

Idle Control System

Troubleshooting Flowchart — Alternator (ALT) FR Signal

This signals the ECM or PCM when the Alternator (ALT) is charging.

Inspection of Alternator FR signal.

Connect the test harness between the ECM or PCM and connector. Disconnect "D" connector from the main wire harness only, not the ECM or PCM (page 11-37).

Turn the ignition switch ON.

Measure voltage between D9 (+) terminal and A26 (-) terminal.

Is there approx. 4.5 V?

NO

Substitute a known-good ECM or PCM and recheck. If prescribed voltage is now available, replace the original ECM or PCM.

YES

Turn the ignition switch OFF.

Reconnect "D" connector to the main wire harness.

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

Measure voltage between D9 (+) terminal and A26 (-) terminal.

Does the voltage decrease when headlights and rear defogger are turned on?

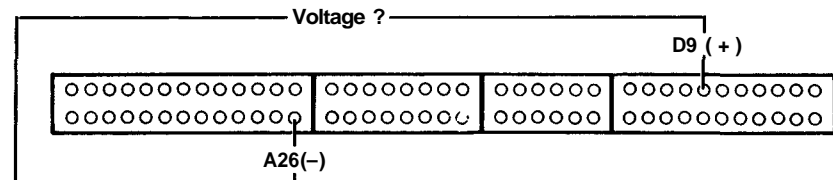
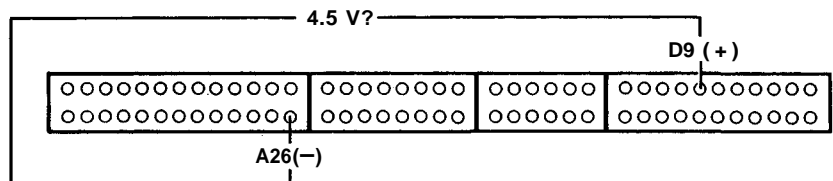
NO

Turn the ignition switch OFF.

YES

Alternator FR signal is OK.

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Disconnect "D" connector from ECM or PCM only, not the main wire harness.

Disconnect the negative battery cable from the battery-

Check for continuity between D9 terminal and body ground.

Is there continuity?

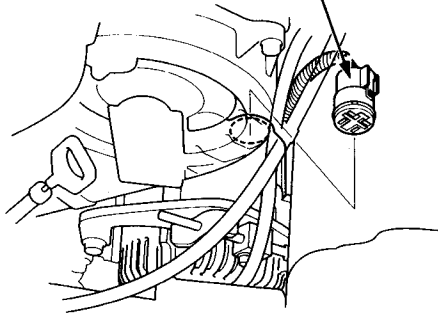
YES

Disconnect GRN connector from the alternator.

NO

Disconnect GRN connector from the alternator.

GRN CONNECTOR



Connect WHT/RED wire to body ground.

Check for continuity between D9 terminal and body ground.

Is there continuity?

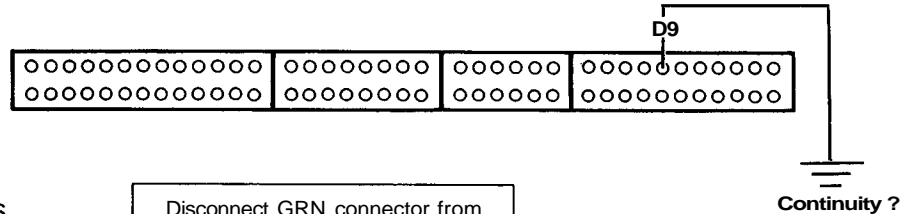
YES

NO

Repair open in WHT/RED wire between ECM or PCM (D9) and alternator.

See alternator inspection (see [section 23](#)).

NOTE: The original radio has a coded theft protection circuit. Be sure you get the customer's code number before disconnecting the battery cable.



Check for continuity between D9 terminal and body ground.

Is there continuity?

NO

See alternator inspection (see [section 23](#)).

YES

Repair short in WHT/RED wire between ECM or PCM (D9) and alternator.