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Division 2 K800 Hybrid Fuel Island Terminal

Installation Manual Supplement

Central Technical Support Number: 1-877-OPW-TECH (877-679-8324)
Calls outside US and Canada: 1-708-485-4200 **Fax:** 1 (800) 421-3297
Hours: Monday through Friday, 7:00 am to 6:00 pm, US CST

Part Number: M1704, Revision 000
Issue Date: Sept. 26, 2011
Supersedes: N/A

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1 Introduction

This supplement is to be used with Petro Vend Fuel Control System Installation and Operations Manual (p/n M1700). Please refer to the aforementioned manual for complete information.

1.1 Overview

The Division 2 K800 Hybrid Fuel Island Terminal (FIT) is listed by ETL for installation within a Class 1, Division 2 hazardous area at the fuel island. Typical installations include parking garages, bulk loading racks, and around alternative fuel dispensers. Do not attempt to insall a standard K800 Hybrid FIT for these applications.

1.1.1 Important Safety Information

The Division 2 K800 Hybrid FIT is designed to eliminate any components that could be a possible ignition source. There is no internal power switch. Power to the system is controlled at the service panel.

Do not attempt to perform service, remove any connectors, or replace the fuse with the power ***on***. Turn the power ***off*** by switching off the circuit breaker in the service panel.

The Division 2 K800 Hybrid contains the following special component. Use only the following replacement parts with a "-01" suffix, indicating that they have the proper Division 2 rating: **20-0218-01 Division 2 Relay Board.**

2 Fuel Island Terminal

Figure 2-1 Division 2 K800 Hybrid FIT Cabinet

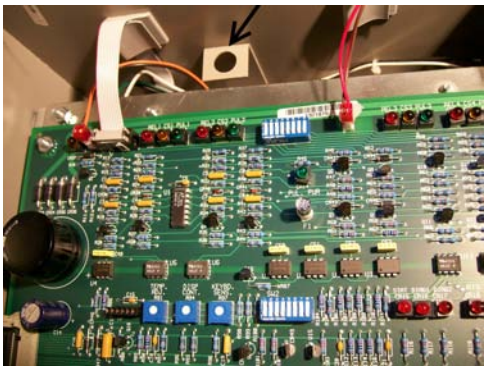
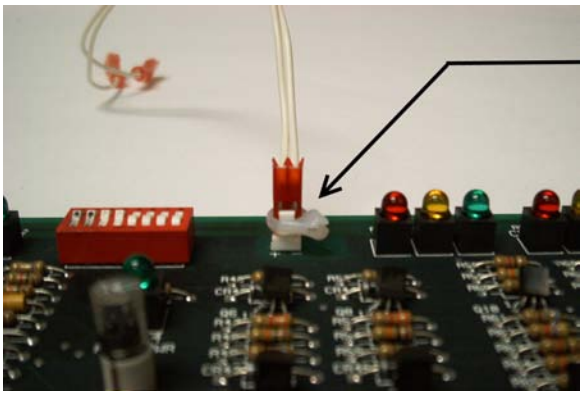


Figure 2-2 Division 2 K800 Hybrid FIT (interior view)

> Note that there is no power switch.

Important Safety Information

After mounting the FIT board in the K800 Hybrid, install tie wraps on the heater and Petro-Net connectors as shown in the diagram below. This will ensure that the connectors do not accidentally disconnect.



Install a tie wrap around the connector and housing to hold firmly in place.

This will need to be done in two locations.

Figure 2-3 Tie Wrap Connectors

2.1 Pump Control Terminal

There are two options for pump control when installing the Division 2 K800 Hybrid FIT.

1. Use standard remote PCM cabinets that are installed outside the hazardous area.
2. Use internal Division 2 PCT Relay Boards. See below for further details.

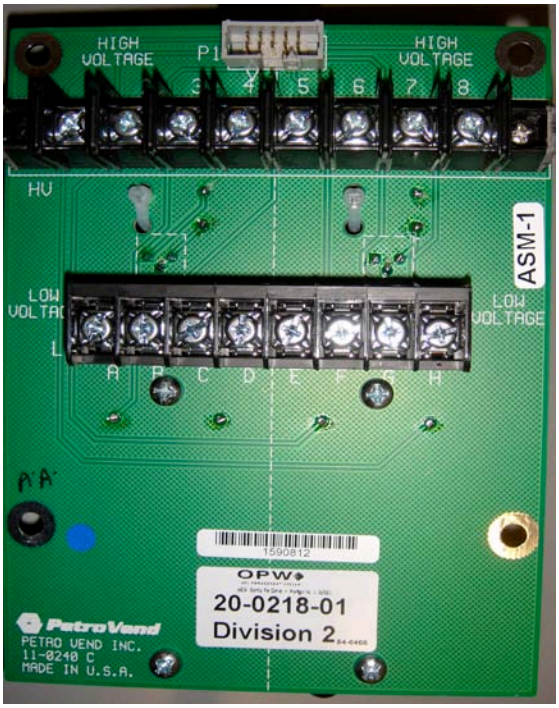


Figure 2-4 Division 2 K800 Hybrid Relay Board (front view)

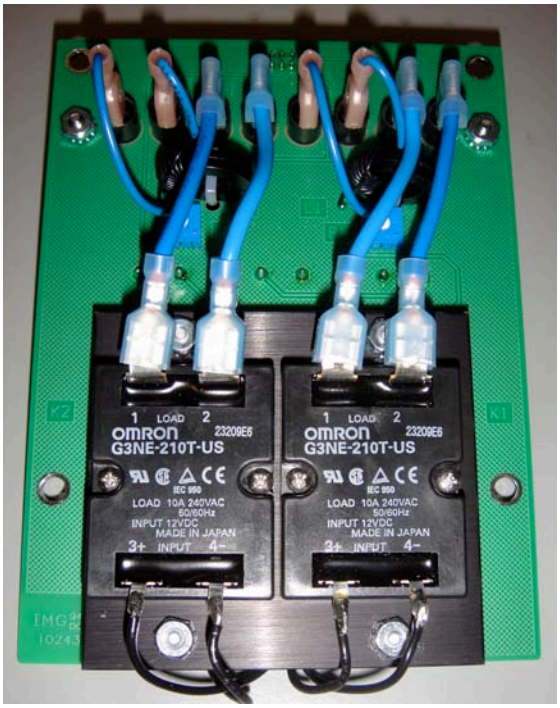


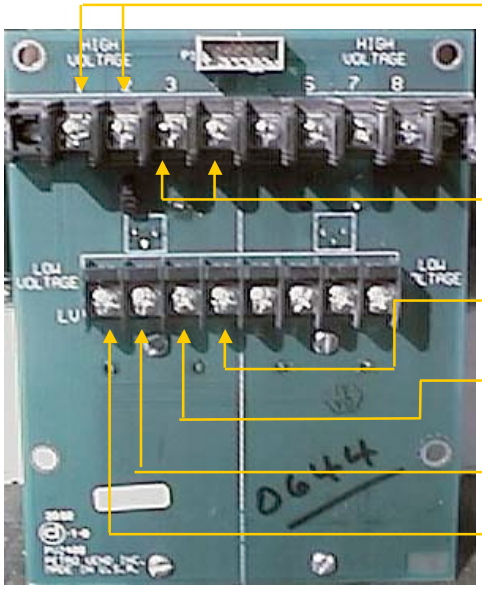
Figure 2-5 Division 2 K800 Hybrid Relay Board (back view)

The Division 2 K800 Hybrid PCT Relay Board uses solid-state relays. Each relay board controls up to two dispensers or lube reels. The relays are designed to control low-power solenoid valves or remote contractors. They are single pole relays, so there is only one circuit for each position. There is also a current sensing conduit for the "in use" detection.

Division 2 K800 Hybrid PCT Pump/Dispenser Specifications	
Relay Contact Rating	240 VAC; 1 Amp maximum
"In Use" Detection	Current sense 100 mA AC minimum

> The solid-state relays have a 1 Amp maximum current rating. Do not attempt to control pump motors directly.

2.2 Pump/Dispenser Wiring



Pump Position # 1 Position	
1 & 2	Relay Contacts
3 & 4	Current Sense (100 mA – 1 Amp)
D	Pulser Cable Shield Ground
C	Pulser Power 12 V
B	Pulser Signal
A	Pulser Common

2.2.1 Division 2 PV240 Terminal Identification

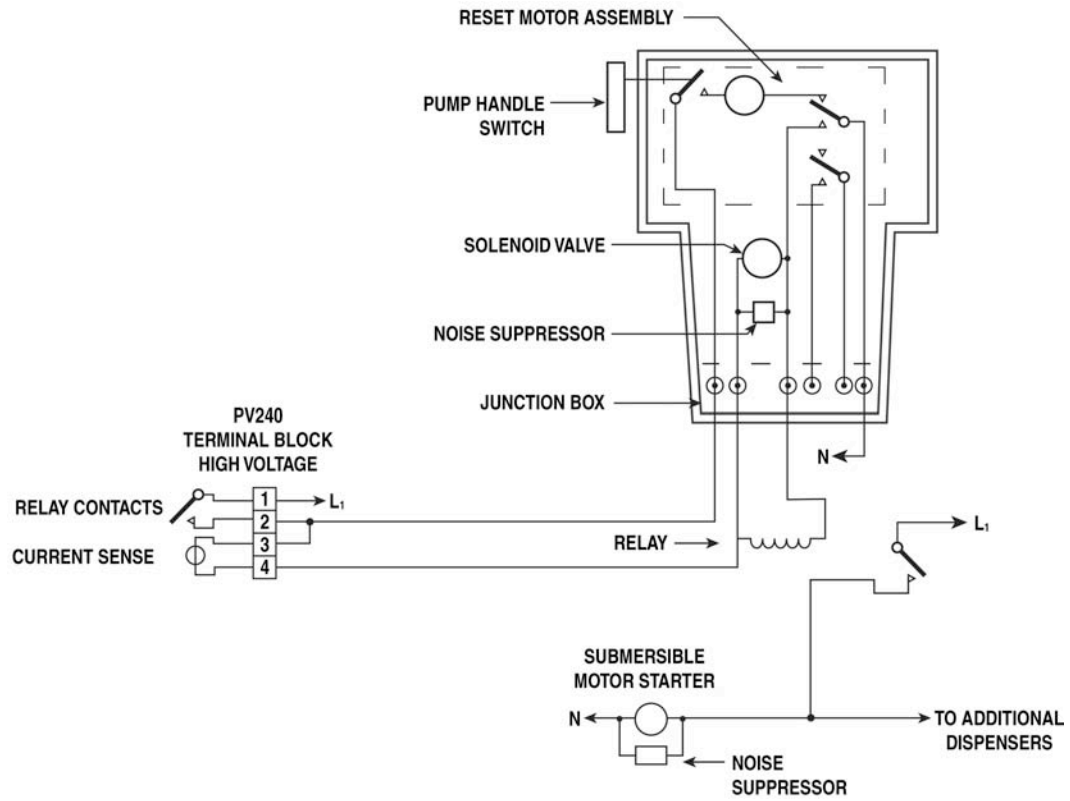


Figure 2-6 Typical Wiring, Dispenser with Power Reset

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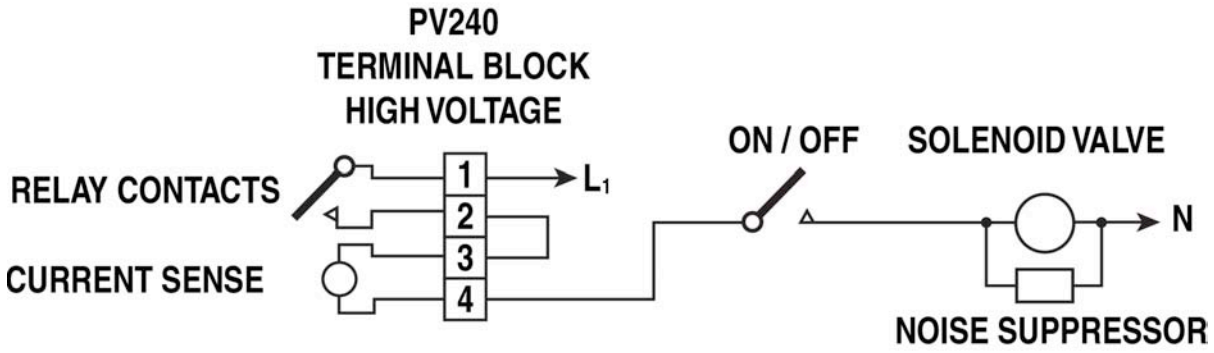

Figure 2-7 Typical Wiring, Lube Reel with ON/OFF Switch

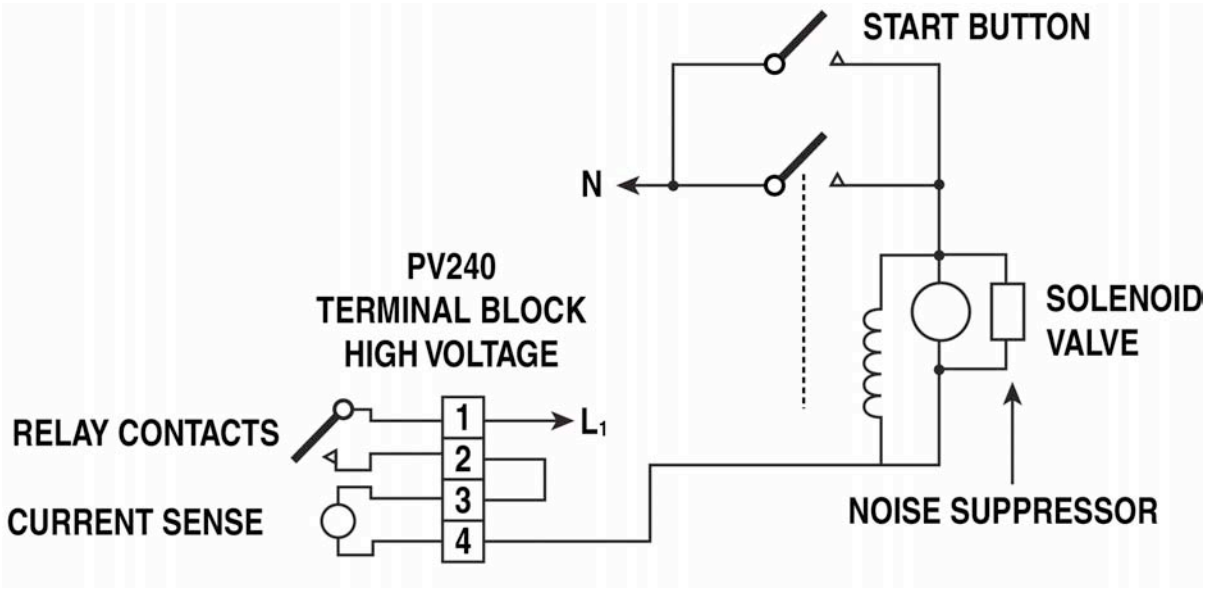

Figure 2-8 Typical Wiring, Lube Reel with Start Button

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