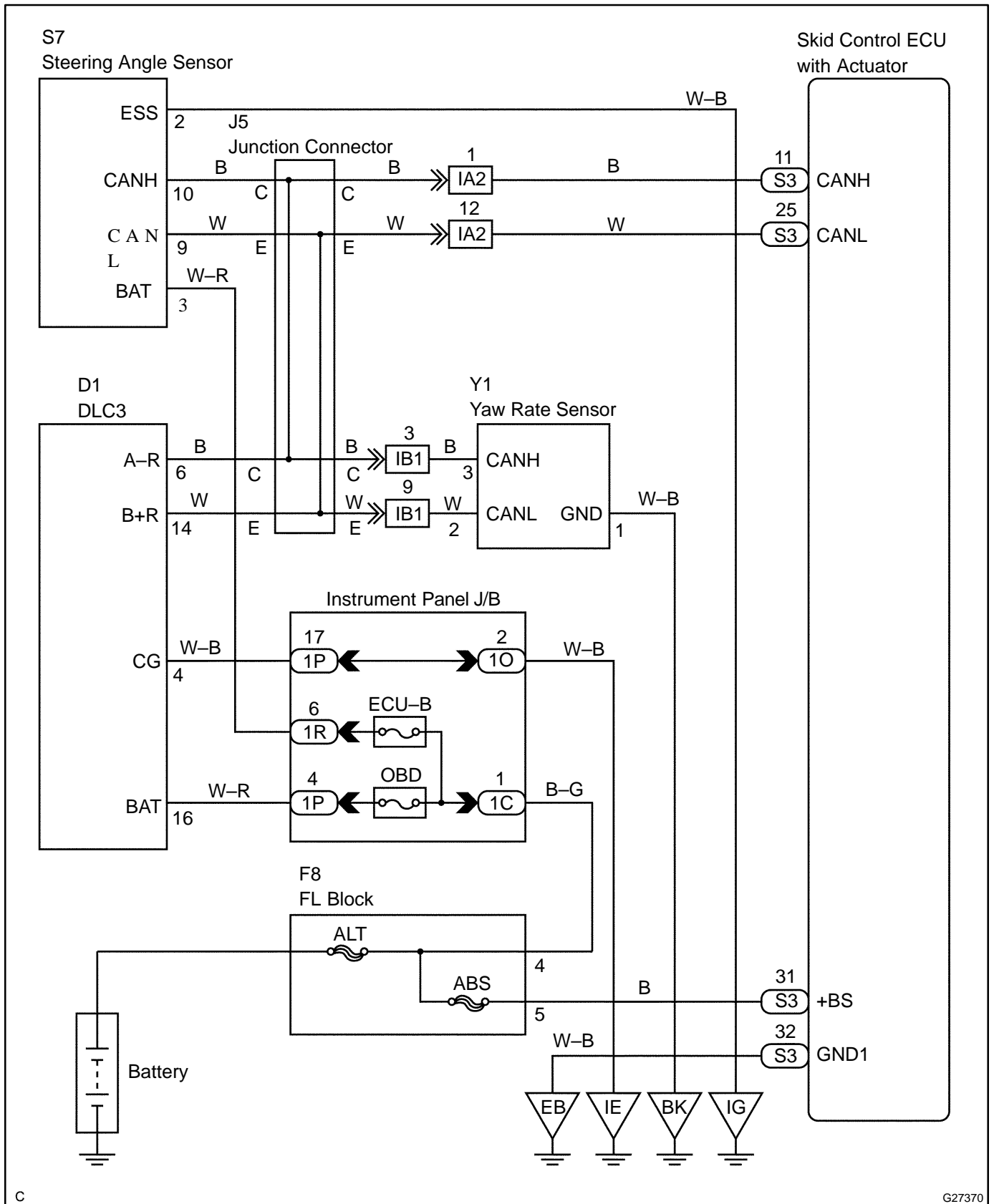


SKID CONTROL ECU COMMUNICATION STOP MODE

CIRCUIT DESCRIPTION

DTC No.	DTC Detecting Condition	Trouble Area
U0121/94	<ul style="list-style-type: none"> • The condition that skid control ECU can not transmit data continues for more than 5 secs. • The condition that skid control ECU and not transmit data repeatedly occurs 10 times. 	<ul style="list-style-type: none"> • CANL or CANH circuit • Skid control ECU • Steering angle sensor • Yaw rate sensor • Junction connector
U0123/62	<ul style="list-style-type: none"> • When ECU terminal IG1 voltage is 9.5 V or more, the data is not received from yaw rate sensor for more than 1 sec. • When ECU terminal IG1 voltage is 9.5 V or more, the condition that the data received from yaw rate sensor is impossible once or more within 5 sec., and it repeatedly occurs 10 times. 	
U0124/95	<ul style="list-style-type: none"> • When ECU terminal IG1 voltage is 9.5 V or more, data is not received from deceleration sensor for more than 1 sec. • When ECU terminal IG1 voltage is 9.5 V or more, data reception from deceleration sensor is impossible once or more within 5 sec., and it repeatedly occurs 10 times. 	
U0126/63	<ul style="list-style-type: none"> • When ECU terminal IG1 voltage is 9.5 V or more, data is not received from steering angle sensor for more than 1 sec. • When ECU terminal IG1 voltage is 9.5 V or more, data reception from steering angle sensor is impossible once or more within 5 sec., and it repeatedly occurs 10 times. 	

WIRING DIAGRAM

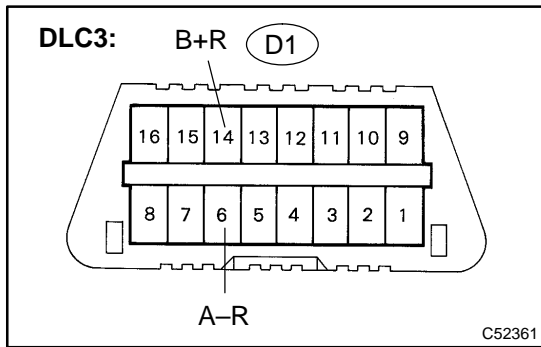


C

G27370

INSPECTION PROCEDURE

1 CHECK CAN BUS LINE(B+R – A-R)



- (a) Turn the ignition switch off.
- (b) Measure the resistance according to the value(s) in the table below.

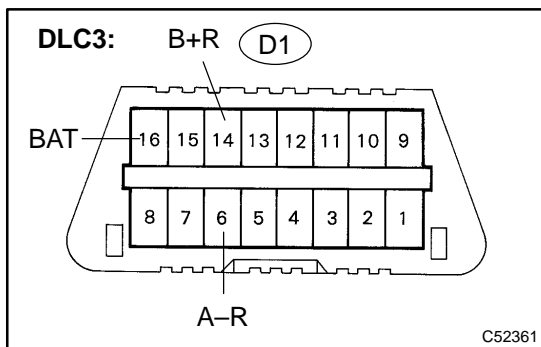
Tester connection	Condition	Specified value	Result
D1-6 (A-R) – D1-14 (B+R)	Ignition SW OFF	54 to 67 Ω	OK
D1-6 (A-R) – D1-14 (B+R)	Ignition SW OFF	67 Ω or higher	NG-A
D1-6 (A-R) – D1-14 (B+R)	Ignition SW OFF	Below 54 Ω	NG-B

NG-A → Go to step 4

NG-B → Go to step 6

OK

2 CHECK CAN BUS LINE FOR SHORT TO +B(BAT – A-R, BAT – B+R)



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

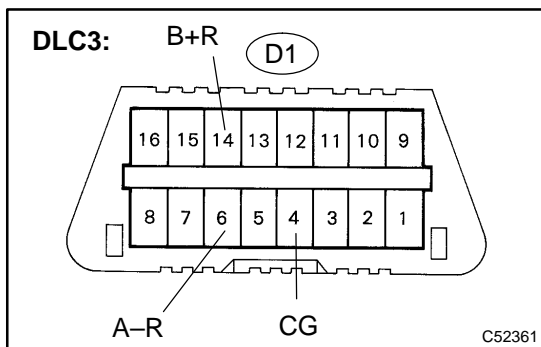
Standard:

Tester connection	Condition	Specified value
D1-16 (BAT) – D1-6 (A-R)	Ignition SW OFF	10 kΩ or higher
D1-16 (BAT) – D1-14 (B+R)	Ignition SW OFF	10 kΩ or higher

NG → Go to step 13

OK

3 CHECK CAN BUS LINE FOR SHORT TO GND(CG – A-R, CG – B+R)



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

Standard:

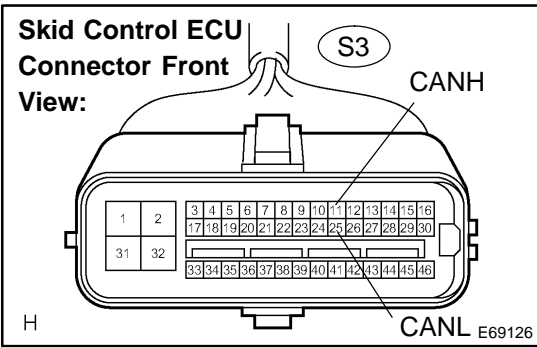
Tester connection	Condition	Specified value
D1-4 (CG) – D1-6 (A-R)	Ignition SW OFF	3 kΩ or higher
D1-4 (CG) – D1-14 (B+R)	Ignition SW OFF	3 kΩ or higher

NG → Go to step 19

OK

REPLACE SKID CONTROL ECU WITH ACTUATOR

4 CHECK CAN MAIN BUS LINE FOR DISCONNECTION(SKID CONTROL ECU – JUNCTION CONNECTOR(J5))



- (a) Disconnect the skid control ECU connector (S3).
- (b) Measure the resistance according to the value(s) in the table below.

Standard:

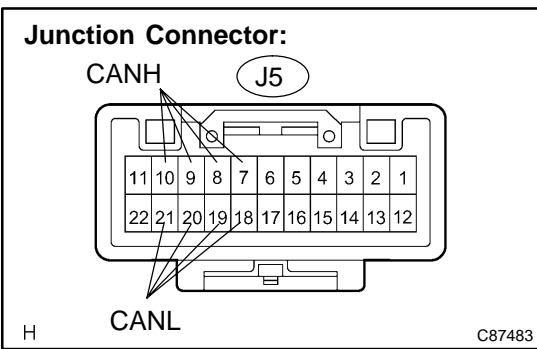
Tester connection	Condition	Specified value
S3-11 (CANH) – S3-25 (CANL)	Ignition SW OFF	108 to 132 Ω

NG → Go to step 5

OK

REPLACE SKID CONTROL ECU WITH ACTUATOR

5 INSPECT JUNCTION CONNECTOR(J5)



- (a) Disconnect the junction connector (J5).
- (b) Measure the resistance according to the value(s) in the table below.

Standard:

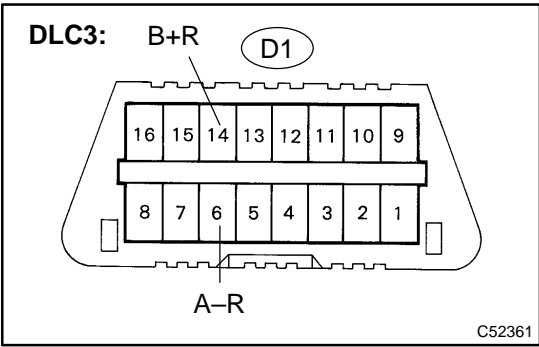
Tester connection	Condition	Specified value
J5-7 (CANH) – J5-8 (CANH)	Ignition SW OFF	Below 1 Ω
J5-7 (CANH) – J5-9 (CANH)	Ignition SW OFF	Below 1 Ω
J5-7 (CANH) – J5-10 (CANH)	Ignition SW OFF	Below 1 Ω
J5-18 (CANL) – J5-19 (CANL)	Ignition SW OFF	Below 1 Ω
J5-18 (CANL) – J5-20 (CANL)	Ignition SW OFF	Below 1 Ω
J5-18 (CANL) – J5-21 (CANL)	Ignition SW OFF	Below 1 Ω

NG → REPLACE JUNCTION CONNECTOR (J5)

OK

REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (SKID CONTROL ECU – JUNCTION CONNECTOR)

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



- (a) Disconnect the junction connector (J5).
- (b) Measure the resistance according to the value(s) in the table below.

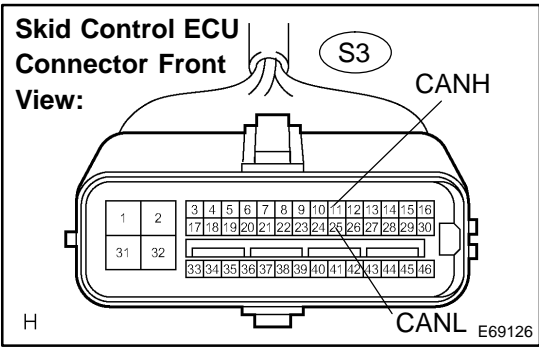
Standard:

Tester connection	Condition	Specified value
D1-6 (A-R) - D1-14 (B+R)	Ignition SW OFF	10 kΩ or higher

NG REPAIR OR REPLACE DLC3 SUB BUS LINE OR CONNECTOR

OK

7 CHECK CAN BUS LINES FOR SHORT(SKID CONTROL ECU - JUNCTION CONNECTOR(J5))



- (a) Disconnect the skid control ECU connector (S3).
- (b) Measure the resistance according to the value(s) in the table below.

Standard:

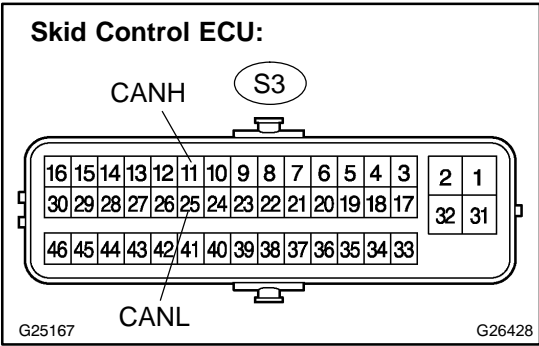
Tester connection	Condition	Specified value
S3-11 (CANH) - S3-25 (CANL)	Ignition SW OFF	10 kΩ or higher

HINT:
Confirm the disconnection of the junction connector during measurement.

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

OK

8 INSPECT SKID CONTROL ECU WITH ACTUATOR(CANH - CANL)



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

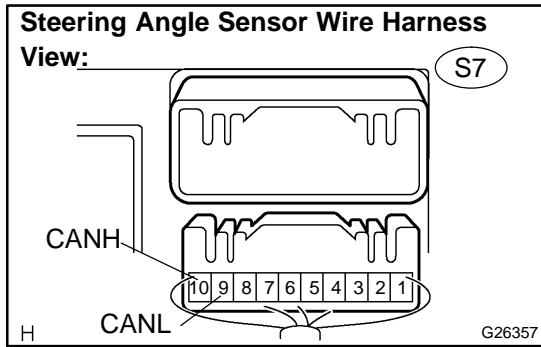
Standard:

Tester connection	Condition	Specified value
S3-11 (CANH) - S3-25 (CANL)	Ignition SW OFF	108 to 132 Ω

NG REPLACE SKID CONTROL ECU WITH ACTUATOR

OK

9 CHECK CAN BUS LINES FOR SHORT(STEERING ANGLE SENSOR – JUNCTION CONNECTOR(J5))



- (a) Disconnect the steering angle sensor connector (S7).
- (b) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified value
S7-10 (CANH) – S7-9 (CANL)	Ignition SW OFF	10 kΩ or higher

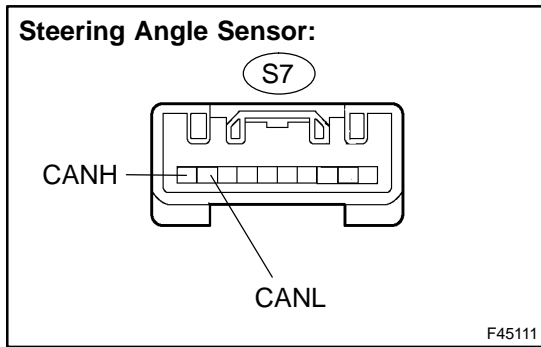
HINT:

Confirm the disconnection of the junction connector during measurement.

NG → **REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (STEERING ANGLE SENSOR – JUNCTION CONNECTOR (J5))**

OK

10 INSPECT STEERING ANGLE SENSOR(CANH – CANL)



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

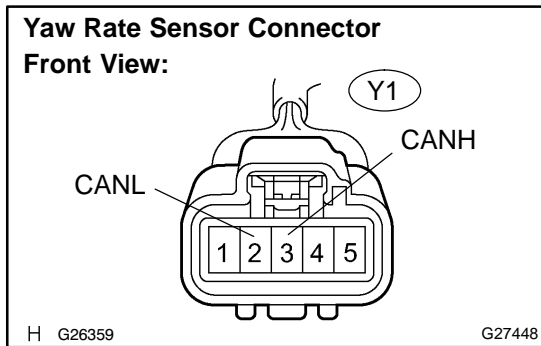
Standard:

Tester connection	Condition	Specified value
S7-10 (CANH) – S7-9 (CANL)	Ignition SW OFF	108 to 132 Ω

NG → **REPLACE STEERING ANGLE SENSOR**

OK

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
Y1-3 (CANH) – Y1-2 (CANL)	Ignition SW OFF	10 kΩ or higher

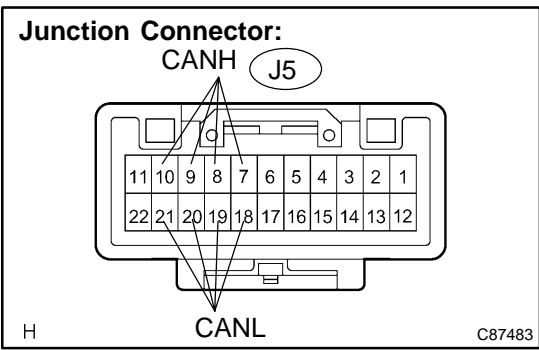
HINT:

Confirm the disconnection of the junction connector during measurement.

NG → **REPAIR OR REPLACE YAW RATE SENSOR SUB BUS LINE OR CONNECTOR**

OK

12 INSPECT JUNCTION CONNECTOR(J5)



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

Standard:

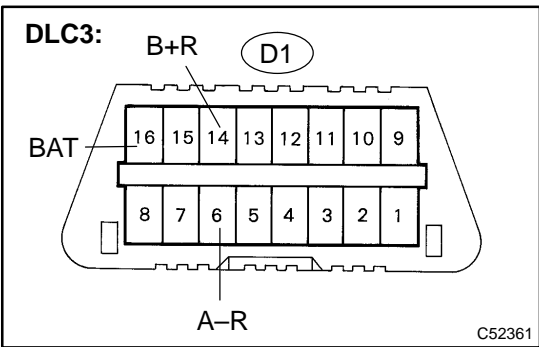
Tester connection	Condition	Specified value
J5-7, 8, 9, 10 (CANH) – J5-18, 19, 20, 21 (CANL)	Ignition SW OFF	10 kΩ or higher

NG → REPLACE JUNCTION CONNECTOR (J5)

OK

REPLACE YAW RATE SENSOR

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



(a) Disconnect the junction connector (J5).
 (b) Measure the resistance according to the value(s) in the table below.

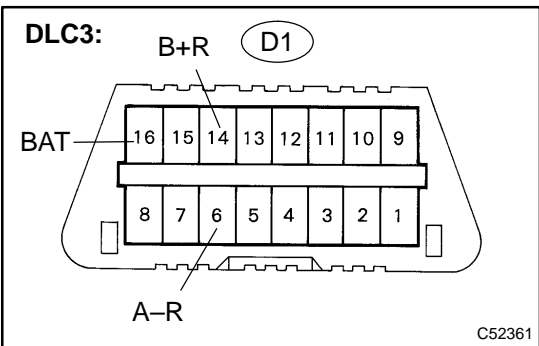
Standard:

Tester connection	Condition	Specified value
D1-16 (BAT) – D1-6 (A-R)	Ignition SW OFF	10 kΩ or higher
D1-16 (BAT) – D1-14 (B+R)	Ignition SW OFF	10 kΩ or higher

NG → REPAIR OR REPLACE DLC3 SUB BUS LINE OR CONNECTOR

OK

14 CHECK CAN BUS LINE FOR SHORT TO +B(SKID CONTROL ECU – JUNCTION CONNECTOR(J5))



(a) Connect the junction connector (J5).
 (b) Disconnect the skid control ECU connector (S3).
 (c) Measure the resistance according to the value(s) in the table below.

Standard:

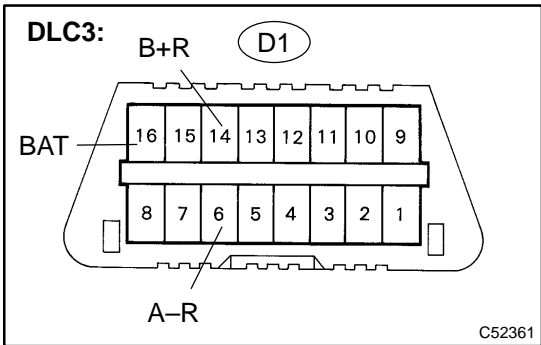
Tester connection	Condition	Specified value
D1-16 (BAT) – D1-6 (A-R)	Ignition SW OFF	10 kΩ or higher
D1-16 (BAT) – D1-14 (B+R)	Ignition SW OFF	10 kΩ or higher

NG → Go to step 15

OK

REPLACE SKID CONTROL ECU WITH ACTUATOR

15 CHECK CAN BUS LINE FOR SHORT TO +B(STEERING ANGLE SENSOR - JUNCTION CONNECTOR(J5))



- (a) Connect the skid control ECU connector (S3).
- (b) Disconnect the steering angle sensor connector (S7).
- (c) Measure the resistance according to the value(s) in the table below.

Standard:

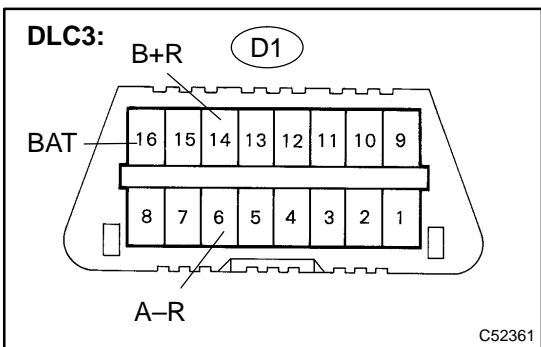
Tester connection	Condition	Specified value
D1-16 (BAT) - D1-6 (A-R)	Ignition SW OFF	10 kΩ or higher
D1-16 (BAT) - D1-14 (B+R)	Ignition SW OFF	10 kΩ or higher

NG Go to step 16

OK

REPLACE STEERING ANGLE SENSOR

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



- (a) Connect the steering angle sensor connector (S7).
- (b) Disconnect the yaw rate sensor connector (Y1).
- (c) Measure the resistance according to the value(s) in the table below.

Standard:

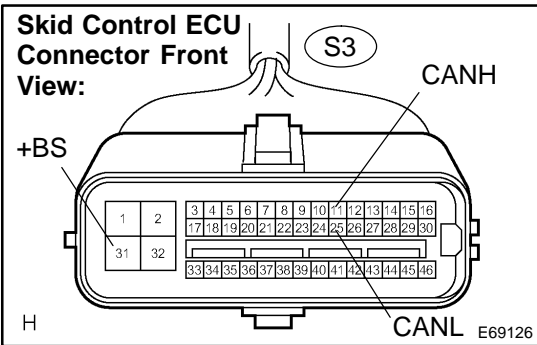
Tester connection	Condition	Specified value
D1-16 (BAT) - D1-6 (A-R)	Ignition SW OFF	10 kΩ or higher
D1-16 (BAT) - D1-14 (B+R)	Ignition SW OFF	10 kΩ or higher

NG Go to step 17

OK

REPLACE YAW RATE SENSOR

17 CHECK CAN BUS LINE FOR SHORT TO +B(SKID CONTROL ECU - JUNCTION CONNECTOR(J5))



- (a) Connect the yaw rate sensor connector (Y1).
- (b) Disconnect the junction connector (J5).
- (c) Disconnect the skid control ECU connector (S3).
- (d) Measure the resistance according to the value(s) in the table below.

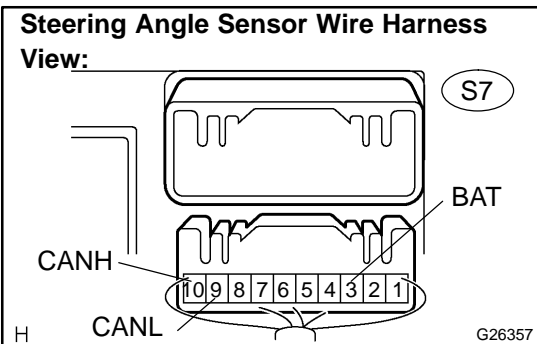
Standard:

Tester connection	Condition	Specified value
S3-31 (+BS) - S3-11 (CANH)	Ignition SW OFF	10 kΩ or higher
S3-31 (+BS) - S3-25 (CANL)	Ignition SW OFF	10 kΩ or higher

NG REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (SKID CONTROL ECU - JUNCTION CONNECTOR (J5))

OK

18 CHECK CAN BUS LINE FOR SHORT TO +B(STEERING ANGLE SENSOR - JUNCTION CONNECTOR(J5))



- (a) Connect the skid control ECU connector (S3).
- (b) Disconnect the steering angle sensor connector (S7).
- (c) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified value
S7-3 (BAT) - S7-10 (CANH)	Ignition SW OFF	10 kΩ or higher
S7-3 (BAT) - S7-9 (CANL)	Ignition SW OFF	10 kΩ or higher

HINT:

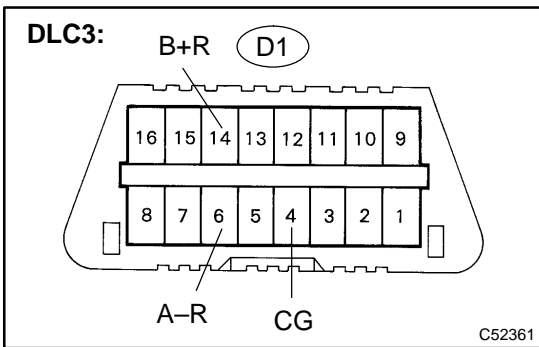
Confirm the disconnection of the junction connector during measurement.

NG REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (STEERING ANGLE SENSOR - JUNCTION CONNECTOR (J5))

OK

REPAIR OR REPLACE YAW RATE SENSOR SUB BUS LINE OR CONNECTOR

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



- (a) Disconnect the junction connector (J5).
- (b) Measure the resistance according to the value(s) in the table below.

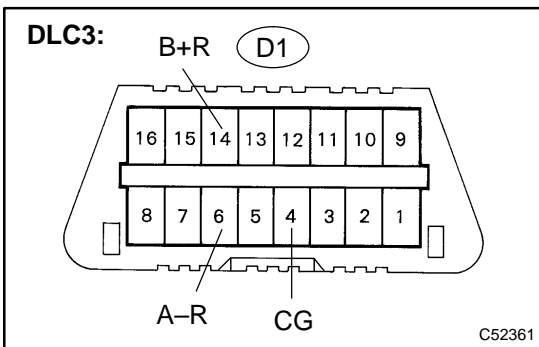
Standard:

Tester connection	Condition	Specified value
D1-4 (CG) – D1-6 (A-R)	Ignition SW OFF	10 kΩ or higher
D1-4 (CG) – D1-14 (B+R)	Ignition SW OFF	10 kΩ or higher

NG → **REPAIR OR REPLACE DLC3 SUB BUS LINE OR CONNECTOR**

OK

20 CHECK CAN BUS LINE FOR SHORT TO GND(SKID CONTROL ECU – JUNCTION CONNECTOR(J5))



- (a) Connect the junction connector (J5).
- (b) Disconnect the skid control ECU connector (S3).
- (c) Measure the resistance according to the value(s) in the table below.

Standard:

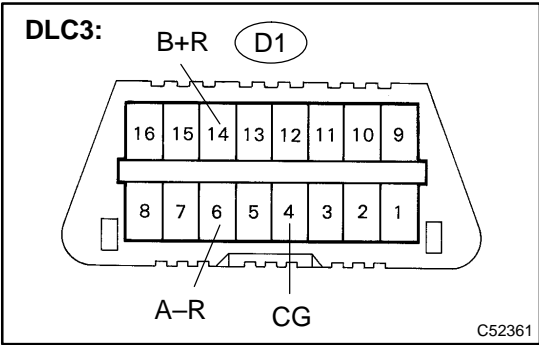
Tester connection	Condition	Specified value
D1-4 (CG) – D1-6 (A-R)	Ignition SW OFF	3 kΩ or higher
D1-4 (CG) – D1-14 (B+R)	Ignition SW OFF	3 kΩ or higher

NG → **Go to step 21**

OK

REPLACE SKID CONTROL ECU WITH ACTUATOR

21 CHECK CAN BUS LINE FOR SHORT TO GND(STEERING ANGLE SENSOR - JUNCTION CONNECTOR(J5))



- (a) Connect the skid control ECU connector (S3).
- (b) Disconnect the steering angle sensor connector (S7).
- (c) Measure the resistance according to the value(s) in the table below.

Standard:

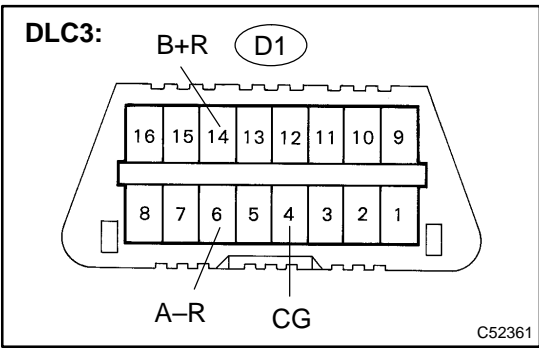
Tester connection	Condition	Specified value
D1-4 (CG) - D1-6 (A-R)	Ignition SW OFF	3 kΩ or higher
D1-4 (CG) - D1-14 (B+R)	Ignition SW OFF	3 kΩ or higher

NG → Go to step 22

OK

REPLACE STEERING ANGLE SENSOR

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



- (a) Connect the steering angle sensor connector (S7).
- (b) Disconnect the yaw rate sensor connector (Y1).
- (c) Measure the resistance according to the value(s) in the table below.

Standard:

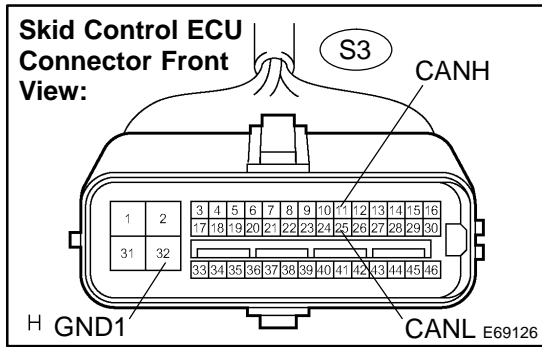
Tester connection	Condition	Specified value
D1-4 (CG) - D1-6 (A-R)	Ignition SW OFF	3 kΩ or higher
D1-4 (CG) - D1-14 (B+R)	Ignition SW OFF	3 kΩ or higher

NG → Go to step 23

OK

REPLACE YAW RATE SENSOR

23 CHECK CAN BUS LINE FOR SHORT TO GND(SKID CONTROL ECU – JUNCTION CONNECTOR(J5))



- (a) Connect the yaw rate sensor connector (Y1).
- (b) Disconnect the junction connector (J5).
- (c) Disconnect the skid control ECU connector (S3).
- (d) Measure the resistance according to the value(s) in the table below.

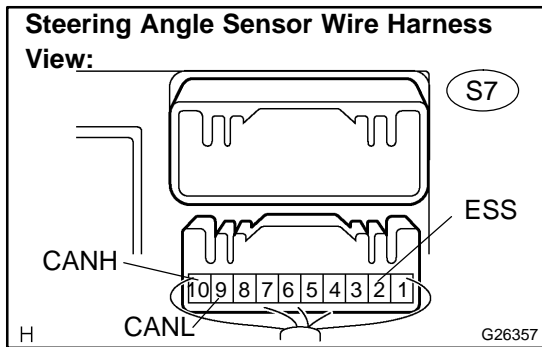
Standard:

Tester connection	Condition	Specified value
S3-32 (GND1) – S3-11 (CANH)	Ignition SW OFF	10 kΩ or higher
S3-32 (GND1) – S3-25 (CANL)	Ignition SW OFF	10 kΩ or higher

NG REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (SKID CONTROL ECU – JUNCTION CONNECTOR (J5))

OK

24 CHECK CAN BUS LINE FOR SHORT TO GND(STEERING ANGLE SENSOR – JUNCTION CONNECTOR(J5))



- (a) Connect the skid control ECU connector (S3).
- (b) Disconnect the steering angle sensor connector (S7).
- (c) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified value
S7-2 (ESS) – S7-10 (CANH)	Ignition SW OFF	10 kΩ or higher
S7-2 (ESS) – S7-9 (CANL)	Ignition SW OFF	10 kΩ or higher

HINT:

Confirm the disconnection of the junction connector during measurement.

NG REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (STEERING ANGLE SENSOR – JUNCTION CONNECTOR (J5))

OK

REPAIR OR REPLACE YAW RATE SENSOR SUB BUS LINE OR CONNECTOR