



## 4.19 Rough Road signal

### 4.19.1 Description

The SLABS/ABS control module transmits a PWM signal indicating rough road for misfire detection disablement. The ECM has input diagnostics for this signal.

There are three plausibility checks of the PWM signal during which a fault is detected if: -

1. The PWM signal is greater than a threshold indicating an electrical short to battery positive.
2. The PWM signal is less than a threshold indicating an electrical short to ground.
3. The PWM signal is greater than 44.92% but less than 55.08% indicating an error with the SLABS/ABS control module.

Rough Road Signal								
Component/ System	Fault Codes	Monitoring Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameter	Enable Conditions	Time Required	MIL Illumination
<b>Rough Road Signal</b>	P1590	plausibility checking of the PWM signal from the anti- lock brake ECM	PWM signal	44.92 % < signal < 55.08 %	ignition engine state	on not starting	2.0 sec/ continuous	no MIL illumination (misfire defaults to enabled)
	P1591		PWM signal	signal < 10.16 %				
	P1592		PWM signal	signal > 89.84%				

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.