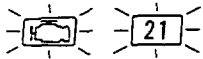


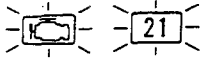
# Variable Valve Timing and Valve Lift Electronic Control (VTEC): D16Y2, D15Z3 Engines

## Troubleshooting Flowchart — VTEC Solenoid Valve

Refer to page 11-10 thru 11-19 before troubleshooting.



The Malfunction Indicator Lamp (MIL) indicates Diagnostic Trouble Code (DTC) 21: A problem in the VTEC Solenoid Valve circuit.



- MIL has been reported on.
- With the SCS short connector connected, code 21 is indicated.

Do the engine control module (ECM) Reset Procedure (see page 11-15).

Start the engine.

Warm up engine to normal operating temperature (the cooling fan comes on).

Do the Road Test.\*

**\* Road Test:**

Accelerate in 1st gear to an engine speed over 6,000 rpm (min<sup>-1</sup>).

Hold that engine speed for at least two seconds.

If the MIL does not come on during the first road test, repeat this test two more times.

Is MIL on and does it indicate code 21?

NO

Intermittent failure, system is OK at this time.  
Check for poor connections or loose wires at VTEC solenoid valve and ECM.

YES

Turn the ignition switch OFF.

Disconnect the 1P connector from the VTEC solenoid valve.

Check for continuity between VTEC solenoid valve connector terminal and body ground.

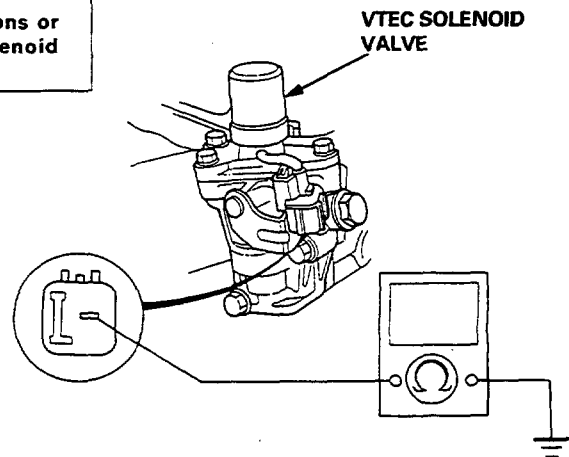
Is there 14 – 30 Ω?

NO

Replace the VTEC solenoid valve.

YES

(To page 6-5)

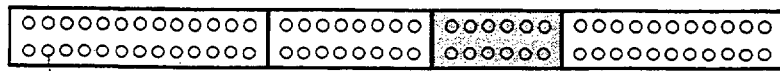




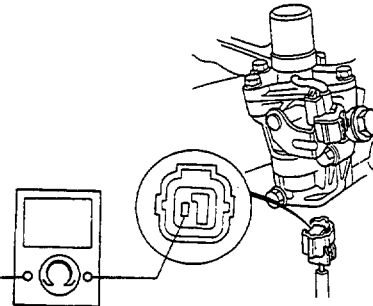
(From page 6-4)

Connect the test harness.

Check for continuity between VTEC solenoid valve connector terminal and A4 terminal.



A 4



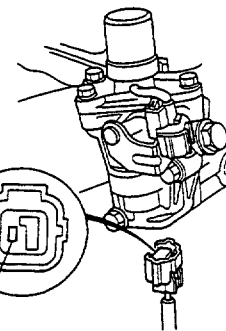
Is there continuity?

NO

**Repair open in the GRN/YEL wire between ECM (A4) and VTEC solenoid valve connector.**

YES

Check for continuity between VTEC solenoid valve connector terminal (harness side) and body ground.



Is there continuity?

YES

**Repair short in the GRN/YEL wire between ECM (A4) and VTEC solenoid valve connector.**

NO

Connect the 1P connector from the VTEC solenoid valve.

(To page 6-6)

(cont'd)

# VTEC

## Troubleshooting Flowchart — VTEC Solenoid Valve (cont'd)

(From page 6-5)

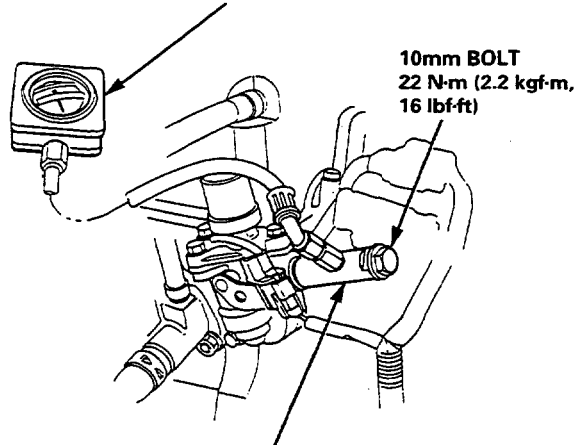
Remove the 10 mm bolt, install the special tools, then reinstall the 10 mm bolt.

Connect a tachometer (see section 11).

Start the engine and warm it up to normal operating temperature (the cooling fan comes on).

Check oil pressure at engine speeds of D16Y2 engine: 1,000, 3,000 and 5,000 rpm ( $\text{min}^{-1}$ ), D15Z3 engine: 1,000 and 3,000 rpm ( $\text{min}^{-1}$ ).

LOW PRESSURE GAUGE  
07406 - 0070001



OIL PRESSURE GAUGE  
ATTACHMENT  
07NAJ - P070100

NOTE:  
Keep measuring time as short as possible  
because engine is running with no load (less  
than one minute).

Is pressure below 49 kPa  
(0.5 kgf/cm<sup>2</sup>, 7psi)?

NO

Inspect the VTEC solenoid valve

YES

Disconnect the 1P connector  
from the VTEC solenoid valve.

(To page 6-7)



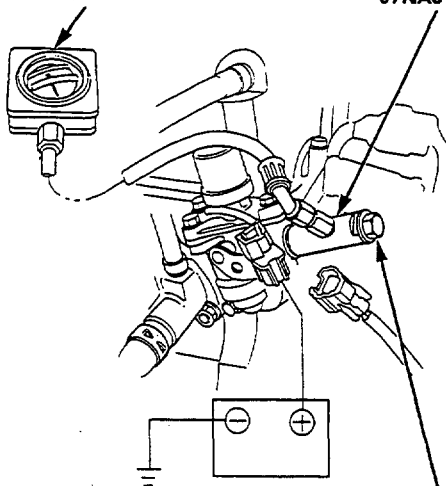
(From page 6-6)

Attach the battery positive terminal to the GRN/WHT terminal.

Start the engine and check oil pressure at an engine speed of  
D16Y2 engine: 5,000 rpm ( $\text{min}^{-1}$ ),  
D15Z3 engine: 3,000 rpm ( $\text{min}^{-1}$ )

LOW PRESSURE GAUGE  
07406 - 0070001

OIL PRESSURE GAUGE  
ATTACHMENT  
07NAJ - P070100



10 mm BOLT  
22 N·m (2.2 kgf·m, 16 lbf·ft)

NOTE:  
Keep measuring time as short as possible  
because engine is running with no load (less  
than one minute).

Is pressure above D16Y2  
engine: 390 kPa (4.0 kgf/cm<sup>2</sup>,  
57 psi), D15Z3 engine: 250 kPa  
(2.5 kgf/cm<sup>2</sup>, 36 psi)?

NO

Inspect the VTEC solenoid valve.

YES

Substitute a known-good ECM  
and recheck. If symptom/indica-  
tion goes away, replace the origi-  
nal ECM.