

Injectronics

TECHNICAL BULLETIN

VARIOUS

#T0068

Make: Various

Model: Various

Subject: Tachometric relay

As a result of continual enquires regarding the operation of tachometric relays, the Injectronics technical department have provided the following breakdown of its operation and terminals. This relay was used on Bosch LE Systems on vehicles such as GMH JD Camira, VK Commodore, Ford XE Falcon, BMW, Citroen, Volvo, Peugeot and many other European makes.

In brief the tachometric relay is used to supply battery voltage to the entire EFI system and it does this via two different methods. Initially when the engine is cranking, supply voltage from the starter circuit is used to energise the relay. When the engine is running the relay contacts are held closed by sufficient primary ignition signal pulses delivered directly from the ignition coil negative terminal. Having the relay energised in this way also acts as a safety precaution because if the engine stops, the fuel pump and EFI system power supply would then be turned off.

The tachometric relay consists of seven terminals, which are connected and marked as follows:

Relay Pin 30 – Battery supply: Connect to battery positive usually via a fusible link. This circuit should have battery voltage at all times.

Relay Pin 15 – Ignition supply: Connected to ignition key on circuit. This circuit should have 10-12 volts whenever the ignition is on.

Relay Pin 1 – Ignition coil signal: Connected to the ignition coil negative terminal & is used to hold the relay contacts closed when engine running.

Relay Pin 50 – Starter signal: Connected to the starter circuit and is used to energise the relay when cranking. Should have 10-12 volts when starter is engaged.

Relay Pin 31 – Relay earth: Connected to ground and voltage should be less than 0.3 volts at all times; with a resistance to ground of less than 5 ohms.

Relay Pin 87 – Power supply to EFI system: Connected to all EFI related components, which require a 12 volt, supply. Whilst cranking or running, battery voltage should be present.

Relay Pin 87b – Power supply to fuel pump: Connected to the positive terminal of the fuel pump. With the engine cranking and running, battery voltage should be present.

