

TECHNICAL SERVICE BULLETIN**Bulletin No.:** TSB-018**Date:** October 26, 2015**Subject:** ITT Regulator Erratic Pressure Regulation**Models:** All Quantum Fuel Storage Modules with ITT Regulators**Background**

Some Quantum fuel storage modules (FSMs) are built and supplied with ITT pressure regulators as part of the fuel storage module.

Condition

In some cases, the High Pressure Regulator (HPR) may not respond properly to load changes in the engine and may have erratic high outlet pressure. This erratic high outlet pressure may result in intermittent check engine lamp illumination and possibly derated engine operation.

Cause

The flow dynamics of the fuel exiting the HPR is creating an instability at the internal pressure sensing port in the regulator.

Correction

Installation of a restriction in the fuel outlet flow path of the HPR will allow the internal pressure of the regulator to be accurately sensed and adjusted which should result in a stable output pressure.

Labor Time

Gen 1 BOC Units:	Labor Time – 0.4 Hours
Gen 2 BOC Units:	Labor Time – 0.6 Hours
Gen 1 Frame Units:	Labor Time – 1.4 Hours
Gen 2 Frame Units:	Labor Time – 1.4 Hours
Gen 3 Frame Units:	Labor Time – 0.9 Hours

Parts Information

Orifice Fitting, HPR Outlet – 117622
Service ID Label – 116619

Contact Information:

E-Mail: QTSservice@qtw.com
QTWarranty@qtw.com

Phone: 800.816.8691

Fax: 949.930.3401

TECHNICAL SERVICE BULLETIN

Installation Procedure

WARNING

CNG is extremely flammable. If something ignites it, you could be severely burned. Keep sparks, flames and ignition sources a minimum of 5 meters from CNG. Ensure work area is well ventilated. Always wear proper eye and hearing protection when working with pressurized gas. Use explosion proof drop lights when working on gaseous fueled systems. Failure to follow these basic safety guidelines could result in death or serious injury.

1. Close the fuel supply to the High Pressure Regulator (HPR) at the ¼ turn valve on the fill panel.
2. Remove any covers as needed to access the HPR assembly in the fuel storage module.
 - a. In Gen 1 BOC fuel storage modules the HPR is accessible from the bottom of the unit.
 - b. In Gen 2 BOC units the rear lower service panel must be removed for access.
 - c. In Gen 1 and Gen 2 Frame modules the top cover must be removed for access.
 - d. In Gen 3 Frame modules the remove the lower service access panel.

CAUTION

Vent the fuel system pressure to atmospheric levels before servicing. Failure to relieve system pressure may result in serious personal injury and or system damage.

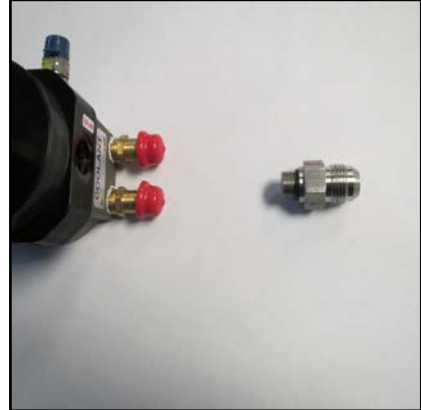
3. Slowly loosen and disconnect the fuel outlet hose from the HPR outlet fitting, use caution as residual pressure may be present in the fuel line.



Gen 1 BOC shown, others similar

TECHNICAL SERVICE BULLETIN

4. Remove the fuel outlet fitting from the HPR assembly.



5. Inspect the removed fuel outlet fitting to see if a chamfer exists on the inlet side of the fitting. If not, use a deburring tool or chamfer tool to create a small chamfer on the inlet side of the fitting. This will allow easier installation of the orifice fitting without damaging the o-ring.



6. Apply O-Ring lube to the O-Ring on the orifice fitting; using a twisting motion, slowly press the orifice into the inlet of the fitting until fully seated as shown.



TECHNICAL SERVICE BULLETIN

7. Apply lubricant to the O-Ring and install the fitting into the HPR assembly.
Tighten the fitting to 42 lb ft (57 N.m.)



8. Reconnect the HPR fuel outlet hose to the HPR fitting. Use a back up wrench to hold the HPR fuel outlet fitting when tightening the hose. Tighten hose to 88 lb ft (120 N.m.).



9. Inspect the fuel supply line at the low pressure filter to see if a restrictor fitting was previously installed. The fitting(s) may have been installed at the filter inlet, filter outlet or inline in the hose. If a -8 fitting restriction is observed, remove the restrictor fitting.



10. Open the ¼ turn valve; start the vehicle and leak check all disturbed fittings.
11. Reinstall any previously removed covers.