

DTC	B1660/43	Passenger Airbag ON / OFF Indicator Circuit Malfunction
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DESCRIPTION

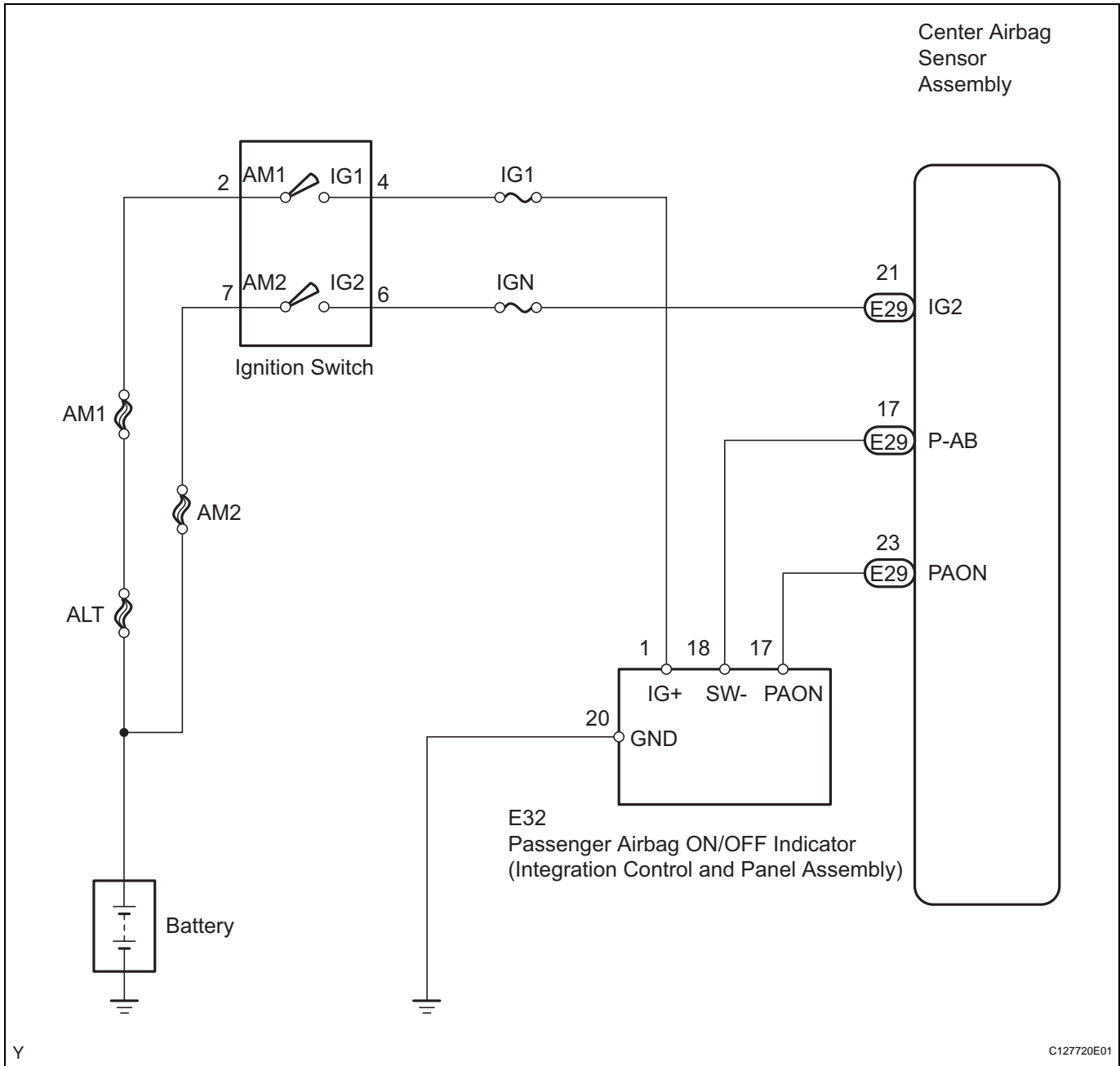
The passenger airbag ON/OFF indicator circuit consists of the center airbag sensor assembly and the front passenger seat belt warning light.

This circuit indicates the operation condition of the front passenger airbag assembly, the front passenger side front seat side airbag assembly and passenger side seat belt pretensioner.

DTC B1660/43 is set when a malfunction is detected in the passenger airbag ON/OFF indicator circuit.

DTC No.	DTC Detecting Conditions	Trouble Areas
B1660/43	<ul style="list-style-type: none"> • Center airbag sensor assembly detects line short circuit signal, open circuit signal, short circuit to ground signal or short circuit to B+ signal in passenger airbag ON/OFF indicator circuit for 2 seconds • Front passenger seat belt warning light malfunction • Center airbag sensor assembly malfunction 	<ul style="list-style-type: none"> • Instrument panel wire • Integration control and panel assembly (Passenger airbag ON/OFF Indicator) • Center airbag sensor assembly

WIRING DIAGRAM



INSPECTION PROCEDURE

NOTICE:

In order to prevent unexpected airbag deployment, disconnect the following connectors before inspecting parts such as wire harnesses, if the application of tester probes to the center airbag sensor assembly connector is necessary.

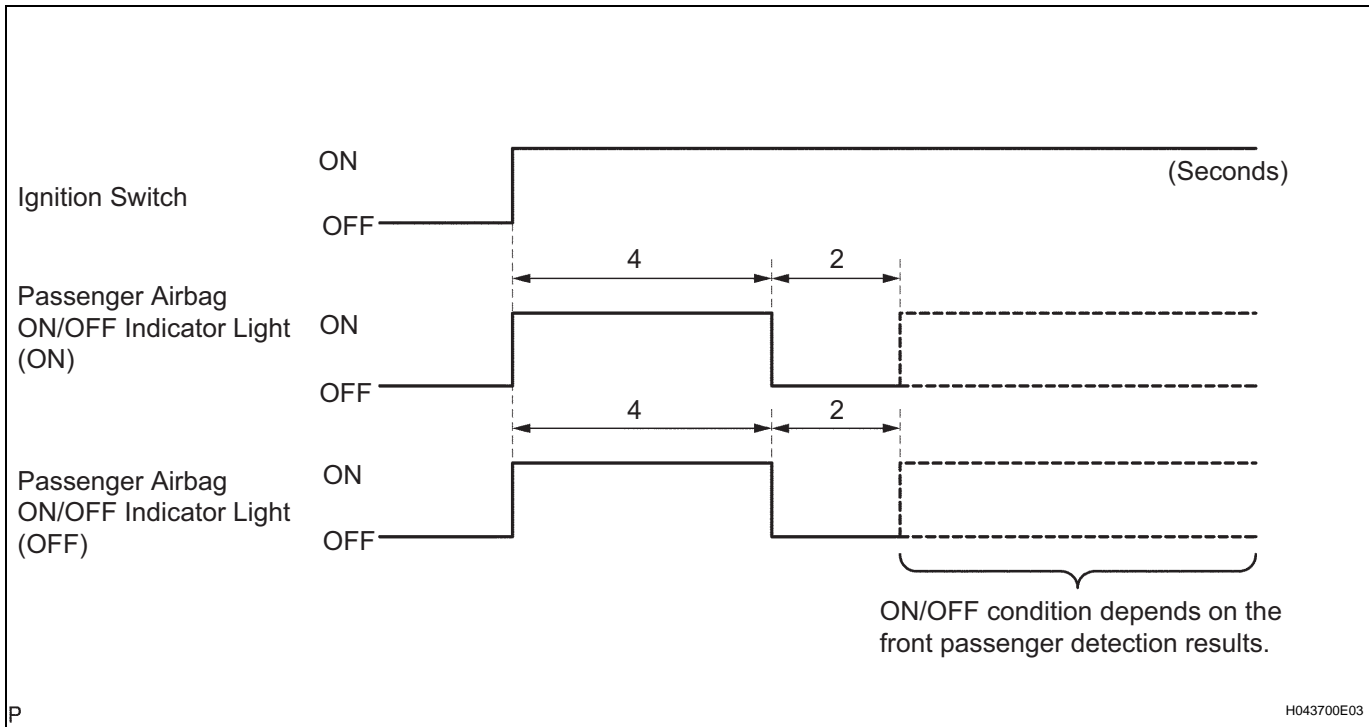
1. Turn the ignition switch to the lock position.
2. Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
3. Disconnect the connector from the center airbag sensor assembly.
4. Disconnect the connectors from the steering pad.
5. Disconnect the connectors from the front passenger airbag assembly.
6. Disconnect the connector from the front seat outer belt assembly LH.

7. Disconnect the connector from the front seat outer belt assembly RH.
HINT:
Skip the following steps if side and curtain shield airbags are not fitted.
8. Disconnect the connector from the front seat side airbag assembly LH.
9. Disconnect the connector from the front seat side airbag assembly RH.
10. Disconnect the connector from the curtain shield airbag assembly LH.
11. Disconnect the connector from the curtain shield airbag assembly RH.

1 CHECK PASSENGER AIRBAG ON/OFF INDICATOR OPERATION

- (a) Turn the ignition switch to the on position.
- (b) Check the passenger airbag ON/OFF indicator operation.
HINT:
Refer to the normal condition of the passenger airbag ON/OFF indicator (See page RS-251).

RS



Result

ON/OFF Indicator Illumination	Proceed To
Always ON	A
OFF	B

B → **Go to step 5**

A

2 CHECK CONNECTORS (CENTER AIRBAG SENSOR - INTEGRATION CONTROL AND PANEL)

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.

- (c) Check the instrument panel wire connectors and terminals and check that the connectors are properly connected to the center airbag sensor assembly and the integration control and panel assembly.

Result

Result	Proceed to
No problem.	A
Connectors or terminals incorrect.	B
Connectors connect improperly.	C

B → REPAIR OR REPLACE INSTRUMENT PANEL WIRE

C → CONNECT CONNECTORS PROPERLY

A

RS

3 CHECK INTEGRATION CONTROL AND PANEL ASSEMBLY (PASSENGER AIRBAG ON/OFF INDICATOR)



- (a) Disconnect the connector from the center airbag sensor assembly.
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the ignition switch to the on position.
- (d) Check the passenger airbag ON/OFF indicator operation.

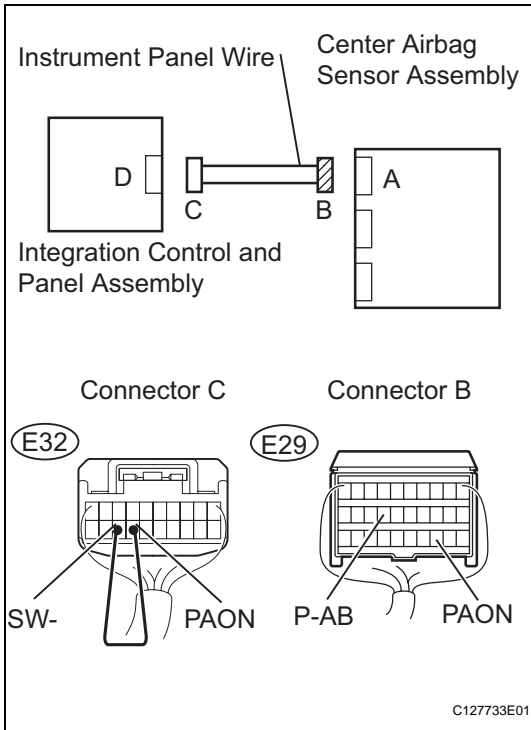
OK:

Neither ON nor OFF passenger airbag ON/OFF indicator comes on.

OK → Go to step 8

NG

4 CHECK INSTRUMENT PANEL WIRE



- (a) Check for open in the circuit.
- (1) Turn the ignition switch off.
 - (2) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
 - (3) Disconnect the connector from the integration control and panel assembly.
 - (4) Using a service wire, connect E32-17 (PAON) and E32-18 (SW-) of connector C.

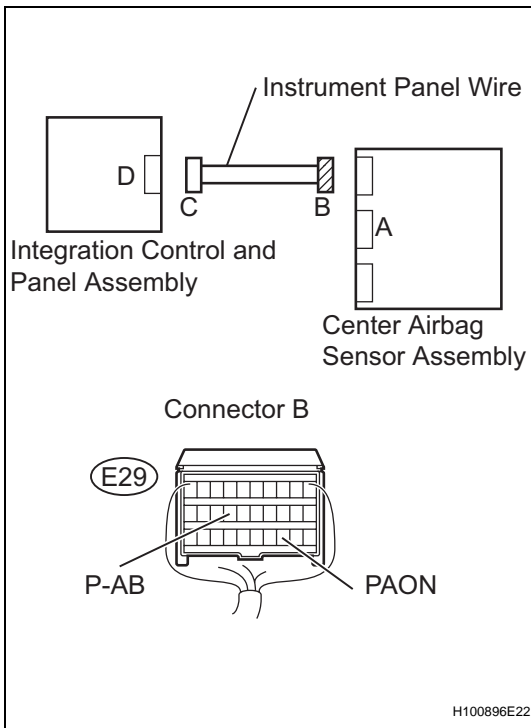
NOTICE:

Do not forcibly insert the service wire into the terminals of the connector when connecting.

- (5) Measure the resistance.

Standard resistance

Terminal Connection	Condition	Specified Condition
E29-23 (PAON) - E29-17 (P-AB)	Always	Below 1 Ω



- (b) Check for short in the circuit.
- (1) Disconnect the service wire from connector C.
 - (2) Measure the resistance.

Standard resistance

Terminal Connection	Condition	Specified Condition
E29-17 (P-AB) - E29-23 (PAON)	Always	1 MΩ or higher

- (c) Check for short to ground in the circuit.

- (1) Measure the resistance.

Standard resistance

Terminal Connection	Condition	Specified Condition
E29-17 (P-AB) - Body ground	Always	1 MΩ or higher
E29-23 (PAON) - Body ground	Always	1 MΩ or higher

- (d) Check for short to B+ in the circuit.

- (1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (2) Turn the ignition switch to the on position.
- (3) Measure the voltage.

Standard voltage

Terminal Connection	Condition	Specified Condition
E29-23 (PAON) - Body ground	Ignition switch on	Below 1 V
E29-17 (P-AB) - Body ground	Ignition switch on	Below 1 V

- (4) Turn the ignition switch off.

- (5) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.

NG → **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

OK

REPLACE INTEGRATION CONTROL AND PANEL ASSEMBLY

5 CHECK CONNECTORS (CENTER AIRBAG SENSOR - INTEGRATION CONTROL AND PANEL)

- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Check the instrument panel wire connectors and terminals and check that the connectors are properly connected to the center airbag sensor assembly and the integration control and panel assembly.

Result

Result	Proceed to
No problem.	A
Connectors or terminals incorrect.	B
Connectors connected improperly.	C

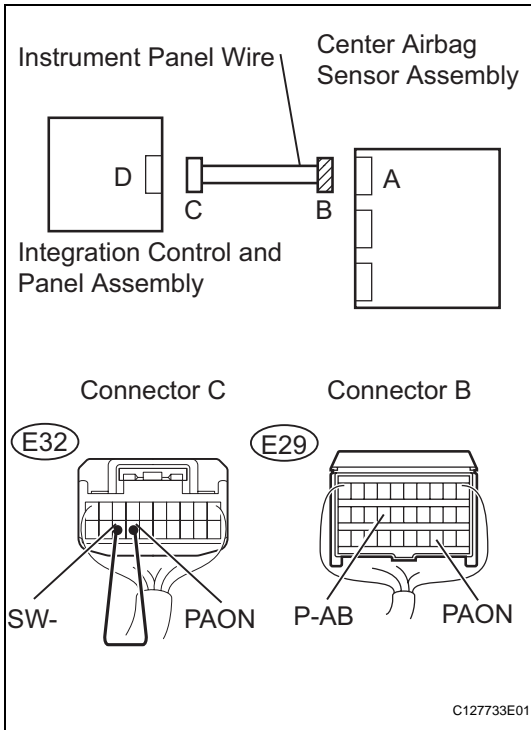
B → **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

C → **CONNECT CONNECTORS PROPERLY**

A

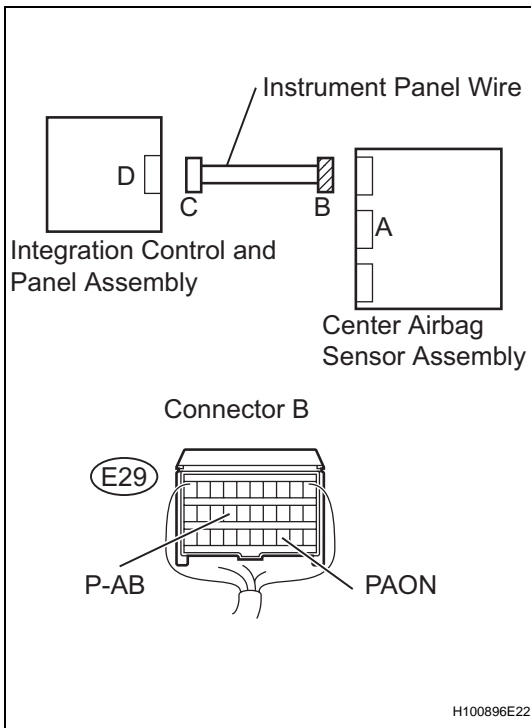
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6 CHECK INSTRUMENT PANEL WIRE



- (a) Check for open in the circuit.
- (1) Disconnect the connector from the integration control and panel assembly.
 - (2) Using a service wire, connect E32-17 (PAON) and E32-18 (SW-) of connector C.
- NOTICE:**
Do not forcibly insert the service wire into the terminals of the connector when connecting.
- (3) Measure the resistance.
- Standard resistance**

Terminal Connection	Condition	Specified Condition
E29-23 (PAON) - E29-17 (P-AB)	Always	Below 1 Ω



- (b) Check for short in the circuit.
- (1) Disconnect the service wire from connector C.
 - (2) Measure the resistance.
- Standard resistance**

Terminal Connection	Condition	Specified Condition
E29-17 (P-AB) - E29-23 (PAON)	Always	1 MΩ or higher

- (c) Check for short to ground in the circuit.
- (1) Measure the resistance.
- Standard resistance**

Terminal Connection	Condition	Specified Condition
E29-17 (P-AB) - Body ground	Always	1 MΩ or higher
E29-23 (PAON) - Body ground	Always	1 MΩ or higher

- (d) Check for short to B+ in the circuit.
- (1) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
 - (2) Turn the ignition switch to the on position.
 - (3) Measure the voltage.
- Standard voltage**

Terminal Connection	Condition	Specified Condition
E29-23 (PAON) - Body ground	Ignition switch on	Below 1 V
E29-17 (P-AB) - Body ground	Ignition switch on	Below 1 V

- (4) Turn the ignition switch off.

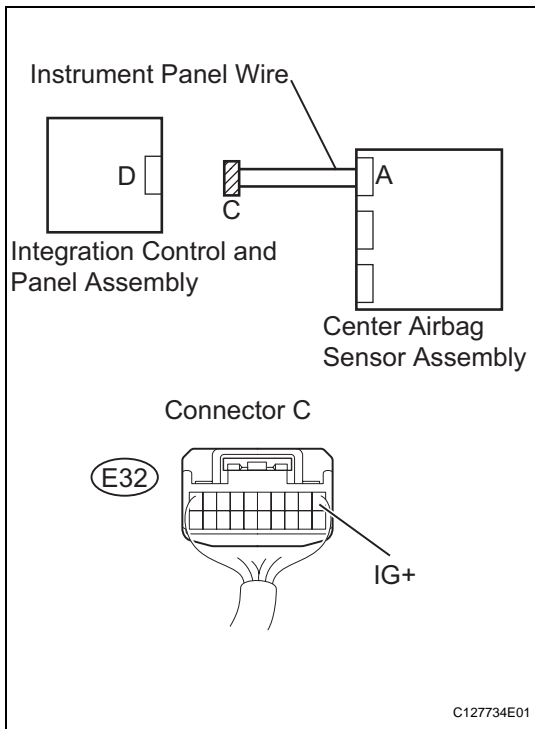
RS

- (5) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.

NG **REPAIR OR REPLACE INSTRUMENT PANEL WIRE**

OK

7 CHECK WIRE HARNESS (POWER SOURCE)



- (a) Reconnect the connector of the instrument panel wire to the center airbag sensor assembly.
- (b) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (c) Turn the ignition switch to the on position.
- (d) Measure the voltage.

Standard voltage

Terminal Connection	Condition	Specified Condition
E32-1 (IG+) - Body ground	Ignition switch on	10 to 14 V

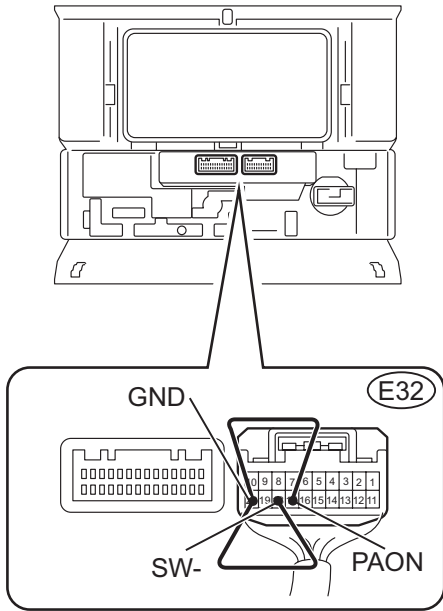
NG **REPAIR OR REPLACE POWER SOURCE CIRCUIT**

OK

RS

8 CHECK INTEGRATION CONTROL AND PANEL ASSEMBLY (PASSENGER AIRBAG ON/OFF INDICATOR)

Integration Control and Panel Assembly:



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- (a) Turn the ignition switch off.
- (b) Using a service wire, connect E32-17 (PAON) and E32-20 (GND) of the front passenger seat belt warning light connector.
- (c) Using a service wire, connect E32-18 (SW-) and E32-20 (GND) of the front passenger seat belt warning light connector.
- (d) Turn the ignition switch to the on position.
- (e) Check the passenger airbag ON/OFF indicator operation.

OK:

Passenger airbag ON/OFF indicator comes on

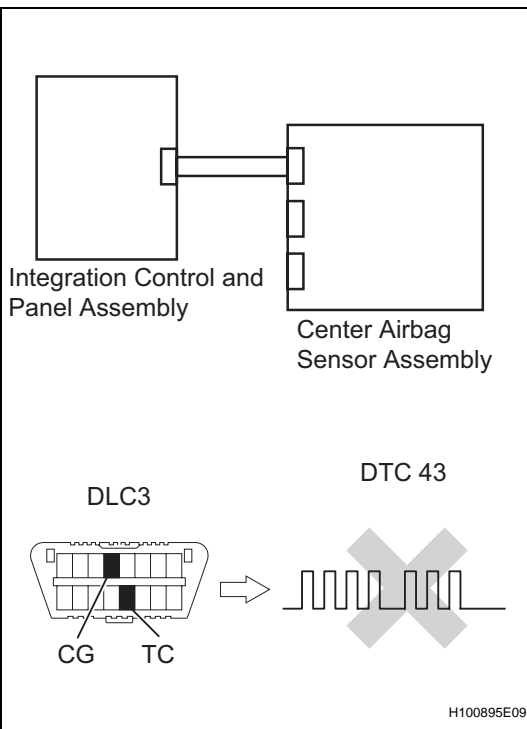
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REPLACE INTEGRATION CONTROL AND PANEL ASSEMBLY

RS

OK

9 CHECK CENTER AIRBAG SENSOR ASSEMBLY



- (a) Turn the ignition switch off.
- (b) Disconnect the negative (-) terminal cable from the battery, and wait for at least 90 seconds.
- (c) Connect the connector to the center airbag sensor assembly.
- (d) Connect the connector to the front passenger seat belt warning light.
- (e) Connect the negative (-) terminal cable to the battery, and wait for at least 2 seconds.
- (f) Turn the ignition switch to the on position, and wait for at least 60 seconds.
- (g) Clear the DTCs stored in the memory (See page RS-36).
- (h) Turn the ignition switch to the lock position.
- (i) Turn the ignition switch to the on position, and wait for at least 60 seconds.
- (j) Check for DTCs (See page RS-36).

OK:

DTC B1660/43 is not output.

HINT:

DTCs other than B1660/43 may be output at this time, but they are not related to this check.

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REPLACE CENTER AIRBAG SENSOR ASSEMBLY

OK

USE SIMULATION METHOD TO CHECK