

## WHAT DO I DO WHEN I GET AN ENGINE WARNING LAMP ON IN THE DISPLAY?

With the release of the new 2007 emission engines there have been several warning lamps added beyond the standard "CHECK ENGINE" and "STOP ENGINE" lamps. Here is a short description of what they mean, and what to do when the driver sees them. The 2007 engines have a diesel particulate filter, or "DPF", which traps the soot from the engines exhaust and results in a great reduction of exhaust emissions. The DPF is constantly collecting soot, and has to be cleaned regularly. This is referred to as the regeneration process. There are 3 types of regeneration processes, they are "PASSIVE", "ACTIVE", and "PARKED". Here is a brief description of how they work so that when a warning lamp comes on the driver will be better prepared on how to handle it. The driver can refer to the sun visor instruction card for detailed lamp descriptions.

==PASSIVE is simply the passing of hot exhaust through the DPF, heating up and breaking down the soot. The more load the engine is under the more effective this will be in removing the soot.

==ACTIVE is occurring without the drivers knowledge. It takes place when the soot level rises, and the filter requires a more aggressive regeneration. It will occur fully automatically while the vehicle is in motion. Diesel fuel is introduced to the exhaust system prior to the DPF, which creates a chemical reaction producing very high heat in the DPF reducing the soot level. The only thing the driver may see during this process is the HEST lamp "high exhaust system temp" if the vehicle slows down below 5KPH, which is normal and makes the driver aware that the exhaust is extremely hot due to the active regeneration process.

==PARKED this is the process followed when the filter is reaching the maximum capacity for soot load. This is indicated to the driver via the DPF lamp. When the DPF lamp illuminates solid yellow, this indicates the driver should be performing a parked regeneration, however if the situation permits, the driver can submit the engine to load and higher RPM which may initiate an active regeneration, and the lamp may go out. If it is not possible to raise the vehicles speed, or after doing so the lamp is still on, the vehicle needs to be parked and a parked regeneration performed. If the solid yellow lamp for the DPF is ignored the lamp will begin to flash and the engine will enter a de-rated mode, and eventually will shut down. If this occurs the unit will not restart and run for more than 30 seconds in an effort to protect the engine. If the yellow DPF lamp begins to flash pull over and perform the parked regeneration as soon as possible.

The other lamp added to the 2007 emission engines is the MIL lamp "malfunction indicator lamp". This is to make the driver aware of an existing problem with the emission controls, and depending on the failure may prohibit a successful parked regeneration. The vehicle can be driven until a service dealer can address the problem, however should be repaired before starting the next shift.

The CHECK ENGINE "YELLOW", AND THE STOP ENGINE "RED" lamps have not changed with the 2007 emissions.

CHECK ENGINE== indicates a problem with the engine control system and the vehicle can be driven until a service dealer can repair the fault. Depending on the fault the engine may experience a de-rate in power.

STOP ENGINE== indicates a problem that may cause serious engine damage and the vehicle should not be driven. The computer may de-rate or completely shut down to protect itself in this situation.