



Number: FS-2017-04

Date: July 28, 2017

Model: All CNG Buses

Approved: 

Model Years: 2010 - 2017

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Quality Control & Field Service

Subject: Pressure Relief Device Vent Tubes & Caps – Agility Bulletin ENP-501

Please read the attached Agility Bulletin, (ENP-501).

The Pressure Relief Device (PRD) vent tube caps are important to maintain to help prevent Moisture and/or debris from causing the PRD to malfunction.

The bulletin is clear that the existing vent tube caps need not be replaced unless missing or damaged, but if they are replaced, the PRD vent lines and PRD bodies must be inspected prior to replacing a cap. The new vent tube caps are red in color to facilitate visibility, making inspections easier.

RLB:rlb

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**Field Service Bulletin
Maintenance Reminder
Pressure Relief Device Vent Tubes and Caps**

**ENP-501
Rev. E: May 31, 2017**

1. Introduction

Pressure relief device (PRD) vent lines must be capped to prevent moisture and debris from entering and causing damage to the PRD body. Agility Fuel Solutions installs UV-protected plastic caps over the ends of all PRD vent lines.

The PRD vent tube caps feature heat-activated adhesive which prevents loss from tree branch strikes, pressure washing, etc. The caps are red to help increase visibility for inspection.



- A. It is important to know and understand that simply replacing PRD vent caps is not enough to protect the CNG fuel system.
- B. A missing cap could be an indication of a leaking PRD.
- C. A missing cap allows moisture and debris to enter the PRD vent system, and may cause damage to the PRD body.
- D. When a cap is missing, the PRD vent line and PRD must be inspected for corrosion, water or debris.

This is not a recall or a service campaign.

2. Affected Units

All CNG vehicle fuel systems. Replace missing or worn PRD vent caps after visually inspecting the PRD vent lines and PRD bodies.



Figure 1 Various PRD vent caps. These can be left in place. There is no need to replace them unless they are missing or damaged.



Figure 2 New red heat shrink PRD vent caps increase visibility. Remember: If a PRD vent cap is missing or damaged, you must inspect the PRD and vent lines – DO NOT simply replace the cap.

3. Corrective Action

1. If a PRD vent tube cap is missing, inspect and remove any water or other contaminants from the PRD vent tube.
2. Check the PRD body for rust or corrosion. If the PRD body shows signs of rust or corrosion, the PRD must be replaced.
3. After inspecting and cleaning, replace the PRD vent tube cap.

4. Tools, Parts and Materials

1. Common hand tools
2. Heat Gun with applicable reducing nozzle
 - a. Ungar 1095 Dual Temperature Heat Gun
 - b. Milwaukee Dual Temperature Heat Gun 8975-6 with Air Reduction Nozzle 46-80-0297 or Hook Nozzle 49-80-0292
3. Tube de-burring tool, if needed

QTY	DESCRIPTION	AGILITY PART NUMBER
As needed	PRD vent cap, red, for 3/8-inch and 1/2-inch lines	10712383

Note: The new PRD vent caps replace the old, non-heat shrinkable caps 10702028 (1/2-in.) and 1072030 (3/8-in.)

5. Procedure – PRD Vent Line Inspection and Remediation



Be aware of the live, high pressure lines. Although PRD vent lines carry zero pressure, the fuel lines contain full cylinder pressure and cannot be isolated. Verify PRD vent lines by tracing them from the exit at the top of the system to the opposite end before starting work.

1. If a PRD vent tube cap is missing, perform the following steps.
2. Look for water at the lowest point of the PRD vent line run.
3. A small amount of moisture (condensation) is acceptable, the goal is to remove standing water which may cause damage to the PRD body at or below freezing temperatures.
 - a. In most fuel systems, the PRD vent tube includes a weep hole to drain moisture out of the vent tube.
 - i. Check for debris or blockage and clean out the weep hole.

- b. After inspection and any cleaning/draining, replace the PRD vent tube cap.
4. If the PRD vent system is solid tubing (no weep holes), refer to field service bulletin ENP-584.

6. Procedure – PRD Vent Cap Replacement

1. The PRD vent tubes should be clean, smooth and burr-free. If not, clean and/or deburr the tubing ends.
2. Insert the cap over the tube end as shown in Figure 3.

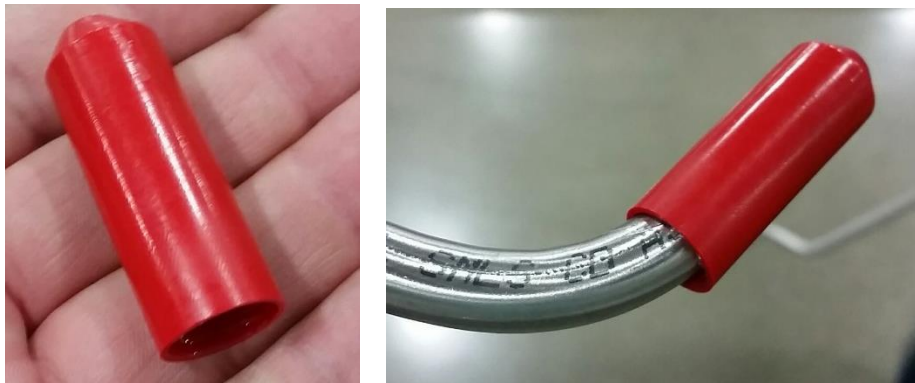


Figure 3 Vent cap installed prior to heating.

3. Set the heat gun temperature to “Low.” There is no need to calibrate the temperature of the heat gun output.
4. The best results are obtained when using a heat gun equipped with a reducer nozzle. A “hook” accessory is also acceptable, as shown in Figure 4.
5. Make sure the heat gun is always moving as you heat the cap to prevent scorching and burning the cap or the fuel system cabinet.



Figure 4 Installation using an accessory “hook” nozzle.

6. Heat until adhesive starts to flow from the edge of the cap. The required temperature at the surface of the cap is min. 275°F (135°C) to shrink the cap and activate the adhesive. Figure 5 shows the new PRD vent caps correctly installed.



Figure 5 Correctly installed vent caps.

7. Warranty Information

Replace caps as needed. There is no need to retro-fit any PRD vent caps in the field, unless caps are missing or damaged as stated above.

Standard repair time (SRT) for this procedure: 0.25 hours.

If you have any questions, contact Agility Fuel Solutions Customer Care at 949-267-7745 or support@agilityfs.com.

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Warning Messages Used in this Bulletin

⚠ DANGER

Personal injury or death will occur if procedures are not followed.

⚠ CAUTION

Damage to equipment, fuel system or vehicle is possible if instructions are not followed.

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Revision	Description	Author	Approved	Date
--	Initial Release	W. Yoshida	A. Bhakta	4/29/16
A	Added heat gun details	W. Yoshida	A. Robertson	6/9/16
B	New part number and pictures for red caps	W. Yoshida	A. Bhakta	11/21/16
C	Added instructions for water removal; revised company name and address; other minor edits	W. Yoshida	A. Bhakta	3/2/17

Rev	Desc	Author	Approved
D	Added part number for the water extraction kit (syringe), corrected Figure references. Make sure to drain all vent tubes.	W. Yoshida	<p>3/29/17</p>
E	Removed closed vent line procedure and created a separate bulletin, ENP-584.	W. Yoshida	<p>5/30/17</p>