

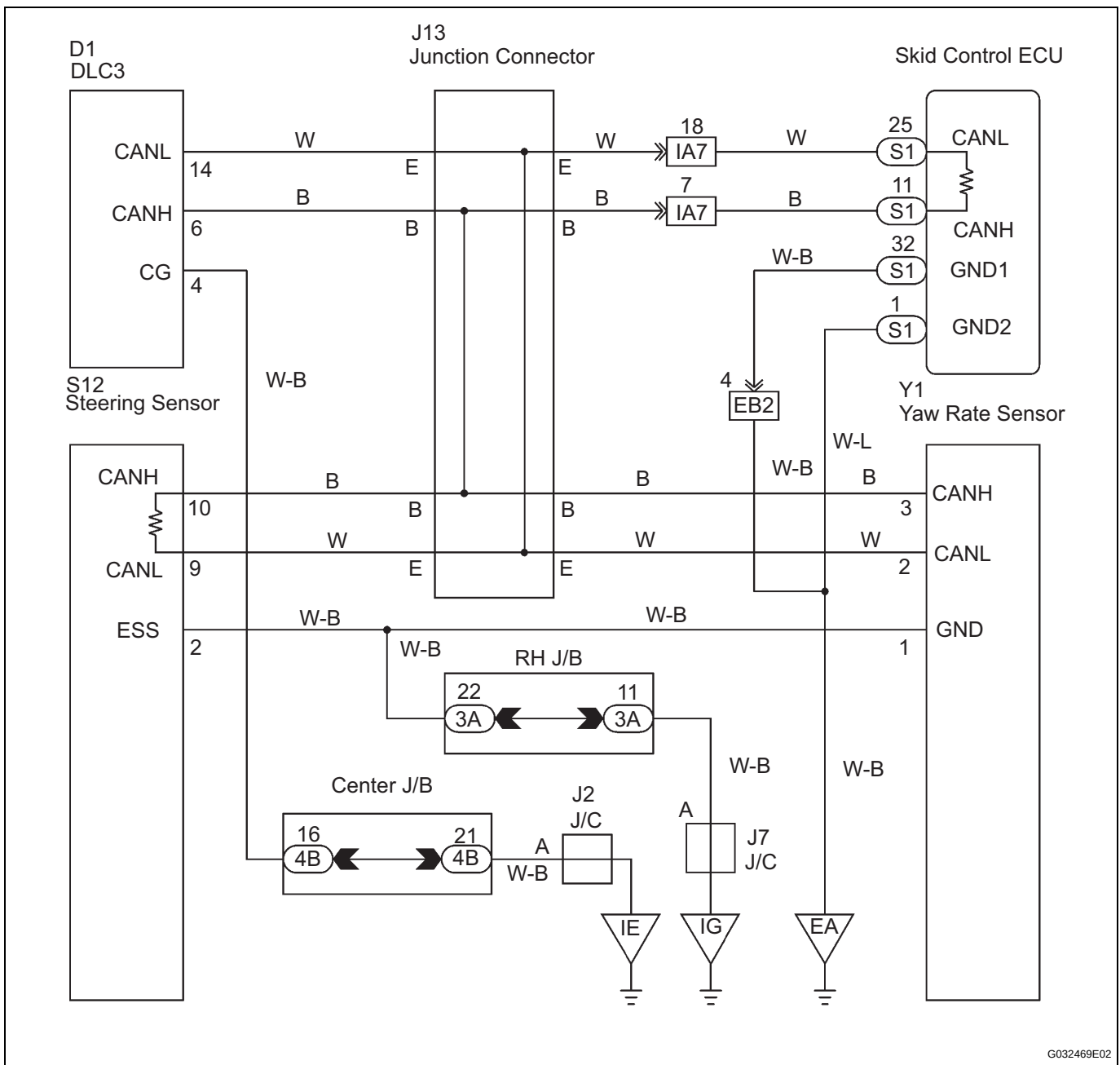
Check CAN Bus Line for Short to GND

DESCRIPTION

A short to GND is suspected in the CAN bus line when there is continuity between terminals 4 (CG) and 6 (CANH) or terminals 4 (CG) and 14 (CANL) of the DLC3.

Symptom	Trouble Area
There is continuity between terminals 4 (CG) and 6 (CANH) or terminals 4 (CG) and 14 (CANL) of DLC3.	- Short to GND in CAN bus line - Skid control ECU - Steering sensor - Yaw rate sensor

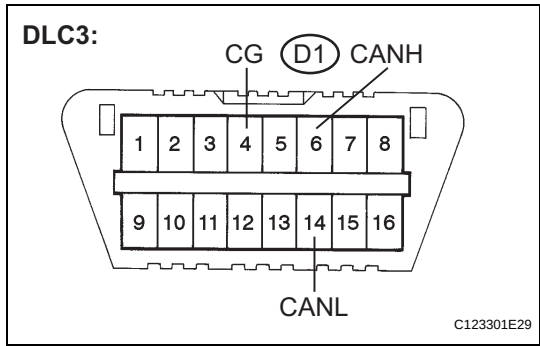
WIRING DIAGRAM



G032469E02

INSPECTION PROCEDURE

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



OK

- (a) Disconnect the wire harness connector (J13) from the junction connector.
- (b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified value
D1-4 (CG) - D1-6 (CANH)	IG switch OFF	1 MΩ or higher
D1-4 (CG) - D1-14 (CANL)	IG switch OFF	1 MΩ or higher

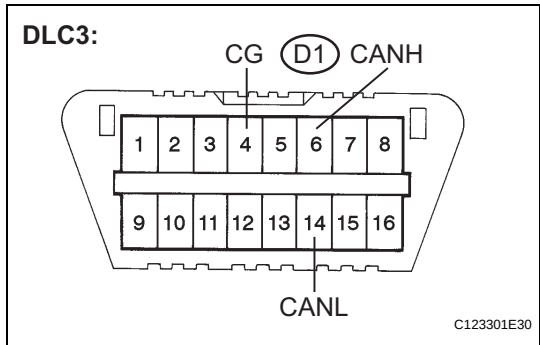
NG REPAIR OR REPLACE DLC3 SUB BUS LINE OR CONNECTOR (CAN-H, CAN-L)

2 CONNECT CONNECTOR

- (a) Reconnect the wire harness connector (J13) to the junction connector.

NEXT

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



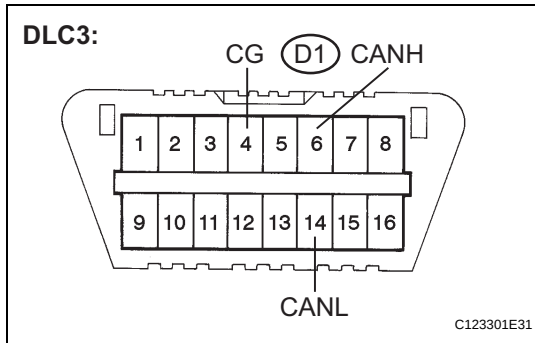
- (a) Disconnect the connector (S1) from the skid control ECU.
- (b) Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified value
D1-4 (CG) - D1-6 (CANH)	IG switch OFF	200 Ω or higher
D1-4 (CG) - D1-14 (CANL)	IG switch OFF	200 Ω or higher

OK REPLACE SKID CONTROL ECU

NG

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

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

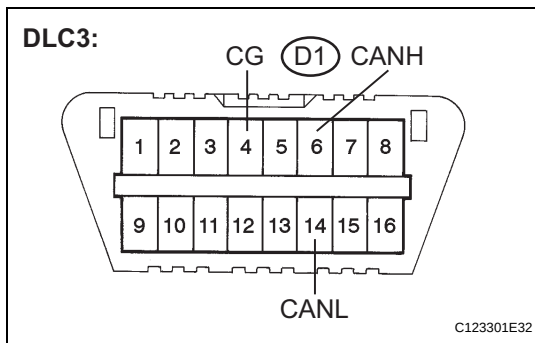
Standard resistance

Tester Connection	Condition	Specified value
D1-4 (CG) - D1-6 (CANH)	IG switch OFF	200 Ω or higher
D1-4 (CG) - D1-14 (CANL)	IG switch OFF	200 Ω or higher

OK

REPLACE STEERING SENSOR

NG

5 CHECK CAN BUS LINE FOR SHORT TO GND (YAW RATE SENSOR)

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

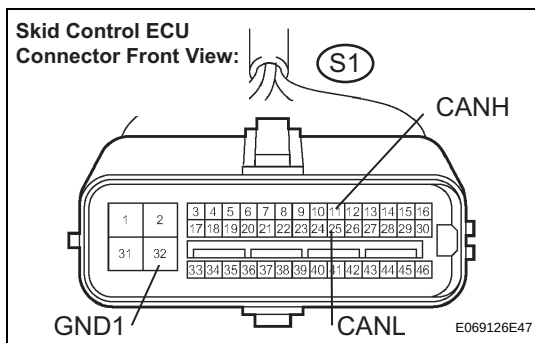
Standard resistance

Tester Connection	Condition	Specified value
D1-4 (CG) - D1-6 (CANH)	IG switch OFF	200 Ω or higher
D1-4 (CG) - D1-14 (CANL)	IG switch OFF	200 Ω or higher

OK

REPLACE YAW RATE SENSOR

NG

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

- Reconnect the connector (Y1) to the yaw rate sensor.
- Disconnect the wire harness connector (J13) from the junction connector.
- Disconnect the connector (S1) from the skid control ECU.
- Measure the resistance according to the value(s) in the table below.

Standard resistance

Tester Connection	Condition	Specified value
S1-11 (CANH) - S1-32 (GND1)	IG switch OFF	1 M Ω or higher
S1-25 (CANL) - S1-32 (GND1)	IG switch OFF	1 M Ω or higher

CA

NG

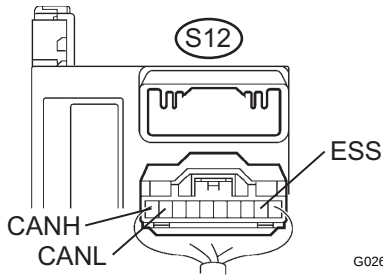
REPAIR OR REPLACE CAN BUS MAIN WIRE OR CONNECTOR (SKID CONTROL ECU - JUNCTION CONNECTOR)

OK

7

CHECK CAN BUS LINE FOR SHORT TO GND (STEERING SENSOR - JUNCTION CONNECTOR)

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 resistance

Tester Connection	Condition	Specified value
S12-2 (ESS) - S12-10 (CANH)	IG switch OFF	1 M Ω or higher
S12-2 (ESS) - S12-9 (CANL)	IG switch OFF	1 M Ω or higher

HINT:

Ensure that the wire harness connector is not connected to the junction connector.

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REPAIR OR REPLACE CAN BUS MAIN WIRE OR CONNECTOR (STEERING SENSOR - JUNCTION CONNECTOR)

OK

REPAIR OR REPLACE YAW RATE SENSOR SUB BUS LINE OR CONNECTOR (CAN-H, CAN-L)