



Paisley News



Issue 7 21/07/09 **J . E . PAISLEY & C O L T D**

**For all your Diesel Fuel Injection,
Turbocharger & Auto Electrical
Requirements**

4 Nen Street
Oamaru
www.jep.co.nz

**Phone 03 434 8967
Fax 03 434 8389
E Mail john@jep.co.nz**

Once again we are able to supply timing gauges for timing VE fuel pumps to the engine. Priced at \$150.00+ gst for the gauge and 8mm adaptor. Optional 10mm adaptors available for \$50.00 +gst

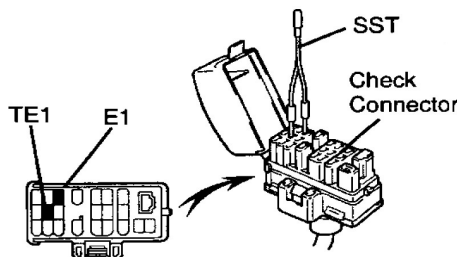
Loan Gauges are still available free of charge to Capricorn members.



As promised in the last news letter, here is the procedure for retrieving the trouble codes from 2L-TE and 1KZ-TE engines.

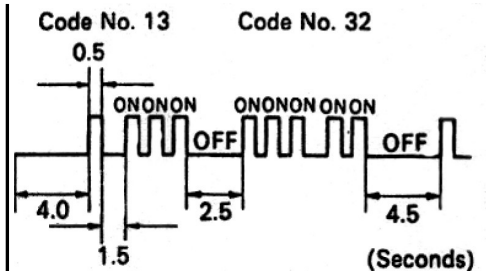
Diagnosis Inspection

Locate the diagnosis plug under the bonnet . To Access normal mode (retrieve codes) turn the **ignition switch on** and connect terminals TE1 and E1 using a bridge.

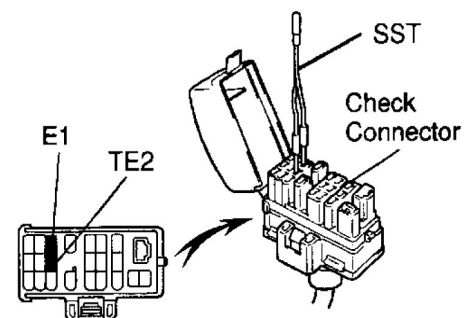


The check light will flash continuously every 0.25 seconds if there are no codes present.

If there are codes present, the 1st number of blinks will equal the 1st digit and the 2nd number of blinks the 2nd digit.



Test mode: 1KZ-TE Compared to normal mode, **test mode** has an increased sensing ability to detect malfunctions including the starter circuit and air conditioning signal. To access test mode switch the **ignition off**, bridge TE2 and E1 using a bridge. **Note** the test will not start if TE2 and E1 are bridged after the ignition is switched on.



FREE FREIGHT AND LOLLIES

Does not apply to parts only sales

Exchange pumps and injectors Available , ring us with the vehicle model and engine type

Authorised Service to the world's leading Diesel Fuel Injection systems



J E Paisley & Co Ltd



**Diesel & Electrical Systems
Oamaru**

4 Nen street

Oamaru

Phone 03 434 8967

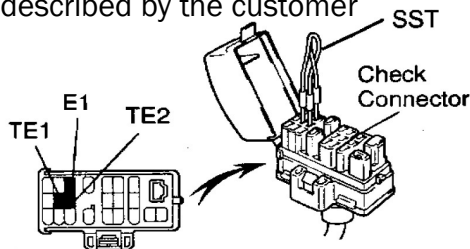
Fax 03 434 8389

Email john@jep.co.nz

dave@jep.co.nz

graeme@jep.co.nz

To confirm the **test mode** is operating check that the engine warning light flashes when the ignition switch is turned on. It should turn off when the engine is started. Start the engine and simulate the condition of the malfunction as described by the customer

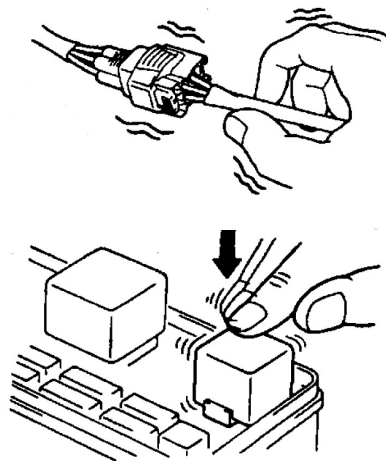


After the road test, connect TE1 and E1 using a 2nd bridge, **Do not disconnect the TE2 and E1 bridge.** Read the trouble codes indicated by the warning light flashes.

Note codes 42 vehicle speed sensor and 43 starter signal will be output if the vehicle was not driven above 5km/h while in test mode. Additionally if the air conditioning is on or the accelerator is depressed code 51 switch condition signal will also be output. This is not abnormal. If the ECU will not enter test mode check the TE2 terminal circuit as described in the last news letter. *Those that have foolishly discarded earlier news letters can access them at www.jep.co.nz and click on the jepco logo in the service page.*

Intermittent faults

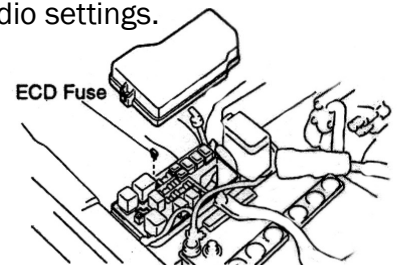
As mentioned earlier test mode has an increased detection ability so it can be used to locate intermittent problems for codes 12,13,22,24,32,35,39 and 41 these can be caused by loose or dirty connectors or wiring loom faults. **Note** it may work for other codes but these are known. If inspection of the appropriate circuit reveals no faults you can try to locate the problem while in test mode. Enter test mode by bridging TE2 and E1 with the engine **OFF**. Start the engine and check the engine light goes off. Lightly pull and wiggle the wiring harness-connectors and terminals in the circuits indicated by the malfunction codes previously retrieved.



If the check light comes on while doing this it indicates the place in the harness or connector where the fault is occurring. Check point for loose connections, dirty terminals, poor fit or other problems in the wiring harness. **Remember** this will log codes 42,43 and possibly 51 as the vehicle is not being driven in test mode.

Clearing the codes

Any codes logged in the ECU can be cleared by removing the ECD fuse (15A) for 60 seconds or more. (the lower the ambient temperature the longer the fuse needs to be removed) removing the (-) terminal from the battery will also clear the codes along with the clock and radio settings.



Finally the ECU will enter fail safe mode if any of the following codes are recorded 12,13, 22, 24, 32, 39, 41, 42 and 43

Authorised Service to the world's leading Diesel Fuel Injection systems

BOSCH

ZEXEL

DELPHI

STANADYNE

DENSO