

# PGM-FI Control System

## Troubleshooting Flow Chart — Oxygen Sensors (KG, KX, KQ)



Self-diagnosis Red LED blinks once: A problem in the Front Oxygen (O<sub>2</sub>) Sensor circuit.



Self-diagnosis Red LED blinks twice: A problem in the Rear Oxygen (O<sub>2</sub>) Sensor circuit.

—Check engine warning light has been reported on.

—Red LED indicates CODE 1 (Front O<sub>2</sub> sensor) or CODE 2 (Rear O<sub>2</sub> sensor).

Turn the ignition switch OFF.

Remove ALTERNATOR SENSE fuse in the under-hood relay box for 10 seconds to reset ECU.

Inspect fuel pressure at the fuel filter (page 6-77).

Is the fuel pressure above 34 psi with the pressure regulator vacuum hose connected?

YES

Replace pressure regulator (page 6-83).

NO

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

Hold engine at 1500 min<sup>-1</sup> (rpm) for 15 minutes.  
NOTE: Do not close throttle completely during this time.

Is Check engine warning light on?

NO

Intermittent failure  
(test drive may be necessary.)

YES

Disconnect engine wire harness from indicated O<sub>2</sub> sensor.

Warm up engine to normal operating temperature again, then open the throttle wide open then close it.

Measure voltage between the connector terminal and body ground.

Is voltage above 0.6 V at wide open throttle and below 0.4 V when the throttle is quickly released?

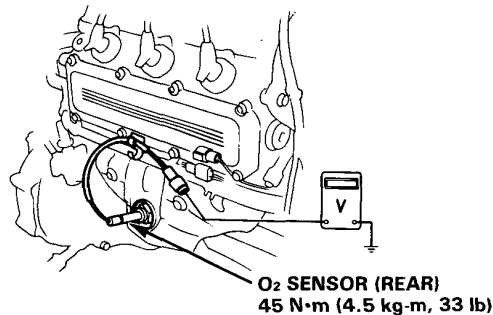
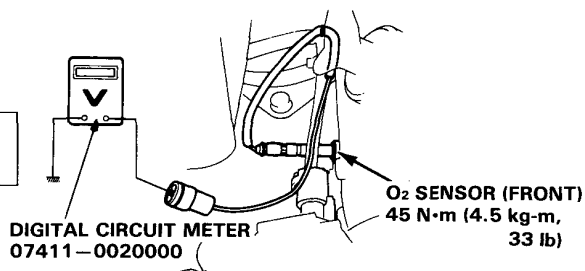
NO

Replace O<sub>2</sub> sensor.

YES

Stop engine.

(To page 6-29)





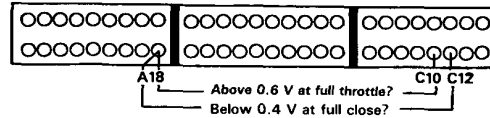
(From page 6-28)

Connect the PGM-FI test harness between the ECU and connector (page 6-23).

Restart and warm up engine to normal operating temperature, then open the throttle wide open then close it.

Measure voltage between:

- Front O<sub>2</sub> sensor C12 (+) and A18 (-) terminals
- Rear O<sub>2</sub> sensor C10 (+) and A18 (-) terminals



Is voltage above 0.6 V at wide open throttle and below 0.4 V when the throttle is quickly released?

NO

Repair wire between ECU and O<sub>2</sub> sensor for short or open:

- Front O<sub>2</sub> sensor WHT wire to C12
- Rear O<sub>2</sub> sensor RED/BLU wire to C10.

YES

Substitute a known-good ECU and recheck. If symptom/indication goes away, replace the original ECU.