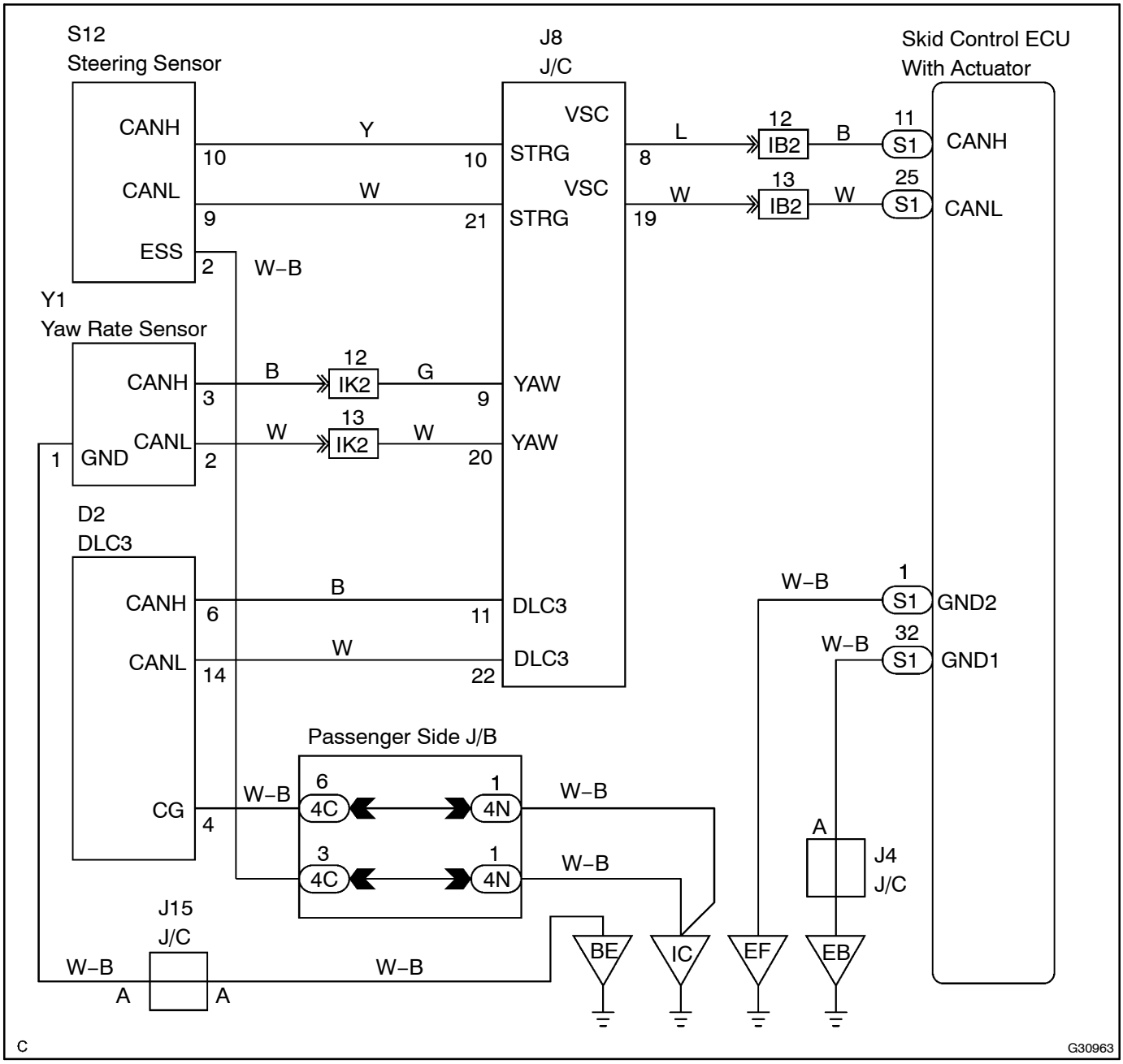
CHECK CAN BUS LINE (CAN–L) FOR SHORT TO GND

CIRCUIT DESCRIPTION

A short to GND is suspected in the CAN bus line when there is continuity between terminals 4 (CG) and 14 (CANL) of the DLC3.

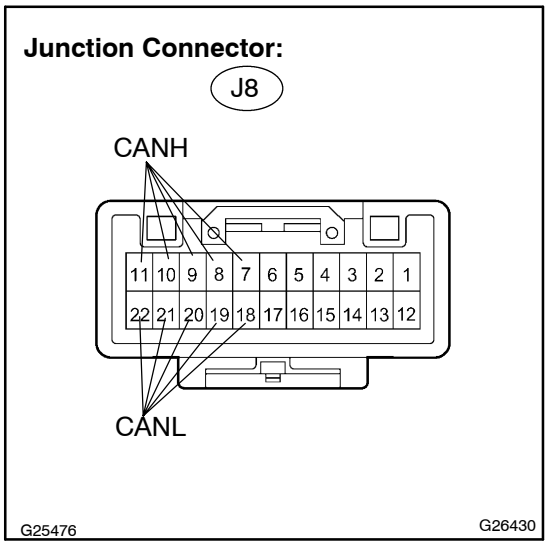
Symptom	Trouble Area
There is continuity between terminals 4 (CG) and 14 (CANL) of DLC3.	• Short to GND in CAN bus line (CANL) • Skid control ECU • Steering sensor • Yaw rate sensor

WIRING DIAGRAM

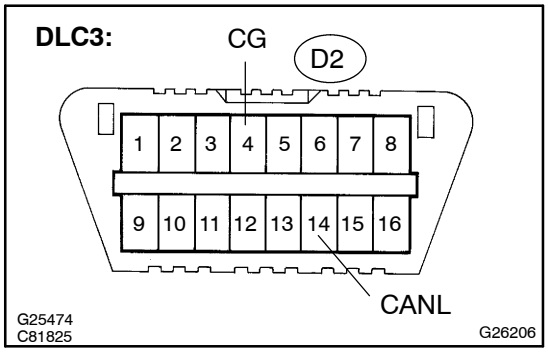


INSPECTION PROCEDURE

1	CHECK CAN BUS LINE FOR SHORT TO GND(DLC3 SUB BUS LINE, CAN–L)



(a) Disconnect the wire harness connector (J8) from the junction connector.



(b) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified value
D2–4 (CG) – D2–14 (CANL)	IG Switch OFF	1 MΩ or more

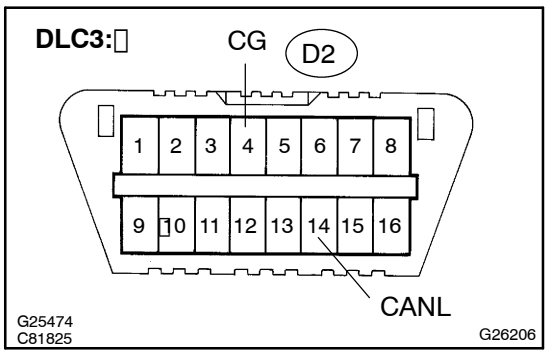
NG → **REPAIR OR REPLACE DLC3 SUB BUS LINE OR CONNECTOR (CAN–L)**

OK

2	CONNECTION OF CONNECTORS

(a) Reconnect the wire harness connector (J8) to the junction connector.

3 CHECK CAN BUS LINE FOR SHORT TO GND(SKID CONTROL ECU, CAN–L)



(a) Disconnect the connector (S1) from the skid control ECU.
(b) Measure the resistance according to the value(s) in the table below.

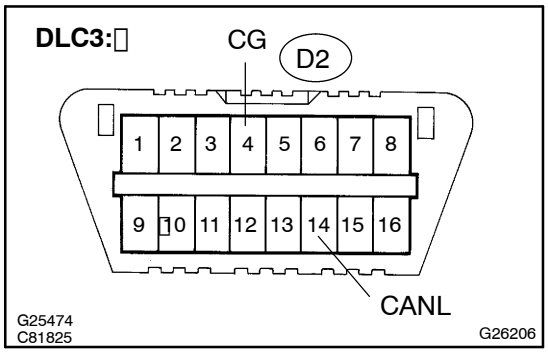
Standard:

Tester connection	Condition	Specified value
D2–4 (CG) – D2–14 (CANL)	IG Switch OFF	3 kΩ or more

OK → **REPLACE SKID CONTROL ECU WITH ACTUATOR (SEE PAGE 32–43)**

NG

4 CHECK CAN BUS LINE FOR SHORT TO GND(STEERING SENSOR, CAN–L)



(a) Reconnect the connector (S1) to the skid control ECU.
(b) Disconnect the connector (S12) from the steering sensor.
(c) Measure the resistance according to the value(s) in the table below.

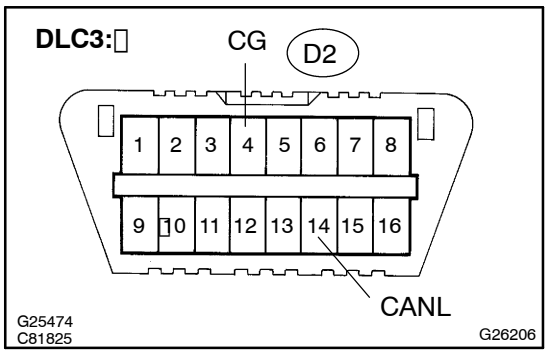
Standard:

Tester connection	Condition	Specified value
D2–4 (CG) – D2–14 (CANL)	IG Switch OFF	3 kΩ or more

OK → **REPLACE STEERING SENSOR (SEE PAGE 32–53)**

NG

5 CHECK CAN BUS LINE FOR SHORT TO GND(YAW RATE SWENSOR, CAN–L)



(a) Reconnect the connector (S12) to the steering sensor.
(b) Disconnect the connector (Y1) from the yaw rate sensor.
(c) Measure the resistance according to the value(s) in the table below.

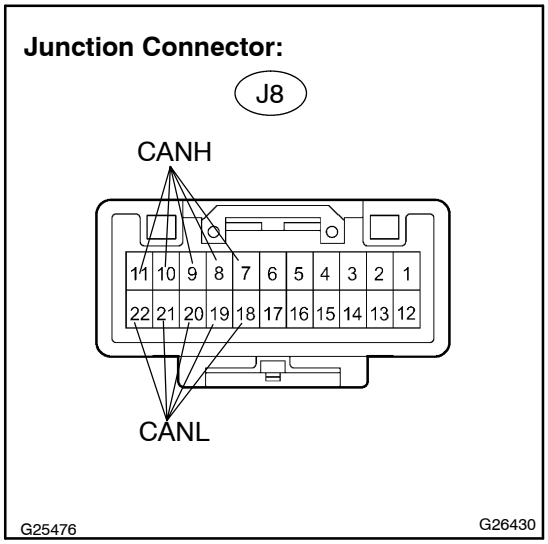
Standard:

Tester connection	Condition	Specified value
D2–4 (CG) – D2–14 (CANL)	IG Switch OFF	3 kΩ or more

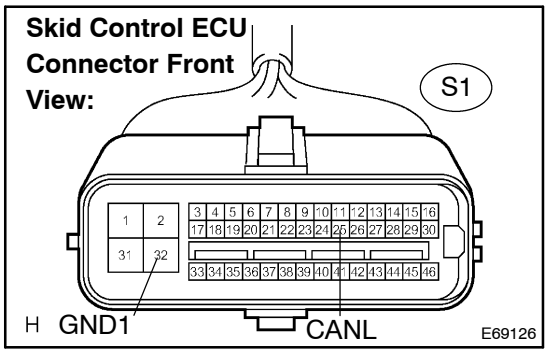
OK → **REPLACE YAW RATE SENSOR (SEE PAGE 32–51)**

NG

6	CHECK CAN BUS LINE FOR SHORT TO GND (SKID CONTROL ECU – JUNCTION CONNECTOR, CAN–L)



(a) Reconnect the connector (Y1) to the yaw rate sensor.
(b) Disconnect all the wire harness connectors (J8) from the junction connector.
(c) Disconnect the connector (S1) from the skid control ECU.



(d) Measure the resistance according to the value(s) in the table below.

Standard:

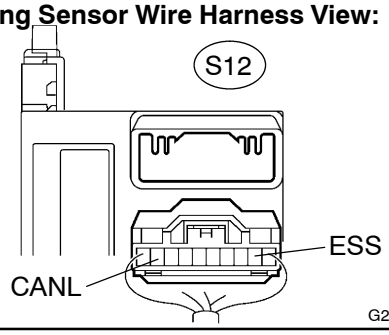
Tester connection	Condition	Specified value
S1–25 (CANL) – S1–32 (GND1)	IG Switch OFF	1 MΩ more

NG → **REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (SKID CONTROL ECU – JUNCTION CONNECTOR, CAN–L)**

OK

7	**CHECK CAN BUS LINE FOR SHORT TO GND (STEERING SENSOR – JUNCTION CONNECTOR, CAN–L)**

Steering Sensor Wire Harness View:



(a) Disconnect the connector (S12) from the steering sensor.
(b) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified value
S12–2 (ESS) – S12–9 (CANL)	IG Switch OFF	1 MΩ more

HINT:
Check the wire harness connector connected to the junction connector while disconnecting them.

NG → **REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (STEERING SENSOR – JUNCTION CONNECTOR, CAN–L)**

OK

REPAIR OR REPLACE YAW RATE SENSOR SUB BUS LINE OR CONNECTOR (CAN–L)