



Service Bulletin

PRELIMINARY INFORMATION

Subject: Diagnostic Tip — Exhaust Fluid Low - Exhaust Fluid Empty - Exhaust Fluid Range and Service Exhaust Fluid Messages Difficult To Reset - Including Cold Weather Operation

Models: 2010 - 2015 Chevrolet Express
2010 - 2015 GMC Savana
2011 - 2015 Chevrolet Silverado
2011 - 2015 GMC Sierra
Equipped with 6.6L Diesel Engine RPO codes LML and LGH

This PI was superseded to update Model Years and Recommendation/Instructions. Please discard PIP4864M

The following diagnosis might be helpful if the vehicle exhibits the symptom(s) described in this PI.

Condition/Concern

A dealer may encounter customer's concern of Driver Information Center (DIC) messages "Exhaust Fluid Low", "Exhaust Fluid Empty - Refill Now", "Exhaust Fluid Range: XXX" or "Service Exhaust Fluid - See Owners Now". These messages may be latched and occur at every ignition cycle even though the DEF tank is full.

Recommendation/Instructions

For 2010 and 2011 model years campaign 11001 has now been released. Please review latest version of 11001 for DEF messaging concerns.

Note: The process found in this PI would only be necessary if the vehicle had been brought in with a latched DEF DIC message such as "Exhaust Fluid Low" "Exhaust Fluid Empty - Refill Now" or an Exhaust Fluid Range message that occurs at every ignition cycle even though the DEF tank is full. The vehicles that are brought in for ECM calibration ONLY will have no special reset process and should be processed following Recall 11001.

1. Verify that the scan tool and ECM have been updated to the latest available software versions.
2. Select and build the proper vehicle in the scan tool
3. Enter ECM - Data Display - Reductant System Data
 - 3.1. Ensure that all three DEF level sensors are active. Reductant Level Sen. 1, 2, and 3 will all read "Active" (or "Inactive" when not sensing fluid) with the DEF tank level showing 100%. Please ensure you are not monitoring the Reductant Lvl Sen. 1 C, 2 C, or 3 C readings. Reductant Lvl Sen. 1, 2, or 3 followed by a "C" is utilized for only level sensor circuit checks. The Reductant Lvl Sen Circuit status will read "OK".

Important: Important: If ambient temperatures have been below 20F/-7 degrees C, it may be necessary for the fluid in the tank to warm up before the level sensors will be able to detect the actual DEF level. This can be accomplished by parking the truck in a warm environment until the DEF tank temperature is warmer than -9 degrees C (18 degrees F). Blowing a fan across the tank will reduce thaw times. If using a forced air heater be sure it will not damage the truck or DEF system. If using additional means to thaw the tank (other than keeping the vehicle inside). Be sure to thaw the contents of the tank evenly. Do not focus a heat source or fan directly on the tank module area of the tank.

Important: A dealer may encounter a concern of a "Service Exhaust Fluid - See Owners Now message" with a DTC P204F. Complete the current SI diagnosis for any DTCs or symptoms found. For 2010-2011 products only: Follow the information in the latest version of 11001 if it has not been completed. For all applicable model years: The Service Exhaust Fluid Message and/or P204F could be induced by the use of an aftermarket winter cover or the use of a snowplow in combination with a winter cover. The use of aftermarket winter covers (or a combination of a winter cover and a snow plow) may allow the system to sense artificially high underhood temperatures. The high underhood temperatures could potentially prevent the DEF heaters from turning on and thawing the fluid as required. If there are any lower/bumper covers installed they must be removed. If the truck is equipped with a snow plow a winter cover must not be used. Remove the winter cover when a plow is installed.

- 3.2. If the tank level is below 100% add up to 2 gallons of DEF fluid. Refer to SI for Diesel Exhaust Fluid (DEF) Filling Instructions.
4. Cycle the ignition key to "off", then, back to "on".
 5. Reset the reductant fluid tank level with the scan tool.
 - 5.1. For 2010 - 2013 vehicles (Tech2) - Enter Engine Control Module - Module Set Up - Reductant Fluid Tank Level Reset - press the reset key.
 - 5.2. For 2014 - 2015 vehicles (GDS) - Enter Engine Control Module - Configuration/Reset Functions - Reset Functions - Reductant Fluid Tank Level Reset - press the reset key.
 - 5.3. Wait until the Reductant Level Warning stops changing and shows "none", then proceed to step 6. If "none" is not displayed (and ambient temperatures have been below 20F / -7C) the DEF tank may still be frozen or partially frozen, proceed to step 5.4.
 - 5.4. After verifying the DEF tank temperature is warmer than -9 degrees C (18 degrees F), all three DEF level sensors are reading "active", and the DEF tank level is showing 100% continue to step 5.5 or 5.6
 - 5.5. For 2010 - 2013 vehicles (Tech2) Reset the Reductant Fluid System by entering "Engine Control Module – Module Setup – Reductant System Data Reset" – press the reset key. Please note this is a different reset than described in step 5.1 and 5.2.
 - 5.6. For 2014 - 2015 vehicles (GDS) - Enter Engine Control Module - Configuration/Reset Functions - Reset Functions - Reductant Fluid System - press the reset key.
 - 5.7. Wait until the Reductant Level Warning stops changing and shows "none"
 6. When the Reductant Level Warning shows "none" the DEF system reset and reprogram is complete

Note: The reductant usage rate is not reset during this procedure. The reductant range displayed on the scan tool may not change as it has with previous versions on this PI. Please see the newest version of bulletin 10-06-04-013 for a description DEF messaging operation.

Note: The customer may encounter range messages in the future as described in the newest version of bulletin 10-06-04-013: Information on Diesel Exhaust Fluid (DEF) Filling Instructions, Frozen Tank Status, and General Information. These level and/or range messages should reset or turn off when the DEF is refilled.

Please follow this diagnostic or repair process thoroughly and complete each step. If the condition exhibited is resolved without completing every step, the remaining steps do not need to be performed.

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