

TECHNICAL SERVICE BULLETIN**Bulletin No.:** TSB-006**Date:** October 23, 2014**Subject:** PRD Manifold Mount**Models:** Frame Mount Fuel Storage Modules (Equipped w/ Circle Seal PRDs)**Background**

All FSMs that utilize 80" and 90" cylinders have Pressure Relief Device (PRD) manifolds. The PRD manifolds are connected to a live port on the tank valve and are designed to safely vent the cylinder under certain conditions.

Condition

In some cases, the vibration mount which holds the PRD manifold assembly in place may fail and allow the PRD line to droop. If the PRD manifold is permitted to droop and is not corrected, then PRD valve damage or fuel leakage may occur.

Quantum fuel storage modules built using the VTI PRDs already use an improved vibration mount and are not affected.

A list of the affected Fuel Storage Modules (FSMs) are included in this bulletin.

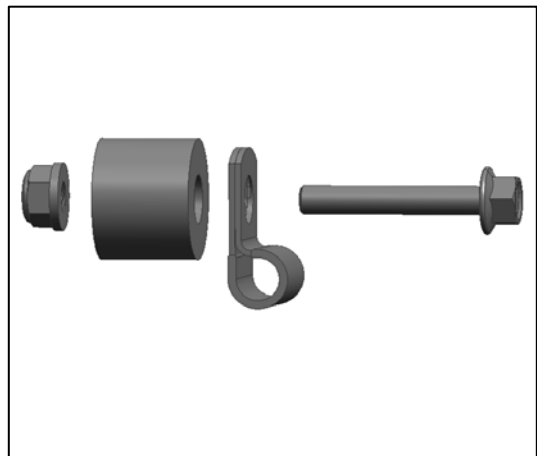
Cause

The vibration mount is designed to have threaded ends which are torqued into position such that the PRD line assembly does not move once installed. Certain FSMs have experienced vibration mounts coming loose or breaking causing the PRD line to droop and cause the PRDs to contact the FSM covers.

Correction

Inspect the PRD lines and mounts, if your fuel storage module is equipped with the orange colored PRD manifold mounts (as shown in the picture) they must be replaced. If your fuel storage module has already had updated PRD manifold mounts installed no further action is required.

Once the PRD manifold assembly and or mountings have been repaired, leak test all interface areas and device(s) at initial pressurization and at system operating pressure. Additional information regarding leak checking is available in the [CNG Cylinder Installation and Maintenance Manual](#) located at www.qttw.com/service.



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Application

This service procedure only applies to FSMs equipped with circle seal PRD manifold assemblies.

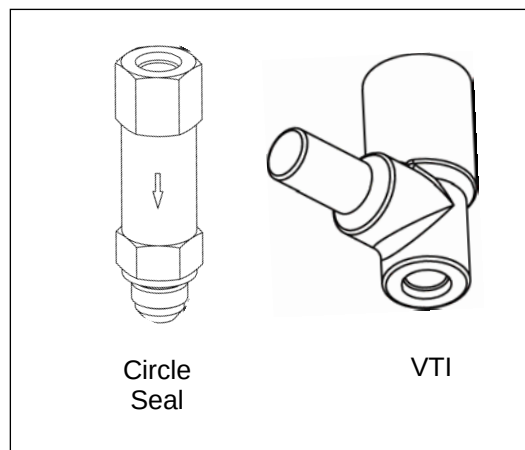
Circle seal PRD manifolds are equipped with 1/2" lines.

The VTI PRD manifolds are equipped with 3/8" lines.

The VTI PRD manifolds should already be equipped with the improved PRD mounts.

Labor Time

The estimated labor time required to perform this procedure is approximately 1.5 hours, but may vary depending on the fuel storage module configuration and installation.


Parts Information

If only the PRD manifold mounts require replacement then replace the PRD manifold mounts with the 1/2" PRD Manifold Mount Kit (Circle Seal).

Replacement PRD Manifold Mount Kit (1/2")	
Description	Part Number
1/2" PRD Manifold Mount Kit (Circle Seal)	116491

If either of the PRD valves are damaged, then the PRD manifold assembly will need to be replaced.

Identify the module part number using the visual identification chart within this bulletin. Next, using the module part number, find the appropriate replacement PRD Manifold Assembly using the chart.

Module Part Number	Description	Replacement PRD Manifold Assembly
114233	PRD Manifold Assembly W/VTI PRD Valves and Mounting Hardware	116154
114482	PRD Manifold Assembly W/VTI PRD Valves and Mounting Hardware	116169
114790	PRD Manifold Assembly W/VTI PRD Valves and Mounting Hardware	116203
114985	PRD Manifold Assembly W/VTI PRD Valves and Mounting Hardware	116154
115240	PRD Manifold Assembly W/VTI PRD Valves and Mounting Hardware	116206

Note: The new PRD manifold assemblies using the VTI PRD valves will use 3/8 tube and will come with different mounting hardware.

Contact Information:

E-Mail: QTSERVICE@qtww.com

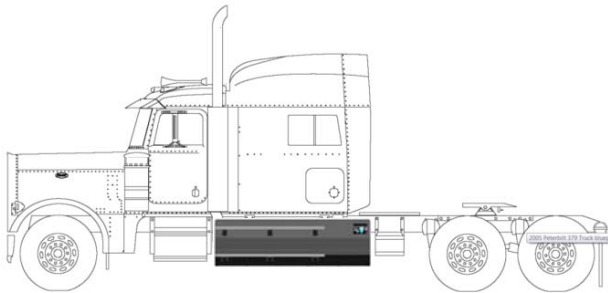
Phone: 800.816.8691

Fax: 949.930.3401

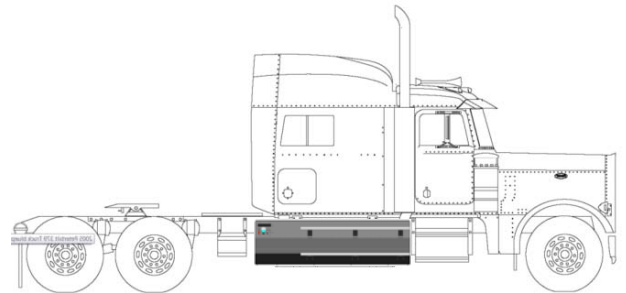
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Module Identification

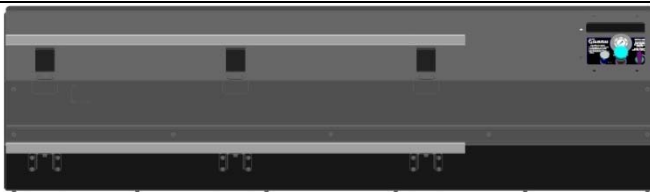
The affected fuel storage modules listed below:



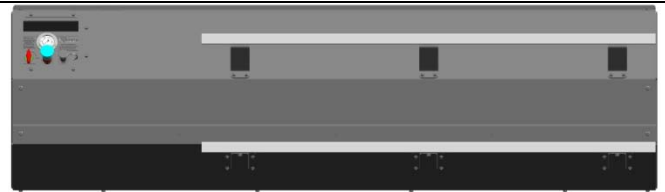
Left Hand Side



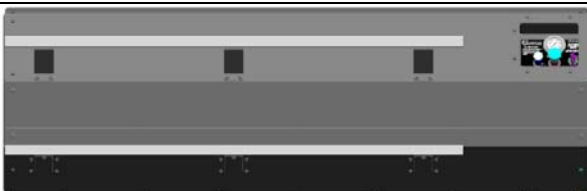
Right Hand Side



Module Length – 101.1"
 Module Part Number – 114790
 Description - 90" W/Fill, LH



Module Length – 101.1"
 Module Part Number – 114233
 Description - 90" W/Fill, RH



Module Length – 91.1"
 Module Part Number – 115240
 Description - 80" W/Fill, LH



Module Length – 95.7"
 Module Part Number – 114985
 Description - 90" W/O Fill, RH



Module Length – 91.1"
 Module Part Number – 114482
 Description - 80" W/Fill, RH

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PRD Manifold Mount Replacement Procedure

The following procedure may be used to replace the PRD Manifold Mount on Frame Mount CNG Fuel Storage Modules.

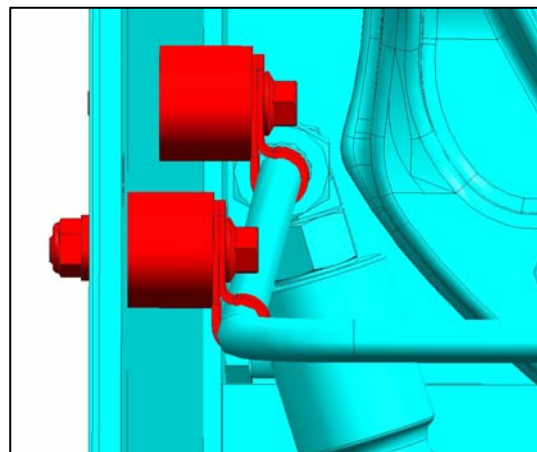
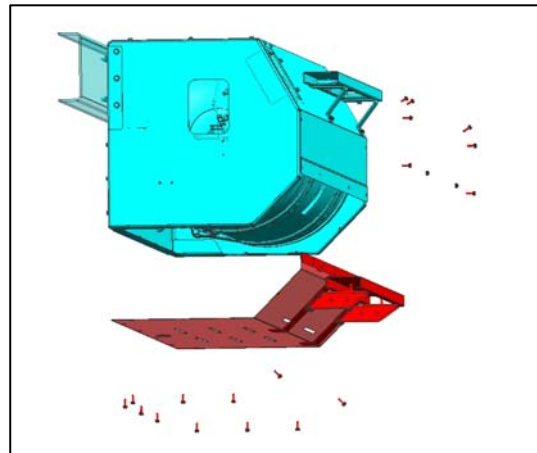
DANGER

This PRD line is pressurized even with the valve turned off. The FSM must be vented safely to service the PRD line. Failure to vent the FSM prior to servicing the PRD line may result in death or serious injury.

WARNING

Natural gas is highly flammable. In order to reduce the risk of fire and personal injury, keep sparks, flames, and smoking materials away from the vehicle while you perform any Compressed Natural Gas (CNG) fuel system service. Failure to follow this instruction may result death or serious injury.

1. Verify the vehicle ignition is OFF.
2. Remove the 7 bolts and 2 nuts from the front cover as shown in the illustration to the right.
3. Remove the lower cover bolts from the FSM.
4. Carefully move the lower lip of the top cover to clear the studs on the lower cover, then remove the lower cover.
5. Inspect the mount hardware, PRD line, and PRDs for wear and/or abrasion damage.
 - a. If the fuel storage module is still equipped with orange PRD manifold mounts, then proceed to Step 6 to replace the mounts.
 - b. If either the PRDs and/or manifold assembly have been damaged, then the entire PRD manifold assembly will need to be replaced. Follow the cylinder vent procedure and safety messages as specified in the CNG Cylinder Installation & Maintenance Manual at www.qtwv.com/service.
 - c. Once the cylinder has been safely vented, remove the existing 1/2" PRD manifold assembly and install the 3/8" PRD manifold assembly with VTI PRD valves. Proceed to Step 6 when installing the mount hardware.



TECHNICAL SERVICE BULLETIN**⚠ WARNING**

Remove each PRD line mount one at a time. Removing all PRD line mounts at the same time may cause the PRD line to bend and cause damage to the PRD line at the valve and/or may cause the PRD line connection to loosen causing CNG to escape from the FSM. Remove and service only one PRD line mount at a time. Failure to only remove and service one PRD line mount at a time could result in death or serious injury.

6. Remove one existing PRD line mount.

⚠ DANGER

While enlarging the PRD line mount hole with a 3/8" drill bit, use a drill shield and/or a drill stop so that the drill bit does not penetrate the cylinder. Failure to not use a drill shield and/or drill stop when enlarging the PRD line mount hole and penetrate the cylinder will result in death or serious injury.

7. Once one of the PRD line mount has been removed from the rear panel, carefully enlarge the hole with a 3/8" drill bit.
8. Apply a zinc-rich primer to the exposed metal.
9. Loose-fit the PRD line mount hardware with the parts provided as shown in the illustration.
10. Repeat steps 7-9 until each PRD line mount has been replaced.
11. Tighten the PRD Manifold mount fastener until the gap in the P-Clamp closes. Once the gap in the P-Clamp is closed, then tighten the fastener an additional 1-2 turns. The rubber mount should be slightly compressed if properly tightened.
12. Inspect the PRD line for leaks.
13. Replace the lower cover of the FSM and install all the cover bolts and nuts. Torque to the specifications outlined in the CNG Build-To-Fit Frame Mount FSM Installation and Maintenance Manual posted at www.qttw.com.

