

## DME FAULT P1688



SI M12 04 05  
Engine Electrical Systems

July 2005  
Technical Service

### DME Fault P1688

#### MODEL

R52 (Cooper S Convertible) Equipped with W11 Engine

R53 (Copper S) Equipped with W11 Engine

#### SITUATION

Customer complains of lack of power and engine is in failsafe mode. The Service Engine Soon light is illuminated and fault code P1688 ("Electronic throttle control monitor level 2/3; Mass air flow calculation") is stored in the DME (EMSK2000 or MS5150).

#### CAUSE

This fault can be caused by one of the following:

- Possible air leak in the induction system.
- MAP Sensors are indicating implausible values.
- Failure of the Supercharger By-Pass Valve (sticking operation).

#### PROCEDURE

1. Check the complete air intake system including throttle body, supercharger, intercooler and inlet manifold for air leaks.
2. If no problem is found, verify both of the manifold pressure sensors show plausible values. If values are not plausible, refer to MAP Sensor test module.
3. If values are plausible, replace the Supercharger By-Pass Valve (PN 11 61 1 501 937) and reprogram the DME.

#### **The success of the repair can be checked after each step by completing a special test drive:**

Drive the vehicle in first gear increasing the engine speed to 5500 RPM. Shift into second gear, again increasing the engine speed to 5500 RPM. Once 5500 RPM has been achieved, slowly release the throttle until the RPM decreases to 3500RPM. Accelerate the vehicle again, increasing the engine speed to 5500 RPM and release slowly once again to 3500 RPM. Repeat the RPM swing between 3500 RPM and 5500 RPM four consecutive times and drive the vehicle normally back to your facility. If the fault has not returned, the vehicle is repaired.

#### **Please adhere to all traffic regulations while performing the special test drive.**

#### WARRANTY INFORMATION

Information Only

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