



Service Information



2009 Chevrolet Kodiak C-Series (Conventional) C4/C5 | Kodiak, TopKick C-Series Service Manual | Preliminary Information |
Document ID: 2246754

#PIP4598: Diesel Particulate Filter Regeneration Information - keywords 6.6 6.6L button catalyst DOC DPF DPS DTC ECM engine exhaust indicator IPC manual operate operation oxidation pressure PTO regen sensor SES - (Mar 13, 2009)



Diesel Particulate Filter Regeneration Information

Subject:

Models: 2007-2009 Chevrolet Kodiak
2007-2009 GMC Topkick
Equipped with the 6.6 Diesel Engine RPO code LMM

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

Condition/Concern:

A dealer or customer may have questions about active or service DPF (Diesel Particulate Filter) regeneration (regen) intervals and manual button press operation. A customer may need clarification of when regen will occur, and which indicator will be displayed on the instrument panel when the regen is active.

DPF regenerations are based on ECM calculations of mileage, fuel used, soot mass, and engine run time. The criteria are 300 miles traveled, 170 liters (45 gallons) of fuel used, 44 grams of soot mass, or 14 hours of engine run time. If any one of the criteria listed is reached (since the last successful regen), the ECM will command an active regen. These criteria are approximate and may differ depending on vehicle location and altitude.

Recommendation/Instructions:

The Chevrolet Kodiak and GMC Topkick have two regen telltale indicators on the instrument panel, and a manual regen button located in the switchbank(see owner's manual for exact locations). The green telltale means the ECM is commanding a regeneration. The separate yellow or red telltale informs the customer to operate the vehicle in a manner to complete a regeneration. The manual regen button can be utilized when the vehicle cannot be driven immediately (please see the owner's manual description for Manual Regeneration Procedures).

This PI is to clarify regen indicators and the operation of the manual regen button.

When a green regeneration indicator is on:

1. The green regen indicator is illuminated when the ECM is commanding a regen. The regen is completed when the indicator goes off (approximately 20 minutes of continual driving). The regeneration may take longer in city type stop and go traffic. The green indicator will go off if the vehicle is stopped and/or the transmission is shifted into park or neutral. If the transmission is shifted into park/neutral or the engine is shut off during a green light regen, the process will not complete. The regeneration will restart the next time the vehicle reaches proper speed and engine operating temperature. The engine will idle at approximately 800 RPM during driving (green) regens.
2. A customer may try to do a manual regen (button press) after stopping the vehicle during a green indicator regen. If the vehicle is stopped and idled in park/neutral during a green indicator regen, applying the parking brake and pressing the manual regen button may not command the vehicle to complete the regen. One of the regeneration criteria must be above a specific threshold (miles, fuel used, soot mass, or run time commands). If the regeneration is not necessary, it will not be commanded.

When there are no indicators on:

If the yellow/red regeneration indicator is not illuminated, pushing the manual regen button will result in a regeneration only if one of the regeneration criteria is calculated to be above a specific threshold (miles, fuel used, soot mass, or run time commands). If none of the criteria are above the threshold, pushing the button will result in a dinging/chiming tone and nothing else. If one of the criteria has been met, the jewel lamp in the manual regen button will start flashing. If the jewel lamp does begin to flash, the manual button must be pressed a second time to start the regeneration. If the button is not pressed when the jewel lamp is flashing, no regeneration will begin.

When the yellow or red indicator is on:

If a yellow or red regeneration indicator is illuminated, the DPF system has calculated that one of the regeneration criteria for mileage, fuel used, soot mass, or engine run time is above a specific threshold. At this point, a regen needs to be completed as soon as possible. The vehicle can be driven until the indicators turn off and regen is completed, or if the vehicle cannot be driven immediately, a stationary regeneration can be initiated with the use of the manual regeneration button. The manual regen button will only need to be pressed once on a yellow or red indicator telltale. The engine will run at approximately 950 RPM during a manual button initiated idle regen. Both the green and yellow (or red) indicator telltale will be illuminated during the regeneration if the regeneration was begun after the yellow or red indicator illuminated.

Manual regen button operation:

1. The vehicle must be in park with the parking brake applied.
2. The manual regeneration button must be pressed, held for three seconds, and then released.
3. If a PTO system is in use, the manual regeneration button will not initiate a regeneration.

The manual regeneration button allows a customer to initiate a regeneration at an engine idle condition. A service regeneration is initiated by a Tech II and is used with certain SI procedures. Always review the owner's manual description for Manual Regeneration Procedures before completing a regen.

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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