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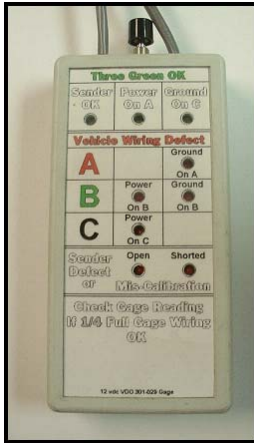
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## Vehicle Tank Fuel Gauge System Quick Check

The following procedure explains how to use the fuel gauge diagnostic tester. This tester is designed solely for use with Chart Inc. LNG vehicle tank fuel gauge circuits.

Special tools:

- a) NexGen Fueling Fuel Gauge Tester (P/N 11656419)



Fuel Gauge Tester

The Chart Inc. Fuel Gauge Tester can be used to test both tanks on vehicles and loose tanks. The tester has three green LED lights (indicating no faults were found in the fuel gauge circuit and wiring) and six red LED lights (indicating a problem exists in one or more of the circuits). The **red A**, **green B**, and **black C** indicate which fuel gauge sender harness wire is being tested (see weatherpack connector photo). The color-coding on the tester matches the color of the corresponding wire. The tester does not give specific information on exactly where a problem lies but rather an indication of where the problem would most likely exist.

### Warning:

Ensure vehicle/equipment wheels are chocked, parking brake applied, and transmission in neutral before performing the following tests.

### On Vehicle Testing

- 1) Locate the fuel gauge circuits 3-pin weatherpack connector. The connector is usually located in the fuel gauge wiring OEM harness approximately 12" from the tank sender.
- 2) Disconnect the 3-pin weatherpack connector at sender.
- 3) Install tester in series with the gauge wiring via the male/female weatherpack connectors.

**Note: Due to the type of plugs used, it is not possible to install the tester incorrectly.**

- 4) Set tester down in a secure location.
- 5) Turn on the vehicle ignition switch, but do not start engine.
- 6) Observe vehicle fuel level gauge. Regardless of the amount of fuel in the tank, the gauge should display there is approximately a ¼ tank of fuel.
- 7) Return to the tester. The system is working correctly if all three green LEDs illuminate and the fuel level gauge reads approximately ¼ full.

If the three green tester lights are not lit, the tester has detected an out of range condition within one or more of the wiring circuits. In this case, one or more red lights will be lit, giving an indication of where the problem may be found.

### Possible Vehicle Wiring Defects

- A. Ground on A: Check for a short to ground.
- B. Power on B: Check for short to voltage, defective sender, or incorrectly wired OEM harness.
- C. Ground on B: Check for short to ground, defective sender, or incorrectly wired OEM harness.
- D. Power on C: Check for short to voltage, defective sender, or incorrectly wired OEM harness.

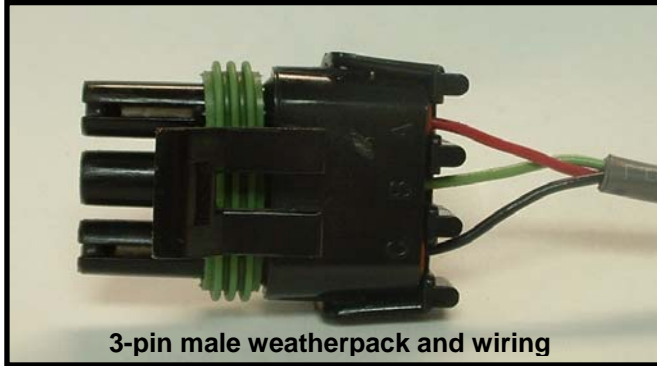
This procedure is for use by trained mechanics experienced with using LNG systems and vacuum technology. Review all pertinent safety documents before starting this procedure.



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**Vehicle Tank Fuel Gauge System Quick Check**

3-pin male weatherpack and wiring

A fault is indicated by either sender defect—open or shorted only. No other lights should illuminate.

**Possible Sender Defects****Open-Open sender wiring circuit**

- a) Loose connection or broken wire in sender, BNC connector or capacitance wiring. If no problem is found during visual inspection use DVOM or capacitance meter (at BNC nipple) to locate open.
- b) A defective or un-calibrated (wrong) sender.

**Shorted-Sender wiring shorted to ground**

- 1) Check for internal sender wiring shorted to ground.
- 2) Check for presence of heat shrink on BNC.
- 3) Check heat shrink for cracks/damage and signs of water intrusion.
- 4) If no problems found remove heat shrink, check capacitance at BNC connector.

**Off Vehicle Fuel Gauge Circuit Testing**

- 1) Locate 3-pin weatherpack connector on fuel gauge sender box OEM harness.
- 2) Connect tester female weatherpack to sender box plug.
- 3) Press black button on top of tester.
- 4) Tester checks the sender and associated wiring.

Note: The tester will only show one green light (Sender OK) if circuit tests good when in this mode.

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