

Idle Control System

Troubleshooting Flowchart — Alternator (ALT) FR Signal

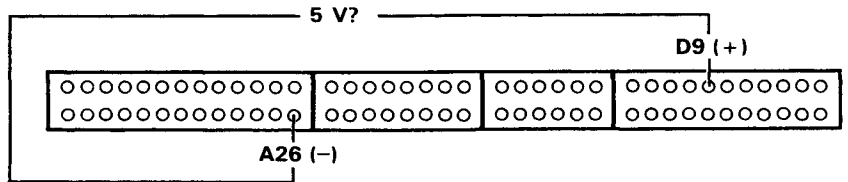
This signals the ECM when the alternator is charging.

Inspection of ALT FR signal.

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

Turn the ignition switch ON.

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



Is there approx. 5V?

NO

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

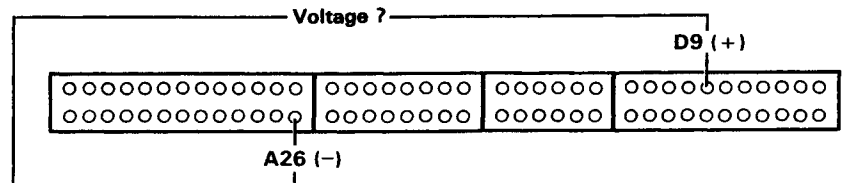
YES

Turn the ignition switch OFF.

Reconnect "D" connector to the engine wire harness.

Warm up engine to normal operating temperature (the cooling 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

Do the ECM Reset Procedure (see page 11-35).

ALTFR signal is OK.

(To page 11-93)



(From page 11-92)

Disconnect "D" connector from ECM only, not the engine wire harness.

Disconnect the negative battery cable from the battery.

Check for continuity between D9 terminal and body ground.

Does continuity exist ?

YES

Remove the harness covers.

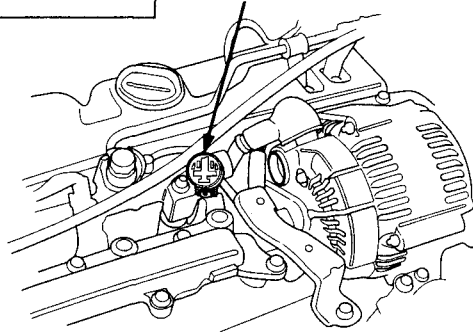
NO

Remove the harness covers.

Disconnect GRN connector from the ALT.

Disconnect GRN connector from the ALT.

GRN CONNECTOR



Connect WHT/RED wire to body ground.

Check for continuity between D9 terminal and body ground.

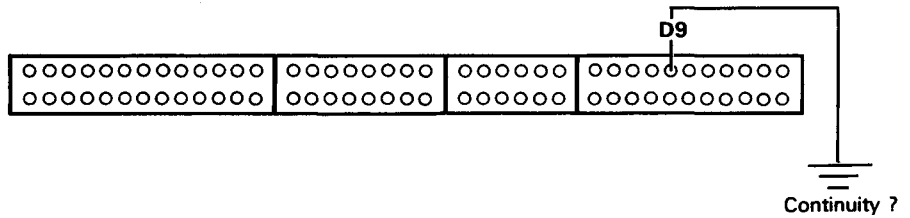
Does continuity exist ?

YES

NO

Repair open in WHT/RED wire between ECM (D9) and ALT.

See ALT inspection (see section 23).



Check for continuity between D9 terminal and body ground.

Does continuity exist ?

NO

See ALT inspection (see section 23).

YES

Repair shor in WHT/RED wire between ECM (D9) and ALT.