

TECHNICAL SERVICE BULLETIN**Bulletin No.:** TSB-023**Date:** June 2, 2016**Subject:** EMER NGV1 Fill Receptacles**Models:** Gen 2 Back Of Cab, Gen 3 Frame Mount Fuel Storage Modules**Background**

All Quantum fuel storage modules are equipped with two different styles of fill receptacles to allow for maximum flexibility when filling at commercial CNG fill stations. The smaller fill receptacle is referred to as the NGV 1 fill valve, the larger fill receptacle is referred to as the fast fill valve

Condition

In some cases, the EMER NGV 1 fill valve has exhibited leakage either immediately after use of the NGV 1 fill valve or during a filling event that uses the fast fill valve.

At the time of publication of this bulletin, only the EMER NGV 1 fill valves identified by part number INNR44Q, are exhibiting this condition. If your Quantum fuel storage module is equipped with another manufacturer's NGV 1 fill valve, your system is not affected by this bulletin.

Cause

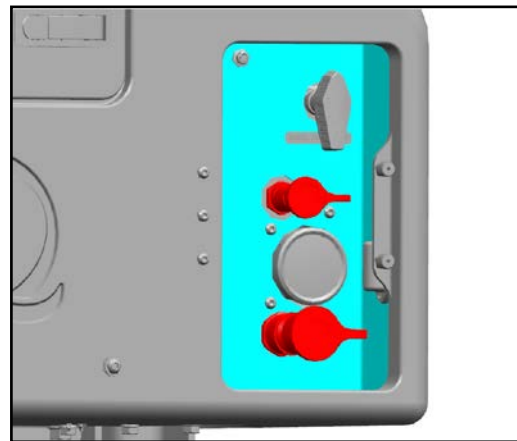
The investigation into the failure of the EMER NGV 1 fill valve is still under way. The units received by the manufacturer have exhibited various failures.

The cause of the failures is still undetermined but may be attributed to fuel contamination, fuel pressure, fuel flow rates, design issues, or a combination of all of these and or other yet unknown factors.

A number of the failed components appear to occur on vehicles that frequently use high flow capacity fill stations and fill through the EMER NGV 1 fill valve.

Correction

If you fill your vehicle through the NGV 1 fill valve under high flow conditions it is recommended to replace your NGV 1 fill valve with another manufacturer's part. A replacement fill valve is being offered by Quantum at no cost to replace your EMER NGV 1 fill valve.



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Labor Time

Gen 2 BOC Units: Labor Time – 0.6 Hours, Labor Operation SLT0001
 Gen 3 Frame Units: Labor Time – 0.6 Hours, Labor Operation SLT0001

Parts Information

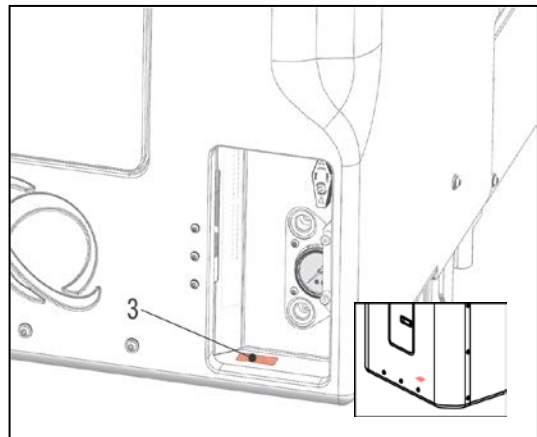
Replacement Fill Valve	
Description	Part Number
RECEPTACLE - FILL, STANDARD, W/OUT FILTER	116694 (Parker)
RECEPTACLE - FILL, STANDARD, W/OUT FILTER	118128 (EMER)

Application

The following fuel storage modules are possibly affected by the bulletin and should be inspected.

The module identification label (3) can be found in the fill panel area on your module, it contains the module part number and serial number.

The serial number is the 17 digit alpha numeric number. The last four digits are needed to reference the table below.



Module	Serial Number Range
117059 Gen 3 FRM RH Module (41 DGE)	2017 – 2018
116883 Gen 3 FRM LH Module (46 DGE)	0001 – 0108
117465 Gen 3 FRM RH Module (46 DGE)	2019 – 2140
116074 Gen 2 BOC Module (123 DGE)	0596 – 2046
117345 Gen 2 BOC Module (160 DGE)	0609 – 2050
117155 Gen 2 BOC Module (180 DGE)	2107 – 2133

Contact Information:

E-Mail: QTService@qtw.com
 Phone: 800.816.8691
 Fax: 949.930.3401

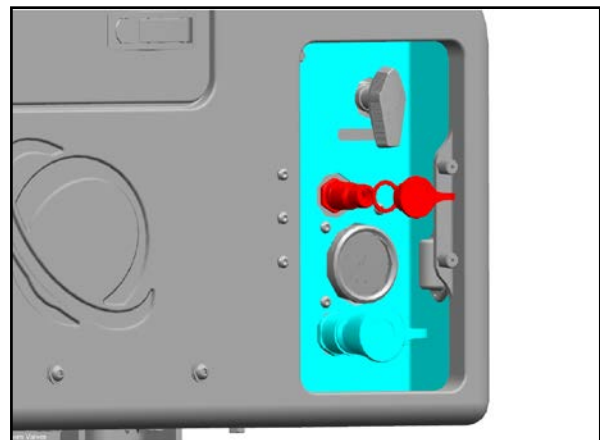
TECHNICAL SERVICE BULLETIN**Fill Valve Replacement Procedure**

The following procedure may be used to replace the fill receptacle on Frame Mount and Back Of Cab (BOC) CNG Fuel Storage Modules (FSM).

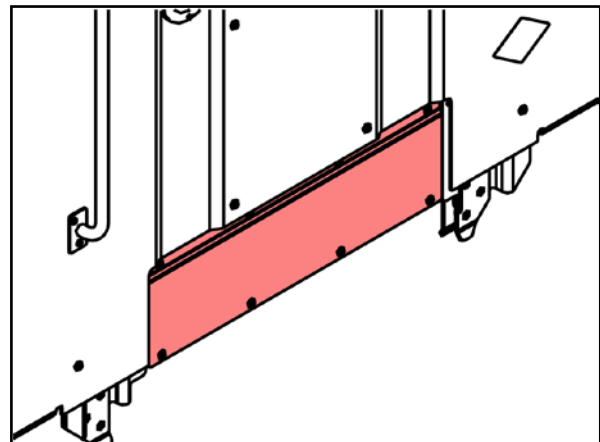
⚠ WARNING

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. Close the manual valve on all cylinders connected to the system.
3. Close the ¼ turn manual shut off valve on the fill panel.
4. Remove the cap from the fill valve.

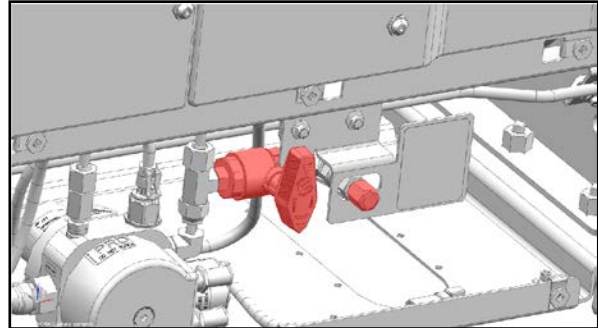


5. Remove the service access panel.

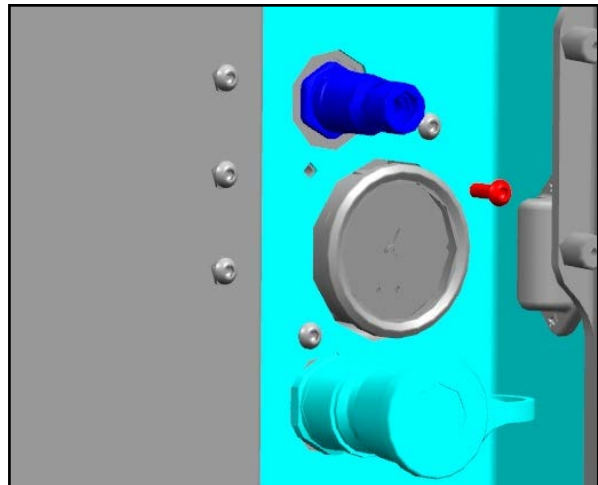


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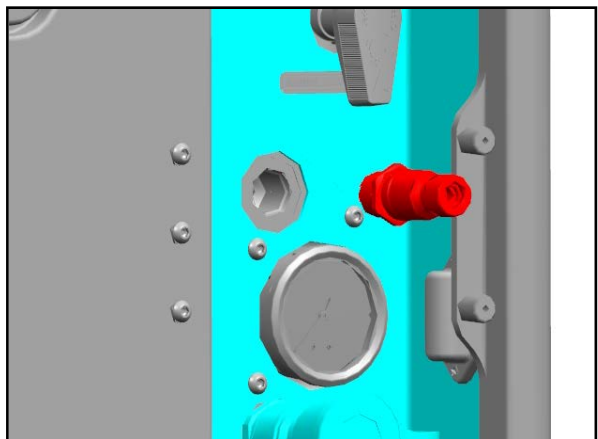
6. Remove the cap from the system vent fitting and using the $\frac{1}{4}$ turn valve vent the high pressure from the fuel storage module.
7. Reinstall the cap on the system vent fitting and tighten to 24 lb.ft. (32 N.m.)



8. If you have a 1" extra deep socket proceed to step 9. If using a crowfoot, remove the screw adjacent to the NGV 1 fill valve.



9. Remove the EMER NGV 1 fill valve from the fill block. Use caution as there may be residual pressure present in the fill block.



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10. Clean and inspect the sealing surfaces in the fill block. Verify there is no debris, springs or o-ring material present in the fill block.



11. Apply o-ring lube to the seal on the new NGV 1 fill valve.
12. Install the new NGV 1 fill valve and tighten to 36 lb ft. (49 N.m.).
13. If the screw next to the NGV 1 fill valve was removed, install the screw and tighten to 89 lb in. (10 N.m.)
14. Open the ¼ turn manual shut off valve on the fill panel and all the cylinder manual valves.
15. Apply pressure to the NGV 1 fill valve and check for leaks.
16. Install the cap over the NGV 1 fill valve.
17. Install the service access panel and tighten to 14 lb ft. (19 N.m.)

