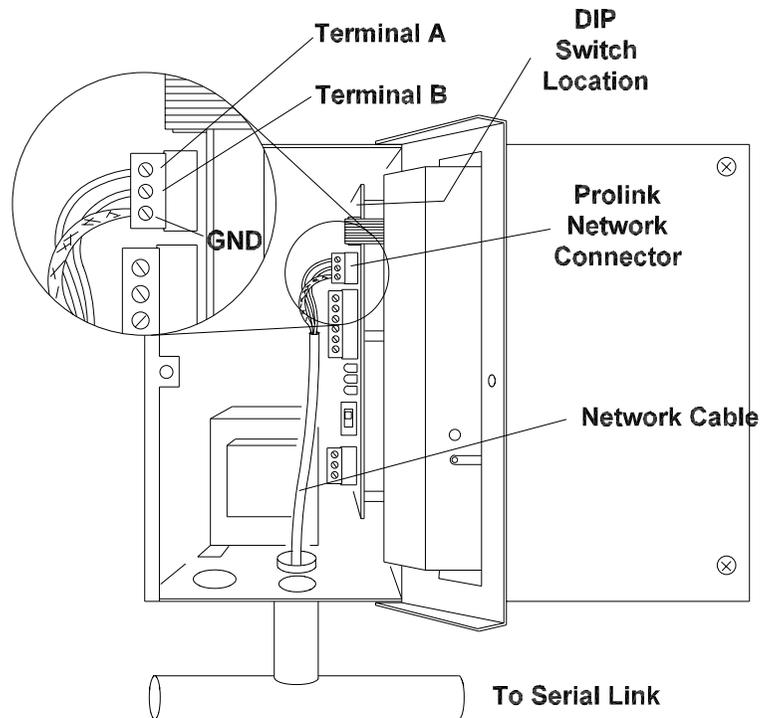


Figure 2.8 Network cable connections to Prolink

Step 3: Route the network cable from the Prolink to the Serial Link.

Step 4: Connect the two network cable conductors to the **A** and **B** terminals on the Serial Link. See *figure 2.8*.

Step 5: After connecting the cables, turn the Serial Link on by moving the toggle switch located on the back of the enclosure to the **ON** position.

Step 6: If scheduled reports are desired, use Pathway Plus to set them up.

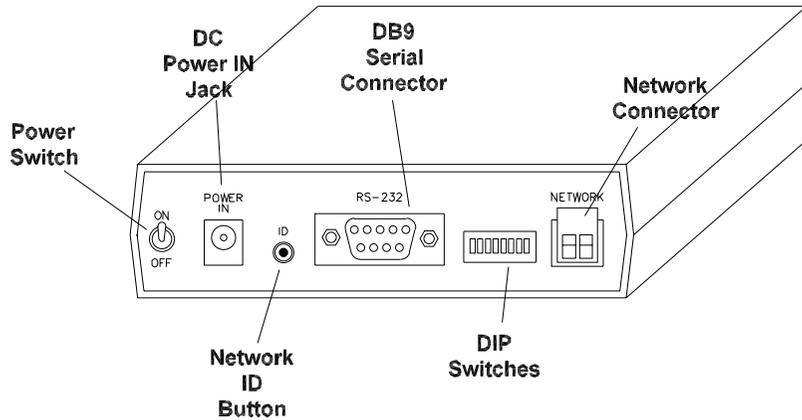


Figure 2.9 Serial Link network connectors

Connecting Serial Link to a serial printer

The Serial Link can send various reports to a Prolink serial printer. The Serial Link connects to a serial printer through the DB9 serial connector located on the rear of the enclosure. See figure 2.9.

Refer to the Red Jacket Prolink Serial Printer Kit Installation Sheet for specific printer connection and configuration instructions.

Connecting Serial Link to other brands of serial printers

The Serial Link can potentially send report information to other brands of serial printers. Red Jacket does not make any recommendations on how to configure either the Serial Link or other brands of printers.

Appendix A: Replacement Parts

Part Number	Description
RE400-721-5	Serial Link, Printer Mode, with 120VAC adapter
RE400-679-5	KIT, PCC-10 Network adapter
RE125-153	PCLTA-10 Network Adapter
RE400-680	22-gauge, 2-conductor Twisted Pair Cable with PVC Jacket (network cable)
RE350-158-5	Cable, DB9 to DB25-Null Modem
RE350-157	PCC-10 Network cable
RE350-161	Cable, PCC-10 Network to Fly-wire Adapter

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