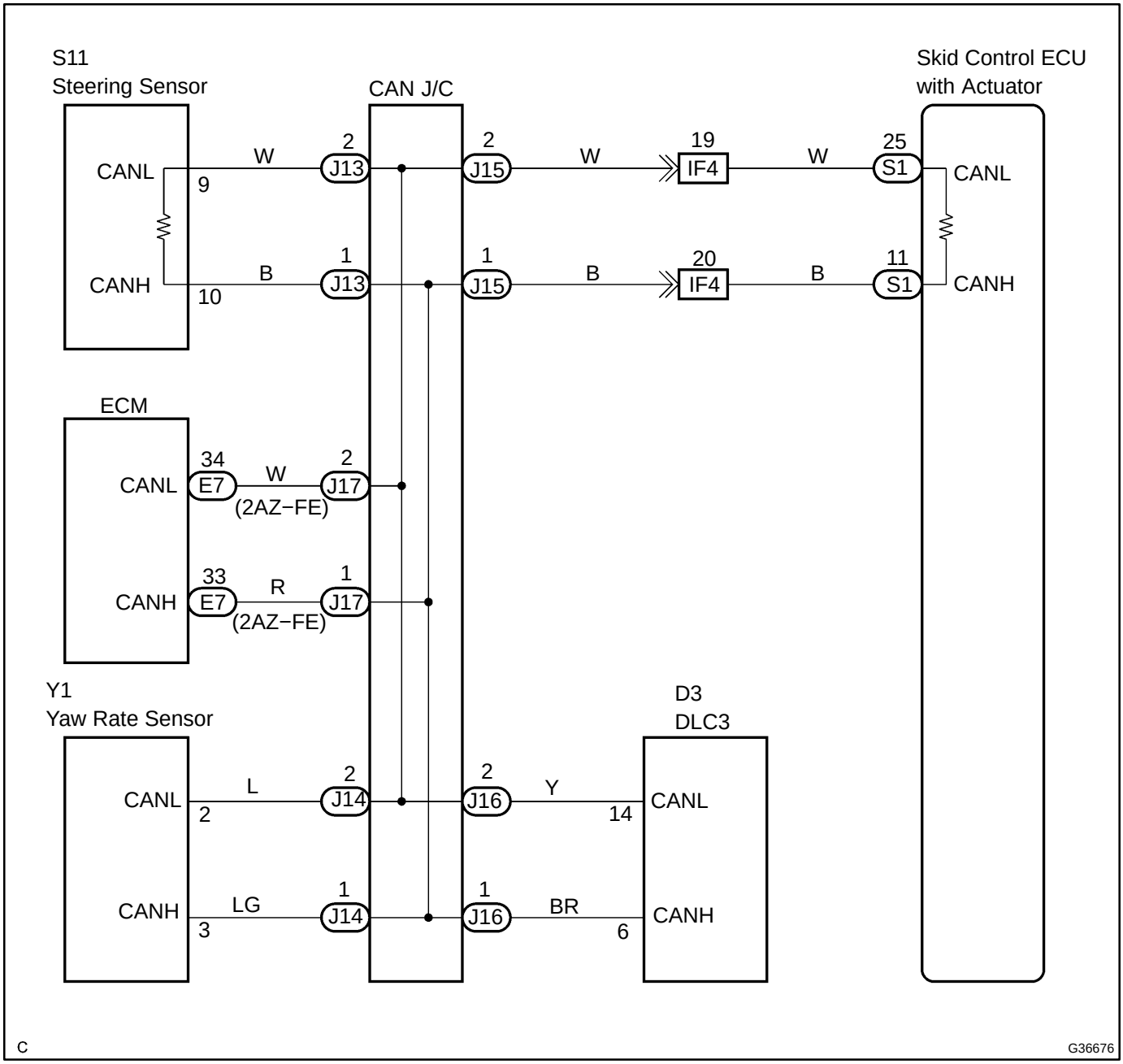
CHECK CAN BUS LINES FOR SHORT CIRCUIT

CIRCUIT DESCRIPTION

The CAN bus lines are considered to be shorted when the resistance between terminals 6 (CANH) and 14 (CANL) of the DLC3 is below 54 Ω.

Symptom	Trouble Area
Resistance between terminals 6 (CANH) and 14 (CANL) of DLC3 is below 54 Ω.	• Short in CAN bus lines • Skid control ECU • Steering sensor • Yaw rate sensor • ECM (2AZ−FE)

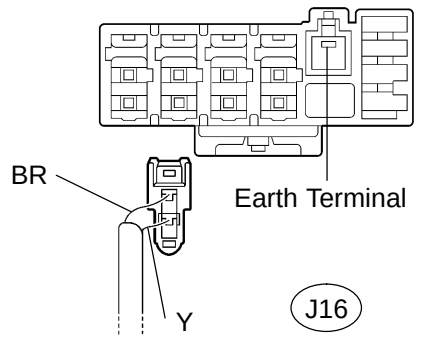
WIRING DIAGRAM



INSPECTION PROCEDURE

1	CHECK CAN BUS LINES FOR SHORT(DLC3 SUB BUS LINE)

CAN J/C A Side (w/ Earth Terminal) Wire Harness View:



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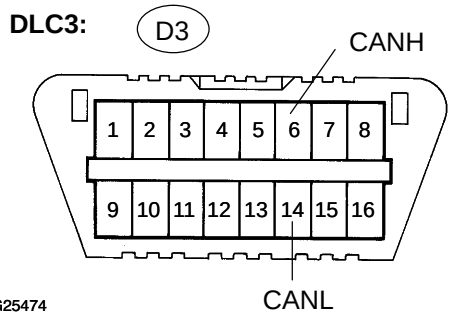
(a) Disconnect the DLC3 sub bus line connector (J16) from the CAN J/C.

NOTICE:

- **Before disconnecting the connector, make a note of where it is connected.**
- **Reconnect the connector to its original position.**

DLC3:



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

Standard:

Tester connection	Condition	Specified value
D3−6 (CANH) − D3−14 (CANL)	IG switch OFF	1 MΩ or more

NG → **REPAIR OR REPLACE DLC3 SUB BUS LINE OR CONNECTOR (CAN−H, CAN−L)**

OK

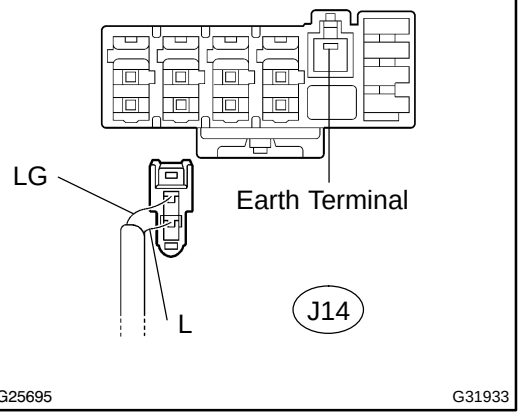
2	CONNECT CONNECTOR

(a) Reconnect the DLC3 sub bus line connector (J16) to the CAN J/C.

NEXT

3 CHECK CAN BUS LINES FOR SHORT(YAW RATE SENSOR SUB BUS LINE)

CAN J/C A Side (w/ Earth Terminal) Wire Harness View:

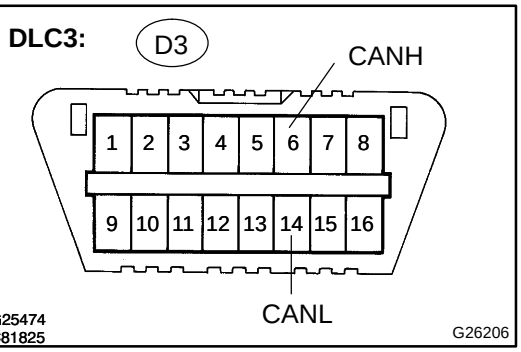


(a) Disconnect the yaw rate sensor sub bus line connector (J14) from the CAN J/C.

NOTICE:

- **Before disconnecting the connector, make a note of where it is connected.**
- **Reconnect the connector to its original position.**

DLC3:



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

Standard:

Tester connection	Condition	Specified value
D3−6 (CANH) − D3−14 (CANL)	IG switch OFF	54 to 69 Ω

OK → **Go to step 10**

NG

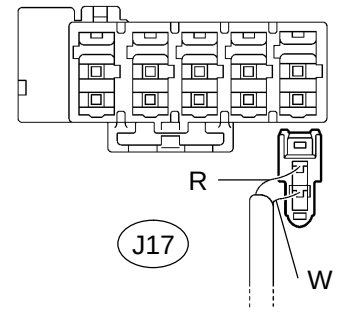
4 CONNECT CONNECTOR

(a) Reconnect the yaw rate sensor sub bus line connector (J14) to the CAN J/C.

NEXT

5 CHECK CAN BUS LINES FOR SHORT(ECM SUB BUS LINE)

CAN J/C B Side (w/o Earth Terminal) Wire Harness View:



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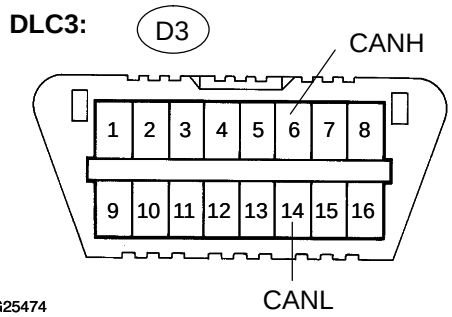
NOTICE:

For vehicles without enhanced 2AZ−FE engine go to step 7.

(a) Disconnect the ECM sub bus line connector (J17) from the CAN J/C.

NOTICE:

- **Before disconnecting the connector, make a note of where it is connected.**
- **Reconnect the connector to its original position.**



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

Standard:

Tester connection	Condition	Specified value
D3−6 (CANH) − D3−14 (CANL)	IG switch OFF	54 to 69 Ω

OK → **Go to step 12**

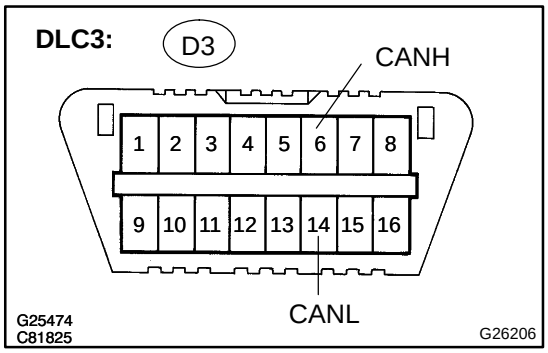
NG

6 CONNECT CONNECTOR

(a) Reconnect the ECM sub bus line connector (J17) to the CAN J/C.

NEXT

7 CHECK CAN BUS LINES FOR SHORT(SKID CONTROL ECU)



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

Standard:

Tester connection	Condition	Specified value
D3−6 (CANH) − D3−14 (CANL)	IG switch OFF	108 to 132 Ω

OK → **REPLACE SKID CONTROL ECU WITH ACTUATOR (SEE PAGE 32−63)**

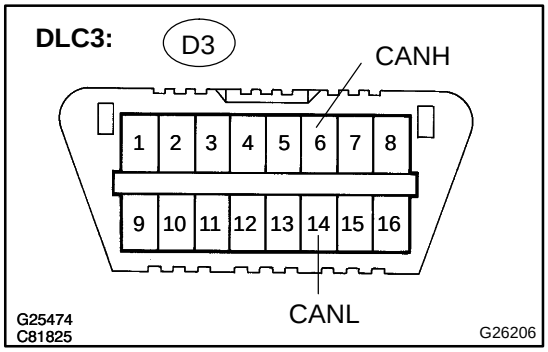
NG

8 CONNECT CONNECTOR

(a) Reconnect the connector (S1) to the skid control ECU.

NEXT

9 CHECK CAN BUS LINES FOR SHORT(STEERING SENSOR)



(a) Disconnect the steering sensor connector (S11).
(b) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified value
D3−6 (CANH) − D3−14 (CANL)	IG switch OFF	108 to 132 Ω

OK → **REPLACE STEERING SENSOR (SEE PAGE 32−72)**

NG

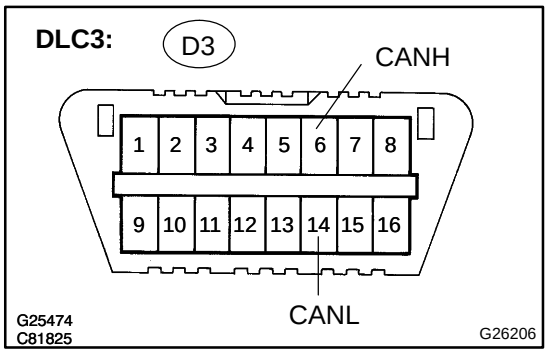
REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (SKID CONTROL ECU − STEERING SENSOR)

10	CONNECT CONNECTOR

(a) Reconnect the yaw rate sensor sub bus line connector (J14) to the CAN J/C.

NEXT

11	CHECK CAN BUS LINES FOR SHORT(YAW RATE SENSOR SUB BUS LINE)



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

Standard:

Tester connection	Condition	Specified value
D3−6 (CANH) − D3−14 (CANL)	IG switch OFF	54 to 69 Ω

OK → **REPLACE YAW RATE SENSOR (SEE PAGE 32−71)**

NG

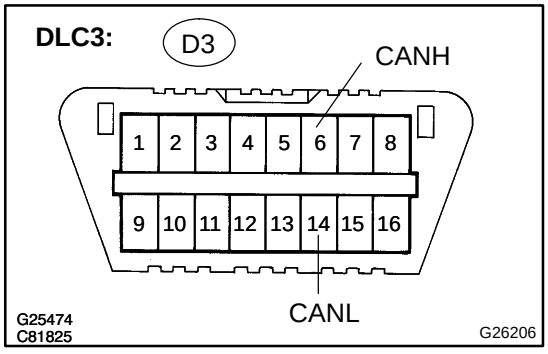
REPAIR OR REPLACE YAW RATE SENSOR SUB BUS LINE OR CONNECTOR (CAN−H, CANL)

12	CONNECT CONNECTOR

(a) Reconnect the ECM sub bus line connector (J17) to the CAN J/C.

NEXT

13	CHECK CAN BUS LINES FOR SHORT(ECM SUB BUS LINE)



(a) Disconnect the ECM connector (E7).
(b) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified value
D3−6 (CANH) − D3−14 (CANL)	IG switch OFF	54 to 69 Ω

OK → **REPLACE ECM (SEE PAGE 10−9)**

NG

REPAIR OR REPLACE ECM SUB BUS LINE OR CONNECTOR (CAN−H, CANL)