



### Misfire Monitoring Operation - Discovery

Component/ System	Fault Codes	Monitoring Strategy Description	Malfunction Criteria	Threshold value	Secondary Parameter	Enable Conditions	Time Required	MIL Illumination
<b>Misfire</b>	P0301 to P0308 P0300 P1300	crankshaft speed fluctuation multiple misfire	Federal Test Procedure (FTP) emissions Threshold	> 1.875 %/ 1000 revolutions	engine speed load change (after start) speed change (after start)	520 < rpm < 5400 < 1.20 ms/rev (< 130.8 ms/rev) < 4000 rpm/sec (< 20 000 rpm/sec)	1000 revolutions up to twice in one drive cycle/ continuous	two driving cycles
			catalyst damage	8.6 to 16.8 % at 600 rpm 7.4 to 14.6 % at 1000 rpm 2.0 to 10.7 % at 2000 rpm 1.9 to 9.9 % at 3000 rpm 1.8 to 8.3 % at 4000 rpm 1.8 to 5.0 % at 5000 rpm	engine load rough road (ABS) gear change traction control transfer gears re-enablement delay (not active after engine start)	Positive not set not active not active high range 20 revolutions	200 revolutions/ continuous	immediately

If the above table does not include details of the following enabling conditions: - IAT, ECT, vehicle speed range, and time after engine start-up then the state of these parameters has no influence upon the execution of the monitor.

### Misfire Monitoring Operation – Range Rover

Component/ System	Fault Codes	Monitoring Strategy Description	Malfunction Criteria	Threshold value	Secondary Parameter	Enable Conditions	Time Required	MIL Illumination
<b>Misfire</b>	P0301 to P0308 P0300 P1300	crankshaft speed fluctuation multiple misfire	FTP emissions threshold	> 2.0 %/ 4000 ignitions	engine speed load change speed change engine load rough road (ABS) traction control transfer gears time after start	520 < rpm < 5400 < 0.10 ms/ignition < 720 rpm/sec positive not set not active high range > 5.0 sec	1000 revolutions/ continuous 200 revolutions/ continuous	two driving cycles immediately
			catalyst damage 4.0 litre 4.6 litre	4.0 % to 15.9 % 3.8 % to 19.3 % for the speeds and loads encountered during the FTP				