DI3QS–01

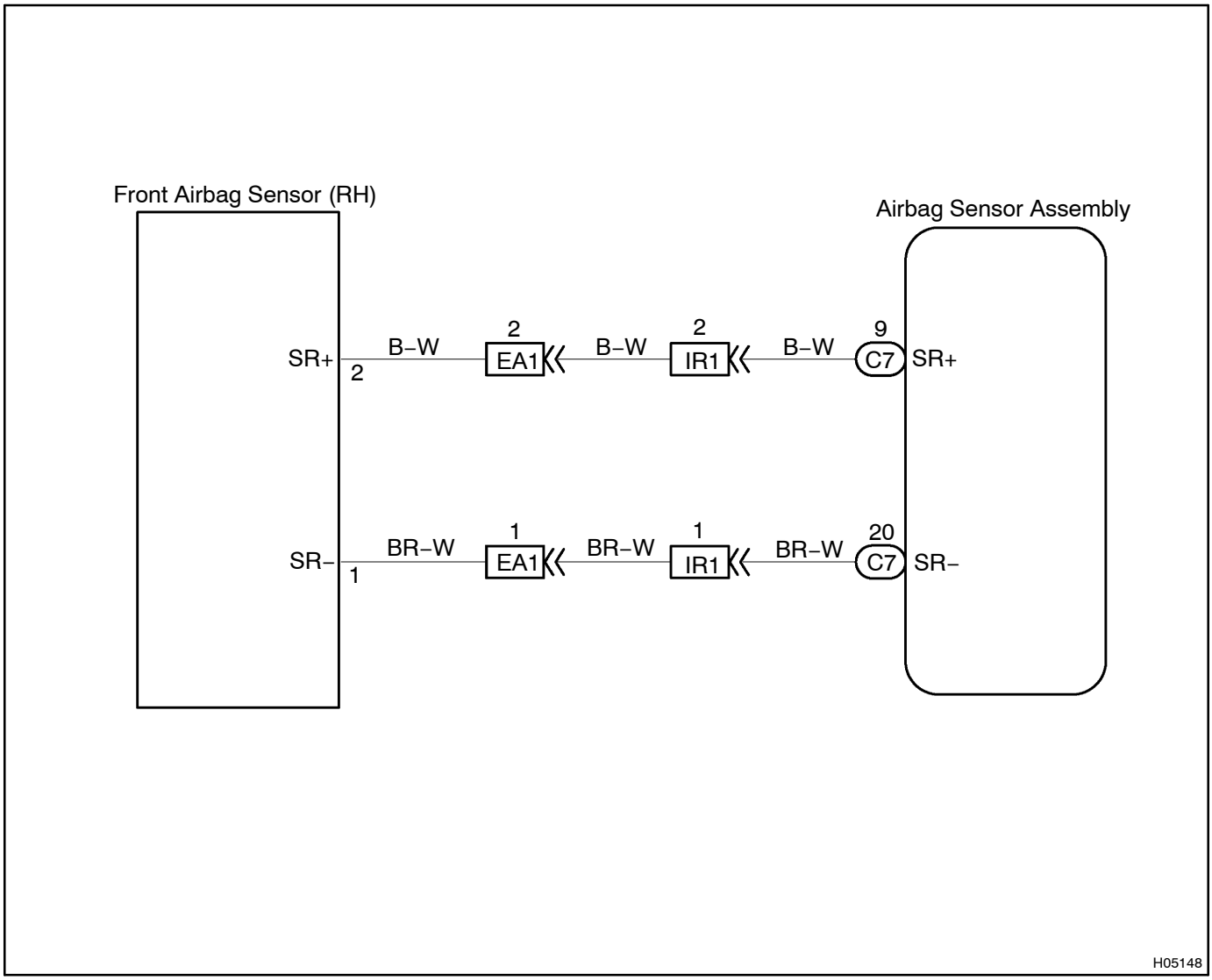
DTC	B 1156/B1157/15	Front Airbag Sensor (RH) Malfunction

CIRCUIT DESCRIPTION

The front airbag sensor (RH) circuit consists of the airbag sensor assembly and front airbag sensor (RH).
For details of the function of each component, see OPERATION on page RS–2.
DTC B1156/B1157/15 is recorded when malfunction is detected in the front airbag sensor (RH) circuit.

DTC No.	DTC Detecting Condition	Trouble Area
B1156/B1157/15	• Front airbag sensor (RH) malfunction	• Front airbag sensor (RH) • Wire harness • Relay harness

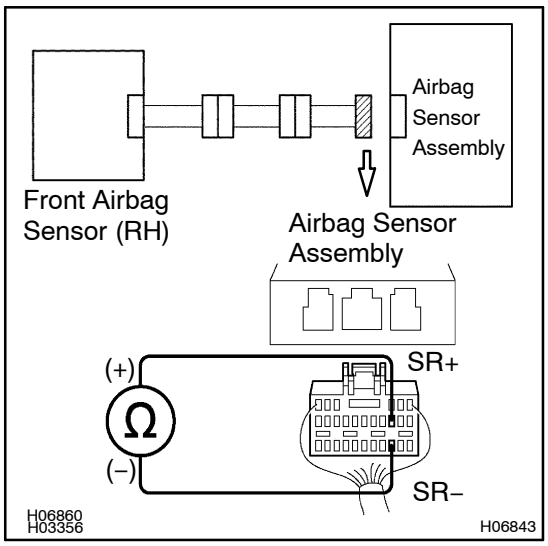
WIRING DIAGRAM



INSPECTION PROCEDURE

1	**Prepare for inspection. (See step 1 on page DI–549)**

2	**Check front airbag sensor (RH) circuit.**



CHECK:

For the connector (on the airbag sensor assembly side) between the front airbag sensor (RH) and the airbag sensor assembly, measure the resistance between SR+ and SR –.

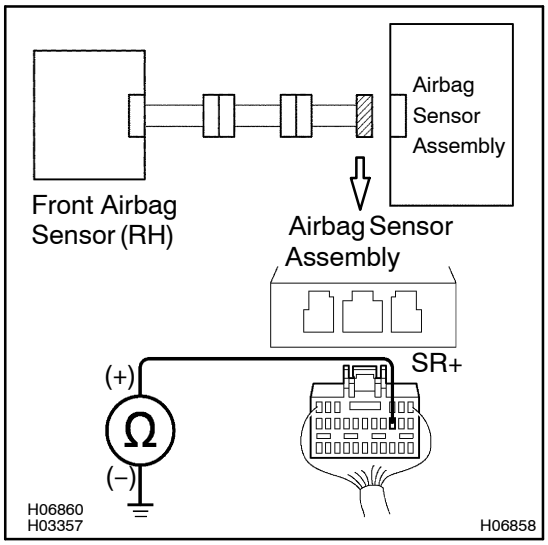
OK:

Resistance: 754 – 886 Ω

NG → **Go to step 6.**

OK

3	Check front airbag sensor (RH) circuit (to ground).



CHECK:

For the connector (on the airbag sensor assembly side) between the front airbag sensor (RH) and the airbag sensor assembly, measure the resistance between SR+ and body ground.

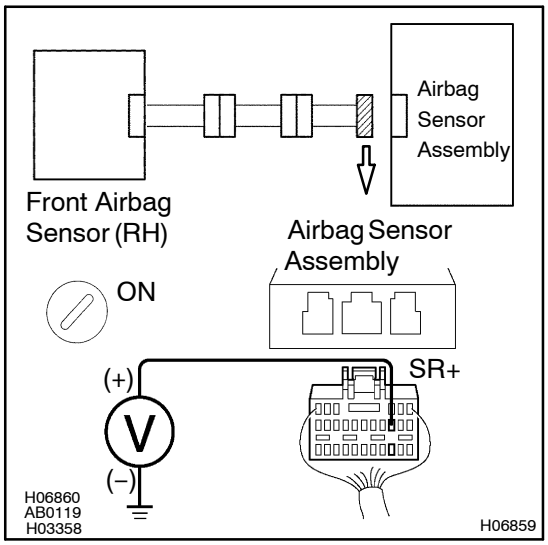
OK:

Resistance: 1 MΩ or Higher

NG → **Go to step 11.**

OK

4	Check front airbag sensor (RH) circuit (to B+).



PREPARATION:

(a) Connect negative (–) terminal cable to the battery, and wait at least for 2 seconds.

(b) Turn ignition switch to ON.

CHECK:

For the connector (on the airbag sensor assembly side) between the front airbag sensor (RH) and the airbag sensor assembly, measure the voltage between SR+ and body ground.

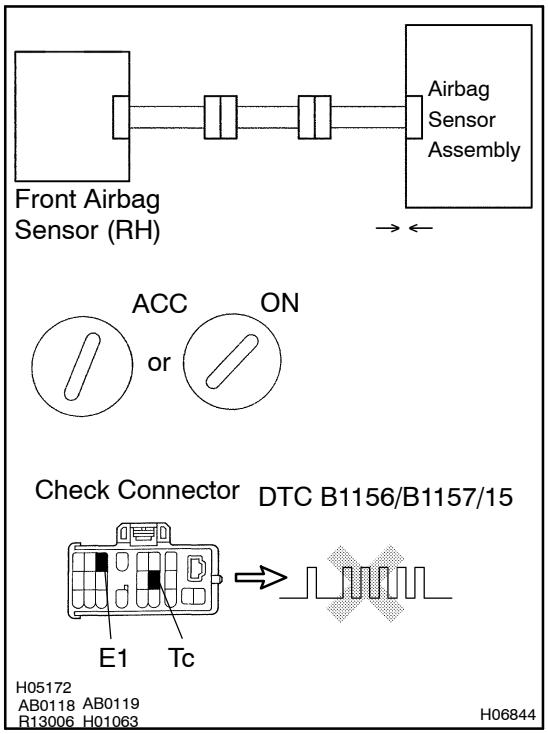
OK:

Voltage: Below 1 V

NG → **Go to step 14.**

OK

5	Check airbag sensor assembly.



PREPARATION:

(a) Turn ignition switch to LOCK.
(b) Disconnect negative (–) terminal cable from the battery, and wait at least for 90 seconds.
(c) Connect the front airbag sensor (RH) connector and airbag sensor assembly connector.
(d) Connect negative (–) terminal cable to the battery, and wait at least for 2 seconds.

CHECK:

(a) Turn ignition switch to ACC or ON, and wait at least for 20 seconds.
(b) Clear DTC stored in memory.
(See page DI–447)
(c) Turn ignition switch to LOCK, and wait at least for 20 seconds.
(d) Turn ignition switch to ACC or ON, and wait at least for 20 seconds.
(e) Check DTC.
(See page DI–447)

OK:

DTC B 1156/B1157/15 is not output.

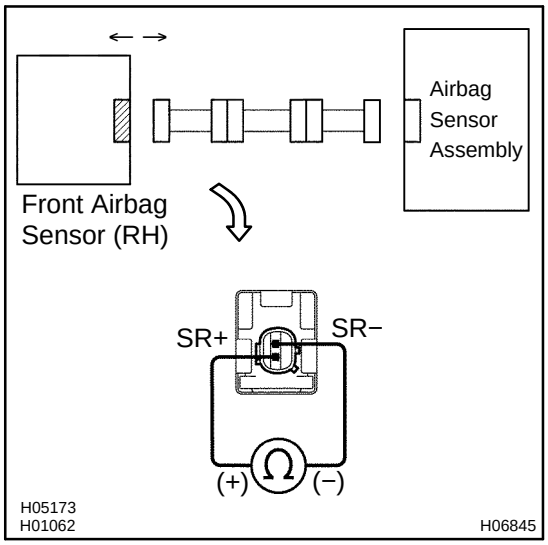
HINT:
Codes other than DTC B1156/B1157/15 may be output at this time, but they are not relevant to this check.

NG → **Replace airbag sensor assembly.**

OK

From the results of the above inspection, the malfunctioning part can now be considered normal. To make sure of this, use the simulation method to check.

6	**Check front airbag sensor (RH).**



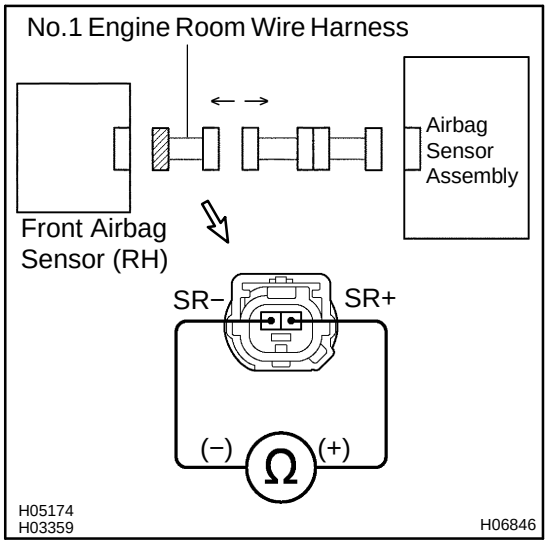
PREPARATION:
Disconnect the front airbag sensor connector (RH).
CHECK:
For the connector (on the front airbag sensor), measure the resistance between SR+ and SR−.
OK:

Resistance: 754 − 886 Ω

NG → **Replace front airbag sensor (RH).**

OK

7	**Check No.1 engine room wire harness.**



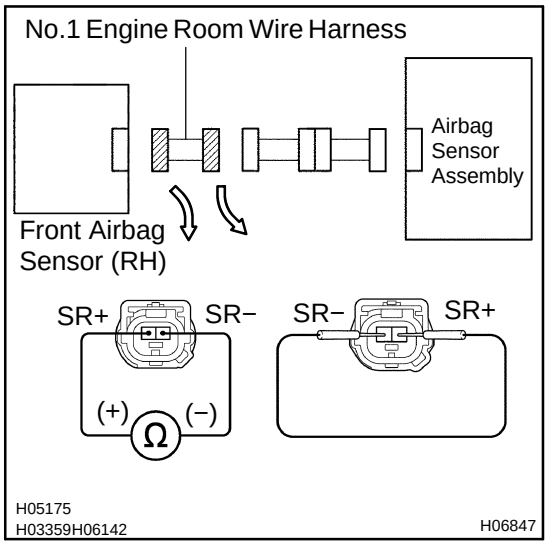
PREPARATION:
Disconnect the No.1 engine room wire harness connector on the airbag sensor assembly side.
CHECK:
For the connector (on the No.1 engine room wire harness side) between the front airbag sensor (RH) and the No.1 engine room wire harness, measure the resistance between SR+ and SR−.
OK:

Resistance: 1 MΩ or Higher

NG → **Repair or replace No.1 engine room wire harness.**

OK

8	Check No.1 engine room wire harness.



PREPARATION:

Using a service wire, connect SR+ and SR− of the connector (on the No.1 engine room wire harness side), between the airbag sensor assembly and the No.1 engine room wire harness.

CHECK:

For the connector (on the No.1 engine room wire harness side) between the front airbag sensor (RH) and the No.1 engine room wire harness, measure the resistance between SR+ and SR−.

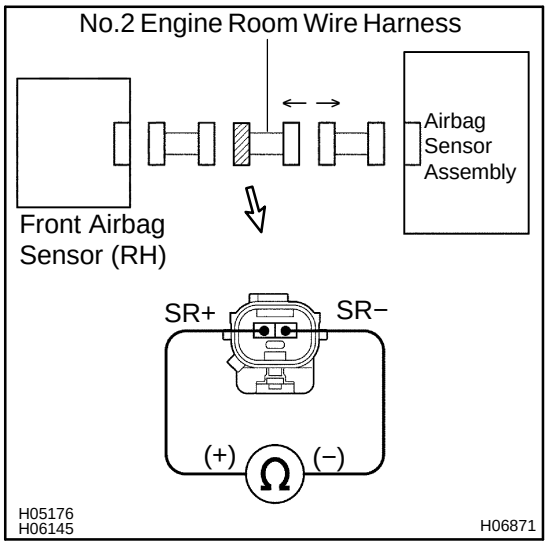
OK:

Resistance: Below 1 Ω

NG	Repair or replace No.1 engine room wire harness.

OK

9	Check No.2 engine room wire harness.



PREPARATION:

Disconnect the No.2 engine room wire harness connector on the airbag sensor assembly side.

CHECK:

For the connector (on the No.2 engine room wire harness side) between the No.1 engine room wire harness and the No.2 engine room wire harness, measure the resistance between SR+ and SR−.

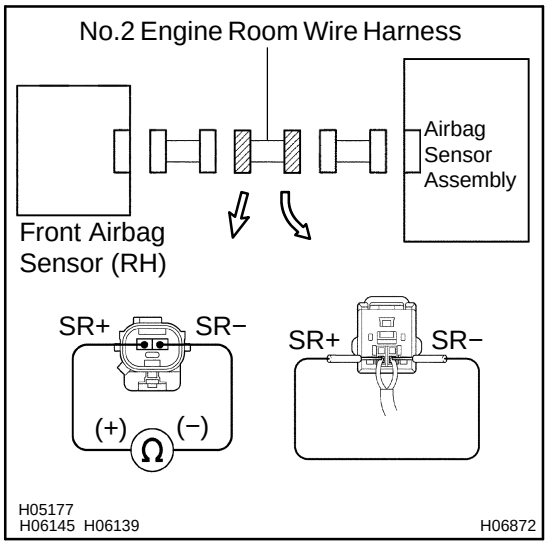
OK:

Resistance: 1 MΩ or Higher

NG	Repair or replace No.2 engine room wire harness.

OK

10	**Check No.2 engine room wire harness.**



PREPARATION:

Using a service wire, connect SR+ and SR− of the connector (on the No.2 engine room wire harness side), between the airbag sensor assembly and the No.2 engine room wire harness.

CHECK:

For the connector (on the No.2 engine room wire harness side) between the No.1 engine room wire harness and the No.2 engine room wire harness, measure the resistance between SR+ and SR−.

OK:

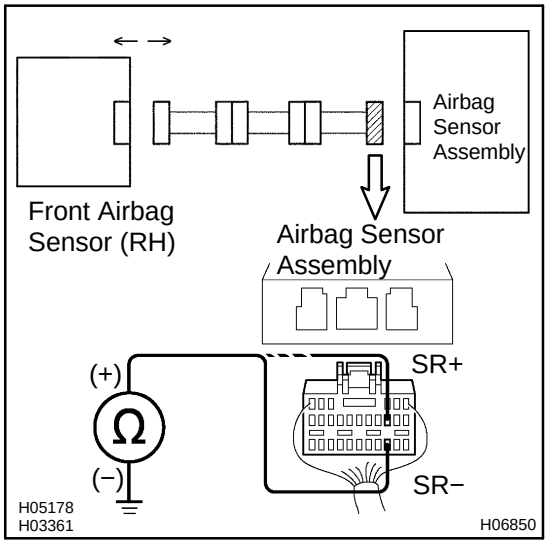
Resistance: Below 1 Ω

NG	**Repair or replace No.2 engine room wire harness.**

OK

Repair or replace harness or connector between airbag sensor assembly and No.2 engine room wire harness.

11	**Check wire harness (to ground).**



PREPARATION:

Disconnect the front airbag sensor connector (RH).

CHECK:

For the connector (on the airbag sensor assembly side) between the front airbag sensor (RH) and the airbag sensor assembly, measure the resistance between body ground and each of SR+ and SR−.

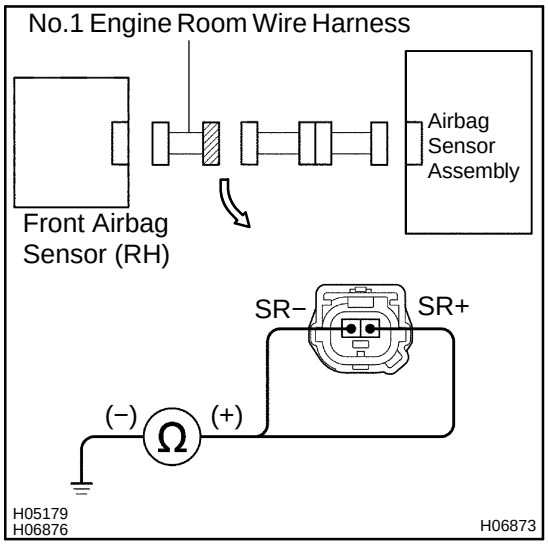
OK:

Resistance: 1 MΩ or Higher

OK	**Replace front airbag sensor (RH).**

NG

12	Check No.1 engine room wire harness (to ground).



PREPARATION:

Disconnect the No.1 engine room wire harness connector on the airbag sensor assembly side.

CHECK:

For the connector (on the No.1 engine room wire harness side) between the airbag sensor assembly and the No.1 engine room wire harness, measure the resistance between body ground and each of SR+ and SR−.

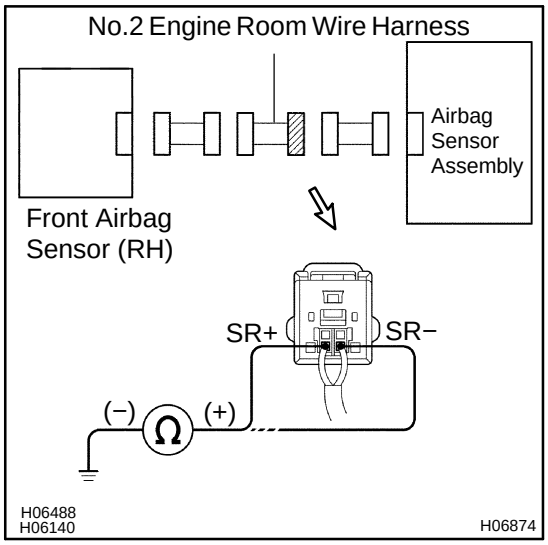
OK:

Resistance: 1 MΩ or Higher

NG	Repair or replace No.1 engine room wire harness.

OK

13	Check No.2 engine room wire harness (to ground).



PREPARATION:

Disconnect the No.2 engine room wire harness connector on the airbag sensor assembly side.

CHECK:

For the connector (on the No.2 engine room wire harness side) between the airbag sensor assembly ad the No.2 engine room wire harness, measure the resistance between body ground and each of SR+ and SR−.

OK:

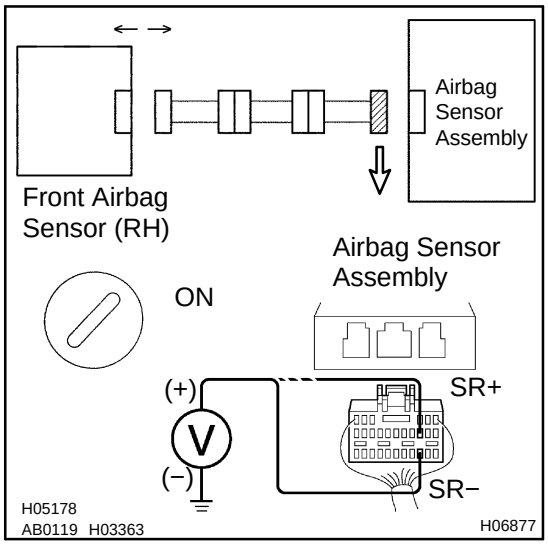
Resistance: 1 MΩ or Higher

NG	Repair or replace No.2 engine room wire harness.

OK

Repair or replace harness or connector between airbag sensor assembly and No.2 engine room wire harness.

14	**Check wire harness (to B+).**



PREPARATION:

(a) Disconnect the front airbag sensor connector (RH).

(b) Turn ignition switch ON.

CHECK:

For the connector (on the airbag sensor assembly side) between the front airbag sensor (RH) and the airbag sensor assembly, measure the resistance between body ground and each of SR+ and SR−.

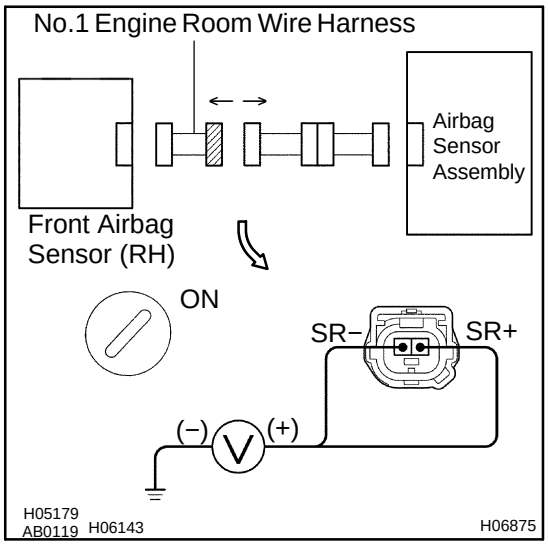
OK:

Voltage: Below 1 V

OK	**Replace front airbag sensor (RH).**

OK

15	**Check No.1 engine room wire harness (to B+).**



PREPARATION:

Disconnect the No.1 engine room wire harness connector on the airbag sensor assembly side.

CHECK:

For the connector (on the No.1 engine room wire harness side) between the airbag sensor assembly and the No.1 engine room wire harness, measure the voltage between body ground and each of SR+ and SR−.

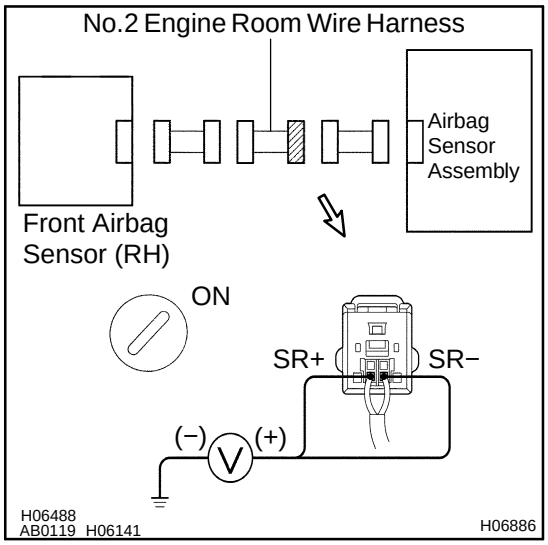
OK:

Voltage: Below 1 V

NG	**Repair or replace No.1 engine room wire harness.**

OK

16	Check No.2 engine room wire harness (to B+).



PREPARATION:

Disconnect the No.2 engine room wire harness connector on the airbag sensor assembly side.

CHECK:

For the connector (on the No.2 engine room wire harness side) between the airbag sensor assembly and the No.2 engine room wire harness, measure the voltage between body ground and each of SR+ and SR−.

OK:

Voltage: Below 1 V

NG → **Repair or replace No.2 engine room wire harness.**

OK

Repair or replace harness or connector between airbag sensor assembly and No.2 engine room wire harness.