

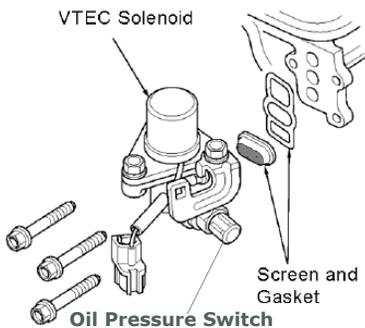


# Did You Know?

## Variable Valve Timing Oil Pressure Switches

### Acura/Honda 1991-2007 VTEC and VTEC-E Engines

VTEC stands for Variable Valve Timing with Electronic Control. Honda uses two VTEC systems; VTEC and VTEC-E. VTEC was the first, introduced in 1991 to increase performance of the 4 cylinder engine. VTEC-E was introduced later to improve emissions and fuel economy. The two systems, VTEC and VTEC-E are controlling valve actuation and valve lift utilizing solenoids which engage to apply oil pressure to the valve timing system. The variable valve timing system is designed to use re-routed oil pressure to the rocker arm pistons above 2500 RPM to change the engine's volumetric efficiency, resulting in increased power.



The variable valve timing oil pressure switch is a normally open switch located at the VVT solenoid. When the switch closes, the voltage should drop to zero. This is how the PCM knows if oil pressure was applied to the VTEC system. When this system fails to operate properly the ECM may set a code. The codes associated with this are P1253 (21) for the solenoid and P1259 (22) for the pressure switch. Each code requires further diagnosis prior to condemning the solenoid or the oil pressure switch.

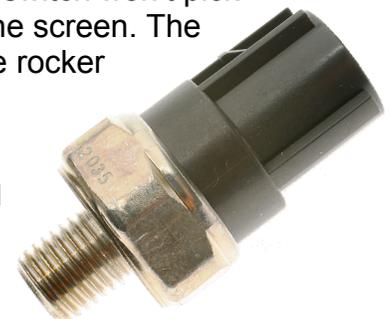
### POWER TIP

If a customer does not maintain their car, the screen in the VTEC solenoid can become plugged. The pressure switch won't pick the problem up because it is located before the screen. The VTEC kicks in, but oil pressure never gets to the rocker shaft. If you unplug the solenoid and there is no difference in engine power, check the filter first.

OP6190



**NOTE:** Acura and Honda VTEC owners need to change their oil regularly using the correct viscosity. Dirty oil can plug the screens through which oil is supplied to the solenoid. Also, using oil with the incorrect viscosity can cause the variable valve timing system to operate poorly or not at all.



OP6191

**General Coverage**  
Acura 1991-2007; Honda 1992-2007

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