	VT-0007	000	03/18	CWH
	Low Temperature Switch Function Test			

Purpose

This document provides directions for testing the functionality of the Chart Low Temperature Switch (LTS) PN: 11732240.



LTS Unit

Sensor


Overview

Chart offers a Low Temperature Switch (LTS) for use with Chart LNG vehicle fuel tanks. The LTS is designed to activate a ground circuit to a low temperature warning device(s) if fuel temperatures leaving the heat exchanger fall below the recommended levels. The unit's sensor is attached to the fuel Shut Off Solenoid (SOS) via one of the SOS body screws. If the temperature of the SOS reaches -4°F/-20°C the unit will activate the circuit, and the attached low temperature warning device(s) should activate.

Equipment

- Freeze Spray with spray tube PN: 21249214
- Timer (minimum 2 minute increments)
- 13mm wrench or 13mm socket with ratchet (tank mounted LTS)
- Wire brush
- Appropriate PPE, i.e. goggles, face shield, cryogenic gloves and apron, long sleeves and pants, and closed toe shoes

This procedure is intended for use by trained technicians with experience on systems using LNG. Review all applicable safety documents before beginning this procedure.

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Note: Read this entire service bulletin before beginning this procedure

Procedure

1. Wear appropriate PPE while conducting the test.




2. Locate the LTS unit and the sensor connection, and gain access to the sensor connection. The LTS unit may be mounted inside of the LNG tank shroud, on the truck rail, or within a box on the rail (if the unit is inside of the tank shroud, if necessary remove the shroud door to access the sensor connection).



3. Use a wire brush to lightly clean the LTS sensor connection area if needed.

Note: Do not disconnect the sensor from the valve for testing

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4. Attach the spray tube to the freeze spray per directions on the container.
5. Turn the truck key to the "ON" position (do not start the engine).

Note: If the LTS warning device(s) activates when the key is turned on and remains on, troubleshoot the system, make repairs, and re-test. Refer to VT-0036 LNG Vehicle Fuel Switch Low Temperature Protection Circuit

6. Start a 2 minute timer for the built-in LTS system activation delay.
7. An assistant may be needed if maintaining visual and audible monitoring of the warning device(s) is not possible.
8. Position the spray tube nozzle tip ½" away from the LTS sensor.



Distance from Sensor



Spraying Sensor

9. After the 2 minute timer delay, spray the sensor until the LTS activates the warning device(s) (30 seconds maximum).
10. If the LTS warning device(s) does not activate within 30 seconds, verify spray tube nozzle is aimed at the LTS sensor. Troubleshoot the system, make repairs, and re-test. Refer to VT-0036 LNG Vehicle Fuel Switch Low Temperature Protection Circuit

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