

# Injectronics

## TECHNICAL BULLETIN

### BMW 1 SERIES ECM FAULT – ENGINE MISFIRE

#T0138

#### Customer Complaint:

Owners of the BMW 116 & 118 models built between 2011 and 2015 have reported that they are having issues with the vehicle lacking power, having a rough idle and that the engine light is illuminated on the instrument cluster. The Engine Control Module (ECM) in these models commonly fails. When the ECM fails it will cause the engine to lose power and misfire on one or more cylinders

#### Vehicles:

- BMW 116i 2011 – 2015
- BMW 118i 2011 – 2015

#### Common Faults:

- Engine constantly misfiring
- Loss of power

#### Fault Codes:

- P0300/140001 - Combustion misfires, multiple cylinders: Fuel injection is cut
- 140010 – Combustion misfire multiple cylinders: Detected
- P0301/140101 - Combustion Misfire cylinder 1: Fuel injection is cut
- 140110 – Combustion misfire, cylinder 1: Detected
- P0302/140201 - Combustion Misfire cylinder 2: Fuel injection is cut
- 140210 – Combustion misfire, cylinder 2: Detected
- P1301/150102 - Ignition, cylinder 1: Combustion period too short
- P1303/150202 – Ignition, cylinder 2: Combustion period too short

#### Diagnosis:

The cause of the failure is commonly due to the ignition coil/s failing. When a coil/s fails it overloads the ignition coil driver and circuits within the ECM. A common mistake made by technicians is to replace the ignition coil without checking ECM for damage. The technician can confirm a damaged ECM by testing with an oscilloscope. If there is no primary output signal from the ECM to terminal pin 1 on the ignition coil it can be confirmed that the ECM is damaged. The faulty ECM should be repaired or replaced before fitting new coils to the vehicle

#### Solution:

Injectronics can test and repair these ECM's avoiding the need to reprogram a brand-new replacement unit offering substantial time and money savings. When refitting the rebuilt ECM Injectronics recommends replacing the coils to prevent re-damaging the ECM.

Injectronics can offer the following solutions:

- A repair of the customer's own unit
- Supply new Ignition coils with the rebuilt unit
- Supply a fully programmed exchange unit (customer must provide the original unit)

Injectronics requires the Front Electronic Module (FEM), ECM, Key reader, Key and Start/Stop button for testing & repair of the above listed faults. (Injectronics require only the ECM if we are testing / repairing an ignition fault on one of the cylinders and the customer has diagnosed the fault to be with the ECM).

[injectronics.com.au](http://injectronics.com.au)

This information has been offered with the intent to provide a resource of reliable information; however no warranty (express or implied) is made as to the accuracy or completeness. No liability is assumed by Injectronics for damage or loss resulting from reliance on this information or process.