LANDIRENZO®
USA

Regulator Replacement Instructions

Monofuel CNG Fuel System
MY2019 Ford F-59 6.8L V10 (UPS Specification)

Revision: 01
Date: 08-04-2019

Overview and Vehicle Prep

Purpose:

The following procedure describes the methods to replace the fuel pressure regulator used in Landi Renzo USA CNG fuel systems. The fuel pressure regulator has an integrated fuel shutoff solenoid valve. This procedure is used to isolate a potentially defective or non-operating regulator that causes the vehicle to intermittently not start or shutdown.

Landi Renzo P/N:

- **1002401-B1** – “Regulator,70 PSIG, 12V Slnd, HPNGV4”

Vehicle Prep:

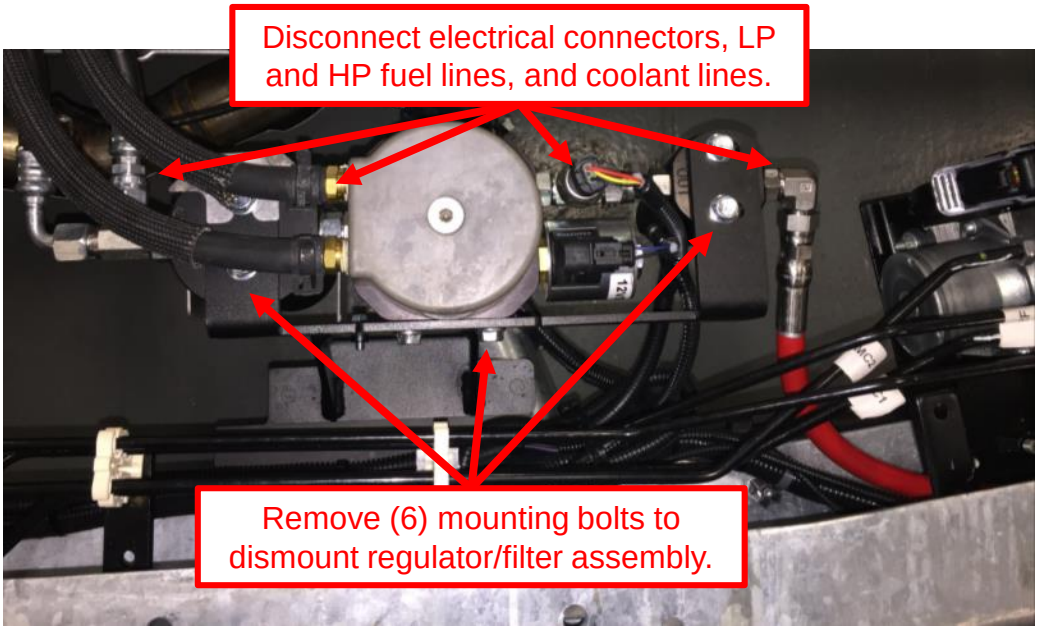
Defuel the regulator assembly:

1. CLOSE the CNG system manual shutoff valve.
2. RUN the vehicle until it stalls. REPEAT start sequence until vehicle stalls.

If the procedure above cannot be completed because the vehicle cannot start, please contact Landi Renzo USA Service. Instructions will follow on how to defueling the high pressure portion of the system upstream from the regulator assembly to allow safe troubleshooting of the solenoid valve.

Dismount Regulator/Filter Assembly

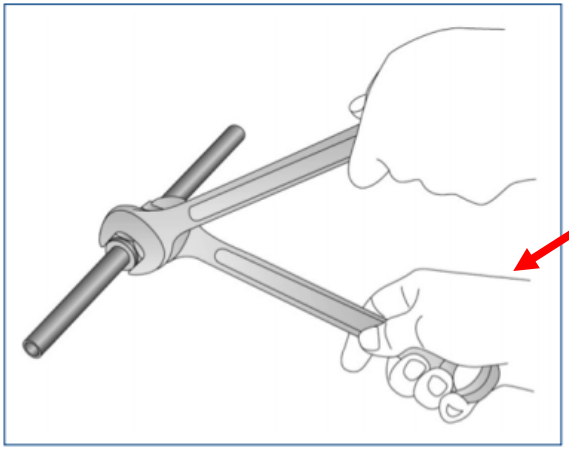
- DISCONNECT high pressure sensor connector, fuel shutoff solenoid connectors, low pressure fuel lines, high pressure fuel line, and coolant lines.
- REMOVE (6) mounting bolts to dismount regulator/filter assembly.



Fuel Lines and Fittings Removal and Installation Guidelines (1 of 2)

Fuel Lines and Fittings Assembly/Disassembly Guidelines:

1. Use a touch of non-synthetic, non-detergent oil (i.e. 30W engine oil) to lubricate O-rings prior to installation. **CAUTION! DO NOT USE silicone grease or any other type of lubricant**
2. Per Parker recommendations, install all high pressure fittings, tubing, and hoses finger tight to ensure proper fitment before fully torqueing components. Torque values for fittings used in this installation is listed below. When tightening all connections, it is important to have a wrench applying equal opposite force on the fitting as a wrench tightens the nut to the fitting. Following Parker (fitting and tube) manufacturer instructions when assembling system (www.parker.com)
3. Ensure O-rings are not damaged during the assembly/disassembly process. If replacement O-rings are required, please contact Landi Renzo USA.



Note: When assembling/disassembling fittings, a hose, or stainless steel line to fittings, ensure that the fitting body is secured with a **back-up wrench** while tightening nut on tube or hose to proper torque spec.

Fuel Lines and Fittings Removal and Installation Guidelines (2 of 2)

Torque Values for Fuel Line and Fitting Connections:

SAE J1926 O-Ring Boss (ORB) Fittings

Used On:
- LP Fuel Lines
- HP Fuel Lines
- PRD Vent Lines

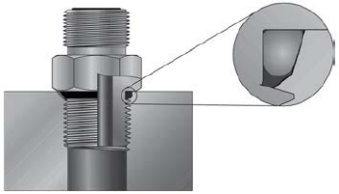


Fig. S7 — Non-Adjustable Port End Assembly

SAE Straight Thread Port Assembly (SAE J1926)

SAE Dash Size	Thread Size UN/UNF	Assembly Torque (+10% -0) Non-Adjustables: Seal-Lok (Heavy Duty SAE J1926-2) ft.lbs. (in. lbs)	N-m	Non-Adjustables: Triple-Lok Ferulok Adapters (Light Duty SAE J1926-3) ft.lbs. (in. lbs)	N-m	Adjustables: Seal-Lok (Heavy Duty SAE J1926-2) ft.lbs. (in. lbs)	N-m	Adjustables: Triple-Lok Ferulok Adapters (Light Duty SAE J1926-3) ft.lbs. (in. lbs)	N-m	Plugs: Hollow Hex HP5ON-S (Light Duty SAE J1926-3) ft.lbs. (in. lbs)	N-m	Plugs: Hex Head P5ON-S (Light Duty SAE J1926-3) ft.lbs. (in. lbs)	N-m
6	9/16-18	(420)	47	(350)	40	(420)	47	(350)	40	(350)	40	(350)	40
8	3/4-16	(720)	81	(620)	70	(720)	81	(620)	70	(620)	70	(620)	70

Notes: Lubricate threads before assembly. Values in chart are for plated steel fittings in steel ports. For stainless steel fittings, use the upper limit of torque range. For brass and aluminum, decrease torque value by 35%.

Table S1 – SAE J1926 Straight Thread Port Assembly Torques

SAE J1453 O-Ring Face Seal Fittings (ORFS)

Used On:
- LP Fuel Lines
- HP Fuel Lines

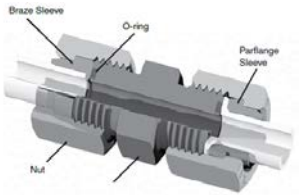


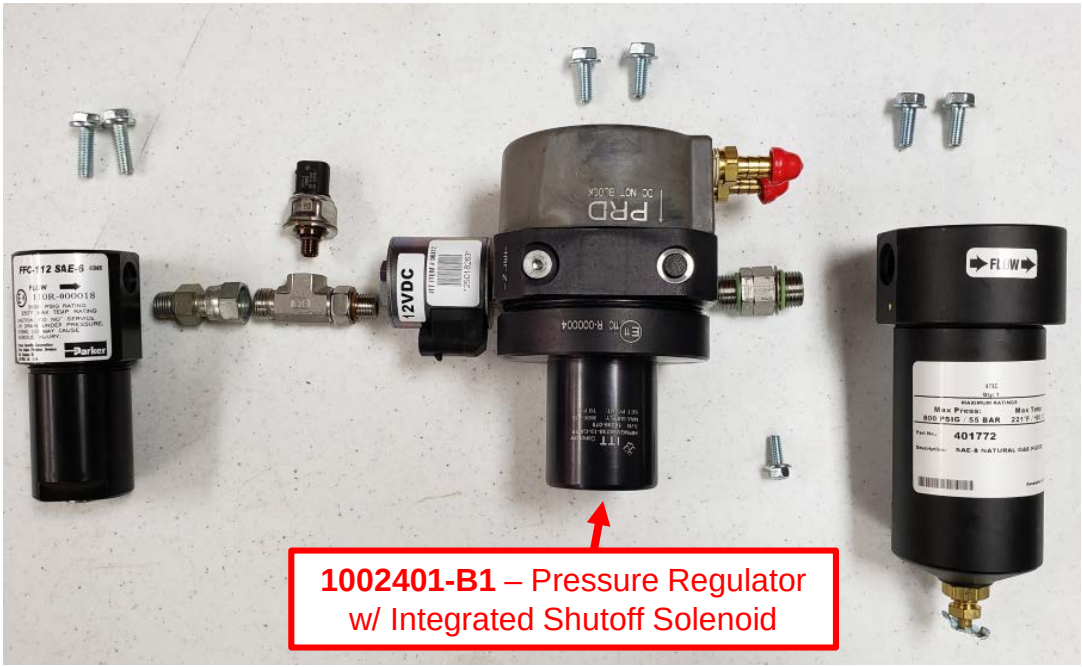
Fig. S15 – Seal-Lok Union cutaway with flanged and brazed assemblies

O.D. (in.)	O.D. (mm)	SAE Dash Size	Tube Side Thread Size (UN/UNF)	Tube Side Assembly Torque (+10% -0%) in.-lb.	ft.-lb.	N-m	Flats from Wrench Resistance (F.F.W.R.) Tube Nuts	Swivel & Hose Ends
3/8	8, 10	-6	11/16-16	360	30	40	1/4 to 1/2	1/2 to 3/4

Table S14 – Seal-Lok and UPTC assembly torque and F.F.W.R. For brass, aluminum (and other soft metals) decrease torque value by 35%, however F.F.W.R. is the same.

Replace Regulator (1 of 2)

- DISASSEMBLE regulator assembly as shown to replace regulator with new pressure regulator.
- NOTE: The following page describes interferences between components during disassembly, and the preparation required to allow disassembly of components from the regulator.



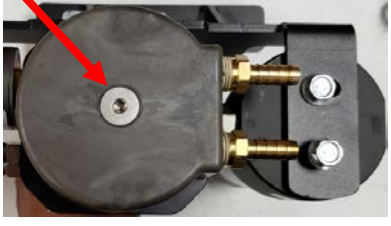
Replace Regulator (2 of 2)

NOTE: In order to provide clearances for fittings and components to rotate out from the regulator:

- Remove the solenoid coil nut and coil as shown below to allow HP tee to be removed.
- Loosen coolant bowl screw then rotate bowl clockwise to allow LP filter to rotate freely out from the regulator outlet without interfering with the brass coolant barbs.

Remove solenoid nut and coil to provide clearance for HP Sensor tee removal.

Loosen coolant bowl screw then rotate bowl as shown to provide clearance for Low Pressure Filter removal.



Prep Vehicle for Operation

Prep Vehicle for Operation:

- REMOUNT the regulator assembly.
- RECONNECT shutoff solenoid connector and HP sensor connector.
- RECONNECT fuel and coolant lines.
- OPEN the main CNG manual shutoff valve.