

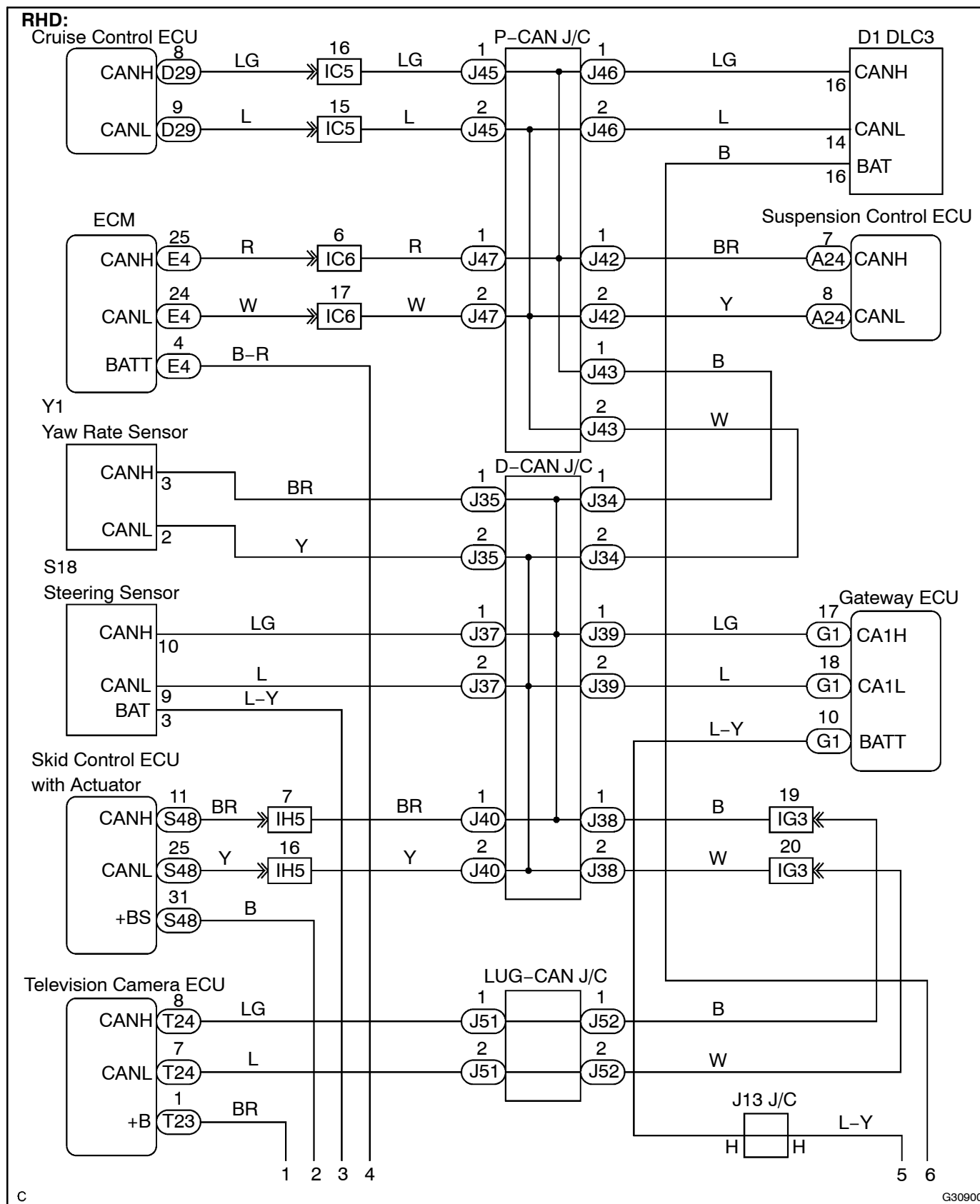
CHECK CAN BUS LINE FOR SHORT TO +B (RHD, w/ LEXUS Navigation System)

CIRCUIT DESCRIPTION

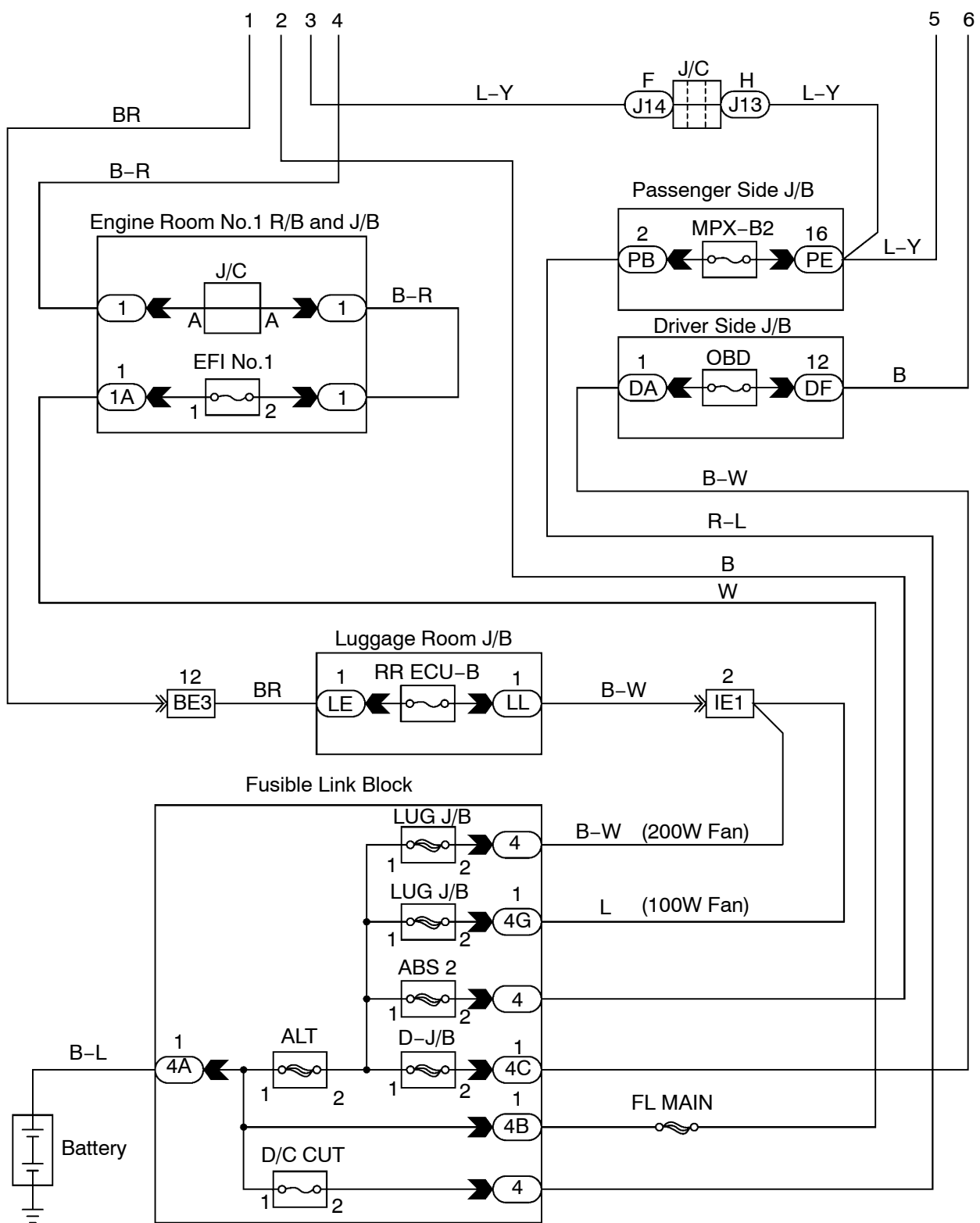
There may be a short circuit between the CAN bus line and +B when there is resistance between terminals 6 (CANH) and 16 (BAT) or terminals 14 (CANL) and 16 (BAT) of the DLC3.

Symptom	Trouble Area
There is resistance between terminals 6 (CANH) and 16 (BAT) or terminals 14 (CANL) and 16 (BAT) of the DLC 3.	• Short to +B • Cruise control ECU • Television camera ECU • Skid control ECU with actuator • Steering sensor • Yaw rate sensor • Suspension control ECU • ECM • Gateway ECU

WIRING DIAGRAM

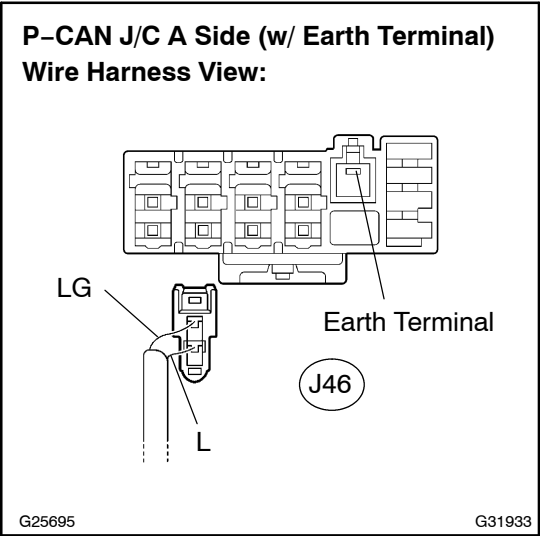


RHD:



INSPECTION PROCEDURE

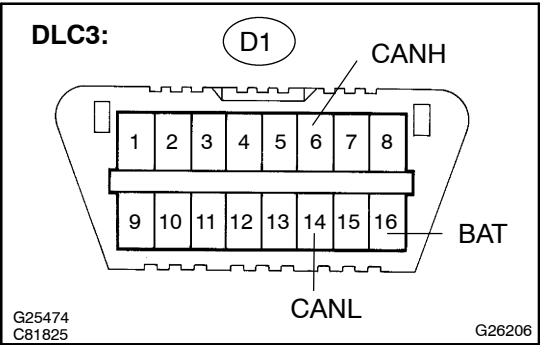
1 CHECK CAN BUS LINE FOR SHORT TO +B(DLC3 SUB BUS LINE)



- (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

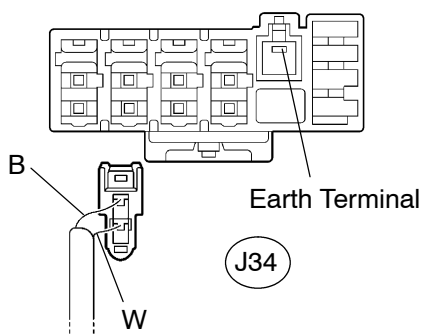
2 CONNECT CONNECTOR

- (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)

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



G25695

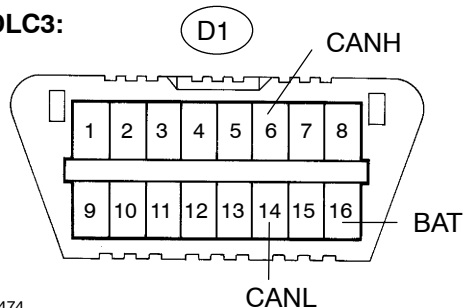
G31933

- (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.

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 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).



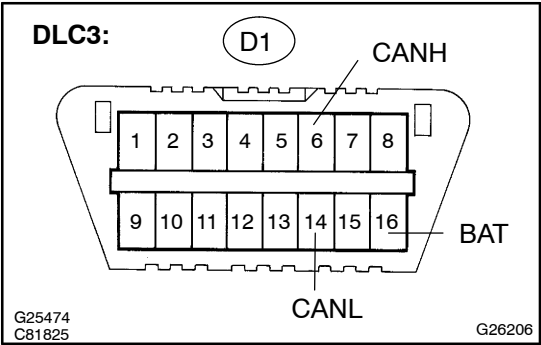
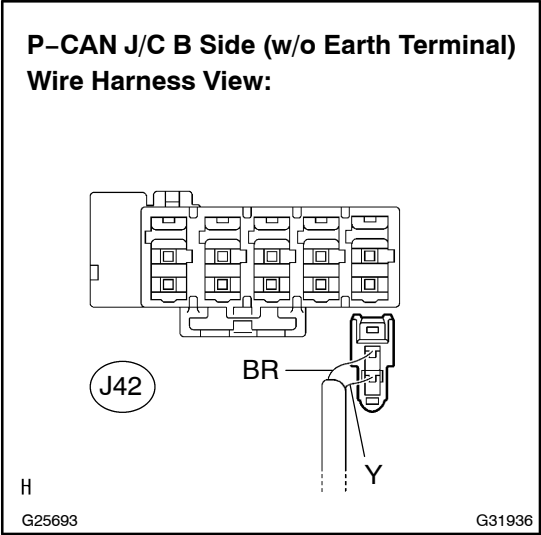
5 CHECK CAN BUS LINE FOR SHORT TO +B(SUSPENSION CONTROL ECU SUB BUS LINE)

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

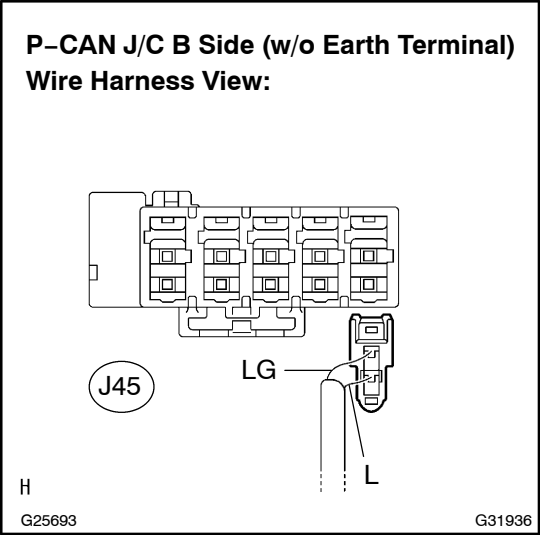
6 CONNECT CONNECTOR

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



7

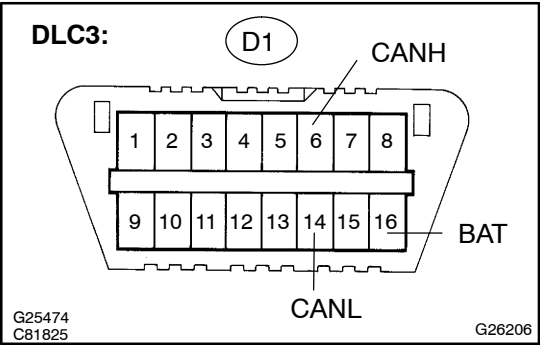
CHECK CAN BUS LINE FOR SHORT TO +B(CRUISE CONTROL ECU SUB BUS LINE)



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

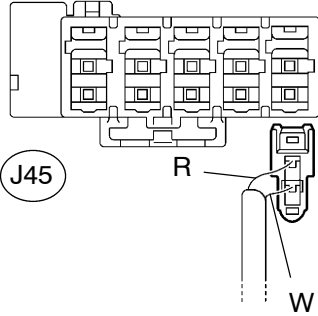
CONNECT CONNECTOR

- (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:

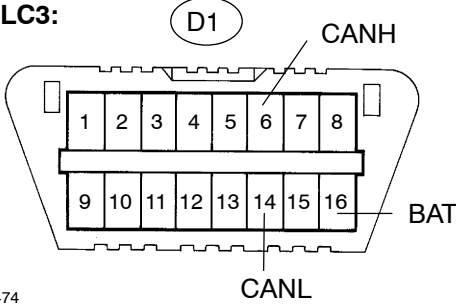


- (a) Disconnect the ECM sub bus line connector (J47) from the P-CAN J/C B side (w/o earth terminal).

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

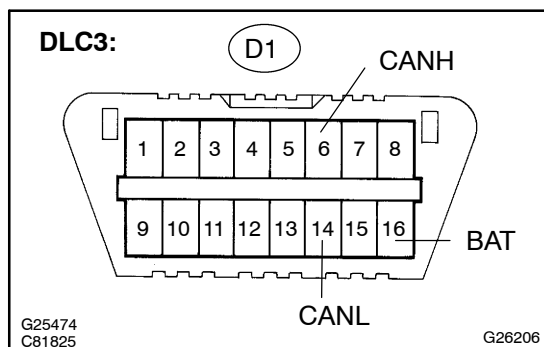
NG

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)

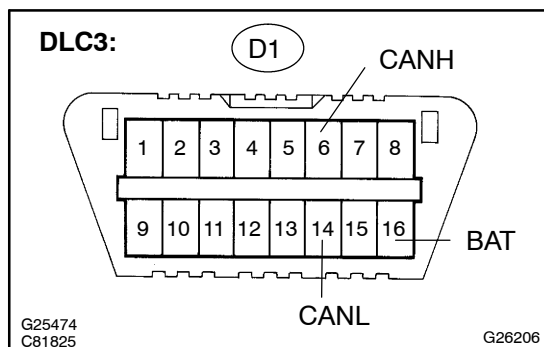
- (a) Disconnect the ECM connector (E4).
 (b) Measure the resistance according to the value(s) in the table below.

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 J/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

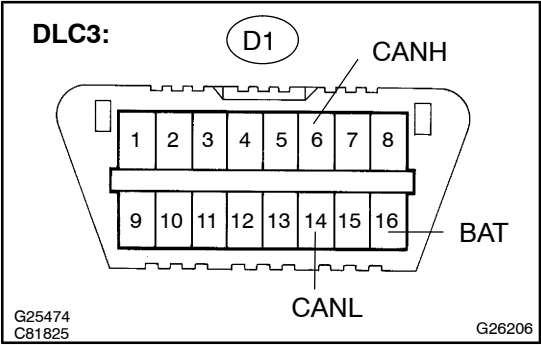
OK**REPLACE SUSPENSION CONTROL ECU (SEE PAGE 25-20)****NG****REPAIR OR REPLACE ECM SUB BUS LINE OR CONNECTOR (CAN-H, CAN-L)**

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 BSU 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)

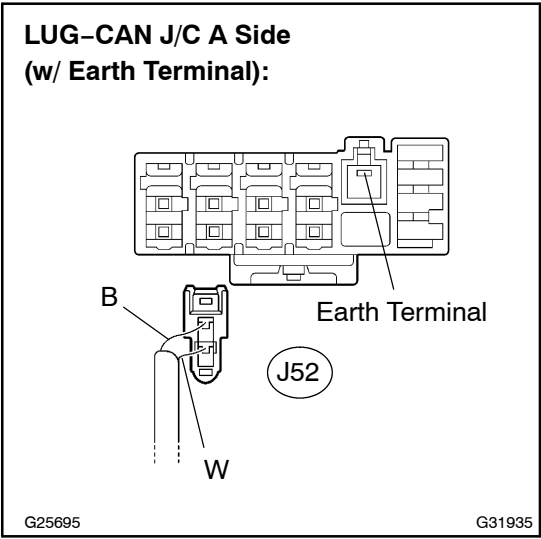
16 CONNECT CONNECTOR

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



17

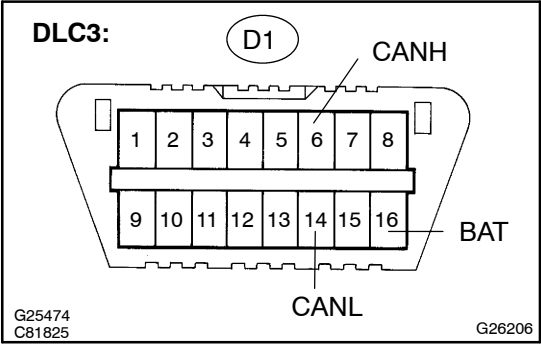
CHECK CAN BUS LINE FOR SHORT TO +B(CAN BUSES TO LUG-CAN J/C)



- (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.**



- (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

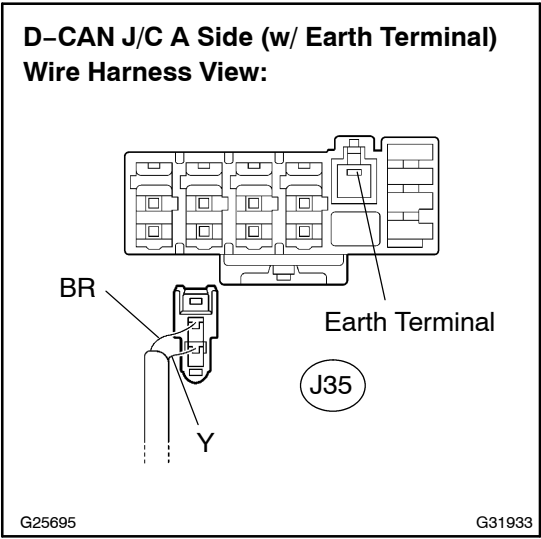
18

CONNECT CONNECTOR

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



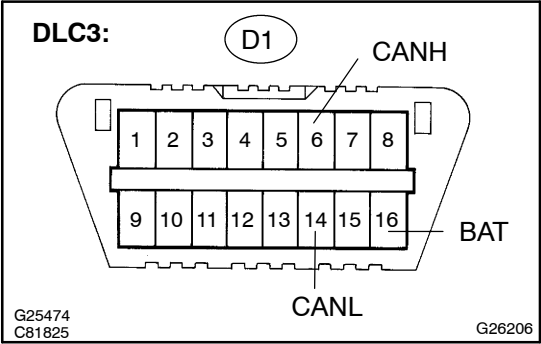
19 CHECK CAN BUS LINE FOR SHORT TO +B(YAW RATE SENSOR SUB BUS LINE)



- (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

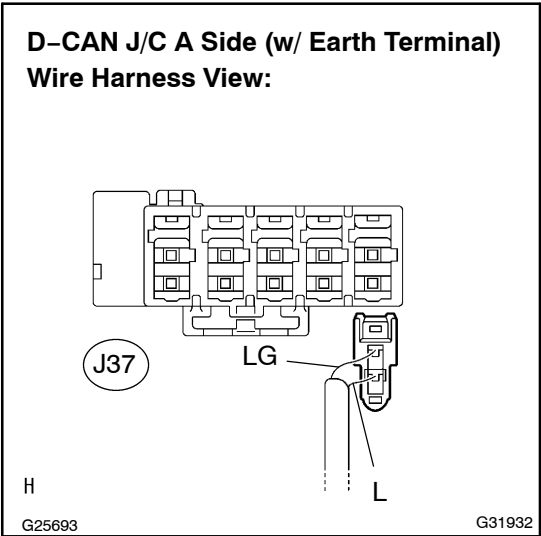
20 CONNECT CONNECTOR

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



21

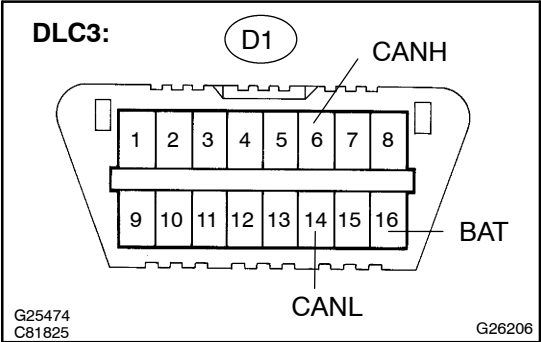
CHECK CAN BUS LINE FOR SHORT TO +B(STEERING SENSOR)



- (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

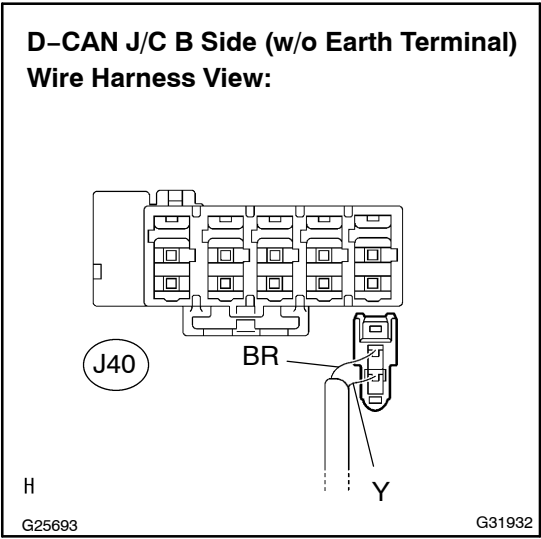
CONNECT CONNECTOR

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



23

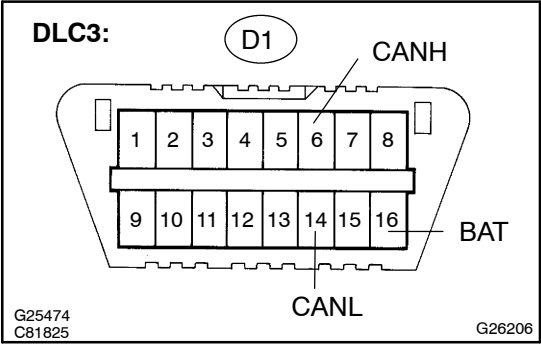
CHECK CAN BUS LINE FOR SHORT TO +B(SKID CONTROL ECU SUB BUS LINE)



- (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

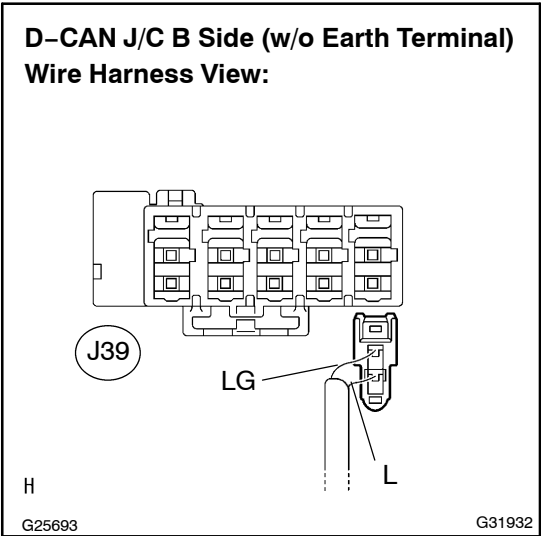
CONNECT CONNECTOR

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



25

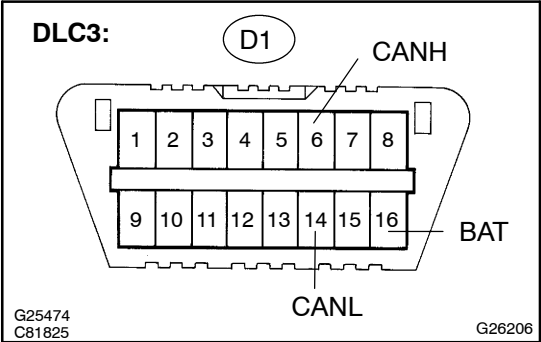
CHECK CAN BUS LINE FOR SHORT TO +B(GATEWAY ECU SUB BUS LINE)



- (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.



- (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

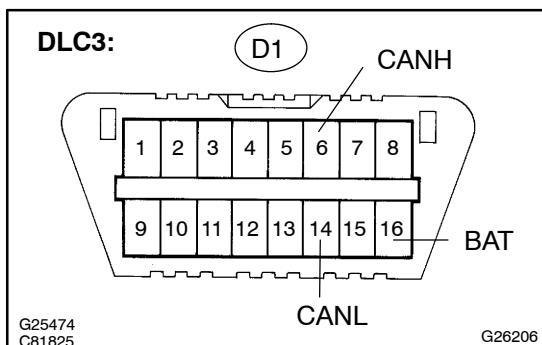
Go to step 32

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 J/C A side (w/ earth terminal).

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

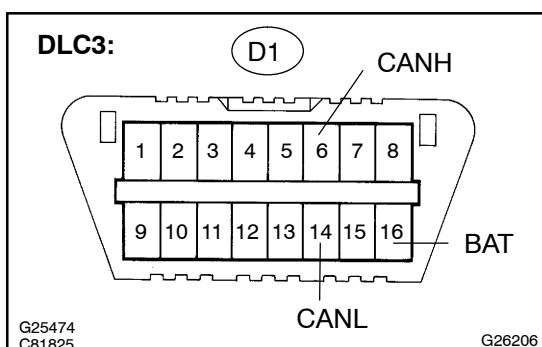
- (a) Disconnect the yaw rate sensor connector (Y1).
 (b) Measure the resistance according to the value(s) in the table below.

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 J/C B 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.

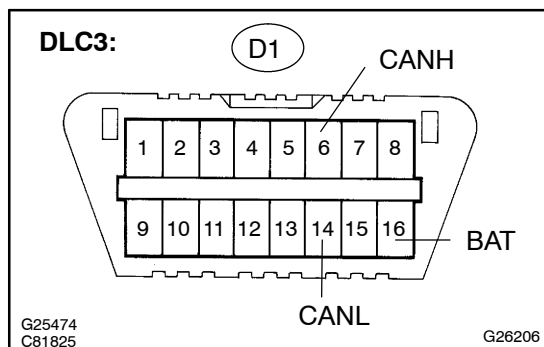
Standard:

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)**

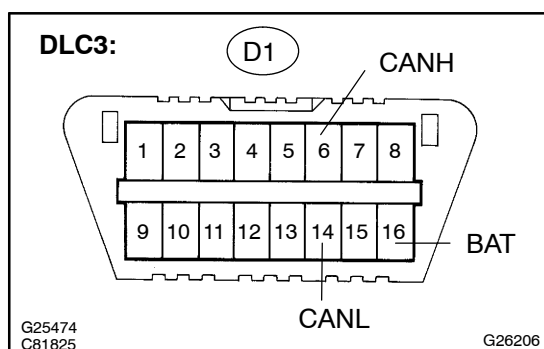
- (a) Disconnect the steering sensor connector (S18).
 (b) Measure the resistance according to the value(s) in the table below.

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

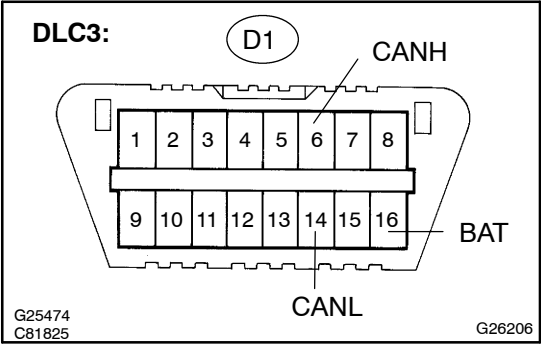
CONNECT CONNECTOR

- (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)