

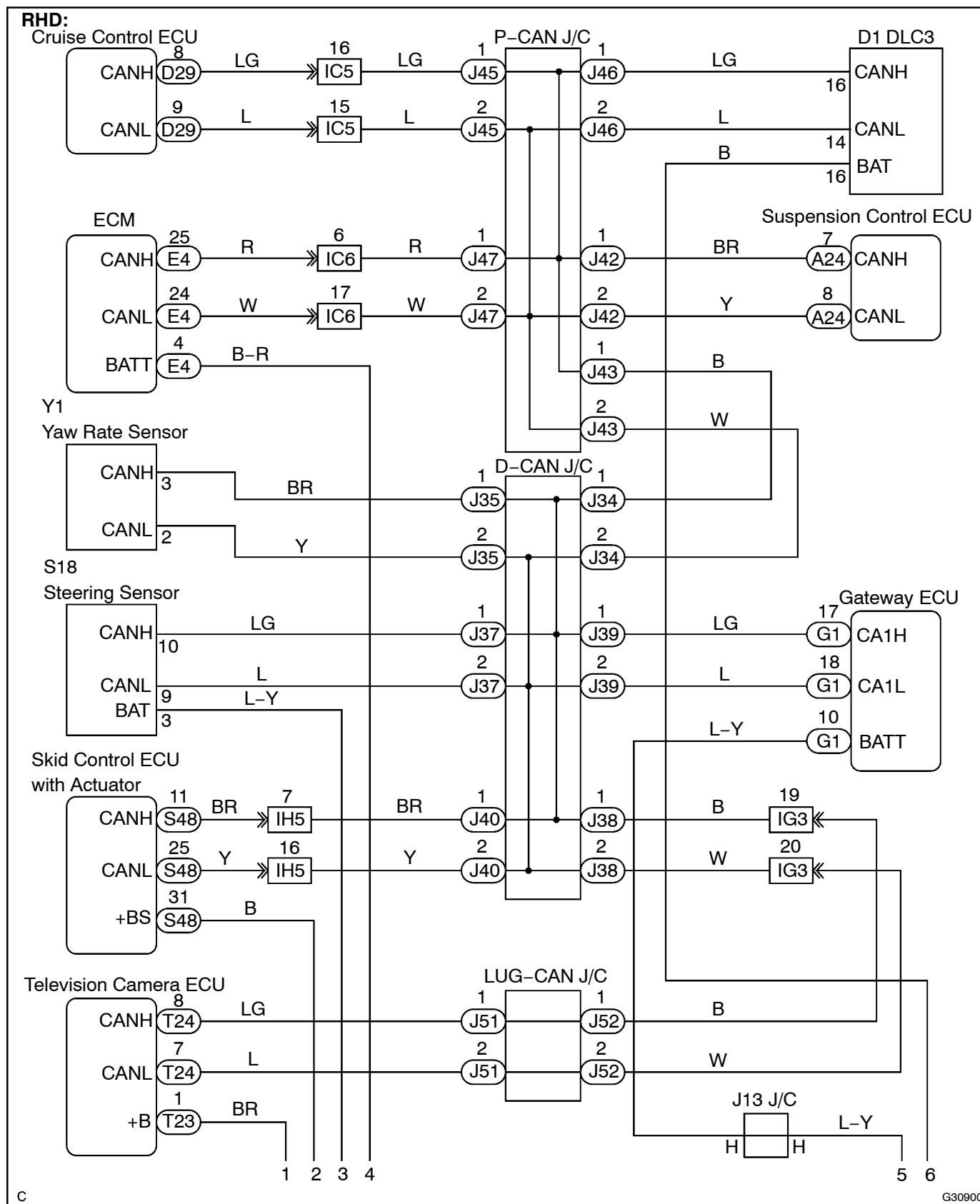
CHECK CAN BUS LINE FOR SHORT TO +B (RHD, w/ LEXUS Navigation System)

CIRCUIT DESCRIPTION

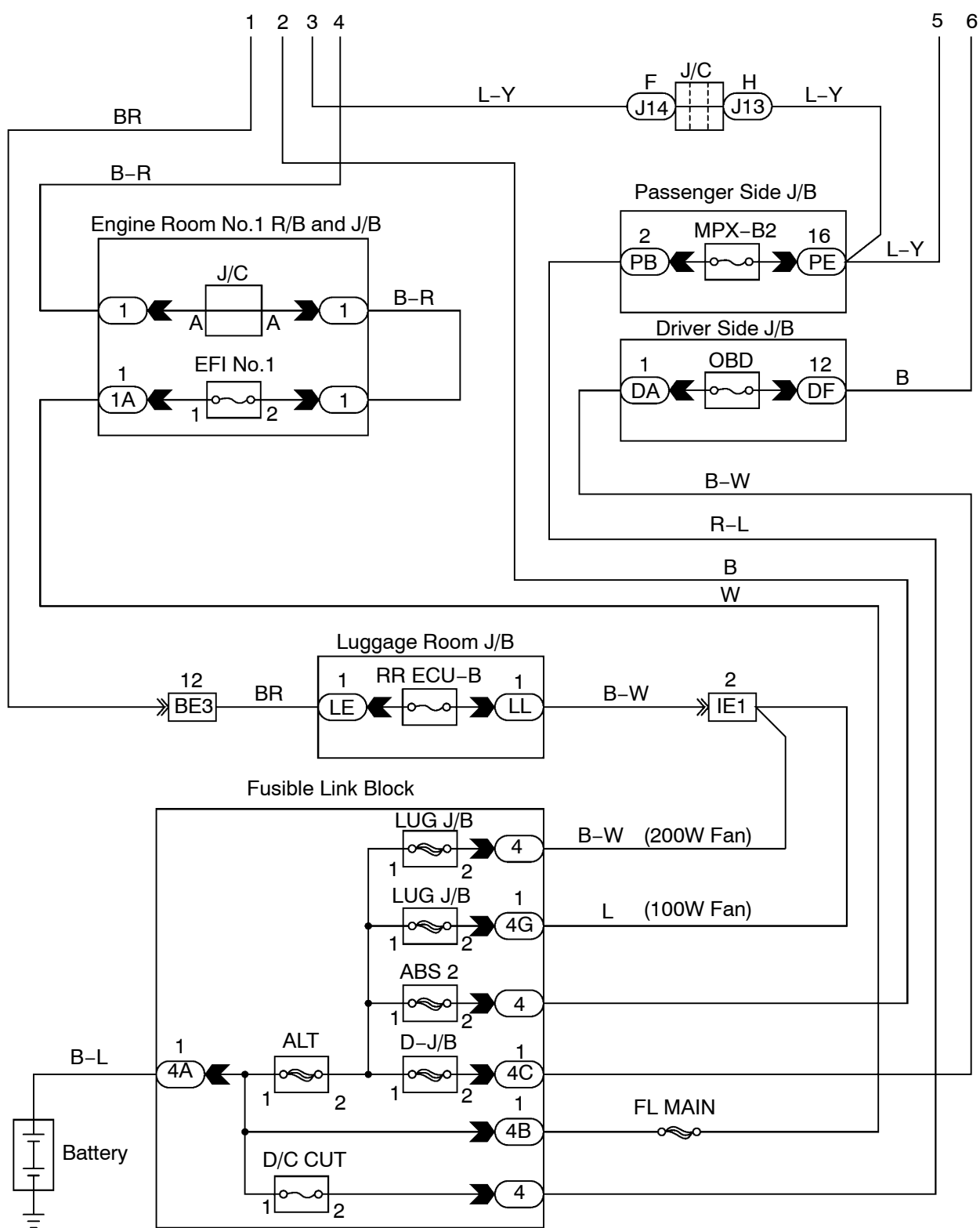
There may be a short circuit between the CAN bus line and +B when there is resistance between terminals 6 (CANH) and 16 (BAT) or terminals 14 (CANL) and 16 (BAT) of the DLC3.

Symptom	Trouble Area
There is resistance between terminals 6 (CANH) and 16 (BAT) or terminals 14 (CANL) and 16 (BAT) of the DLC 3.	<ul style="list-style-type: none"><li>• Short to +B</li><li>• Cruise control ECU</li><li>• Television camera ECU</li><li>• Skid control ECU with actuator</li><li>• Steering sensor</li><li>• Yaw rate sensor</li><li>• Suspension control ECU</li><li>• ECM</li><li>• Gateway ECU</li></ul>

## WIRING DIAGRAM

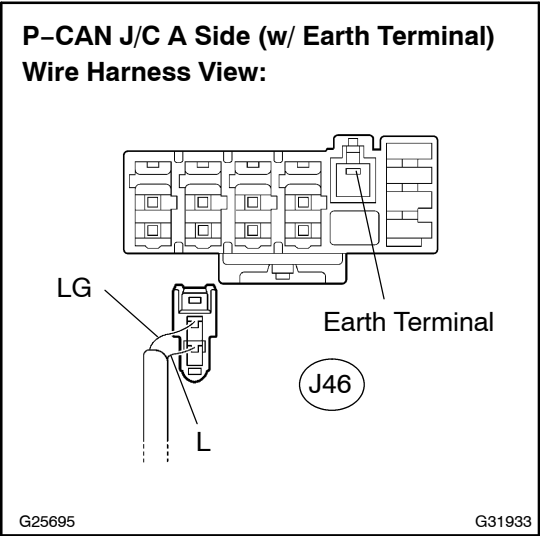


**RHD:**



INSPECTION PROCEDURE

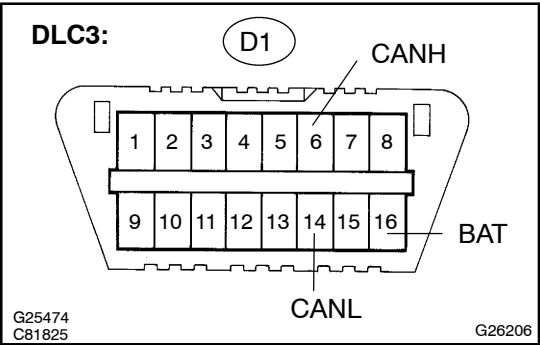
1 CHECK CAN BUS LINE FOR SHORT TO +B(DLC3 SUB BUS LINE)



- (a) Turn the ignition switch to the LOCK position.
- (b) Disconnect the DLC3 sub bus line connector (J46) from the P-CAN J/C A side (w/ earth terminal).

**NOTICE:**

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



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

**Standard:**

Tester connection	Condition	Specified value
D1-6 (CANH) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more
D1-14 (CANL) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more

**NG**

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

**OK**

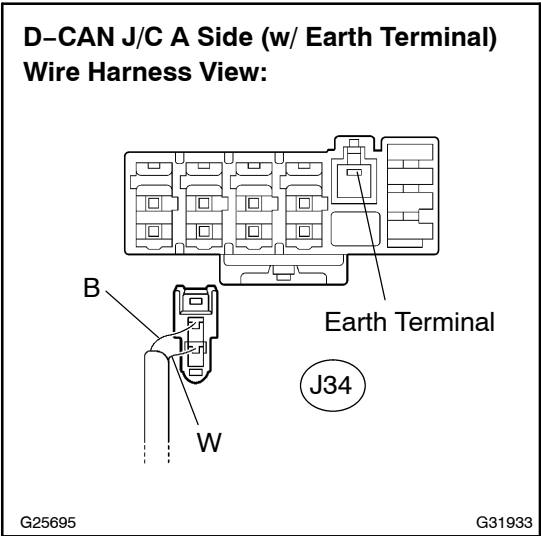
2 CONNECT CONNECTOR

- (a) Reconnect the DLC3 sub bus line connector (J46) to the P-CAN J/C A side (w/ earth terminal).



3

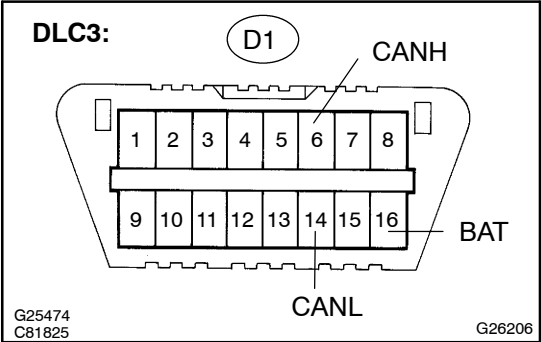
CHECK CAN BUS LINE FOR SHORT TO +B(CAN BUSES TO D-CAN J/C)



- (a) Disconnect the CAN main bus line connector (J34) from the D-CAN J/C A side (w/ earth terminal).

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:

Tester connection	Condition	Specified value
D1-6 (CANH) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more
D1-14 (CANL) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more

OK

Go to step 16

NG

4

CONNECT CONNECTOR

- (a) Reconnect the CAN main bus line connector (J34) to the D-CAN J/C A side (w/ earth terminal).



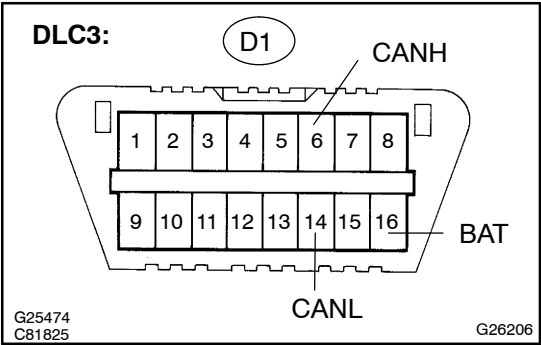
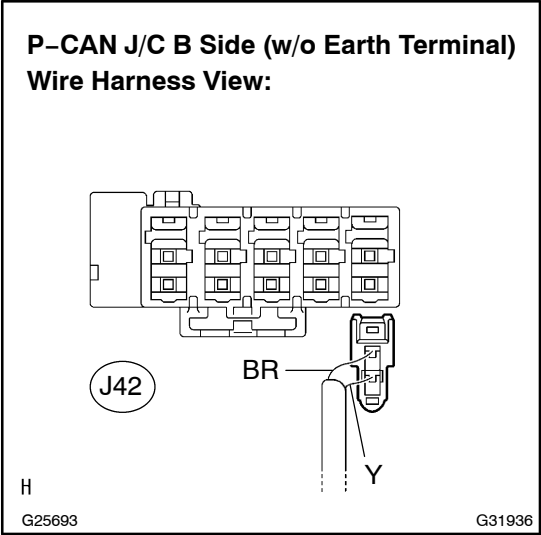
**5 CHECK CAN BUS LINE FOR SHORT TO +B(SUSPENSION CONTROL ECU SUB BUS LINE)**

**NOTICE:**  
For vehicles without electronic modulated air suspension, go to step 7.

- (a) Disconnect the suspension control ECU sub bus line connector (J42) from the P-CAN J/C B side (w/o earth terminal).

**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:**

Tester connection	Condition	Specified value
D1-6 (CANH) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more
D1-14 (CANL) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more

**OK**

**Go to step 12**

**NG**

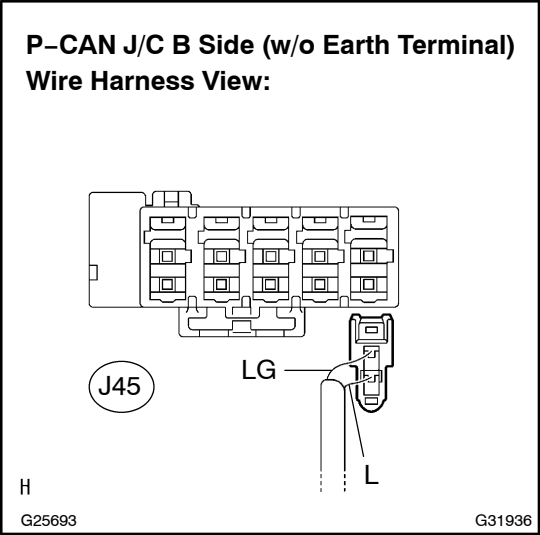
**6 CONNECT CONNECTOR**

- (a) Reconnect the suspension control ECU sub bus line connector (J42) to the P-CAN J/C B side (w/o earth terminal).



7

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

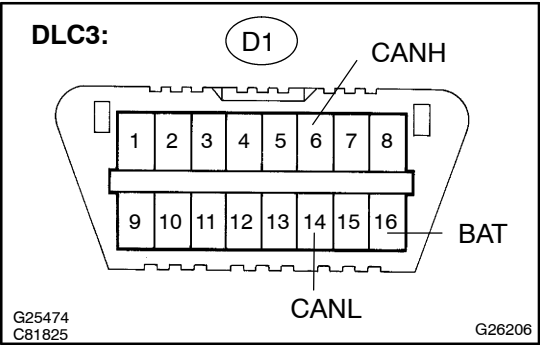


**NOTICE:**  
For vehicles without dynamic laser cruise control, go to step 9.

- (a) Disconnect the cruise control ECU sub bus line connector (J45) from the P-CAN J/C B side (w/o earth terminal).

**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:**

Tester connection	Condition	Specified value
D1-6 (CANH) – D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more
D1-14 (CANL) – D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more

OK

Go to step 14

NG

8

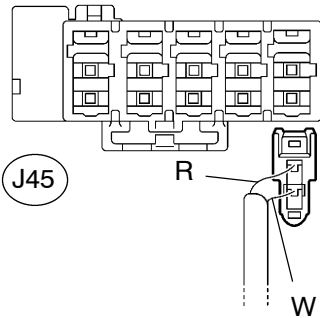
CONNECT CONNECTOR

- (a) Reconnect the cruise control ECU sub bus line connector (J45) to the P-CAN J/C B side (w/o earth terminal).



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

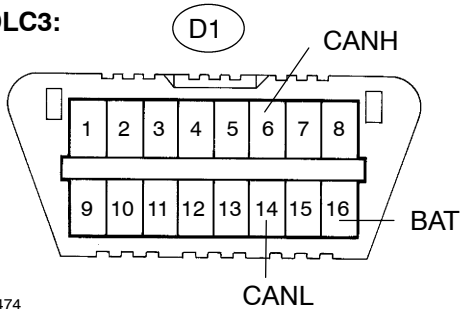
**P-CAN J/C B Side (w/o Earth Terminal)**  
Wire Harness View:



- (a) Disconnect the ECM sub bus line connector (J47) from the P-CAN J/C B side (w/o earth terminal).

**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
D1-6 (CANH) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more
D1-14 (CANL) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more

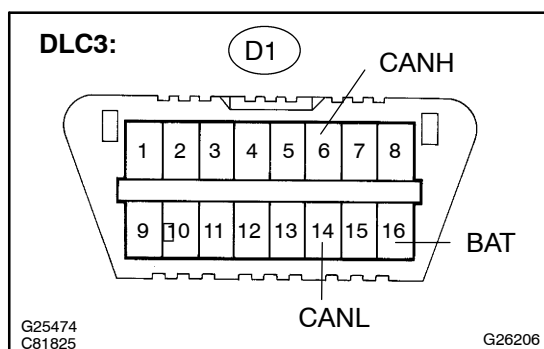
**NG**

**REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (D-CAN J/C - P-CAN J/C)**

**OK****10 CONNECT CONNECTOR**

- (a) Reconnect the ECM sub bus line connector (J47) to the P-CAN J/C B side (w/o earth terminal).



**11 CHECK CAN BUS LINE FOR SHORT TO B (ECM SUB BUS LINE)**

- (a) Disconnect the ECM connector (E4).  
 (b) Measure the resistance according to the value(s) in the table below.

**Standard:**

Tester Connection	Condition	Specified Value
D1-6 (CANH) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more
D1-14 (CANL) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more

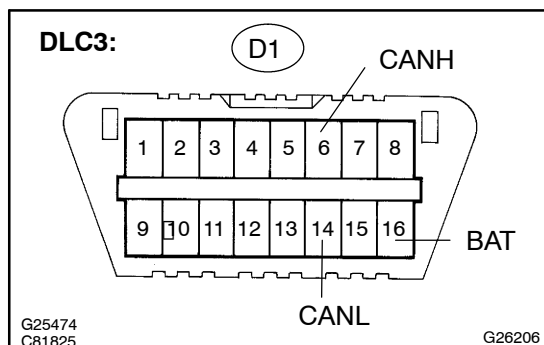
OK

**REPLACE ECM (SEE PAGE 10-21)**

NG

**REPAIR OR REPLACE ECM SUB BUS LINE OR CONNECTOR (CAN-H, CAN-L)****12 CONNECT CONNECTOR**

- (a) Reconnect the suspension control ECU sub bus line connector (J42) to the P-CAN/C-B side (w/o earth terminal).

**13 CHECK CAN BUS LINE FOR SHORT TO B (SUSPENSION CONTROL ECU SUB BUS LINE)**

- (a) Disconnect the suspension control ECU connector (A24).  
 (b) Measure the resistance according to the value(s) in the table below.

**Standard:**

Tester Connection	Condition	Specified Value
D1-6 (CANH) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more
D1-14 (CANL) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more

OK

**REPLACE SUSPENSION CONTROL ECU (SEE PAGE 25-20)**

NG

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

14

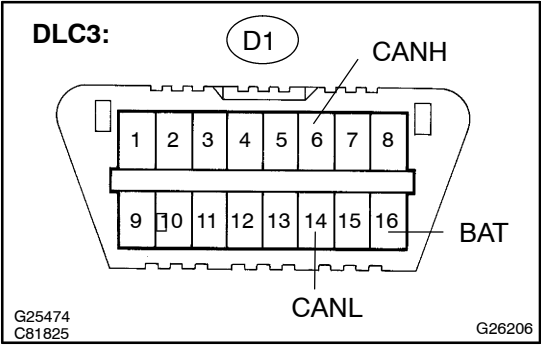
CONNECT CONNECTOR

- (a) Reconnect the cruise control ECU sub bus line connector (J45) to the P-CAN J/C B side (w/o earth terminal).



15

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



- (a) Disconnect the cruise control ECU connector (D29).  
(b) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified value
D1-6 (CANH) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more
D1-14 (CANL) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more

NG

REPAIR OR REPLACE CRUISE CONTROL ECU SUB BUS LINE OR CONNECTOR (CAN-H, CAN-L)



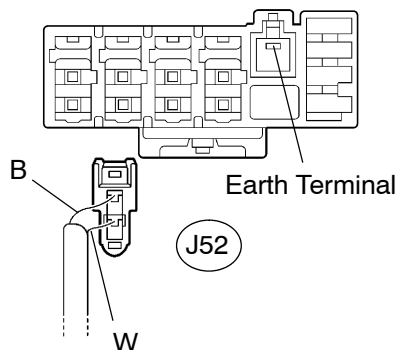
REPLACE CRUISE CONTROL ECU ASSY (SEE PAGE 82-2)

16

CONNECT CONNECTOR

- (a) Reconnect the CAN main bus line connector (J34) to the D-CAN J/C A side (w/ earth terminal).



**17 CHECK CAN BUS LINE FOR SHORT TO +B(CAN BUSES TO LUG-CAN J/C)****LUG-CAN J/C A Side  
(w/ Earth Terminal):**

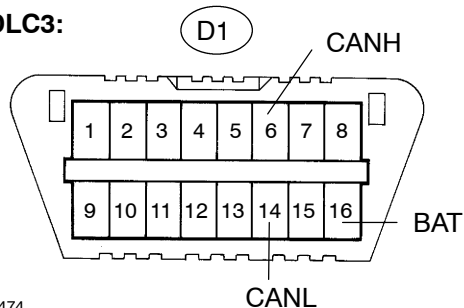
G25695

G31935

- (a) Disconnect the CAN main bus line connector (J52) from the LUG-CAN J/C A side (w/ earth terminal).

**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:**

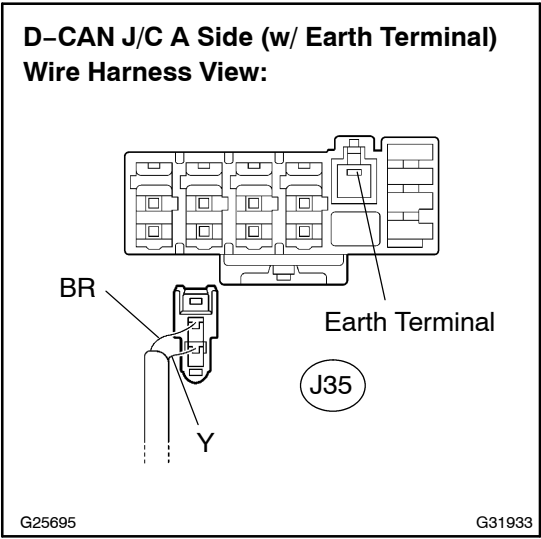
Tester connection	Condition	Specified value
D1-6 (CANH) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more
D1-14 (CANL) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more

**OK****Go to step 34****NG****18 CONNECT CONNECTOR**

- (a) Reconnect the CAN main bus line connector (J52) to the LUG-CAN J/C A side (w/ earth terminal).



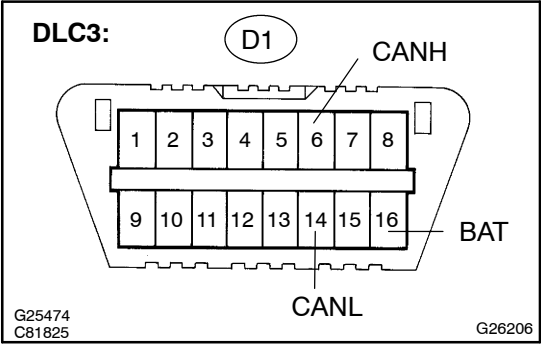
19 CHECK CAN BUS LINE FOR SHORT TO +B(YAW RATE SENSOR SUB BUS LINE)



- (a) Disconnect the yaw rate sensor sub bus line connector (J35) from the D-CAN J/C A side (w/ earth terminal).

**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:**

Tester connection	Condition	Specified value
D1-6 (CANH) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more
D1-14 (CANL) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more

**OK** Go to step 26

**NG**

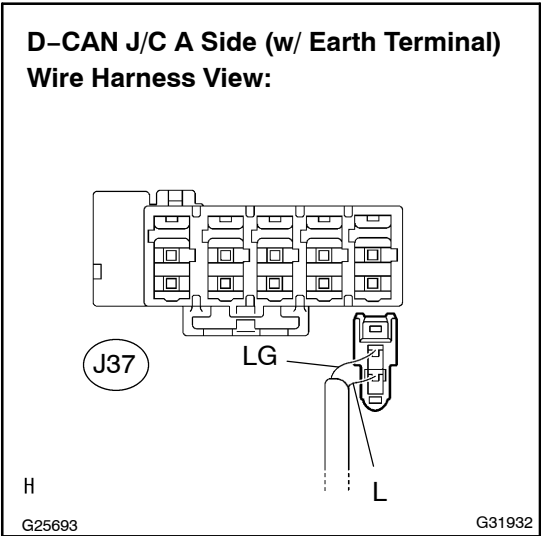
20 CONNECT CONNECTOR

- (a) Reconnect the Yaw rate sensor sub bus line connector (J35) to the D-CAN J/C A side (w/ earth terminal).



21

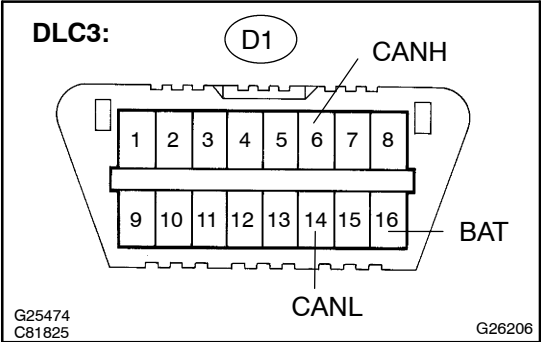
CHECK CAN BUS LINE FOR SHORT TO +B(STEERING SENSOR)



- (a) Disconnect the steering sensor sub bus line connector (J37) from the D-CAN J/C A side (w/ earth terminal).

**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:**

Tester connection	Condition	Specified value
D1-6 (CANH) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more
D1-14 (CANL) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more

OK

Go to step 30

NG

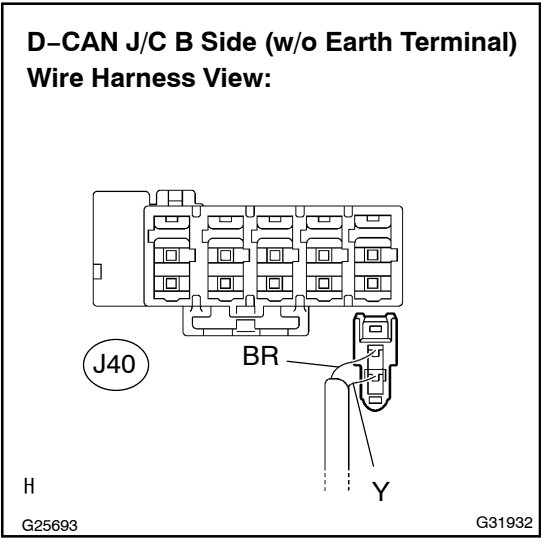
22

CONNECT CONNECTOR

- (a) Reconnect the steering sensor sub bus line connector (J37) to the D-CAN J/C A side (w/ earth terminal).



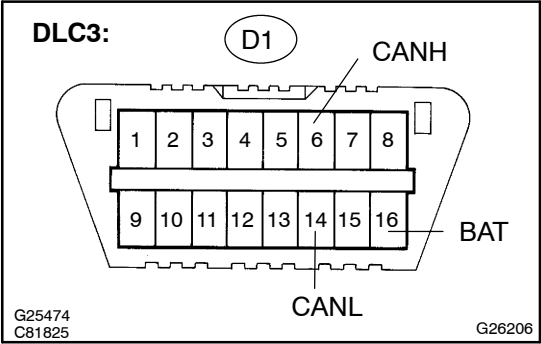
23 CHECK CAN BUS LINE FOR SHORT TO +B(SKID CONTROL ECU SUB BUS LINE)



- (a) Disconnect the skid control ECU sub bus line connector (J40) from the D-CAN J/C B side (w/o earth terminal).

**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:**

Tester connection	Condition	Specified value
D1-6 (CANH) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more
D1-14 (CANL) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more

**OK** Go to step 28

**NG**

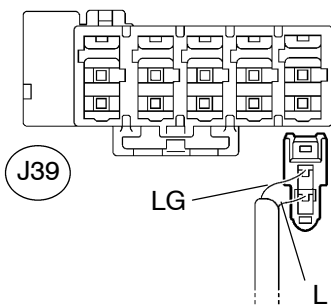
24 CONNECT CONNECTOR

- (a) Reconnect the skid control ECU sub bus line connector (J40) to the D-CAN J/C B side (w/o earth terminal).



**25 CHECK CAN BUS LINE FOR SHORT TO +B(GATEWAY ECU SUB BUS LINE)**

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



H

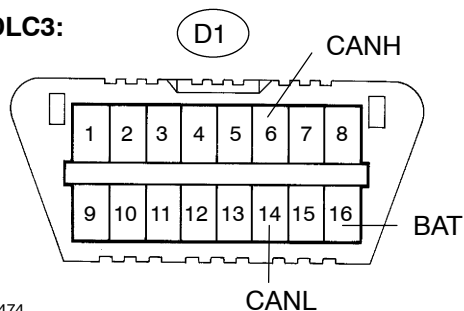
G25693

G31932

- (a) Disconnect the gateway ECU sub bus line connector (J39) from the D-CAN J/C B side (w/o earth terminal).

**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.

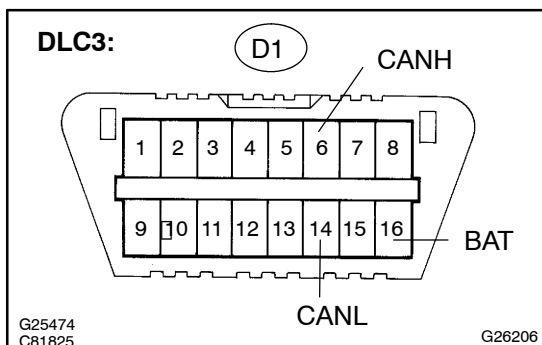
**Standard:**

Tester connection	Condition	Specified value
D1-6 (CANH) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more
D1-14 (CANL) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more

**OK****Go to step 32****NG****REPAIR OR REPLACE CAN MAIN BUS LINE OR CONNECTOR (LUG-CAN J/C - D-CAN J/C)**

**26 CONNECT CONNECTOR**

- (a) Reconnect the yaw rate sensor sub bus line connector (J35) to the D-CAN/CAN side (w/earth terminal).

**27 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
D1-6 (CANH) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more
D1-14 (CANL) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more

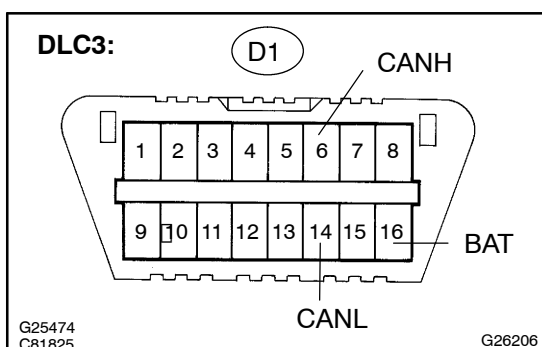
OK

**REPLACE YAW RATE SENSOR (SEE PAGE 32-63)**

NG

**REPAIR OR REPLACE YAW RATE SENSOR SUB BUS LINE OR CONNECTOR (CAN-H, CAN-L)****28 CONNECT CONNECTOR**

- (a) Reconnect the skid control ECU sub bus line connector (J40) to the D-CAN/CAN side (w/o earth terminal).

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

- (a) Disconnect the skid control ECU connector (S48).  
 (b) Measure the resistance according to the value(s) in the table below.

**Standard:**

Tester connection	Condition	Specified value
D1-6 (CANH) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more
D1-14 (CANL) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more

OK

**REPLACE SKID CONTROL ECU WITH ACTUATOR (SEE PAGE 32-53)**

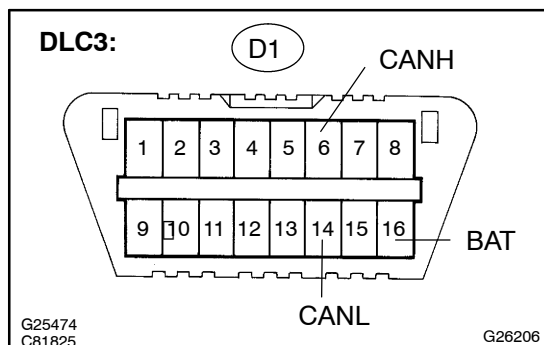
NG

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



**30 CONNECT CONNECTOR**

- (a) Reconnect the steering sensor sub bus line connector (J37) to the D-CAN J/C A side (w/earth terminal).

**31 CHECK CAN BUS LINE FOR SHORT TO +B (STEERING SENSOR SUB BUS LINE)**

- (a) Disconnect the steering sensor connector (S18).  
 (b) Measure the resistance according to the value(s) in the table below.

**Standard:**

Tester connection	Condition	Specified value
D1-6 (CANH) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more
D1-14 (CANL) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more

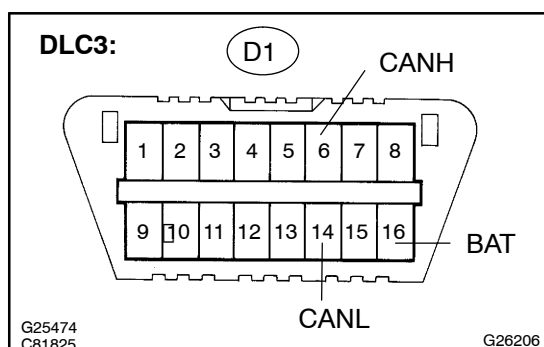
OK

**REPLACE STEERING SENSOR (SEE PAGE 32-65)**

NG

**REPAIR OR REPLACE STEERING SENSOR SUB BUS LINE OR CONNECTOR (CAN-H, CAN-L)****32 CONNECT CONNECTOR**

- (a) Reconnect the gateway ECU sub bus line connector (J39) to the D-CAN J/C B side (w/o earth terminal).

**33 CHECK CAN BUS LINE FOR SHORT TO +B (GATEWAY ECU SUB BUS LINE)**

- (a) Disconnect the gateway ECU connector (G1).  
 (b) Measure the resistance according to the value(s) in the table below.

**Standard:**

Tester connection	Condition	Specified value
D1-6 (CANH) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more
D1-14 (CANL) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more

OK

**REPLACE GATEWAY ECU**

NG

**REPAIR OR REPLACE GATEWAY ECU SUB BUS LINE OR CONNECTOR (CAN-H, CAN-L)**

34

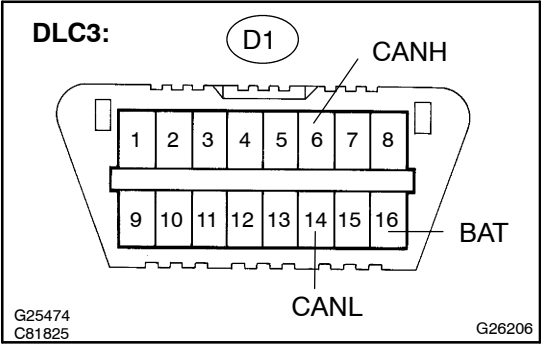
CONNECT CONNECTOR

- (a) Reconnect the CAN main bus line connector (J52) to the LUG-CAN J/C A side (w/ earth terminal).



35

CHECK CAN BUS LINE FOR SHORT TO +B(TALEVISION CAMERA ECU SUB BUS LINE)



- (a) Disconnect the television camera ECU connector (T24).  
(b) Measure the resistance according to the value(s) in the table below.

**Standard:**

Tester connection	Condition	Specified value
D1-6 (CANH) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more
D1-14 (CANL) - D1-16 (BAT)	Ignition Switch OFF	1 MΩ or more

OK

REPLACE TELEVISION CAMERA ECU (SEE  
PAGA 67-15)

NG

REPAIR OR REPLACE TELEVISION CAMERA ECU SUB BUS LINE OR CONNECTOR  
(CAN-H, CAN-L)