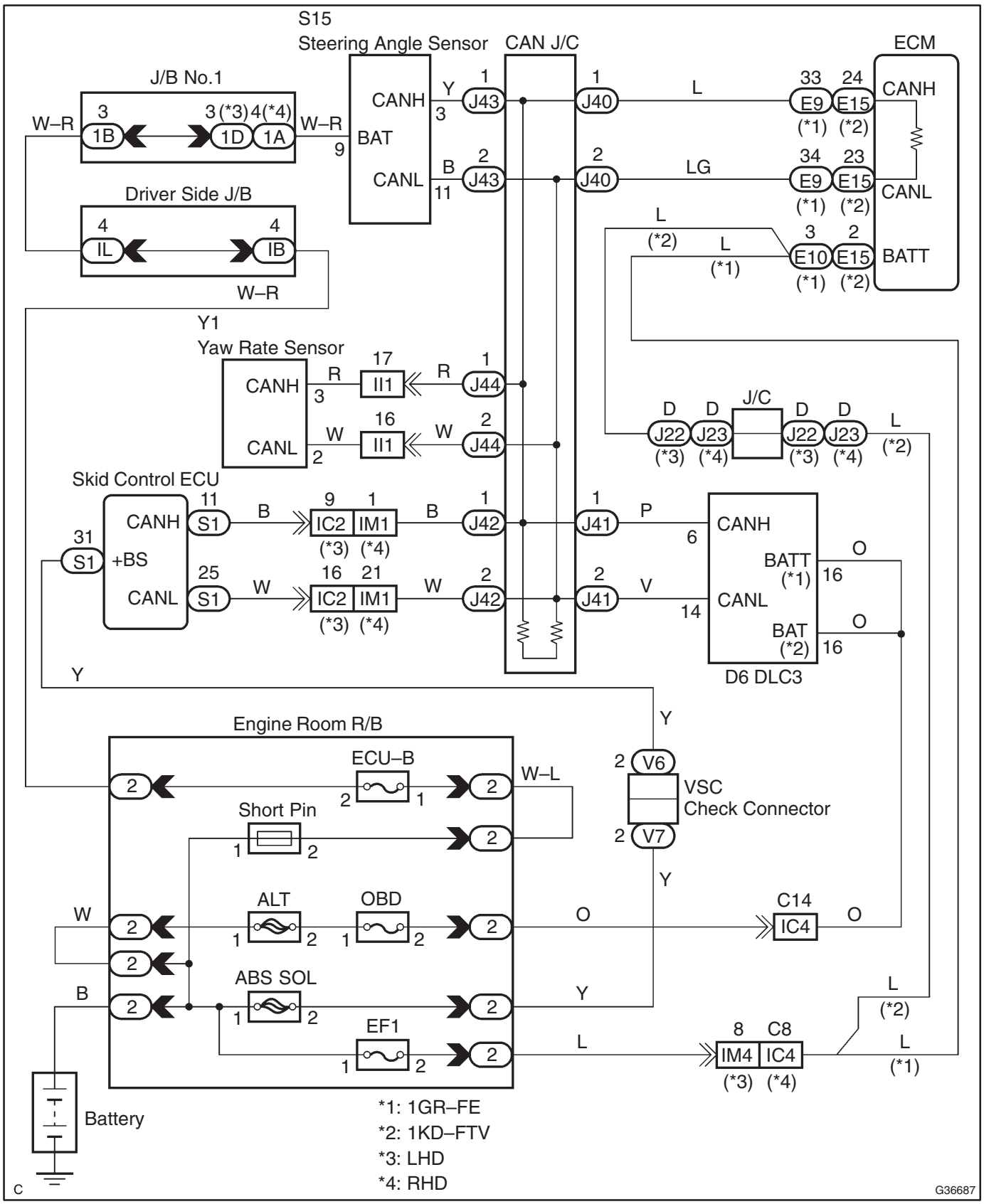
CHECK CAN BUS LINE FOR SHORT TO +B

CIRCUIT DESCRIPTION

A short to +B is suspected in the CAN bus line when there is continuity between terminals 16 (BAT) and 6 (CANH) or terminals 16 (BAT) and 14 (CANL) of the DLC3.

Symptom	Trouble Area
There is continuity between terminals 16 (BAT) and 6 (CANH) or 16 (BAT) and 14 (CANL) of the DLC3.	• Short to +B in CAN bus line • ECM • Skid control ECU • Steering angle sensor • Yaw rate sensor

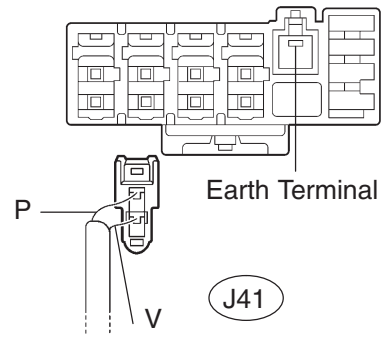
WIRING DIAGRAM



INSPECTION PROCEDURE

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

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



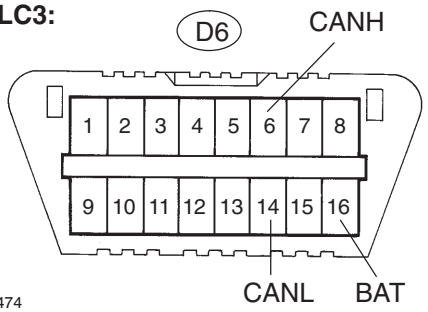
G25695 G31933

(a) Disconnect the DLC3 sub bus line connector (J41) 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:



G25474 C81825 G26206

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

Standard:

Tester connection	Condition	Specified value
D6–16 (BAT) – D6–6 (CANH)	• IG switch OFF • Stop light switch OFF	1 MΩ or higher
D6–16 (BAT) – D6–14 (CANL)	• IG switch OFF • Stop light switch OFF	1 MΩ or higher

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

OK

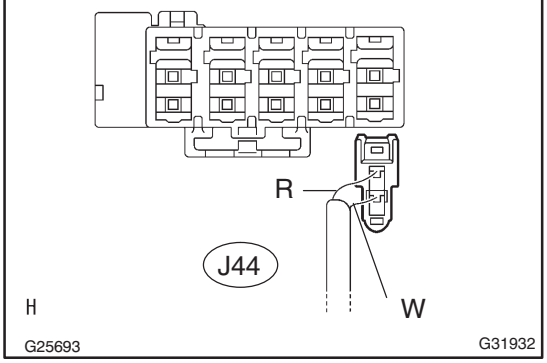
2	CONNECT CONNECTOR

(a) Reconnect the DLC3 sub bus line connector (J41) to the CAN J/C.

NEXT

3 CHECK CAN BUS LINE FOR SHORT TO +B(YAW RATE SENSOR SUB BUS LINE)

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

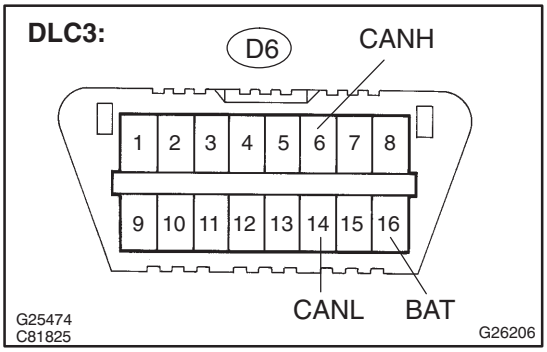


(a) Disconnect the yaw rate sensor sub bus line connector (J44) from the CAN J/C.

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
D6–16 (BAT) – D6–6 (CANH)	• IG switch OFF • Stop light switch OFF	1 MΩ or higher
D6–16 (BAT) – D6–14 (CANL)	• IG switch OFF • Stop light switch OFF	1 MΩ or higher

OK → **Go to step 10**

NG

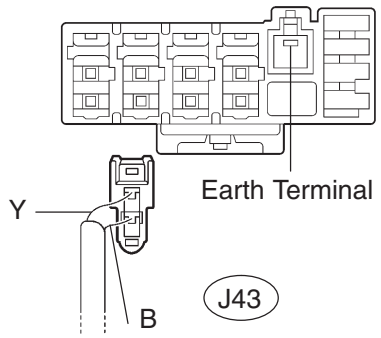
4 CONNECT CONNECTOR

(a) Reconnect the yaw rate sensor sub bus line connector (J44) to the CAN J/C.

NEXT

5	CHECK CAN BUS LINE FOR SHORT TO +B(STEERING ANGLE SENSOR SUB BUS LINE)

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



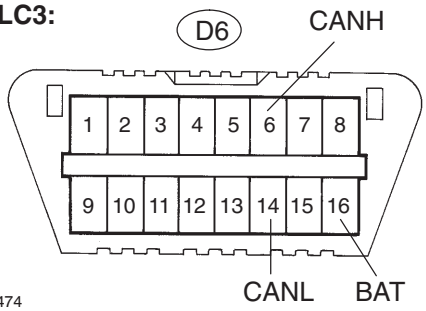
G25695 G31933

(a) Disconnect the steering angle sensor sub bus line connector (J43) 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:



G25474 C81825 G26206

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

Standard:

Tester connection	Condition	Specified value
D6–16 (BAT) – D6–6 (CANH)	• IG switch OFF • Stop light switch OFF	1 MΩ or higher
D6–16 (BAT) – D6–14 (CANL)	• IG switch OFF • Stop light switch OFF	1 MΩ or higher

OK	Go to step 12

NG

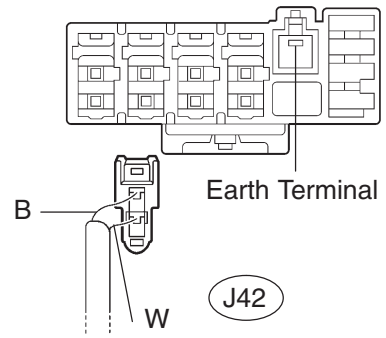
6	CONNECT CONNECTOR

(a) Reconnect the steering angle sensor sub bus line connector (J43) to the CAN J/C.

NEXT

7	CHECK CAN BUS LINE FOR SHORT TO +B(SKID CONTROL ECU SUB BUS LINE)

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



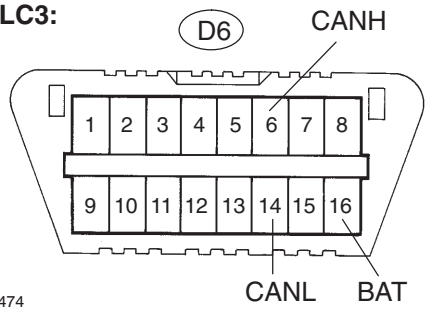
G25695 G31933

(a) Disconnect the skid control ECU sub bus line connector (J42) 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:



G25474 C81825 G26206

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

Standard:

Tester connection	Condition	Specified value
D6–16 (BAT) – D6–6 (CANH)	• IG switch OFF • Stop light switch OFF	1 MΩ or higher
D6–16 (BAT) – D6–14 (CANL)	• IG switch OFF • Stop light switch OFF	1 MΩ or higher

OK → **Go to step 14**

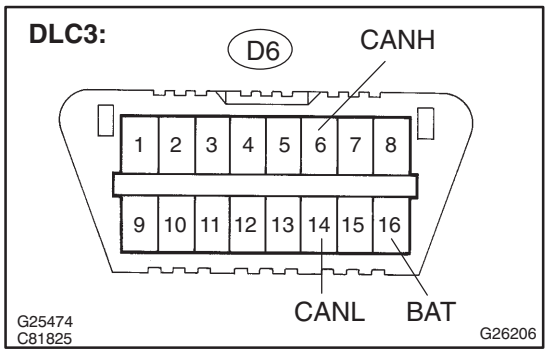
NG

8	CONNECT CONNECTOR

(a) Reconnect the skid control ECU sub bus line connector (J42) to the CAN J/C.

NEXT

9	CHECK CAN BUS LINE FOR SHORT TO +B(ECM MAIN BUS LINE)



(a) Disconnect the ECM connector (E9) or (E14).

HINT:

- E9 ..... 1GR–FE
- E14 ..... 1KD–FTV

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

HINT:

- OK–A 1GR–FE
- OK–B 1KD–FTV

Standard:

Tester connection	Condition	Specified value
D6–16 (BAT) – D6–6 (CANH)	• IG switch OFF • Stop light switch OFF	1 MΩ or higher
D6–16 (BAT) – D6–14 (CANL)	• IG switch OFF • Stop light switch OFF	1 MΩ or higher

OK–A	REPLACE ECM (SEE PUB. No. RM1017E, PAGE 10–11)

OK–B	REPLACE ECM (SEE PUB. No. RM990E, PAGE 10–34)

NG

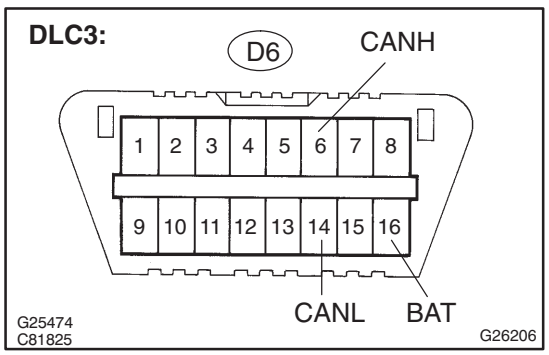
REPAIR OR REPLACE ECM MAIN BUS LINE OR CONNECTOR (CAN–H, CAN–L)

10	CONNECT CONNECTOR

(a) Reconnect the yaw rate sensor sub bus line connector (J44) to the CAN J/C.

NEXT

11	CHECK CAN BUS LINE FOR SHORT TO +B(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
D6–16 (BAT) – D6–6 (CANH)	• IG switch OFF • Stop light switch OFF	1 MΩ or higher
D6–16 (BAT) – D6–14 (CANL)	• IG switch OFF • Stop light switch OFF	1 MΩ or higher

OK	REPLACE YAW RATE SENSOR (SEE PUB. No. RM990E, PAGE 32–91)

NG

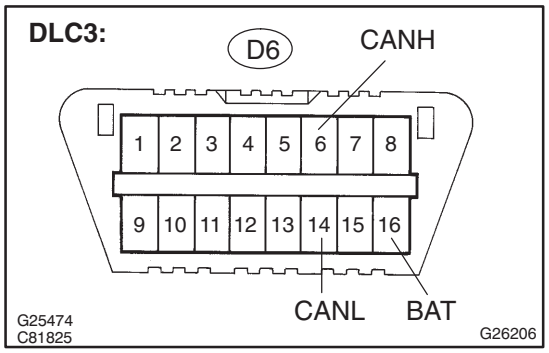
REPAIR OR REPLACE YAW RATE SENSOR SUB BUS LINE OR CONNECTOR (CAN–H, CAN–L)

12	CONNECT CONNECTOR

(a) Reconnect the steering angle sensor sub bus line connector (J43) to the CAN J/C.

NEXT

13	CHECK CAN BUS LINE FOR SHORT TO +B(STEERING ANGLE SENSOR SUB BUS LINE)



(a) Disconnect the steering angle sensor connector (S15).
(b) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified value
D6–16 (BAT) – D6–6 (CANH)	• IG switch OFF • Stop light switch OFF	1 MΩ or higher
D6–16 (BAT) – D6–14 (CANL)	• IG switch OFF • Stop light switch OFF	1 MΩ or higher

OK → REPLACE STEERING ANGLE SENSOR (SEE PAGE 32–26)

NG

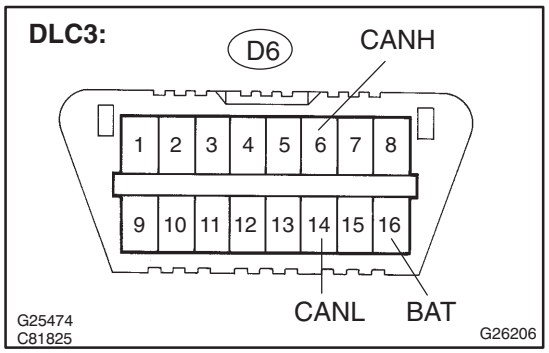
REPAIR OR REPLACE STEERING ANGLE SENSOR SUB BUS LINE OR CONNECTOR (CAN–H, CAN–L)

14	CONNECT CONNECTOR

(a) Reconnect the skid control ECU sub bus line connector (J42) to the CAN J/C.

NEXT

15	CHECK CAN BUS LINE FOR SHORT TO +B(SKID CONTROL ECU SUB BUS LINE)



(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
D6–16 (BAT) – D6–6 (CANH)	• IG switch OFF • Stop light switch OFF	1 MΩ or higher
D6–16 (BAT) – D6–14 (CANL)	• IG switch OFF • Stop light switch OFF	1 MΩ or higher

OK → REPLACE MASTER CYLINDER SOLENOID (SEE PAGE 32–12)

NG

REPAIR OR REPLACE SKID CONTROL ECU SUB BUS LINE OR CONNECTOR (CAN–H, CAN–L)