DTC	B1100/31	AIRBAG SENSOR ASSY CENTER MALFUNCTION

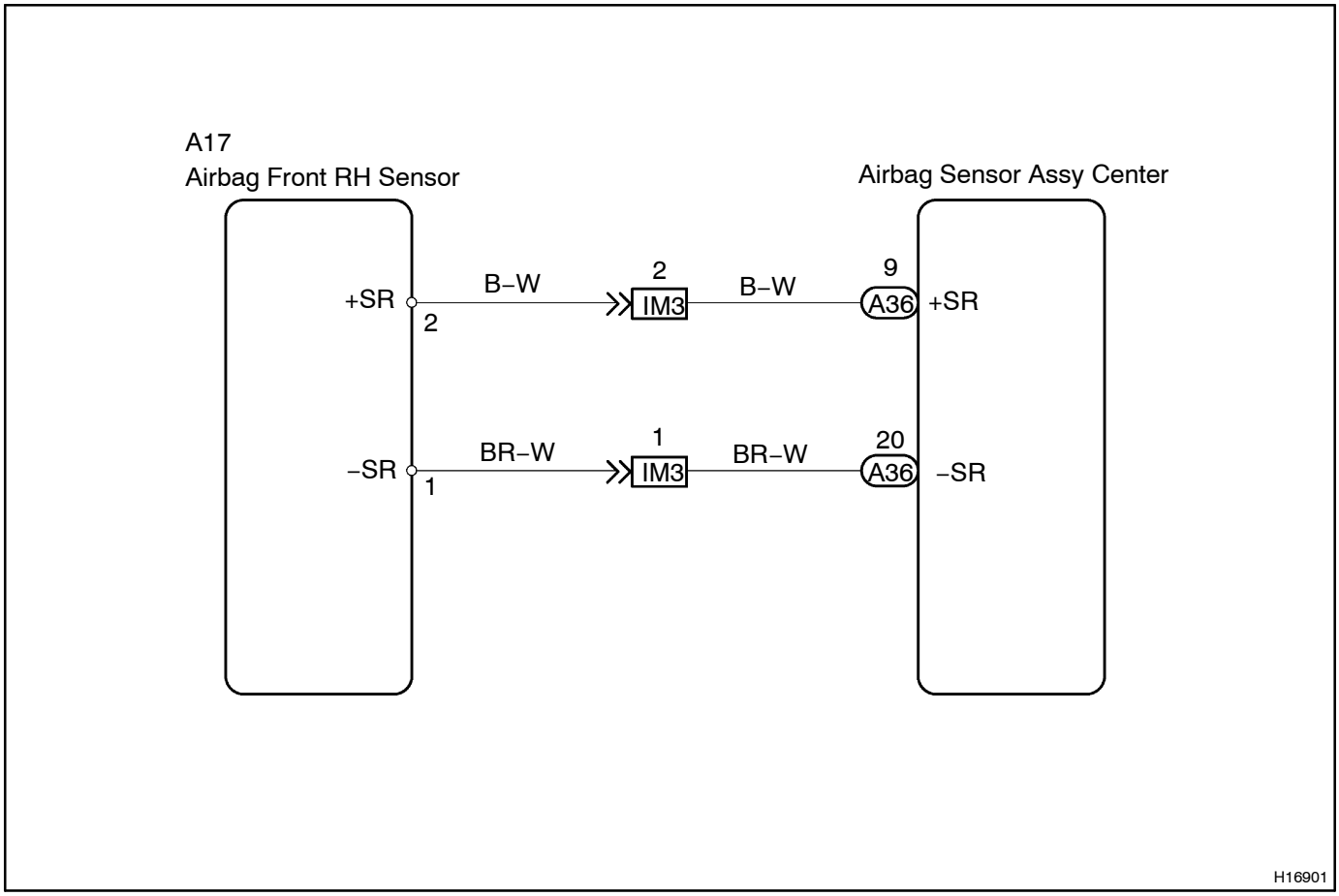
CIRCUIT DESCRIPTION

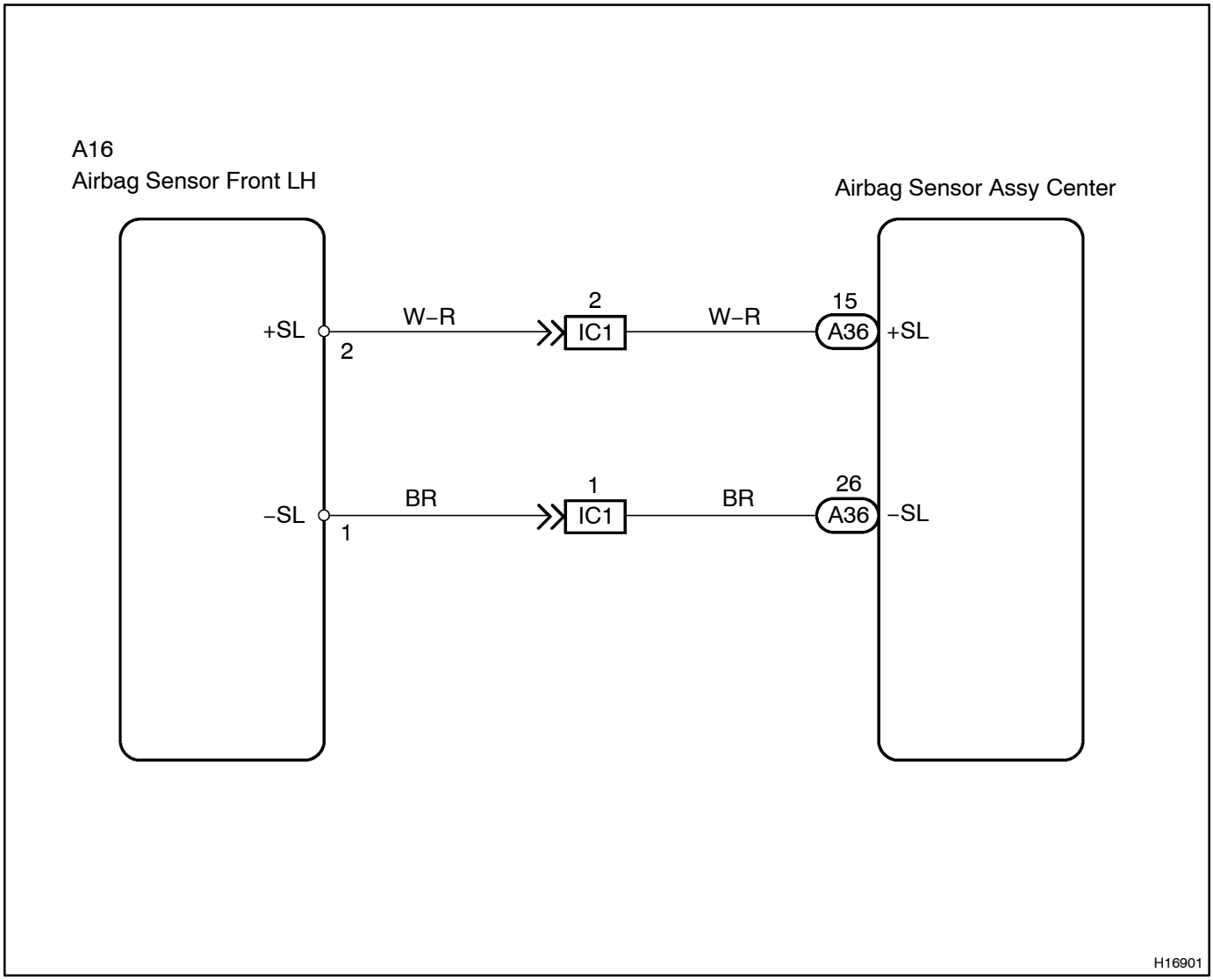
The airbag sensor assy center consists of a airbag sensor assy center, safing sensor, drive circuit, diagnosis circuit and ignition control, etc.
It receives signals from the airbag sensor, judges whether or not the SRS must be activated, and detects diagnosis system malfunction.
DTC B1100/31 is recorded when occurrence of a malfunction in the airbag sensor assy center is detected.

DTC No.	DTC Detecting Condition	Trouble Area
B1100/31	• Short in front airbag sensor RH circuit (to ground) • Short in front airbag sensor RH circuit (to B+) • Short in front airbag sensor RH circuit • Short in front airbag sensor LH circuit (to ground) • Short in front airbag sensor LH circuit (to B+) • Short in front airbag sensor LH circuit • Airbag sensor assy center malfunction	• Airbag sensor assy center • Instrument panel wire • Engine room main wire

HINT:
When a malfunction code other than code B1100/31 is displayed at the same time, first repair the malfunction indicated by the malfunction code other than code B1100/31.

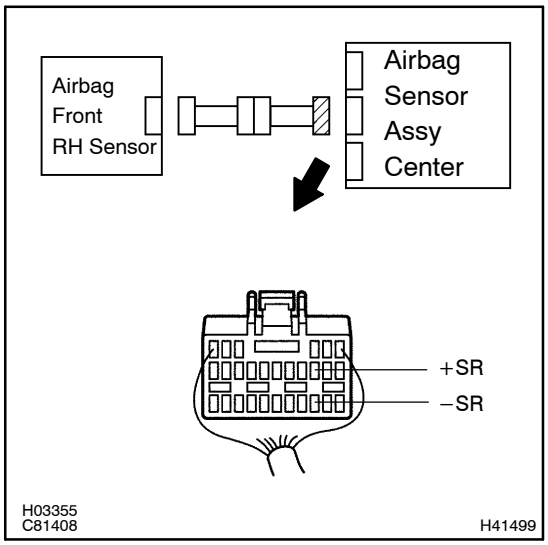
WIRING DIAGRAM




A16
Airbag Sensor Front LH
Airbag Sensor Assy Center
+SL
2
W–R
2
IC1
W–R
15
A36
+SL
–SL
1
BR
1
IC1
BR
26
A36
–SL
H16901

INSPECTION PROCEDURE

1 CHECK FRONT AIRBAG SENSOR (RH) CIRCUIT (TO GROUND)

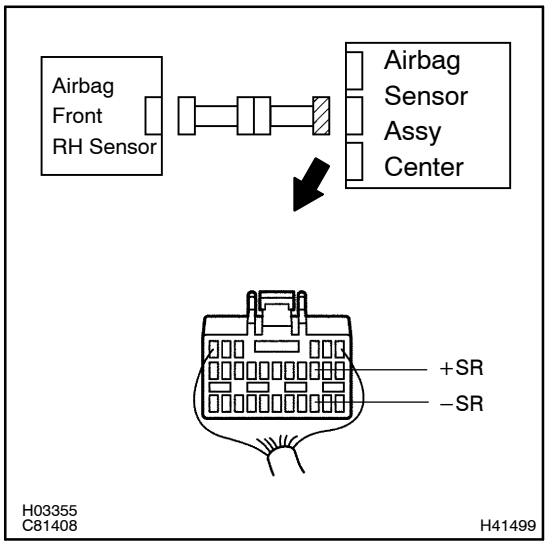


(a) Turn the ignition switch to LOCK.
(b) Disconnect the negative (–) terminal cable from the battery, and wait at least for 90 seconds.
(c) Disconnect the connectors between the airbag front RH sensor and the airbag sensor assy center.
(d) Measure the resistance between the body ground and each of +SR and –SR of the connector on the airbag sensor assy center side between the airbag front RH sensor and the airbag sensor assy center.
OK:
Resistance: 1 MΩ or Higher

NG → **Go to step 8**

OK

2 CHECK FRONT AIRBAG SENSOR (RH) CIRCUIT (TO B+)

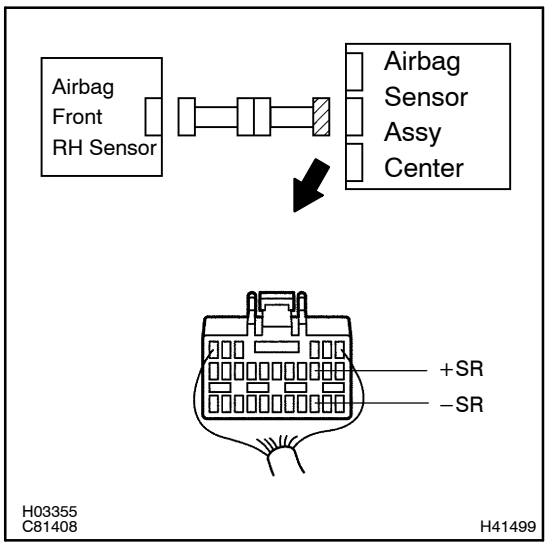


(a) Connect the negative (–) terminal cable to the battery.
(b) Turn the ignition switch to ON.
(c) Measure the voltage between the body ground and each of +SR and –SR of the connector on the airbag sensor assy center side between the airbag front RH sensor and the airbag sensor assy center.
OK:
Voltage: Below 1 V

NG → **Go to step 9**

OK

3 CHECK FRONT AIRBAG SENSOR (RH) CIRCUIT

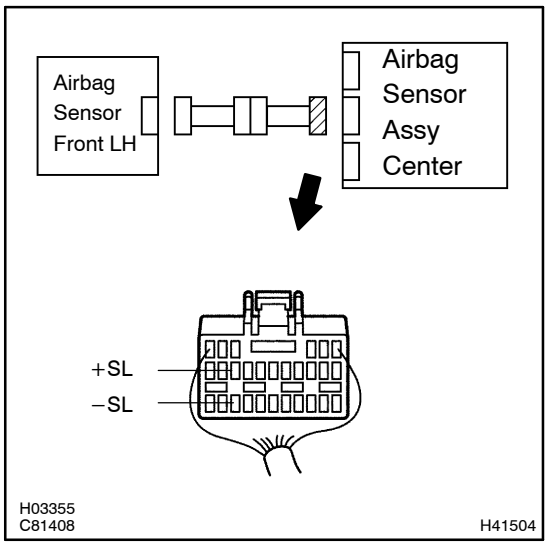


(a) Turn the ignition switch to LOCK.
(b) Measure the resistance between +SR and –SR of the connector on the airbag sensor assy center side between the airbag front RH sensor and the airbag sensor assy center.
OK:
Resistance: 1 MΩ or Higher

NG → **Go to step 10**

OK

4 CHECK FRONT AIRBAG SENSOR (LH) CIRCUIT (TO GROUND)

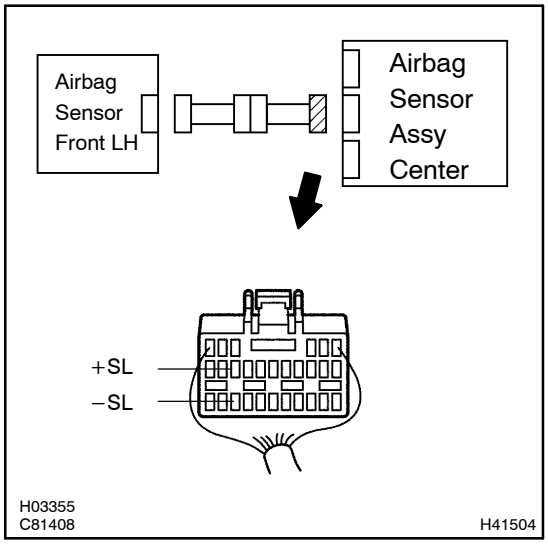


(a) Disconnect the negative (–) terminal cable from the battery, and wait at least for 90 seconds.
(b) Disconnect the connectors between the airbag sensor front LH and the airbag sensor assy center.
(c) Measure the resistance between the body ground and each of +SL and –SL of the connector on the airbag sensor assy center side between the airbag sensor front LH and the airbag sensor assy center.
OK:
Resistance: 1 MΩ or Higher

NG → **Go to step 11**

OK

5 CHECK FRONT AIRBAG SENSOR (LH) CIRCUIT (TO B+)

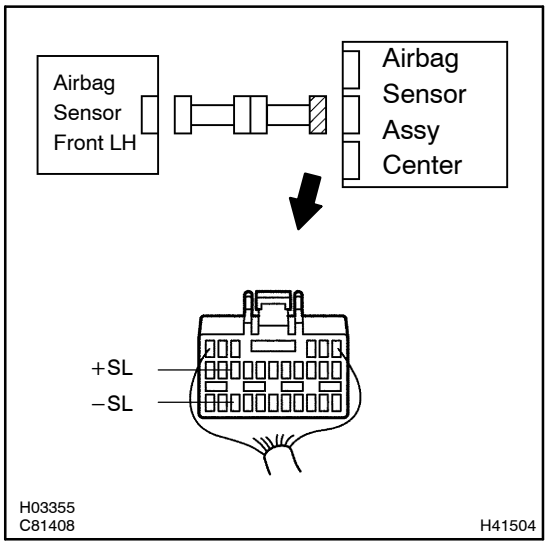


(a) Connect the negative (–) terminal cable to the battery.
(b) Turn the ignition switch to ON.
(c) Measure the voltage between the body ground and each of +SL and –SL of the connector on the airbag sensor assy center side between the airbag sensor front LH and the airbag sensor assy center.
OK:
Voltage: Below 1 V

NG → **Go to step 12**

OK

6 CHECK FRONT AIRBAG SENSOR (LH) CIRCUIT



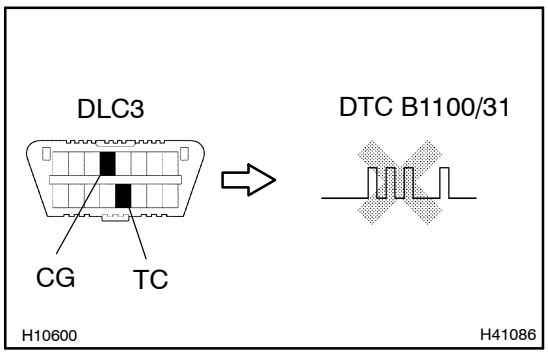
(a) Turn the ignition switch to LOCK.
(b) Measure the resistance between +SL and –SL of the connector on the airbag sensor assy center side between the airbag sensor front LH and the airbag sensor assy center.
OK:
Resistance: 1 MΩ or Higher

NG → **Go to step 13**

OK

7 CHECK AIR BAG SENSOR ASSY CENTER

SST 09843–18040



(a) Disconnect the negative (–) terminal cable from the battery, and wait at least for 90 seconds.
(b) Connect the connectors of all the SRS components.
(c) Connect the negative (–) terminal cable to the battery, and wait at least for 2 seconds.
(d) Turn the ignition switch to ON, and wait at least for 10 seconds.
(e) Clear the DTC stored in memory(See page 05–1122).
(f) Turn the ignition switch to LOCK, and wait at least for 10 seconds.
(g) Turn the ignition switch to ON, and wait at least for 10 seconds.
(h) Check the DTC (See page 05–1122).
OK:
DTC B1100/31 is not output.

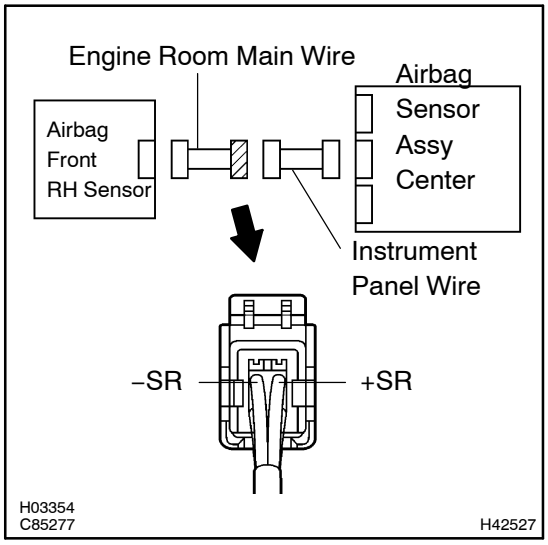
HINT:
Codes other than code B1100/31 may be output at this time, but they are not relevant to this check.

NG → **REPLACE AIR BAG SENSOR ASSY CENTER**

OK

USE SIMULATION METHOD TO CHECK

8 CHECK ENGINE ROOM MAIN WIRE(TO GROUND)



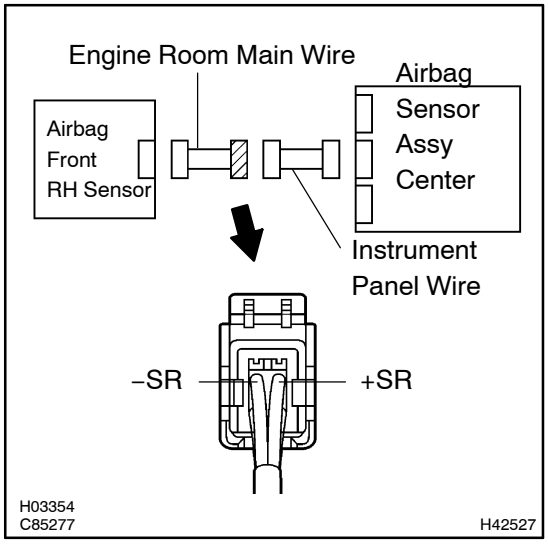
(a) Turn the ignition switch to LOCK.
(b) Disconnect the negative (–) terminal cable from the battery, and wait at least for 90 seconds.
(c) Disconnect the engine room main wire connector from the instrument panel wire.
(d) Measure the resistance between the body ground and each of +SR and –SR of the engine room main wire connector on the instrument panel wire side.
OK:
Resistance: 1 MΩ or Highet

NG → **REPAIR OR REPLACE ENGINE ROOM MAIN WIRE**

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

9 CHECK ENGINE ROOM MAIN WIRE(TO B+)



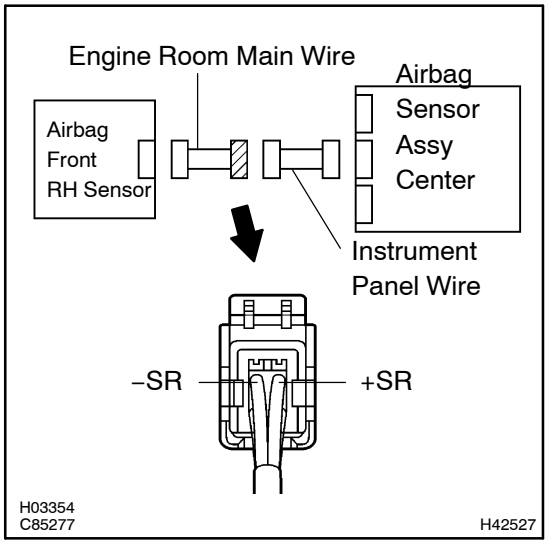
(a) Turn the ignition switch to LOCK.
(b) Disconnect the negative (–) terminal cable from the battery, and wait at least for 90 seconds.
(c) Disconnect the engine room main wire connector from the instrument panel wire.
(d) Connect the negative (–) terminal cable to the battery.
(e) Turn the ignition switch to ON.
(f) Measure the voltage between the body ground and each of +SR and –SR of the engine room main wire connector on the instrument panel wire side.
OK:
Voltage Below 1 V

NG → **REPAIR OR REPLACE ENGINE ROOM MAIN WIRE**

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

10 CHECK ENGINE ROOM MAIN WIRE



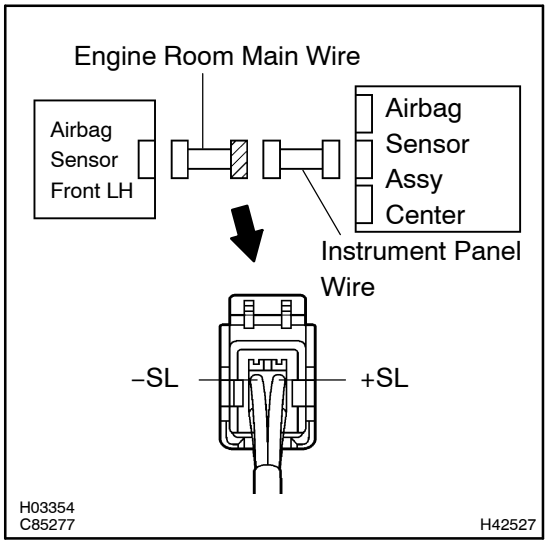
(a) Disconnect the negative (–) terminal cable from the battery, and wait at least for 90 seconds.
(b) Disconnect the engine room main wire connector from the instrument panel wire.
(c) Measure the resistance between +SR and –SR of the engine room main wire connector on the instrument panel wire side.
OK:
Resistance: 1 MΩ or Higher

NG → **REPAIR OR REPLACE ENGINE ROOM MAIN WIRE**

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

11 CHECK ENGINE ROOM MAIN WIRE(TO GROUND)



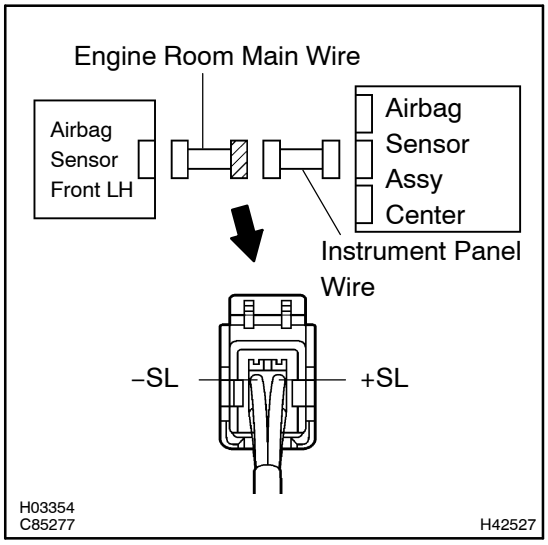
(a) Disconnect the negative (–) terminal cable from the battery, and wait at least for 90 seconds.
(b) Disconnect the engine room main wire connector from the instrument panel wire.
(c) Measure the resistance between the body ground and each of +SL and –SL of the engine room main wire connector on the instrument panel wire side.
OK:
Resistance: 1 MΩ or Higher

NG → **REPAIR OR REPLACE ENGINE ROOM MAIN WIRE**

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

12 CHECK ENGINE ROOM MAIN WIRE(TO B+)



(a) Turn the ignition switch to LOCK.
(b) Disconnect the negative (–) terminal cable from the battery, and wait at least for 90 seconds.
(c) Disconnect the engine room main wire connector from the instrument panel wire.
(d) Connect the negative (–) terminal cable to the battery.
(e) Turn the ignition switch to ON.
(f) Measure the voltage between the body ground and each of +SL and –SL of the engine room main wire connector on the instrument panel wire side.

OK:

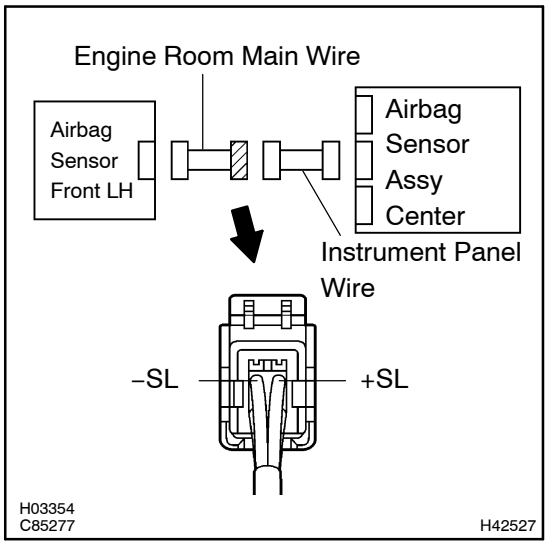
Voltage: Below 1 V

NG → **REPAIR OR REPLACE ENGINE ROOM MAIN WIRE**

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE

13 CHECK ENGINE ROOM MAIN WIRE



(a) Disconnect the negative (–) terminal cable from the battery, and wait at least for 90 seconds.
(b) Disconnect the engine room main wire connector from the instrument panel wire.
(c) Measure the resistance between +SL and –SL of the engine room main wire connector on the instrument panel wire side.

OK:

Resistance: 1 MΩ or Higher

NG → **REPAIR OR REPLACE ENGINE ROOM MAIN WIRE**

OK

REPAIR OR REPLACE INSTRUMENT PANEL WIRE