

**042**

**Make: BMW**

**Model: E30, E32, E34, E36**

**Subject: No start situation**

From approx 1991 BMW vehicles used a 88 pin Bosch Motronic system which was used as 4, 6, 8 and 12 cyl vehicles. The location for these ECM's are as follows:

- On the late E30 3 series – below steering column
- E36 3 series – left hand fire wall / plenum
- E34 5 series – right hand rear corner engine bay
- E32 7 series – right hand rear corner engine bay

Fault codes and serial data can be accessed with the appropriate hand held testers.

If you have a no start situation, check for ignition, injection and fuel pump operation. If none of the above operate then the supplies and earth's as well as the crankshaft trigger inputs need to be tested. Because the E36 3 series has the ECM mounted inside the plenum chamber behind the firewall it is common for it to become water damaged when the plenum chamber drain pipes get blocked and water enters the ECM. Injectronics suggests checking these drain pipes when replacing an ECM. The ECM can be accessed in the E36 by removing the plate on the firewall behind the left hand shocker tower.

Power feed circuit

Pin 26 – Constant 12v feed from battery

Pin 54 – Power in from DME main relay

Pin 56 – Ignition key power, only has power when key on

When the ignition key is turned on, power is supplied to pin 56. The ECM will then provide an earth at pin 27 for the DME main relay to pull in. When this relay pulls in, power is then supplied to pin 54 via the contacts of the relay.

When the engine is running and the key is turned off, injection and fuel pump stop immediately. After the engine has finally stopped rotating the ECM will then stop supplying an earth for the main relay on pin 27, therefore the relay will open and stop supplying power to pin 54.