

## 4.18 Power Supplies

### 4.18.1 Description

The ECM requires a permanent battery level voltage supply and a switched battery level voltage supply. The switched voltage supply is controlled by the ECM via a relay based on the condition of the ignition switch input (key position 2). At “key off” the ECM will maintain the switched supply active until various internal self-checks have been completed.

There are three battery voltage plausibility checks during which a fault is detected if: -

1. The battery voltage supply is less than a minimum voltage threshold.
2. The battery voltage supply is greater than a maximum voltage threshold and a jump-start condition has not been detected.
3. The battery voltage supply is less than a voltage threshold 60 seconds after the engine has been started.

Battery Voltage								
Component/ System	Fault Codes	Monitoring Strategy Description	Malfunction Criteria	Threshold value	Secondary Parameter	Enable Conditions	Time Required	MIL Illumination
<b>Battery Voltage</b>	P0560	battery voltage plausibility checks	battery voltage	< 2.55V			immediately/ continuous	no MIL illumination
	P0562		battery voltage	< 9.05V	time since engine start	> 60.0 sec		
	P0563		battery voltage	> 16.03V	jump start (vehicle speed = 0 and voltage > 15.0V)	not detected		

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.