

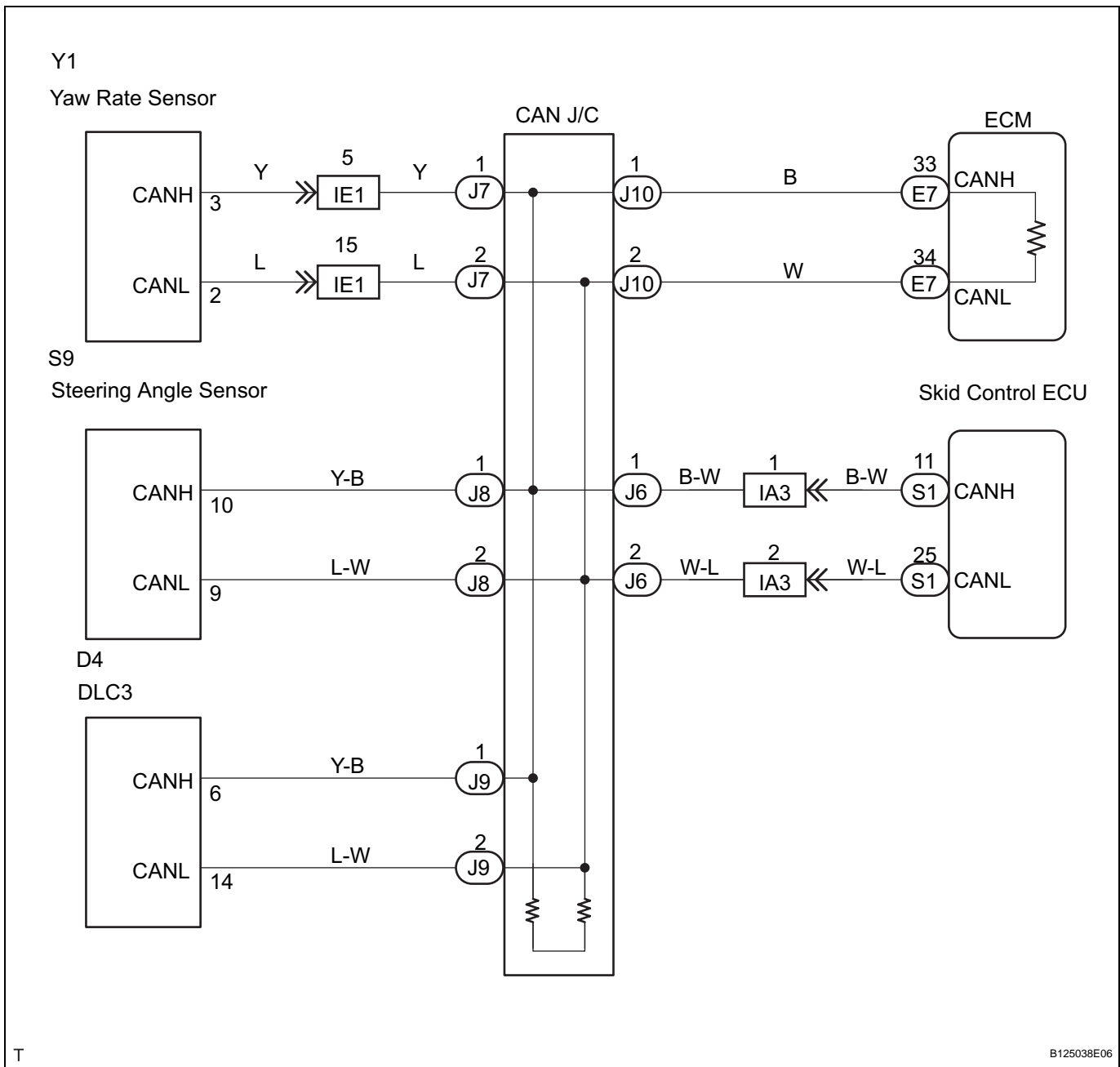
## Short in CAN Bus Lines

### 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.

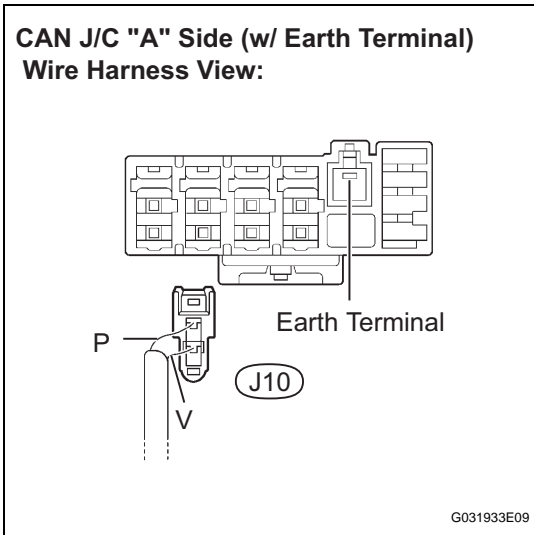
Symptom	Trouble Area
Resistance between terminals 6(CANH) and 14(CANL) of the DLC3 is below 54 Ω.	<ul style="list-style-type: none"> <li>• Short in CAN bus lines</li> <li>• Skid control ECU</li> <li>• Steering angle sensor</li> <li>• Yaw rate sensor</li> <li>• ECM</li> <li>• CAN junction connector</li> </ul>

### WIRING DIAGRAM



CA

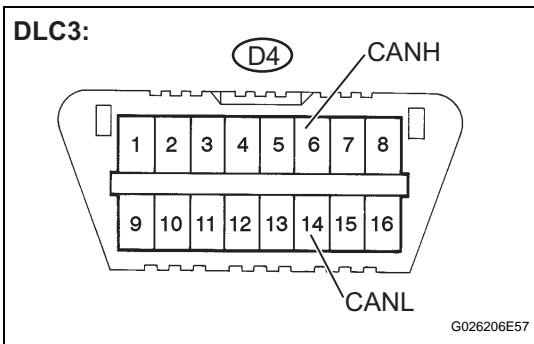
**1 CHECK CAN BUS LINES FOR SHORT CIRCUIT (DLC3 SUB BUS LINE)**



(a) Disconnect the DLC3 sub bus line connector (J10) 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.



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

**Standard resistance**

Tester Connection	Condition	Specified Value
D4-6 (CANH) - D4-14 (CANL)	<ul style="list-style-type: none"> <li>• Ignition switch OFF</li> <li>• Stop light switch OFF</li> </ul>	1 MΩ or more

CA

**NG** REPAIR OR REPLACE DLC3 BRANCH LINE OR CONNECTOR (CAN-H, CAN-L)

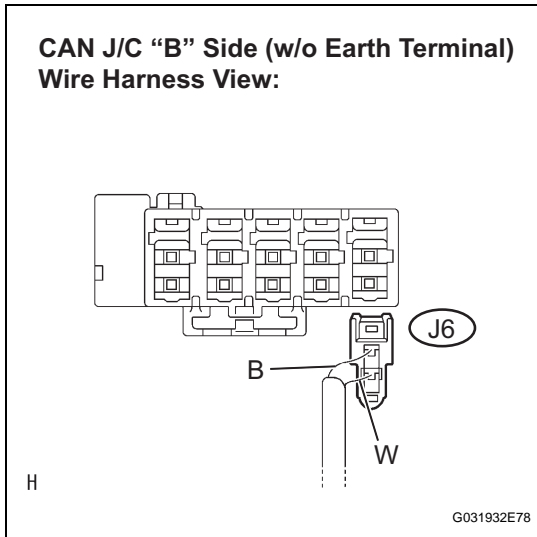
OK

**2 CONNECT CONNECTOR**

(a) Reconnect the DLC3 sub bus line connector (J10) to the CAN J/C.

NEXT

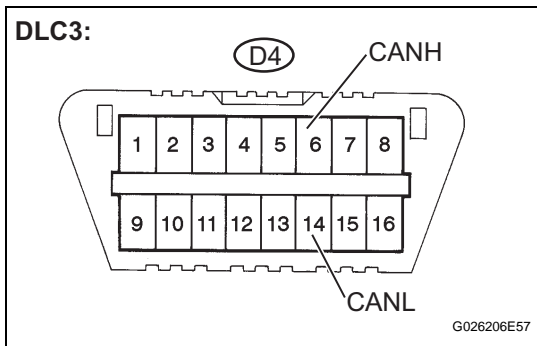
**3 CHECK CAN BUS LINES FOR SHORT CIRCUIT (SKID CONTROL ECU SUB BUS LINE)**



- (a) Disconnect the skid control ECU sub bus line connector (J6) 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.



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

**Standard resistance**

Tester Connection	Condition	Specified Value
D4-6 (CANH) - D4-14 (CANL)	<ul style="list-style-type: none"> <li>•Ignition switch OFF</li> <li>•Stop light switch OFF</li> </ul>	54 to 69 Ω

**OK** → **Go to step 10**

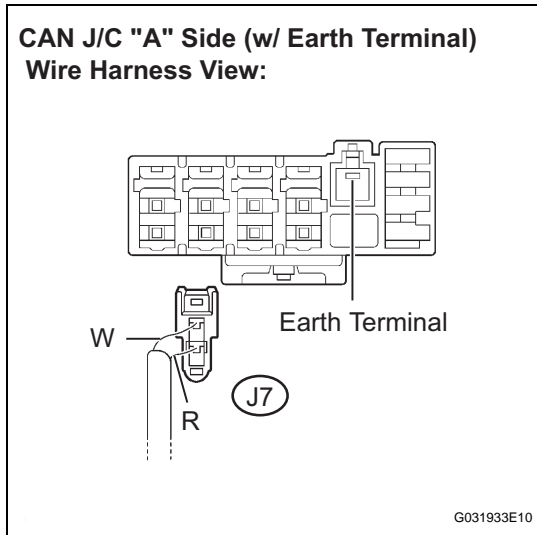
**NG**

**4 CONNECT CONNECTOR**

- (a) Reconnect the skid control ECU sub bus line connector (J6) to the CAN J/C.

**NEXT**

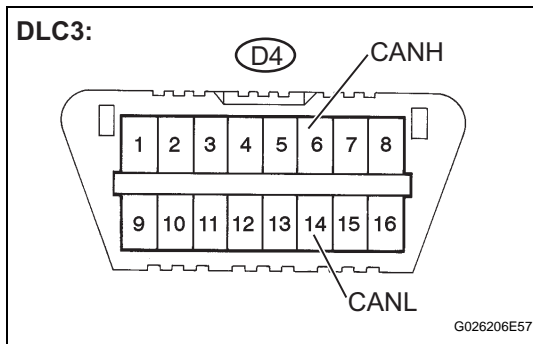
**CA**

**5 CHECK CAN BUS LINES FOR SHORT CIRCUIT (YAW RATE SENSOR SUB BUS LINE)**

- (a) Disconnect the yaw rate sensor sub bus line connector (J7) 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.



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

**Standard resistance**

Tester Connection	Condition	Specified Value
D4-6 (CANH) - D4-14 (CANL)	<ul style="list-style-type: none"> <li>• Ignition switch OFF</li> <li>• Stop light switch OFF</li> </ul>	54 to 69 $\Omega$

OK

Go to step 12

NG

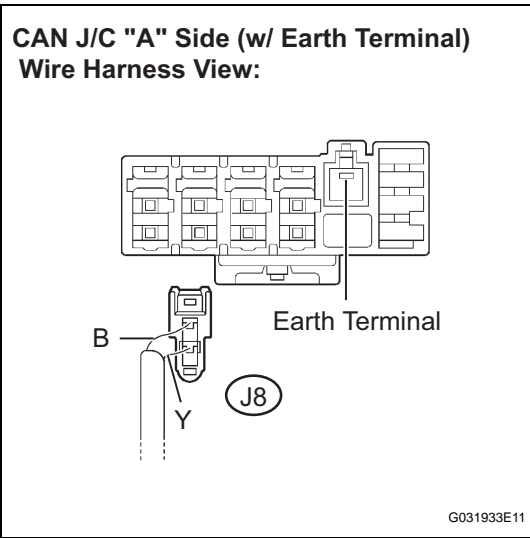
**6 CONNECT CONNECTOR**

- (a) Reconnect the yaw rate sensor sub bus line connector (J7) to the CAN J/C.

NEXT

CA

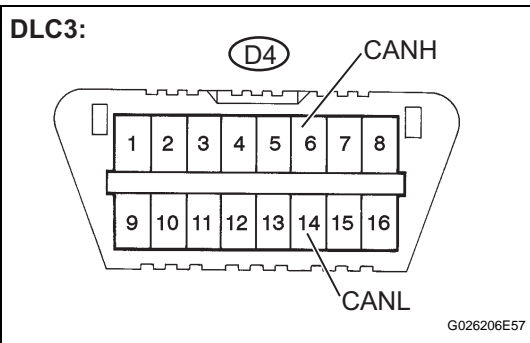
**7 CHECK CAN BUS LINES FOR SHORT CIRCUIT (STEERING ANGLE SENSOR SUB BUS LINE)**



(a) Disconnect the steering angle sensor sub bus line connector (J8) 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.



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

**Standard resistance**

Tester Connection	Condition	Specified Value
D4-6 (CANH) - D4-14 (CANL)	<ul style="list-style-type: none"> <li>• Ignition switch OFF</li> <li>• Stop light switch OFF</li> </ul>	54 to 69 Ω

**OK** → **Go to step 14**

**NG**

**8 CONNECT CONNECTOR**

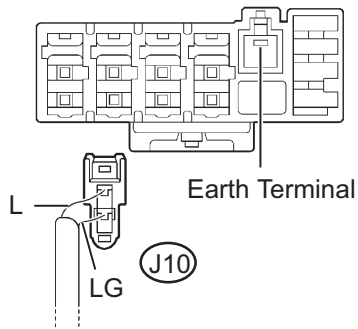
(a) Reconnect the steering angle sensor sub bus line connector (J8) to the CAN J/C.

**NEXT**

**CA**

**9 CHECK CAN BUS LINES FOR SHORT CIRCUIT (ECM MAIN BUS LINE)**

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



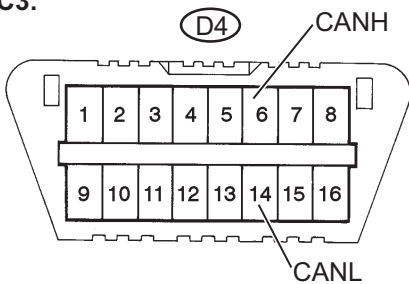
G031933E12

- (a) Disconnect the ECM main bus line connector (J10) 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:



G026206E57

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

**Standard resistance**

Tester Connection	Condition	Specified Value
D4-6 (CANH) - D4-14 (CANL)	<ul style="list-style-type: none"> <li>• Ignition switch OFF</li> <li>• Stop light switch OFF</li> </ul>	108 to 132 Ω

OK

Go to step 16

NG

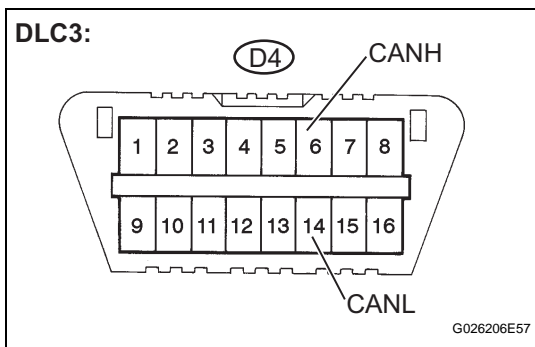
**REPLACE CAN J/C****10 CONNECT CONNECTOR**

- (a) Reconnect the skid control ECU sub bus line connector (J6) to the CAN J/C.

NEXT

**11 CHECK CAN BUS LINES FOR SHORT CIRCUIT (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 resistance**

Tester Connection	Condition	Specified Value
D4-6 (CANH) - D4-14 (CANL)	<ul style="list-style-type: none"> <li>Ignition switch OFF</li> <li>Stop light switch OFF</li> </ul>	54 to 69 Ω

**OK** → **REPLACE MASTER CYLINDER SOLENOID**

**NG**

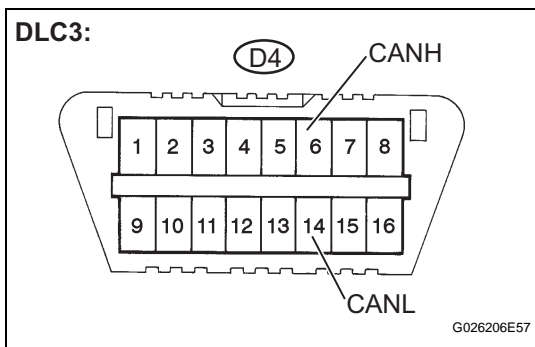
**REPAIR OR REPLACE SKID CONTROL ECU WITH ACTUATOR SUB BUS LINE OR CONNECTOR (CAN-H, CAN-L)**

**12 CONNECT CONNECTOR**

(a) Reconnect the yaw rate sensor sub bus line connector (J7) to the CAN J/C.

**NEXT**

**13 CHECK CAN BUS LINES FOR SHORT CIRCUIT (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 resistance**

Tester Connection	Condition	Specified Value
D4-6 (CANH) - D4-14 (CANL)	<ul style="list-style-type: none"> <li>Ignition switch OFF</li> <li>Stop light switch OFF</li> </ul>	54 to 69 Ω

**OK** → **REPLACE YAW RATE SENSOR**

**NG**

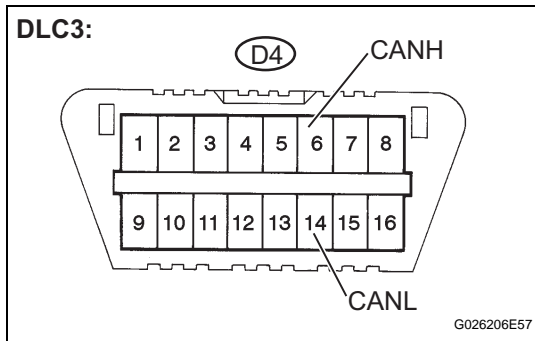
**REPAIR OR REPLACE YAW RATE SENSOR SUB BUS LINE OR CONNECTOR (CAN-H, CAN-L)**

**14 CONNECT CONNECTOR**

(a) Reconnect the steering angle sensor sub bus line connector (J8) to the CAN J/C.

**NEXT**

**CA**

**15 CHECK CAN BUS LINES FOR SHORT CIRCUIT (STEERING ANGLE SENSOR SUB BUS LINE)**

- (a) Disconnect the steering angle sensor connector (S9).  
 (b) Measure the resistance according to the value(s) in the table below.

**Standard resistance**

Tester Connection	Condition	Specified Value
D4-6 (CANH) - D4-14 (CANL)	<ul style="list-style-type: none"> <li>Ignition switch OFF</li> <li>Stop light switch OFF</li> </ul>	54 to 69 $\Omega$

OK

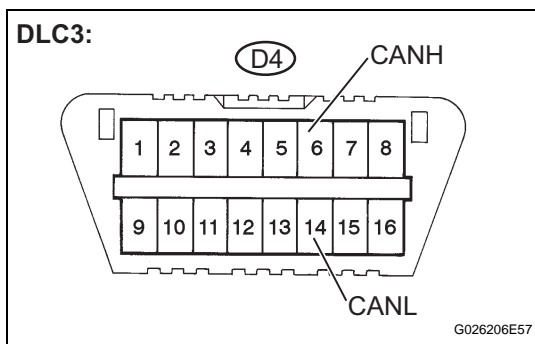
**REPLACE STEERING ANGLE SENSOR**

NG

**REPAIR OR REPLACE STEERING ANGLE SENSOR BRANCH LINE OR CONNECTOR (CAN-H, CAN-L)****16 CONNECT CONNECTOR**

- (a) Reconnect the ECM main bus line connector (J10) to the CAN J/C.

NEXT

**17 CHECK CAN BUS LINES FOR SHORT CIRCUIT (ECM MAIN BUS LINE)**

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

**Standard Resistance**

Tester Connection	Condition	Specified Value
D4-6 (CANH) - D4-14 (CANL)	<ul style="list-style-type: none"> <li>Ignition switch OFF</li> <li>Stop light switch OFF</li> </ul>	108 to 132 $\Omega$

OK

**REPLACE ECM**

NG

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

CA