6.4L—VEHICLES BUILT PRIOR TO 8/2/2007—MODULE REPROGRAMMING

TSB 09-16-9

FORD:
2008 F-Super Duty

This article supersedes TSB **08-25-7 and 07-4-11** to update the Service Procedure.

ISSUE

Some 2008 F-Super-Duty 250-550 vehicles equipped with a 6.4L diesel engines and built prior to 8/2/2007 may require a calibration update which will cover several different concerns.

ACTION

Follow the Service Procedure steps to correct the condition.

NORMAL OPERATING CHARACTERISTICS - EXHAUST SYSTEM REGENERATION

This document provides additional information on the conditions of normal operation while the vehicle is in the exhaust filter regeneration process. These are normal conditions and do not require repair. For most driving conditions, normal exhaust filter regeneration will begin anywhere from 100-600 miles (161-966 km) from the completion of the last regeneration cycle. Each occurrence will last from 10-40 minutes.

The exhaust filter regeneration process will not initiate or may be terminated when:

- The vehicle is stopped at idle for more than 5 minutes in gear.
- The vehicle is operated in Power Take Off (PTO) mode.
- Stationary Elevated Idle Control (SEIC) is engaged.
- The gear selector is placed in Park or Neutral.

Vehicle characteristics change during the exhaust filter regeneration process:

- Some white smoke in cold ambient temperatures is normal. The amount of white smoke during this time will be increased during exhaust filter regeneration.
- The engine's peak power is modestly limited during regeneration.
- Engine responsiveness may be slightly different than normal operation during regeneration.
- Exhaust smell may be noticed during the exhaust filter regeneration process - especially on new vehicles.
- The powertrain sound will be different during exhaust filter regeneration including air induction noise, combustion noise, flutter on deceleration or shut down.

SERVICE PROCEDURE

Reprogram the Powertrain Control Module (PCM), Transmission Control Module (TCM) and Instrument Cluster (IC).

Reprogram appropriate vehicle modules before performing diagnostics and clear all diagnostic trouble codes (DTCs) after programming. For DTCs generated after reprogramming, follow normal diagnostic service procedures.

Reprogram the Powertrain Control Module (PCM) to the latest calibration using Integrated Diagnostic System (IDS) release 61.19 and higher or 62.07 and higher. This new calibration is not included in the VCM 2009.7 DVD. Calibration files may also be obtained at www.motorcraft.com. When reprogramming the PCM on automatic transmission equipped vehicles the transmission control module (TCM) will also automatically be reprogrammed to the latest level.

Please print out the customer information sheet attached to this TSB and insert into the glove box with the Owners Guide for future customer reference.

NOTE: The information in Technical Service Bulletins is intended for use by trained, professional technicians with the knowledge, tools, and equipment to do the job properly and safely. It informs these technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by "do-it-yourselfers". Do not assume that a condition described affects your car or truck. Contact a Ford, Lincoln, or Mercury dealership to determine whether the Bulletin applies to your vehicle. Warranty Policy and Extended Service Plan documentation determine Warranty and/or Extended Service Plan coverage unless stated otherwise in the TSB article.The information in this Technical Service Bulletin (TSB) was current at the time of printing. Ford Motor Company reserves the right to supercede this information with updates.The most recent information is available through Ford Motor Company's on-line technical resources.

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NOTE
REPROGRAMMING CONCERNS / ERRORS MAY BE CAUSED BY THE DATA LINK CONNECTOR (DLC) OR VEHICLE COMMUNICATION MODULE (VCM) BECOMING DISCONNECTED, LOW BATTERIES ON THE IDS OR THE IDS GOING INTO ANY TYPE OF SLEEP MODE, OR LOW VEHICLE BATTERY VOLTAGE. TO PREVENT VEHICLE BATTERY DISCHARGE DURING REPROGRAMMING A POWER SUPPLY CHARGER ROTUNDA NUMBER 162-00043 OR EQUIVALENT SHOULD BE USED. IF THERE WAS AN INTERRUPTION DURING REPROGRAMMING, MAKE SURE THE ORIGINAL IDS SESSION THAT WAS CREATED FOR THE VEHICLE IS NOT DELETED. IF THE ORIGINAL VEHICLE SESSION IS NOT USED OR DELETED BEFORE THE MODULES ARE COMPLETELY REPROGRAMMED, FURTHER REPROGRAMMING ERRORS CAN OCCUR. THE MODULE RECOVERY PROCEDURE IS NO LONGER AVAILABLE AND IT IS CRITICAL THAT MODULE SWAPPING IS NOT PERFORMED FROM VEHICLE TO VEHICLE. TO REGAIN COMMUNICATION WITH A MODULE THAT HAS BEEN ERASED DURING REPROGRAMMING, RESUME THE ORIGINAL SESSION ONCE THE IDS IS RE-BOOTED.

Calibration Update Includes:

1. Diesel Particulate Filter (DPF) regeneration will no longer initiate in Park or Neutral and in power-take-off (PTO) mode. When Drive to Clean Exhaust Filter is displayed on the instrument cluster PTO and/or stationary elevated idle control (SEIC) must be disengaged / inactive in order to properly clean the DPF. The vehicle must be driven until the Cleaning Exhaust Filter message is extinguished.
2. Diagnostic and malfunction indicator lamp (MIL) operation improvements for DTCs P0128, P0196, P2002, P006B, P2563, P0108, P0234, P1260, U0073, P042E, P042F, P0404, P1335, P041C, P2457 and P2263 set during key on engine running (KOER) self test.
3. Reduced vehicle surge and improved resume function during cruise control operation.
4. Improved cold start drivability for vehicles operated in temperatures below 32 °F (0 °C).
5. PTO Content:
   a. Vehicle speed output signal used by vehicle upfitters will now read zero when vehicle is stopped.
   b. PTO idle engagement RPM ramp rate revised.
6. Improvements to reduce P0544, P2031 P242A, P242B, P2080, P2084 and P117B set on long decelerations after cold start.
7. Exhaust gas recirculation (EGR) disable function at idle is now determined by exhaust temperature and not idle time.
8. Revised pressure control valve (PCV) / volume control valve (VCV) learning tables for vehicles that exhibit DTCs P0087 and/or P2291 following replacement of the high pressure pump or major fuel system repairs. Reset the PCV / VCV learning tables and fuel injector parameters with IDS using the clear fuel injector parameters.
9. Enhancements for vehicles that exhibit white smoke during DPF regeneration at ambient temperatures below 55 °F (13 °C).
10. Resolution for vehicles that exhibit a No Crank condition, failure mode effects management (FMEM) continuous timer count down due to Exhaust Gas Temperature Sensor disconnect while performing system diagnostics or vehicle battery disconnect.
11. IDS tool updates for DPF manual regeneration diagnostic testing referenced in Powertrain Controls/Emissions Diagnosis (PC/ED) Pinpoint Test RB

This calibration also includes the following instrument cluster (IC) message center display updates: Drive To Clean Exhaust Filter, Cleaning Exhaust Filter and Exhaust Filter Drive Complete. Please see the Customer Information Sheet for additional information. (Figure 1)

WARRANTY STATUS: Eligible Under Provisions Of New Vehicle Limited Warranty Coverage
IMPORTANT: Warranty coverage limits/policies are not altered by a TSB. Warranty coverage limits are determined by the identified causal part.

OPERATION	DESCRIPTION	TIME	DEALER CODING	
091609A	2008 F-Super Duty Automatic Transmission: Reprogram The PCM/TCM/IC (Do Not Use With Any Other Labor Operations)	0.5 Hr.	BASIC PART NO. RECAL	CONDITION CODE 04
091609B	2008 F-Super Duty Manual Transmission: Reprogram The PCM/IC (Do Not Use With Any Other Labor Operations)	0.4 Hr.		

Customer Information Sheet
Vehicles built between June 13, 2006 – August 2, 2007
6.4L Diesel Engine

Your vehicle received revised / updated Instrument Cluster Message Center Information.

ENGINE WARMING PLEASE WAIT XX
Displayed in extremely cold weather, typically below –15°F (–26°C), if the engine block heater is not utilized. The engine will not respond to accelerator pedal movement for 30 seconds; this is done so the engine oil can be properly circulated to avoid engine damage from lack of lubrication. A timer will begin a countdown from 30 seconds. Once the counter has reached 0 (Zero) seconds, OK TO DRIVE will be displayed and the engine will respond to accelerator pedal movement.

DRIVE TO CLEAN EXHAUST FILTER
Displayed when the Diesel Particulate Filter (DPF) is full of particles (exhaust soot) and the vehicle is not being operated in a manner to allow normal cleaning. This message will stay on until the exhaust filter cleaning has begun, at which time the "CLEANING EXHAUST FILTER" message will be displayed. It is recommended the vehicle operator drive the vehicle above 30 mph (48 km/h) until the "CLEANING EXHAUST FILTER" message is extinguished. This message is NORMAL.

NOTE: If this message is ignored, your vehicle will continue to fill the Diesel Particulate Filter (DPF) with particles (exhaust soot). If cleaning is not permitted, the wrench light will illuminate and engine power may be limited. If the vehicle is still not operated in a manner to allow cleaning, the engine light will illuminate and engine power will be further limited. Dealer service will then be required to restore your vehicle to full power operation.

NOTE: Diesel Particulate Filter (DPF) regeneration will not INITIATE at Idle or in Power-Take-Off (PTO) mode. When DRIVE TO CLEAN EXHAUST FILTER is displayed in the message center, PTO and / or Stationary Elevated Idle Control (SEIC) must be disengaged / inactive in order to properly clean the DPF. The vehicle must be driven until the "CLEANING EXHAUST FILTER" message is extinguished.

CLEANING EXHAUST FILTER
Displayed when the vehicle has entered the cleaning mode. Various engine actions will raise the exhaust temperature in the Diesel Particulate Filter (DPF) system to burn off the particles (exhaust soot). After the particles are burned off, the exhaust temperature will fall back to normal levels. This message is NORMAL.

WARNING: When the CLEANING EXHAUST FILTER message appears in the message center, do not park near flammable materials, vapors or structures until filter cleaning is complete.

EXHAUST FILTER DRIVE COMPLETE
Displayed when the Diesel Particulate Filter (DPF) has been adequately cleaned after the “DRIVE TO CLEAN EXHAUST FILTER” followed by "CLEANING EXHAUST FILTER" messages have been displayed.

STOP SAFELY NOW
Displayed and a chime sounds when the vehicle exhaust system temperature exceeds intended operating range. If this warning occurs, engine power is reduced and the engine will shut down when the vehicle speed is below 3 mph (5 km/h). **Stop the vehicle as soon as safely possible** and contact your authorized dealer. Depending on the severity of the over-temperature condition, the vehicle may not restart after cycling the ignition off. If the vehicle restarts, there may be limited power. If the exhaust over-temperature condition reoccurs, the message center will display STOP SAFELY NOW, the chime will sound, and engine power will be reduced again and shut down below 3 mph (5km/h).

Please keep this letter in your glove box for future reference.

TB-9432-B

Figure 1 - Article 09-16-9