

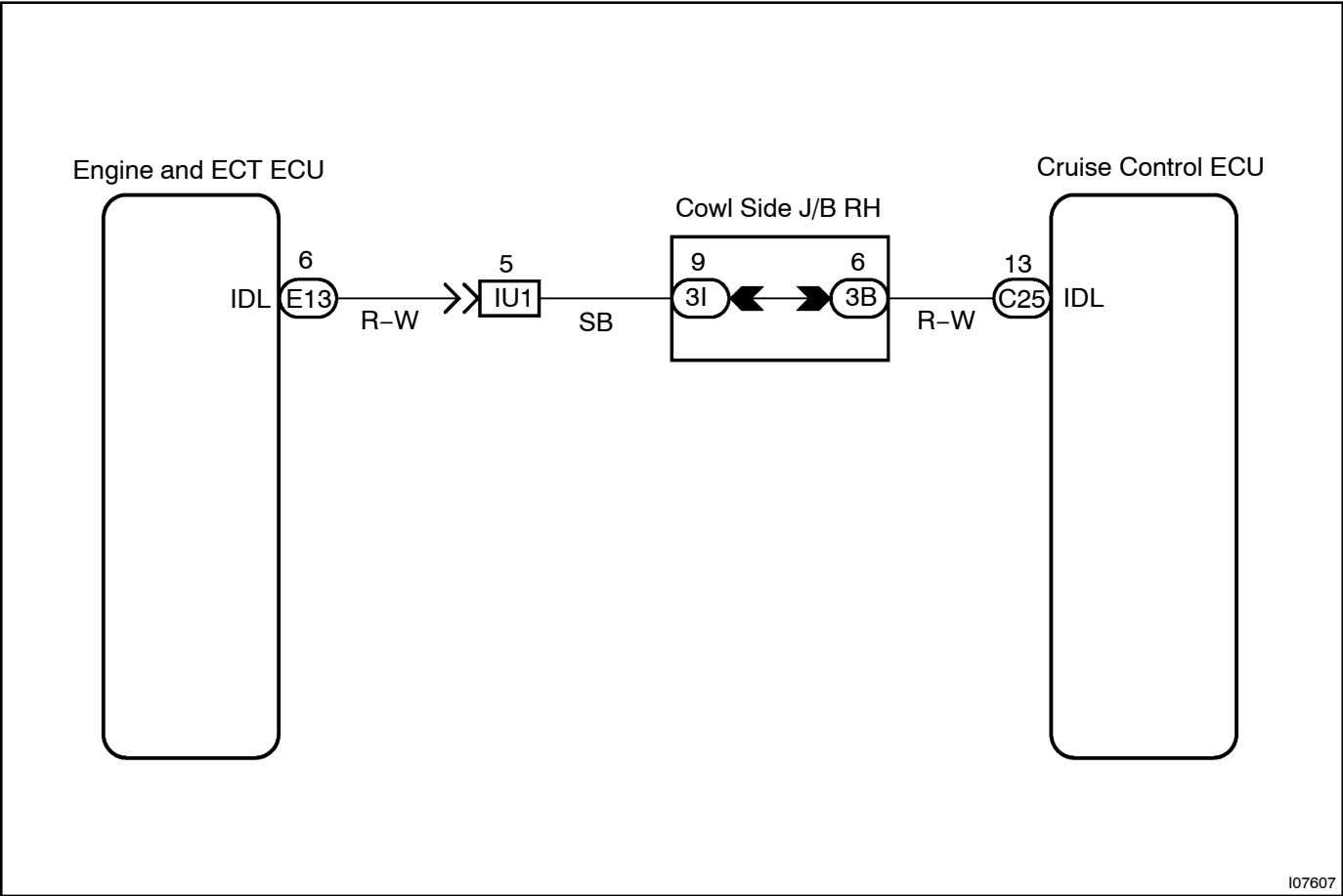
DTC	51	Idle Signal Circuit
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CIRCUIT DESCRIPTION

When the idle switch is turned ON, a signal is sent to the ECU. The ECU uses this signal to correct the discrepancy between the throttle valve position and the actuator position sensor values to enable accurate cruise control at the set speed. If the idle switch is malfunctioning, problem symptoms also occur in the engine, so also inspect the engine.

DTC No.	Detection Item	Trouble Area
51	Short in idle signal circuit.	•Harness or connector between engine and ECT ECU and throttle position sensor •Throttle position sensor •Harness or connector between cruise control ECU and engine and ECT ECU •Cruise control ECU

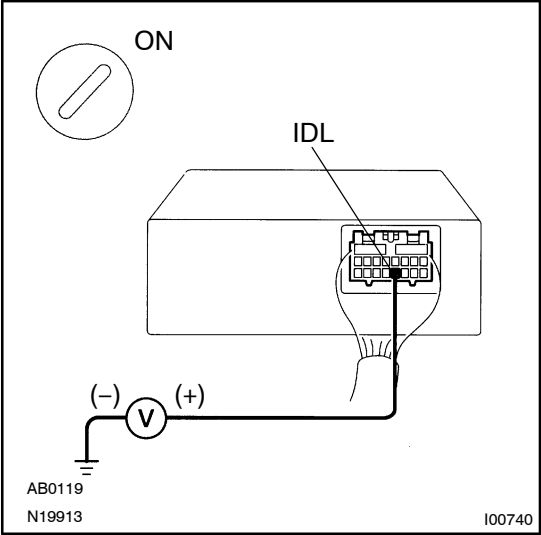
WIRING DIAGRAM



INSPECTION PROCEDURE

1

Check voltage between terminal IDL of cruise control ECU connector and body ground.



PREPARATION:

- (a) Remove the ECU with connector still connected.
- (b) Disconnect the engine and ECT ECU connector.
- (c) Turn ignition switch ON.

CHECK:

Measure voltage between terminal IDL of ECU connector and body ground when the throttle valve is fully closed and fully opened.

OK:

Throttle valve position	Voltage
Fully opened	10 - 14 V
Fully closed	Below 2 V

OK

Proceed to next circuit inspection shown in problem symptom table ([See page DI-682](#)).

NG

2

Check harness and connector between engine and ECT ECU and throttle position sensor ([See page IN-35](#)).

NG

Repair or replace harness or connector.

OK

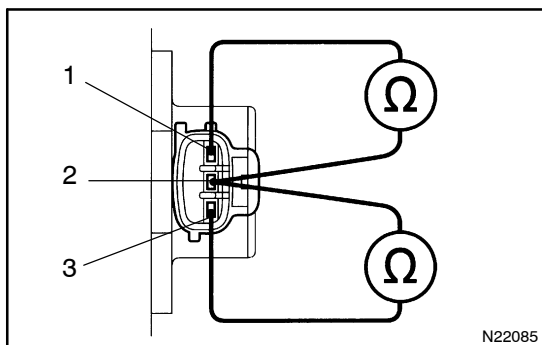
3

Check throttle position sensor circuit ([See page DI-35](#), [DI-126](#)).

NG

Replace throttle position sensor.

OK

4 Check throttle position sensor.**PREPARATION:**

Disconnect the throttle position sensor connector.

CHECK:

Measure resistance between terminals 1, 3 and 2 of throttle position sensor connector.

OK:

Terminals	Throttle valve position	Resistance
1 - 2	-	2.5 ~ 5.9 kΩ
2 - 3	Fully opened	0.2 ~ 6.3 kΩ
2 - 3	Fully closed	2.0 ~ 10.2 kΩ

NG**Replace throttle position sensor.****OK****5 Check for open and short in harness and connector between cruise control ECU and engine and ECT ECU (See page IN-35).****NG****Repair or replace harness or connector.****OK****Check and replace cruise control ECU (See page IN-35).**