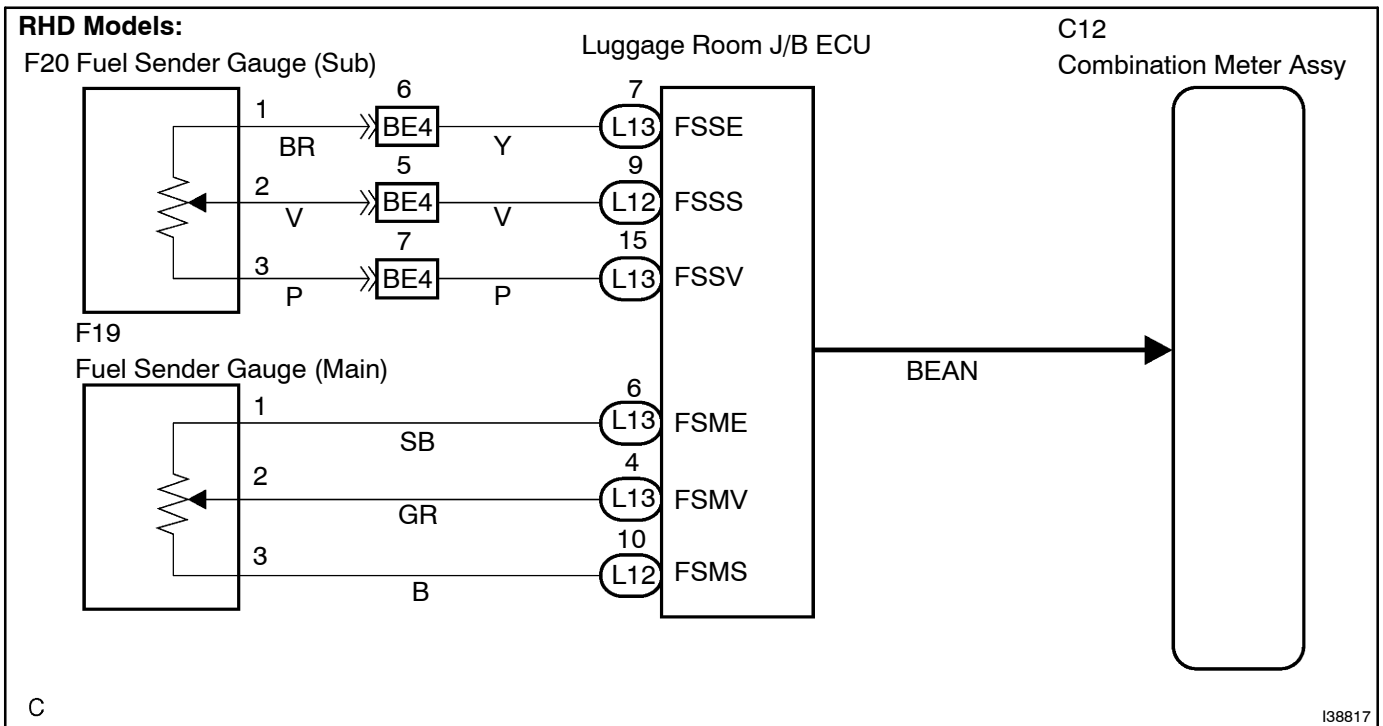
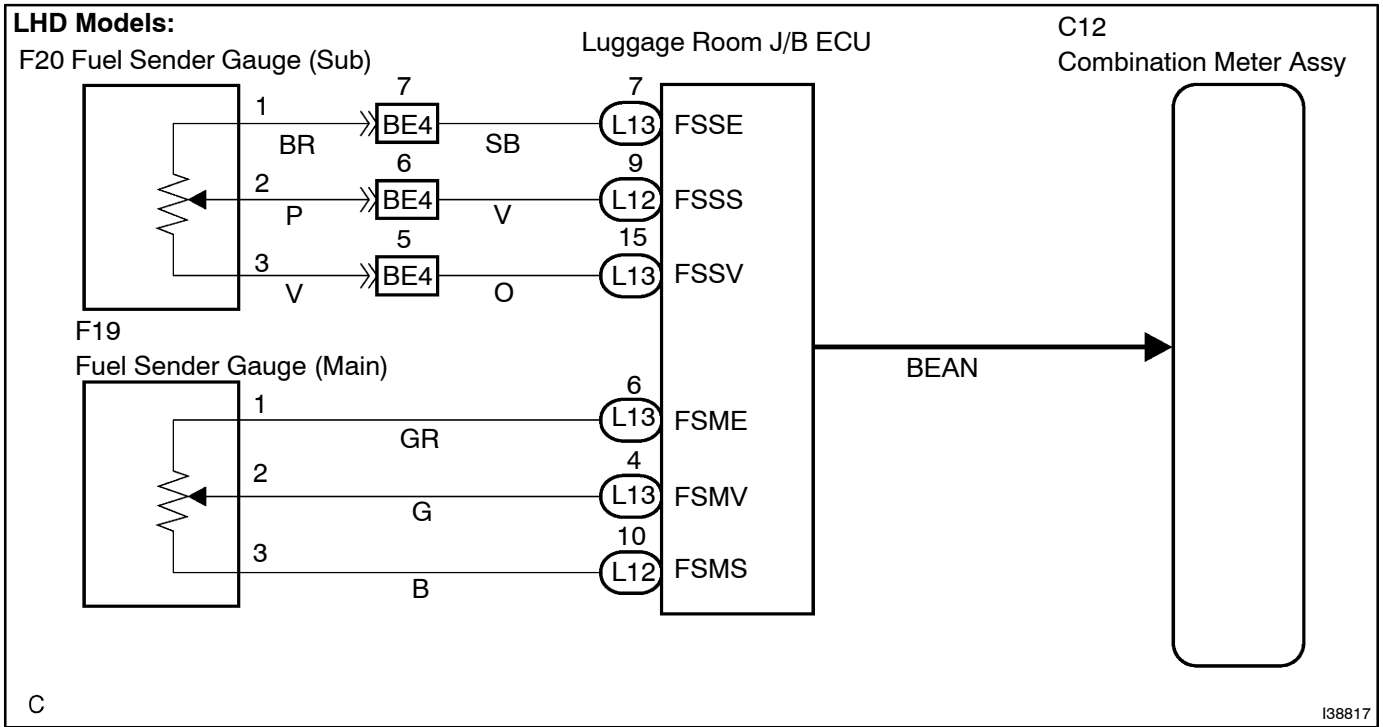


MALFUNCTION IN FUEL RECEIVER GAUGE

WIRING DIAGRAM



INSPECTION PROCEDURE

1 PERFORM ACTIVE TEST BY INTELLIGENT TESTER

(a) Operate the intelligent tester according to the steps on the display and select the "ACTIVE TEST".
METER:

Item	Test Details	Diagnostic Note
Fuel Gauge	OFF, Empty, 1/2, Full	-

OK:

Needle indication is normal.

NG

REPLACE COMBINATION METER ASSY
(SEE PAGE 71-21)

OK

2 READ VALUE OF INTELLIGENT TESTER (FUEL GAUGE)

(a) Operate the intelligent tester according to the steps on the display and select the "DATA LIST".
METER:

Item	Measurement Item/ Range (Display)	Normal Condition	Diagnostic Note
Fuel Gauge	Fuel input signal Min.: , Max.: 255	Fuel gauge indicates (F): 233 Fuel gauge indicates (3/4): 233 Fuel gauge indicates (1/2): 233 Fuel gauge indicates (1/4): 32 Fuel gauge indicates (E): 36	-
Sub Fuel Gauge	Fuel input signal Min.: , Max.: 255	Fuel gauge indicates (F): 204 Fuel gauge indicates (3/4): 16 Fuel gauge indicates (1/2): 23 Fuel gauge indicates (1/4): 8 Fuel gauge indicates (E): 8	-

OK:

Fuel value signal displayed on the tester is almost the same as needle indication.

NG

REPLACE COMBINATION METER ASSY
(SEE PAGE 71-21)

OK

3 READ VALUE OF INTELLIGENT TESTER (FUEL GAUGE)

(a) Operate the intelligent tester according to the steps on the display and select the "DATA LIST".

BODY No.4:

Item	Measurement Item/ Range (Display)	Normal Condition	Diagnostic Note
Fuel Lv (Main)	Fuel input signal Min.: 0V, Max.: 5V	Fuel gauge indicates (F): 4.5V Fuel gauge indicates (3/4): 4.5V Fuel gauge indicates (1/2): 4.5V Fuel gauge indicates (1/4): 2.7V Fuel gauge indicates (E): 0.7V	-
Fuel Lv (Sub)	Fuel input signal Min.: 0V, Max.: 5V	Fuel gauge indicates (F): 4.0V Fuel gauge indicates (3/4): 2.3V Fuel gauge indicates (1/2): 0.5V Fuel gauge indicates (1/4): 0.4V Fuel gauge indicates (E): 0.4V	-

OK:

Fuel value signal displayed on the tester is almost the same as needle indication.

NG → Go to step 4

OK

Go to step 5

4 REPLACE LUGGAGE ROOM JUNCTION BLOCK ASSY

OK:

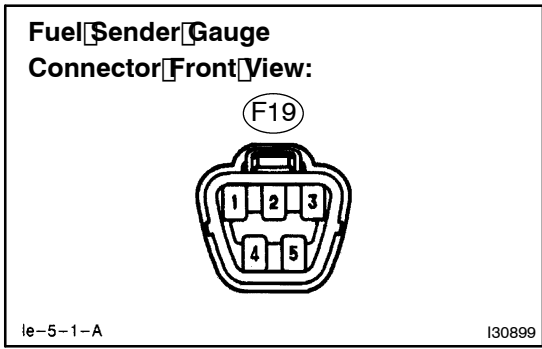
Normal operation

NG → REPLACE COMBINATION METER ASSY
(SEE PAGE 71-21)

OK

END

5 INSPECT FUEL SENDER GAUGE ASSY (MAIN)



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

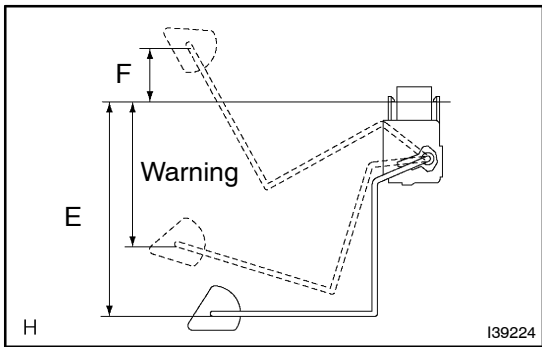
Standard:

Tester Connection	Condition	Specified Condition
F19-1 - F19-3	Ignition switch ACC or ON	Below 3V

- (b) Remove the fuel sender gauge assy.
- (c) Connect the fuel sender gauge connector.
- (d) Check that the float position is between E and F.
- (e) Measure the voltage between the terminals 2 and 1 of connector according to the value(s) in the table below.

Standard:

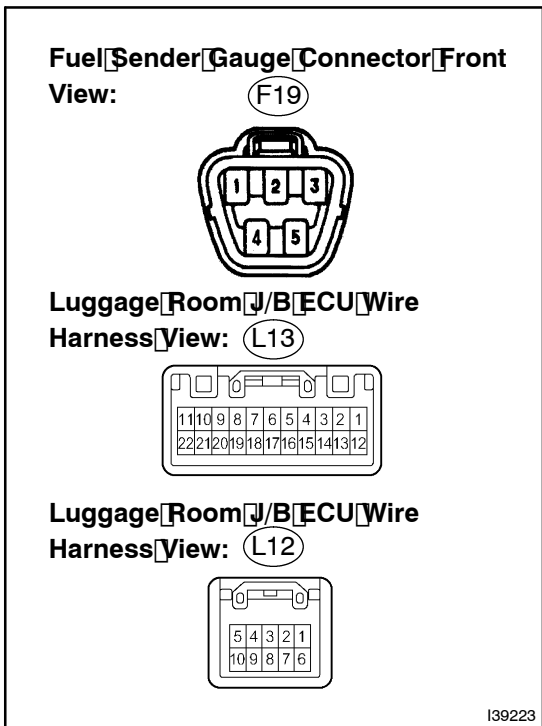
Float level	Float position (mm (in.))	Voltage (V)
F	-34.8 (-1.37) ± 3 (0.12)	4.5 to 4.75
1/2	92.8 (3.65) ± 3 (0.12)	1.41 ± 0.61
Warning	137.0 (5.39) ± 3 (0.12)	0.20 to 0.45



NG → REPLACE FUEL SENDER GAUGE ASSY (MAIN)

OK

6 CHECK HARNESS AND CONNECTOR (FUEL SENDER GAUGE ASSY - LUGGAGE ROOM JUNCTION BLOCK ASSY) (SEE PAGE 01-34)



- (a) Disconnect the F19, L12 and L13 connectors.
- (b) Measure the resistance according to the value(s) in the table below.

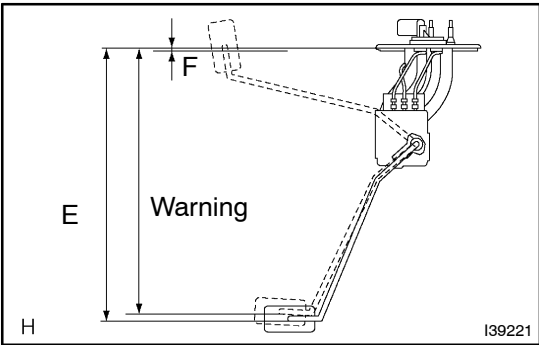
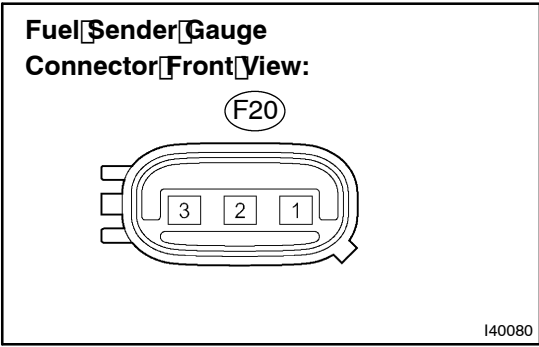
Standard:

Tester Connection	Condition	Specified Condition
L13-6 - F19-1	Always	Below 1 Ω
L12-10 - F19-2	Always	Below 1 Ω
L13-4 - F19-3	Always	Below 1 Ω
F19-1 - Body ground	Always	10 kΩ or higher
F19-2 - Body ground	Always	10 kΩ or higher
F19-3 - Body ground	Always	10 kΩ or higher

NG → REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

7 INSPECT FUEL SENDER GAUGE ASSY(SUB)



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

Standard:

Tester Connection	Condition	Specified Condition
F20-1 - F20-3	Ignition switch ACC or ON	Below 1 to 5 V

- (b) Remove the fuel sender gauge assy.
- (c) Connect the fuel sender gauge connector.
- (d) Check that the float position is between E and F.
- (e) Measure the voltage between the terminals 2 and 1 of connector according to the value(s) in the table below.

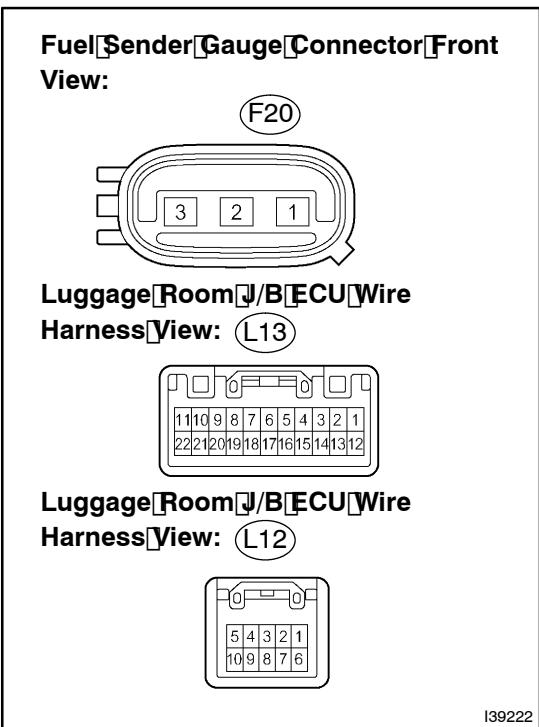
Standard:

Float Level	Float Position [mm (in.)]	Voltage [V]
F	1.4 (0.06) ± 3 (0.12)	4.5 to 4.75
1/2	190.2 (7.49) ± 3 (0.12)	0.45 ± 0.65
Warning	195.7 (7.70) ± 3 (0.12)	0.20 to 0.45

NG REPLACE FUEL SENDER GAUGE ASSY(SUB)

OK

8 CHECK HARNESS AND CONNECTOR(FUEL SENDER GAUGE ASSY - LUGGAGE ROOM JUNCTION BLOCK ASSY)(SEE PAGE 01-34)



- (a) Disconnect the F20, L12 and 13 connectors.
- (b) Measure the resistance according to the value(s) in the table below.

Standard:

Tester Connection	Condition	Specified Condition
L13-7 - F20-1	Always	Below 1 Ω
L12-9 - F20-2	Always	Below 1 Ω
L13-15 - F20-3	Always	Below 1 Ω
F20-1 - Body ground	Always	10 kΩ or higher
F20-2 - Body ground	Always	10 kΩ or higher
F20-3 - Body ground	Always	10 kΩ or higher

NG REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

REPLACE LUGGAGE ROOM JUNCTION BLOCK ASSY