

ProLink

Recon Daughter Card Installation Manual

ProLink Fuel Management System



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Recon Daughter Card Installation Manual

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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 as follows:

Chapter 1: Overview and Installation

It also contains a parts list, a glossary and an index.

Typographical Conventions

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

Numeric Formats

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

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 of the Recon Daughter card**
 - ◆ **Installation Requirements**
 - ◆ Recon Daughter Card configuration worksheet information
 - ◆ **Installation Procedures**
-

Overview

The Recon Daughter card is a printed circuit board (PCB) that attaches to a Dispenser interface network card installed in a *ProLink* chassis. The Recon Daughter card does not require a separate slot in the *ProLink* chassis, since it "piggybacks" onto the Dispenser interface network card. The Recon Daughter card provides the capability to perform reconciliation for up to eight tanks when a TIMI application is present in the *ProLink* system. The service pin and service LED for the Recon Daughter Card are located on the faceplate of the Dispenser interface network card.

Installation Requirements

The Recon Daughter Card

The Recon Daughter card cannot function alone. It requires a Dispenser interface network card installed in a *ProLink* chassis. It also requires that a TIMI application be present on the *ProLink* system. The lower service pin and LED on the Dispenser interface network card faceplate are used by the Recon Daughter card.

To connect the Dispenser interface network card to a TIM unit, the *ProLink* to TIM cable assembly(see parts list) is required. This is a serial cable with a female DB9 connector which plugs into the DB9 connector on a *ProLink* chassis. The TIM end is a male DB9 connector with a power supply for the TIM incorporated into it. This is a six foot cable, so the TIM must be located within six feet of the *ProLink* chassis. The power supply transformer is plugged into a standard 110VAC wall outlet, which must be within six feet of the TIM.

Recon Daughter Card configuration worksheet Information

When installing the Recon Daughter card, certain information must be recorded.

- ◆ **Card serial number**

- ◆ Card date code
- ◆ Card Neuron ID number
- ◆ Card chassis number
- ◆ Card slot number

This information should be entered on the *ProLink* Programming Configuration Worksheet. (WAF03)
Refer to *figure 1.1*.

ProLink Installation and Configuration Worksheet Sample

Chassis # _____	Slot 3
Type of Network Card Installed	<i>DISPENSER INTFACE CARD</i> 01/30/98 12345678910 12345678
CHANNEL 1 PROBE/SENSOR TYPE	<i>RECON DAUGHTER CARD</i> 01/30/98 12345678910 12345678
CHANNEL 2 PROBE/SENSOR TYPE	<i>NONE</i>
CHANNEL 3 PROBE/SENSOR TYPE	
CHANNEL 4 PROBE/SENSOR TYPE	<i>NONE</i>
CHANNEL 5 PROBE/SENSOR TYPE	<i>NONE</i>

Network Card Type

Recon Daughter Card Neuron ID Number

Date Code

Recon Daughter Card Serial Number

The Relay Daughter card does not have external channel connectors. It mounts onto the Dispenser interface network card - TIMI mode and receives information from the serial connection with the TIM and from the Serial card's network connection,

SAMPLE

Figure 1.1 Recon Daughter card required information

Dispenser Interface Network Card Configuration

Normally the only card configuration necessary is to configure jumper JP2 (see *figure 1.2* for location). This jumper enables or disables the battery backup on the Dispenser interface network card. The other jumper changes the configuration of the serial (DB9) port between DTE and DCE protocols. This jumper is set at the factory as DTE. Select the desired card configuration from the table below and install the jumpers in the indicated positions on the circuit board. (refer to *figure 1.2*).

Jumper	Installed	Not Installed
JP2	Enables battery backup	Disables battery backup

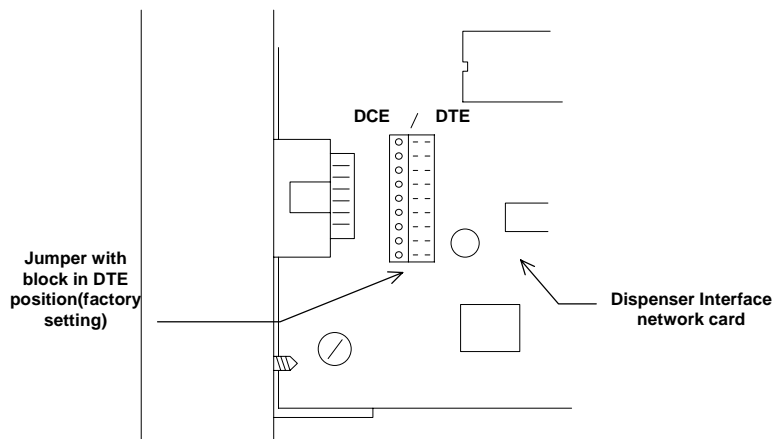


Figure 1.2 Dispenser interface network card - Jumper Configuration

Recon Daughter card Installation Procedures

There are two possible situations when installing the Recon Daughter card. These are installing the Recon Daughter card onto an existing Dispenser interface network card and a new installation of a Recon Daughter card/Dispenser interface network card combination. Follow the procedures below which apply in your application.

Installation onto an existing Dispenser interface network card

Step 1: Disconnect power to the *ProLink* chassis at the electrical panel and the On-Off switch on the *ProLink* chassis power supply circuit board. Open the network card access panel.

Step 2: Unplug the ribbon cable connector on the Dispenser interface network card faceplate. See *figure 1.3*.

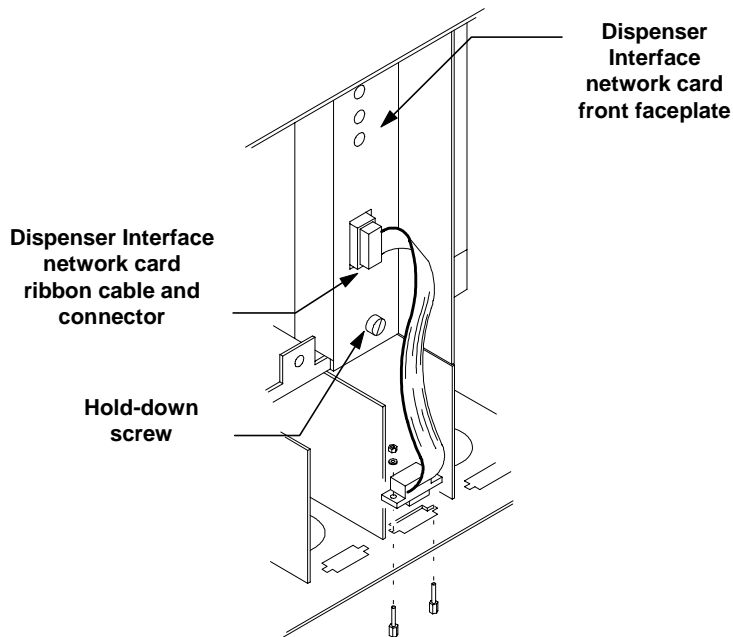


Figure 1.3 Dispenser interface network card ribbon cable and connector

Step 3: Loosen the two hold-down screws and slide the Dispenser interface network card out of the card slot.

Step 4: Install the Recon Daughter card onto the three posts located on the Dispenser interface network card. **Make sure that the pin connectors on each circuit board mate up before snapping the card into place.** Refer to *figure 1.4*.

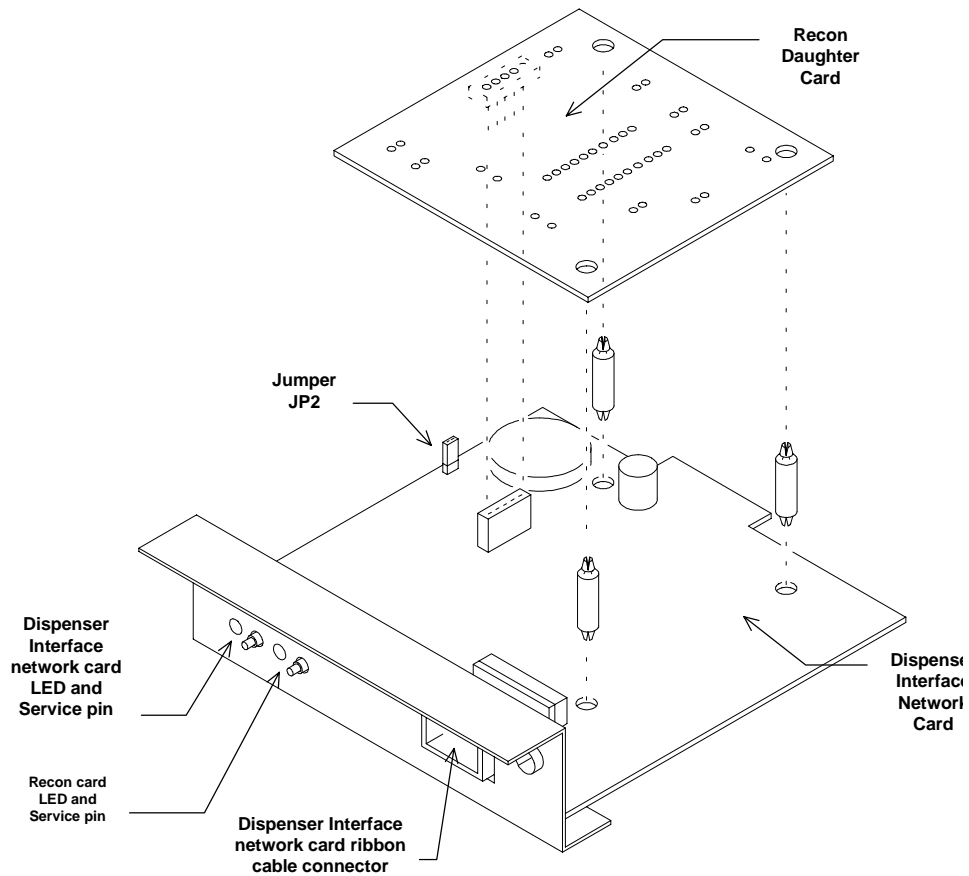


Figure 1.4 Recon card installation onto the Dispenser interface network card

- Step 5:** Reinstall the Dispenser interface network card in its slot in the *ProLink* chassis. Reconnect the ribbon cable to the Dispenser interface network card.
- Step 6:** Connect the TIM to the Dispenser interface network card using the TIM to *ProLink* cable assembly. (See Parts List)
- Step 7:** Close the network card access panel and reconnect power to the *ProLink* system.

New Installation of the Recon Daughter card

The following procedures should be followed when installing a new Recon Daughter card and Dispenser interface network card combination in the *ProLink* enclosure.

Step 1: Disconnect power to the *ProLink* chassis at the electrical panel and the On-Off switch on the *ProLink* chassis power supply circuit board. Open the network card access panel and select an unused slot for installation. Refer to *figure 1.5*.

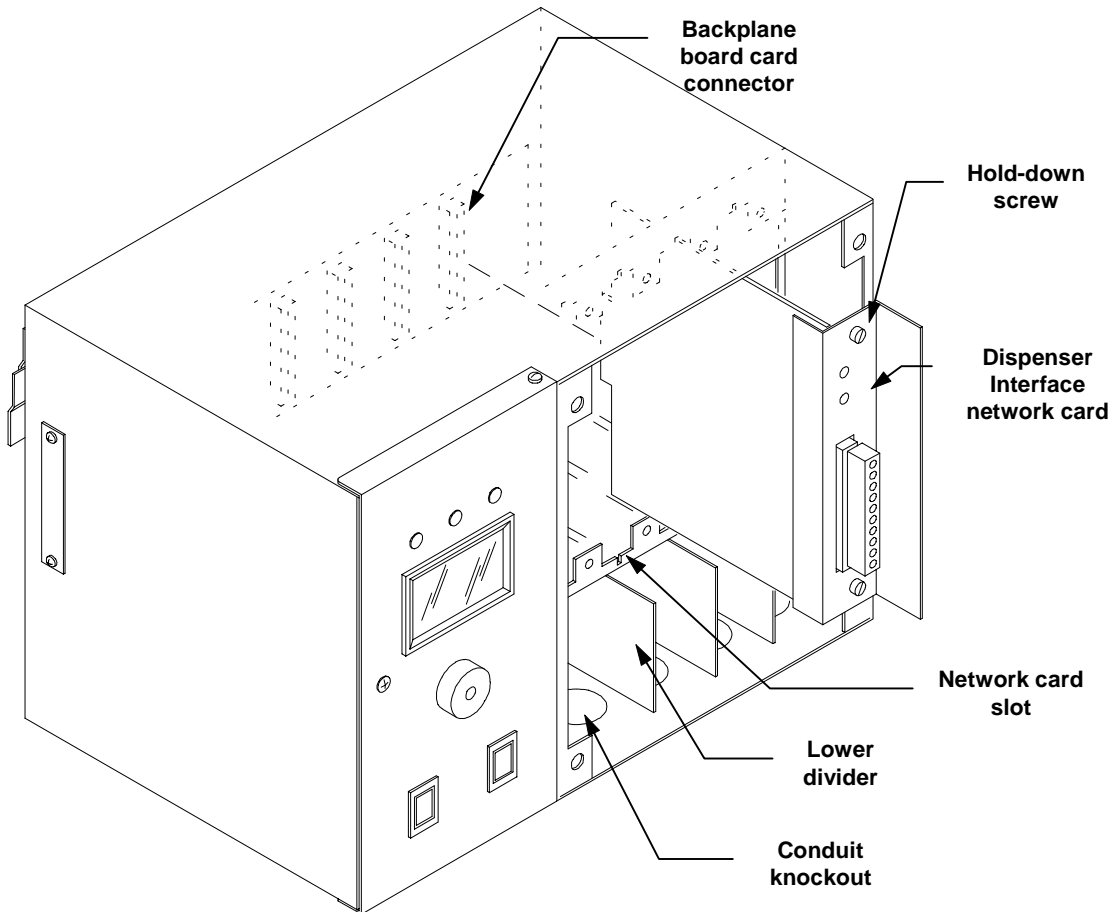


Figure 1.5 Recon Daughter card and Dispenser interface network card installation

Step 1: Remove one of the conduit knockouts underneath the selected slot and install a conduit connector and conduit

Notice

The short dividers in the lower section of the chassis may be removed for access but **MUST** be reinstalled to maintain intrinsic safety and complete the installation.

Step 1: Remove the slot cover from the selected slot.

Step 2: Install the Recon Daughter card onto the three posts located on the Dispenser interface network card. **Make sure that the pin connectors on each circuit board mate up before snapping the card into place.** See *figure 1.6*.

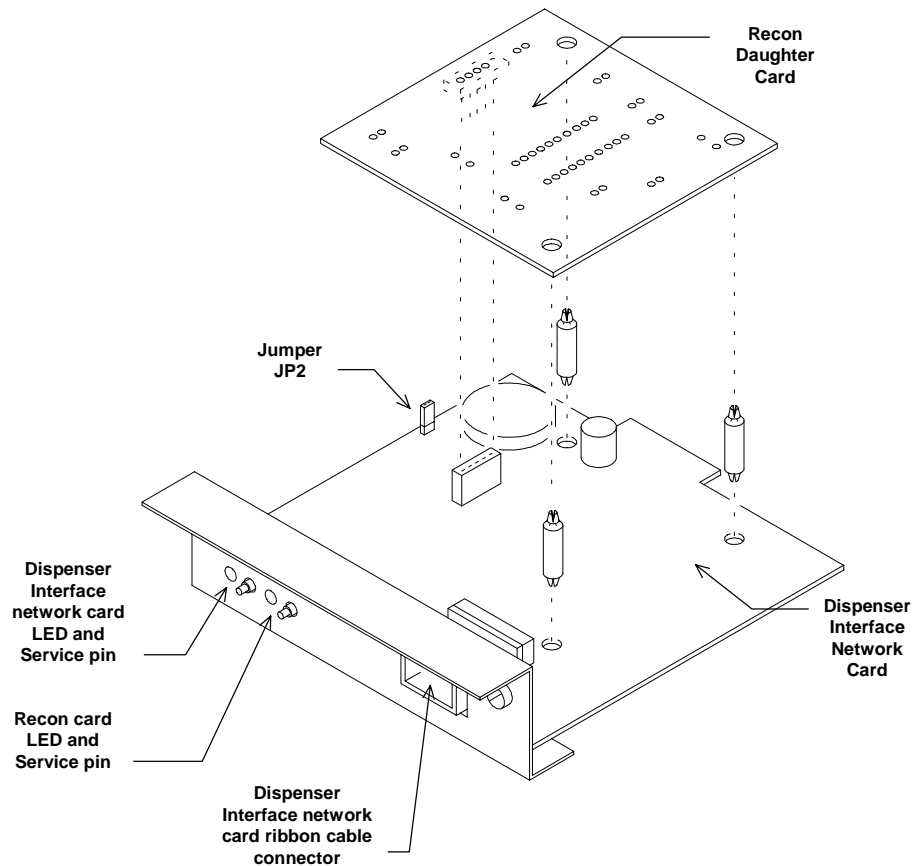


Figure 1.6 Installing the Recon Daughter card on the Dispenser interface network card

Step 3: Slide the Dispenser interface network card into the selected slot. Note the orientation of the card in *figure 1.5*. Ensure that the card connects completely with the backplane board. Tighten the two hold-down screws to fully secure the card in position.

Notice Do not attempt to install the card backwards.

Step 4: Punch out the DB9 knockout underneath the selected slot. See *figure 1.7*.

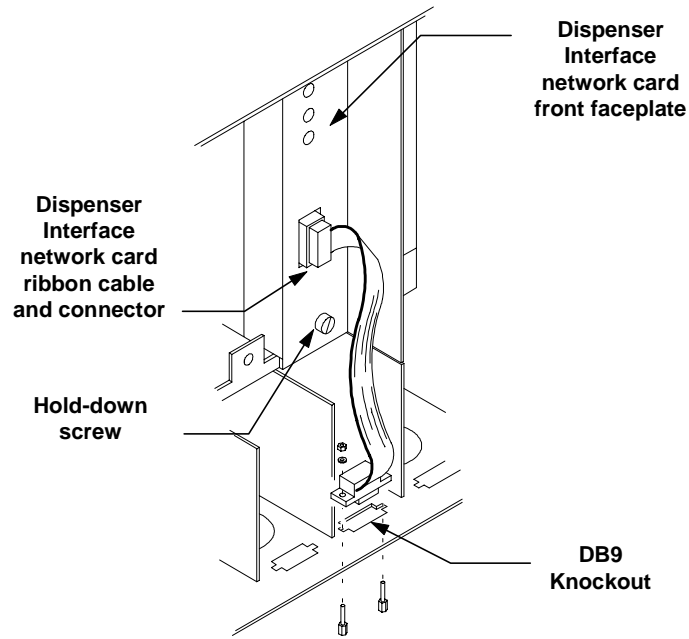


Figure 1.7 Dispenser interface network card DB9 connector installation

Notice

The short dividers in the lower section of the chassis may be removed for access but **MUST** be reinstalled to maintain intrinsic safety and complete the installation.

- Step 5:** Position the ribbon cable DB9 connector in the knockout. Install and tighten the hex nuts to hold it in place.
- Step 6:** Reinstall the divider(s) in the lower section of the chassis.(if necessary) Close the network card access panel.
- Step 7:** Connect the TIM to the DB9 serial connector using the TIM to *ProLink* cable assembly. Refer to the parts list in **Appendix A** of this manual for ordering information.
- Step 8:** Reconnect power to the *ProLink* chassis.

Appendix A: Parts List

Part Number	Description
RE400-678-5	Recon Daughter Card
RE350-163	Cable Assy., T.I.M. to <i>ProLink</i> , 6ft, Power supply 110VAC input/5VDC 1.2 A output

Appendix B: Glossary

AC	Alternating current
Annunciator	This panel provides a common interface for the network cards on the <i>ProLink</i> and provides a user interface to the archived data stored in the annunciator.
DC	Direct current.
DIP switch	Dual in-line package switch with two rows of pins through which signals and power enter and leave the package.
EPA	U.S. Environmental Protection Agency. The EPA line leak test protocols include hourly, monthly, and annual testing.
Flow rate	The time it takes for a specific volume of liquid to pass through a pipe or tube, measured in gpm or gph.
gph	Gallons per hour.
gpm	Gallons per minute.
Ground	A conductor that connects with the earth; to connect electrically with ground (earth ground, chassis ground, analog ground, digital ground).
HDPE	High-density polyethylene.
Intrinsically safe barrier	A barrier to keep intrinsically safe wiring physically separated from other wiring.
LED	Light-emitting diode.
NEC	National Electrical Code.
OSHA	Occupational Safety and Health Administration.
TIM	Transaction interface module.
UL-classified	A designation for products that have been evaluated by Underwriters Laboratories with respect to one or more of the following: (1) specific hazards only — for example, flammability; (2) performance under specified conditions; (3) regulatory codes; or (4) other standards.
UL-listed	A designation for products that have been evaluated by Underwriters Laboratories with respect to reasonably foreseeable hazards to life and property, and in which the risks of such hazards have been reduced to an acceptable degree.

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