

## ENGINE MANAGEMENT SYSTEM - V8

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In the event of fuel injector signal failure any of the following symptoms may be observed:

- Rough running.
- Difficult starting.
- Engine misfire.
- Possible catalyst damage.
- High emissions.
- Adaptive fuelling disabled.
- Adaptive idle speed control disabled.

The ECM performs three types of fuel injector diagnostic check:

- Output short circuit to earth
- Output short circuit to battery voltage
- Output open circuit

Should a malfunction of the component occur the following fault codes may be evident and can be retrieved by TestBook:

<b>P Code</b>	<b>J2012 Description</b>	<b>Land Rover Description</b>
P0201	Injection circuit malfunction - cylinder 1	Injector 1 open circuit
P0261	Cylinder 1 injector circuit low	Injector 1 short circuit to earth
P0262	Cylinder 1 injector circuit high	Injector 1 short circuit to battery supply
P0301	Cylinder 1 misfire detected	Injector 1 excess emissions/catalyst damaging level of misfire
P0202	Injection circuit malfunction - cylinder 2	Injector 2 open circuit
P0264	Cylinder 2 injector circuit low	Injector 2 short circuit to earth
P0265	Cylinder 2 injector circuit high	Injector 2 short circuit to battery supply
P0302	Cylinder 2 misfire detected	Injector 2 excess emissions/catalyst damaging level of misfire
P0203	Injection circuit malfunction - cylinder 3	Injector 3 open circuit
P0267	Cylinder 3 injector circuit low	Injector 3 short circuit to earth
P0268	Cylinder 3 injector circuit high	Injector 3 short circuit to battery supply
P0303	Cylinder 3 misfire detected	Injector 3 excess emissions/catalyst damaging level of misfire
P0204	Injection circuit malfunction - cylinder 4	Injector 4 open circuit
P0270	Cylinder 4 injector circuit low	Injector 4 short circuit to earth
P0271	Cylinder 4 injector circuit high	Injector 4 short circuit to battery supply
P0304	Cylinder 4 misfire detected	Injector 4 excess emissions/catalyst damaging level of misfire
P0205	Injection circuit malfunction - cylinder 5	Injector 5 open circuit
P0273	Cylinder 5 injector circuit low	Injector 5 short circuit to earth
P0274	Cylinder 5 injector circuit high	Injector 5 short circuit to battery supply
P0305	Cylinder 5 misfire detected	Injector 5 excess emissions/catalyst damaging level of misfire
P0206	Injection circuit malfunction - cylinder 6	Injector 6 open circuit
P0276	Cylinder 6 injector circuit low	Injector 6 short circuit to earth
P0277	Cylinder 6 injector circuit high	Injector 6 short circuit to battery supply
P0306	Cylinder 6 misfire detected	Injector 6 excess emissions/catalyst damaging level of misfire
P0207	Injection circuit malfunction - cylinder 7	Injector 7 open circuit
P0279	Cylinder 7 injector circuit low	Injector 7 short circuit to earth
P0280	Cylinder 7 injector circuit high	Injector 7 short circuit to battery supply
P0307	Cylinder 7 misfire detected	Injector 7 excess emissions/catalyst damaging level of misfire
P0208	Injection circuit malfunction - cylinder 8	Injector 8 open circuit
P0282	Cylinder 8 injector circuit low	Injector 8 short circuit to earth
P0283	Cylinder 8 injector circuit high	Injector 8 short circuit to battery supply