PACCAR ENGINES
SUPPORT CENTER

Air Management System Checks

For the air management faults, it is recommended to perform the following checks:

1) Check the intake and exhaust system for signs of leaks, and check the air filter for excessive restriction.

2) Inspect the CAC for any damage or leaks. Inspect the EGR cooler outlet for the presence of Vitreous Carbon deposits. (Hard shiny deposits). If the deposits are present, EGR cooler replacement may be required. If the cooler is filled with soot only (soft powdery carbon deposits,) flush the EGR cooler per the E051 bulletin. Look for signs of coolant loss. Make sure to check the venturi for any corrosion or scaling. It is important that the venturi is cleaned as well.

3) Check the reading in DAVIE as well as remove and inspect all 9 air management sensors for any damage or soot at the sensor tips or in their ports/pressure tubes. The pressure readings in DAVIE with the key on, engine off should be between 0-1 psi with the exception of the EGR Delta Pressure Sensor (F751) which will read 0.0-0.1 psi. The temperature readings should be within 15 degrees of each other after cold soak. Clean/replace as necessary.

    a) Boost Pressure (F802)
    b) Before Turbine Pressure (F826) -(Has pressure tube)
    c) After BPV Pressure (F823) -(Has pressure tube)
    d) After BPV temperature (853)
    e) Humidity sensor (852) - (Measures pressure, temperature, and humidity. Humidity reading should be plausible for your location while sensor is removed)

f) EGR Differential Pressure (F751) -(Pressure tubes EPA10 only)
g) EGR temperature (F749)
h) Boost temperature (F804)
i) After intercooler temperature (F750)
j) Check the EGR valve, physically check the EGR valve to ensure the pin is securing the flap to the shaft and that the valve is not sticking and can move freely.

i) Where are the EGR system sensors located on a MX13-10 engine?
ii) Where are the EGR system sensors located on a MX13-13 engine?

4) Verify that the ambient temperature and pressure readings in DAVIE are plausible for your location.

5) Record your findings for each step and document your results in the case (exact values for all DAVIE readings and/or a short custom monitor recording are recommended).

If no issues were found, or if the codes re-occur then it will be necessary to perform further testing as follows. Perform the intake and exhaust pressure test according to the procedure in Rapido titled "pressure testing (Inlet/exhaust elem.)" Minor leaks at the exhaust manifold slip joints and BPV shaft are normal, if you are unsure whether or not you are observing excessive leakage in those locations, take short videos of the soap bubbles so we can determine the severity.