

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

for Preparation [Click here](#)

DESCRIPTION

The passenger airbag ON/OFF indicator circuit consists of the center airbag sensor and the passenger airbag ON/OFF indicator.

The passenger airbag ON/OFF indicator indicates the operation condition of the front passenger airbag, front passenger side knee airbag, front seat side airbag RH and front seat outer belt RH. DTC B1660/43 is stored when a malfunction is detected in the passenger airbag ON/OFF indicator circuit.

DTC Code	DTC Detection Condition	Trouble Area
B1660/43	<p>When one of the following conditions is met:</p> <ul style="list-style-type: none">• The center airbag sensor receives an open circuit signal, a short circuit to ground signal or a short circuit to B+ signal in the passenger airbag ON/OFF indicator circuit for 2 seconds.• A passenger airbag ON/OFF indicator malfunction.• A center airbag sensor malfunction.	<ul style="list-style-type: none">• Instrument panel wire• Multi-display*1• Clock*2• Center airbag sensor assembly• No. 2 instrument panel wire• No. 5 instrument panel wire*2

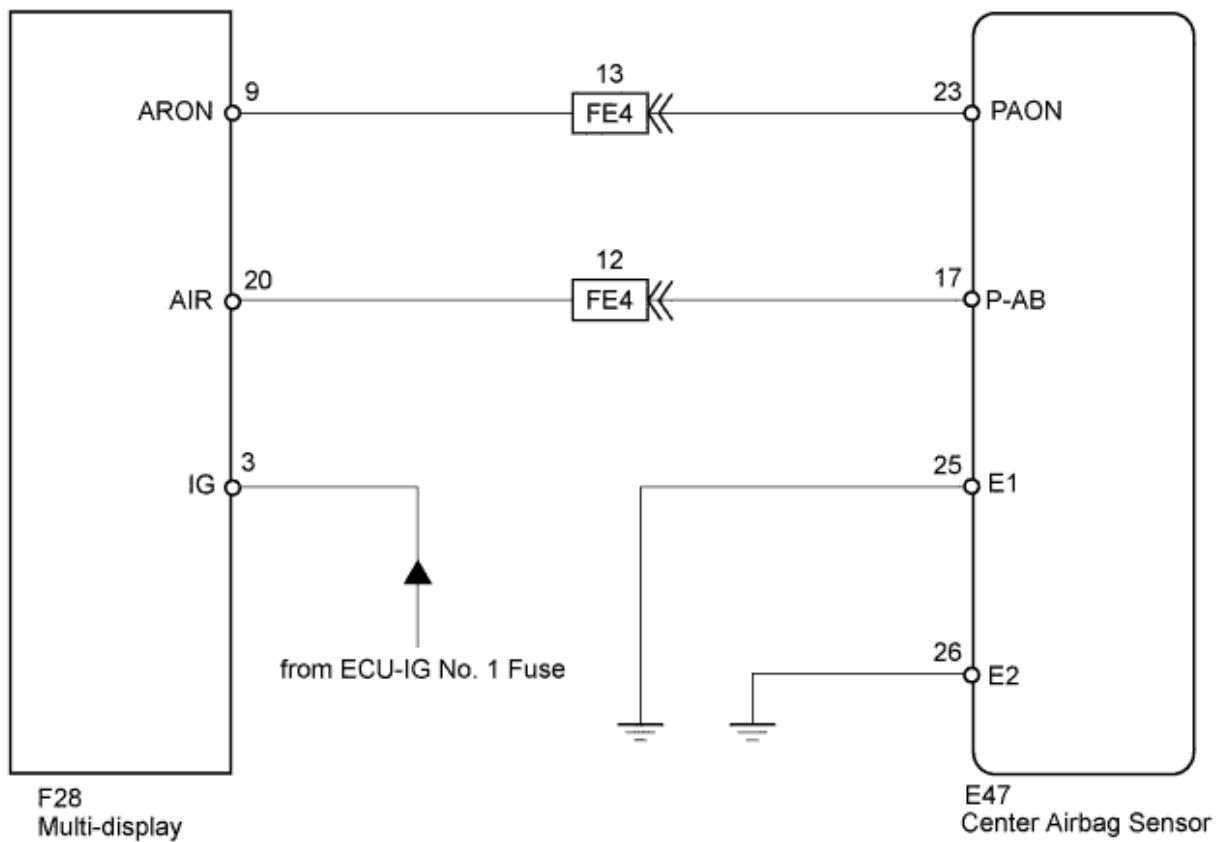
HINT:

*1: w/ Multi-display

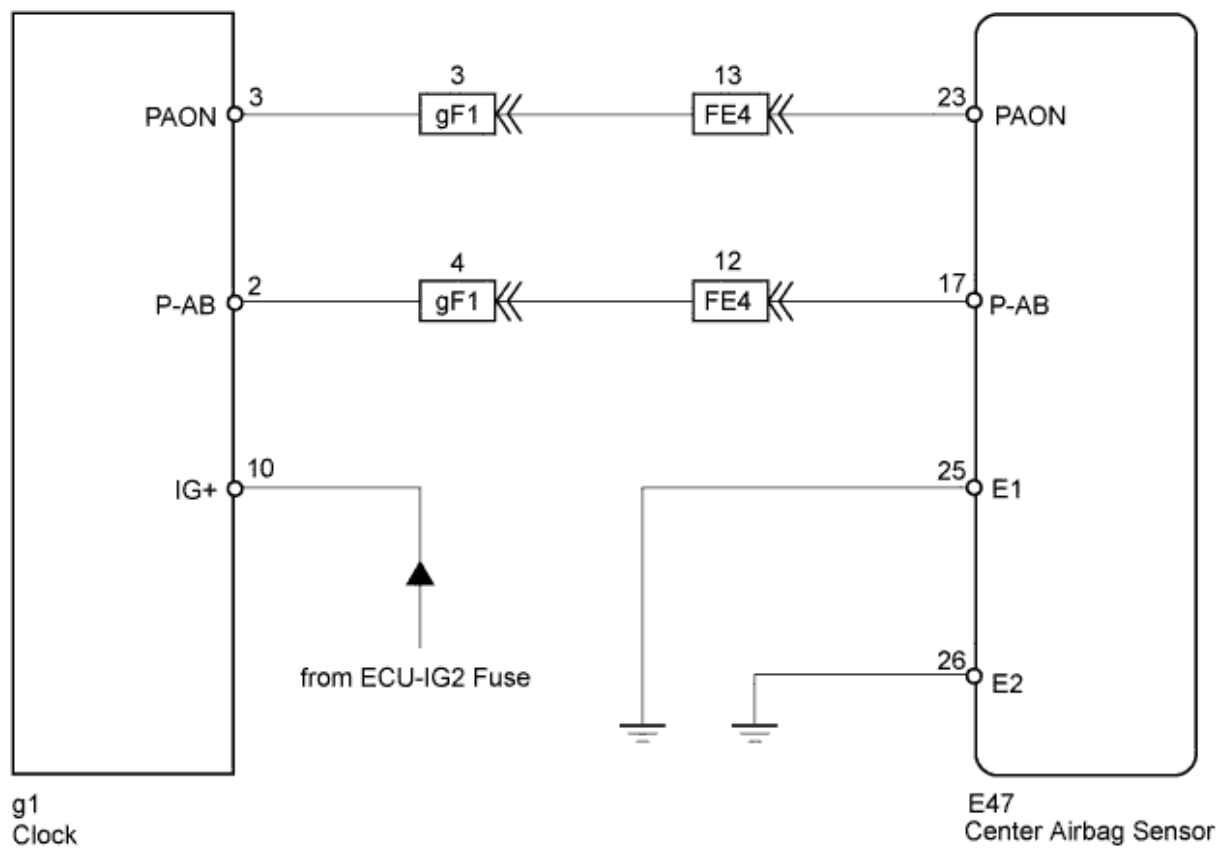
*2: w/o Multi-display

WIRING DIAGRAM

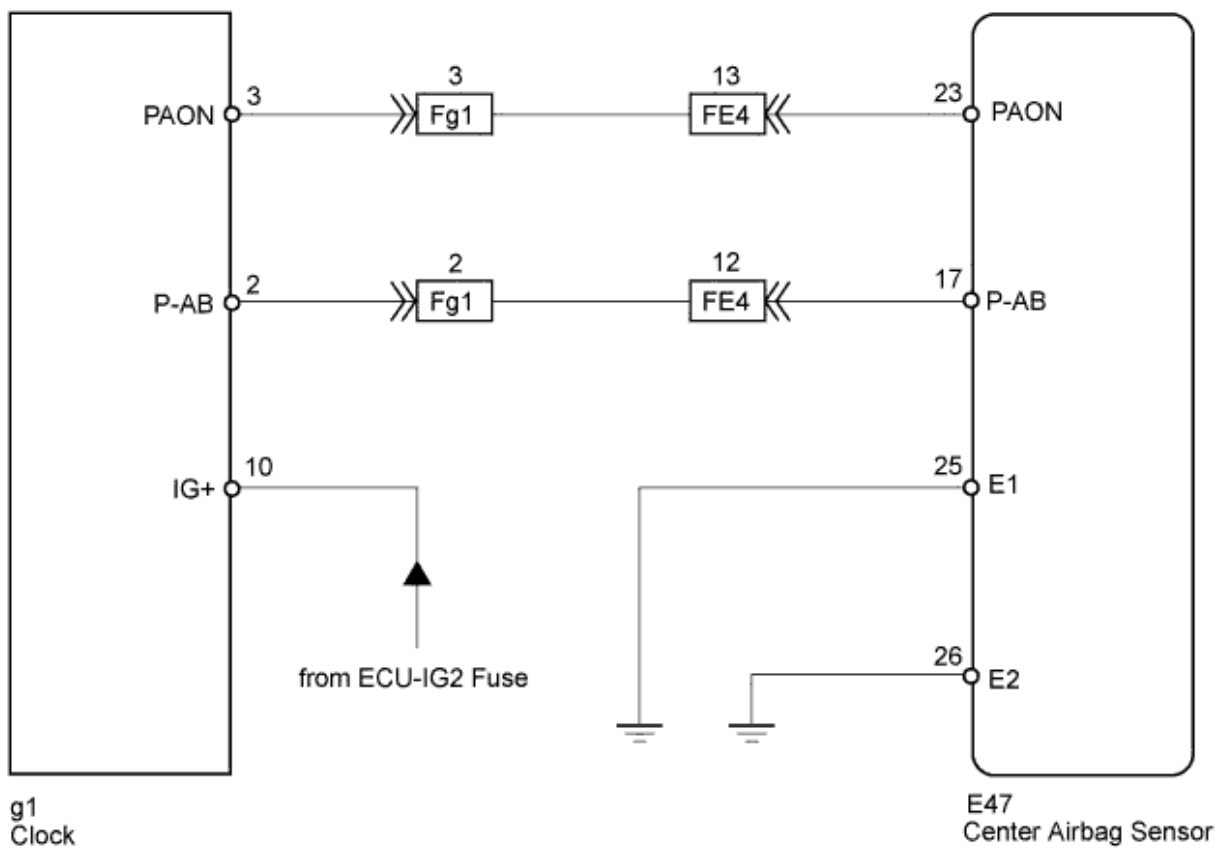
w/ Multi-display:



w/o Multi-display (w/o Cassette Tape Player):



w/o Multi-display (w/ Cassette Tape Player):

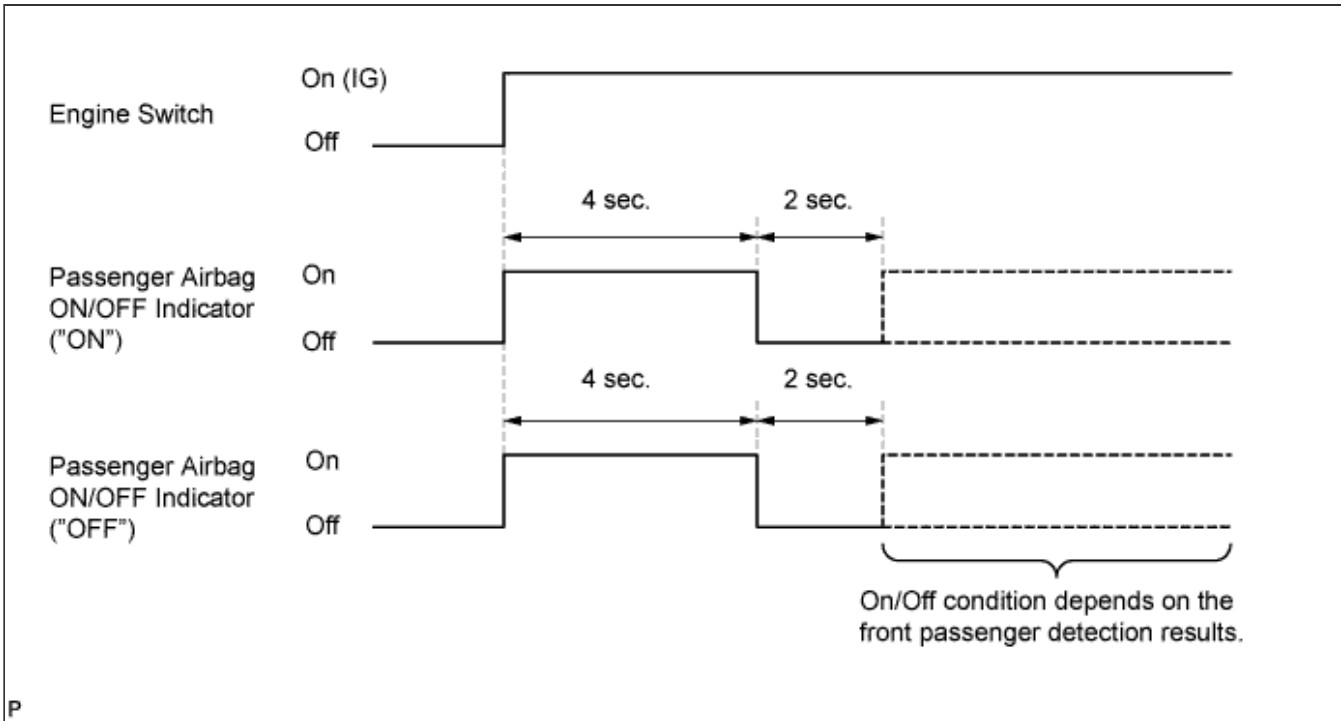


INSPECTION PROCEDURE

NOTICE:

When disconnecting the cable from the negative (-) battery terminal while performing repairs, some systems need to be initialized after the cable is reconnected ([Click here](#)).

1.CHECK PASSENGER AIRBAG ON/OFF INDICATOR CONDITION



- a. Turn the engine switch on (IG).
- b. Check the passenger airbag ON/OFF indicator operation.

HINT:
Refer to the normal condition of the passenger airbag ON/OFF indicator ([Click here](#)).

Result	
Result	Proceed to
Always On	A
Off	B

A

B [Go to step 9](#)

2.CHECK CONNECTION OF CONNECTORS

- a. Turn the engine switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Check that the connectors are properly connected to the center airbag sensor and the

multi-display or clock.

OK:

The connectors are properly connected.

NG

CONNECT CONNECTORS PROPERLY

OK

3.CHECK CONNECTORS

- a. Disconnect the connectors from the center airbag sensor and the multi-display or clock.
- b. Check that the connectors (on the center airbag sensor side and multi-display side or clock side) are not damaged.

OK:

The connectors are not deformed or damaged.

NG

REPLACE HARNESS AND CONNECTOR

OK

4.CHECK PASSENGER AIRBAG ON/OFF INDICATOR

- a. Connect the connector to the multi-display or clock.
- b. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- c. Turn the engine switch on (IG).
- d. Check the passenger airbag ON/OFF indicator operation.



OK:

The passenger airbag ON/OFF indicator does not come on.

NG

[Go to step 6](#)

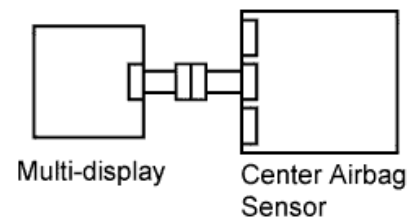
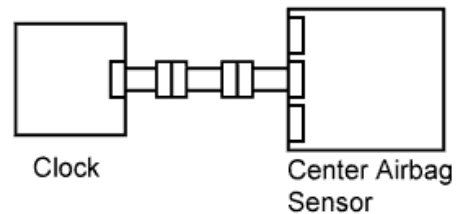
OK

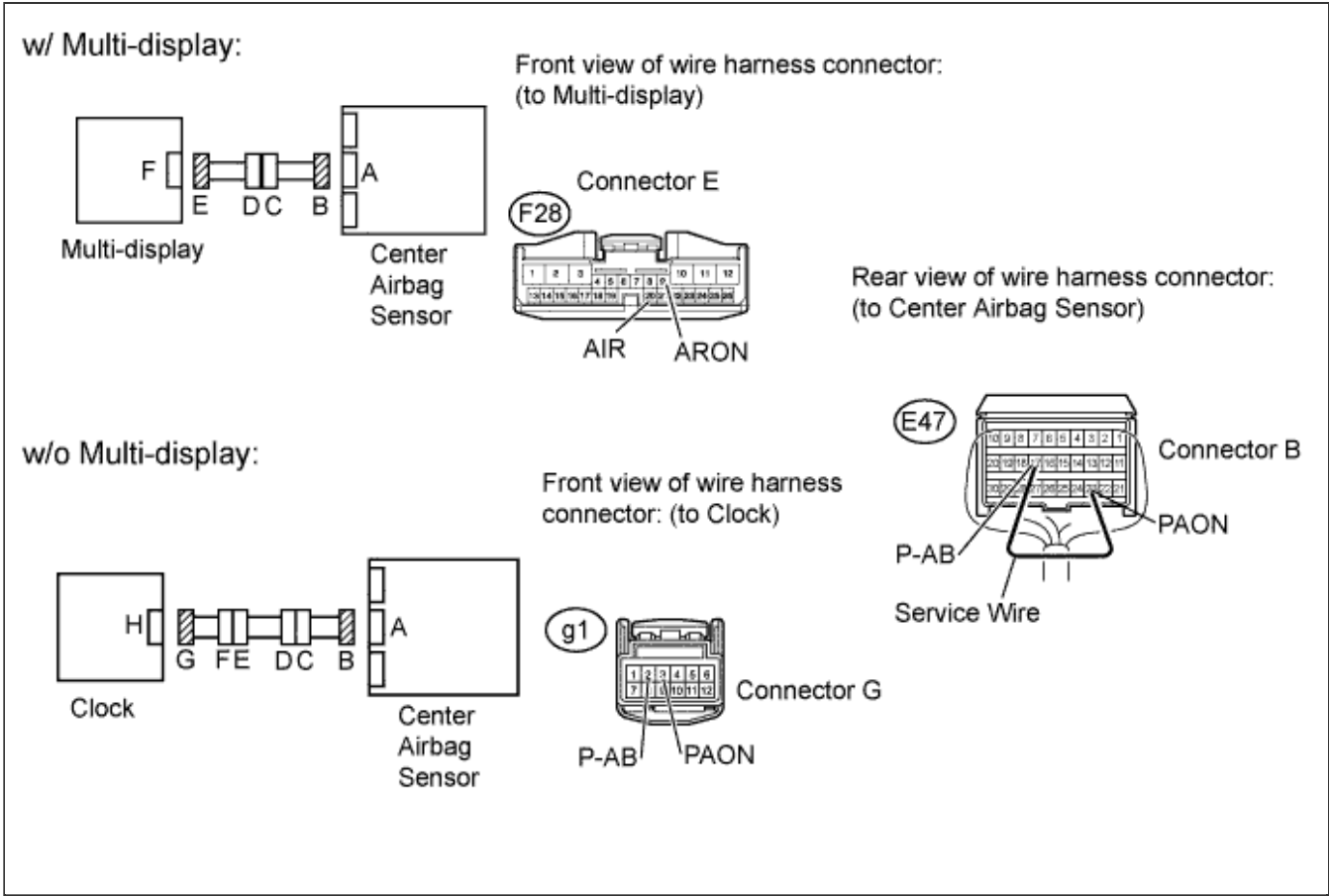
5.CHECK CENTER AIRBAG SENSOR

- a. Connect the connector to the center airbag sensor.
- b. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- c. Turn the engine switch on (IG), and wait for at least 60 seconds.
- d. Clear the DTCs ([Click here](#)).
- e. Turn the engine switch off.
- f. Turn the engine switch on (IG), and wait for at least 60 seconds.
- g. Check for DTCs ([Click here](#)).

OK:**DTC B1660 is not output.****HINT:**

Codes other than DTC B1660 may be output at this time, but they are not related to this check.

w/ Multi-display:**w/o Multi-display:****NG****REPLACE CENTER AIRBAG SENSOR ASSEMBLY ([Click here](#))****OK****USE SIMULATION METHOD TO CHECK ([Click here](#))****6.CHECK PASSENGER AIRBAG ON/OFF INDICATOR CIRCUIT**



- a. Turn the engine switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Disconnect the connector from the center airbag sensor and multi-display or clock.
- d. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- e. Measure the voltage according to the value(s) in the table below.

Standard Voltage:

w/ Multi-display

Tester Connection	Switch Condition	Specified Condition
F28-9 (ARON) - Body ground	Engine switch on (IG)	Below 1 V
F28-20 (AIR) -	Engine switch on	Below 1 V

Body ground	(IG)	
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w/o Multi-display

Tester Connection	Switch Condition	Specified Condition
g1-3 (PAON) - Body ground	Engine switch on (IG)	Below 1 V
g1-2 (P-AB) - Body ground	Engine switch on (IG)	Below 1 V

- f. Turn the engine switch off.
- g. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- h. Using a service wire, connect terminals 23 (PAON) and 17 (P-AB) of connector B.

NOTICE:

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

- i. Measure the resistance according to the value(s) in the table below.

Standard Resistance:**w/ Multi-display**

Tester Connection	Condition	Specified Condition
F28-9 (ARON) - F28-20 (AIR)	Always	Below 1 Ω

w/o Multi-display

Tester Connection	Condition	Specified Condition
g1-3 (PAON) - g1-2 (P-AB)	Always	Below 1 Ω

- j. Disconnect the service wire from connector B.
- k. Measure the resistance according to the value(s) in the table below.

Standard Resistance:**w/ Multi-display**

Tester Connection	Condition	Specified Condition
F28-9 (ARON) - F28-20 (AIR)	Always	1 MΩ or higher
F28-9 (ARON) - Body ground	Always	1 MΩ or higher
F28-20 (AIR) - Body ground	Always	1 MΩ or higher

w/o Multi-display

Tester Connection	Condition	Specified Condition
g1-3 (PAON) - g1-2 (P-AB)	Always	1 MΩ or higher
g1-3 (PAON) - Body ground	Always	1 MΩ or higher
g1-2 (P-AB) - Body ground	Always	1 MΩ or higher

Result

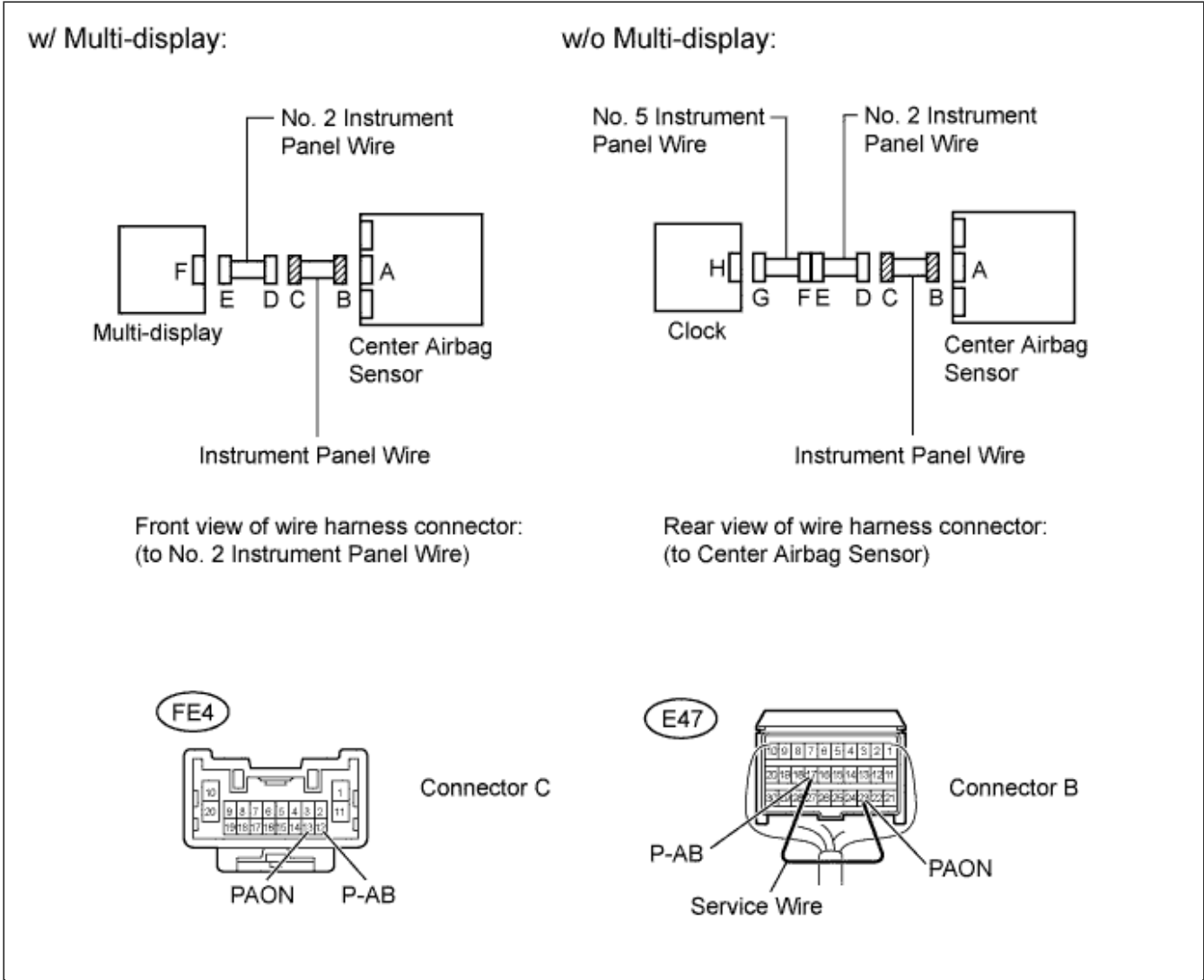
Result	Proceed to
OK (w/ Multi-display)	A
OK (w/o Multi-display)	B
NG	C

B**REPLACE CLOCK ([Click here](#))****C****[Go to step 7](#)**

A

REPLACE MULTI-DISPLAY ([Click here](#))

7.CHECK INSTRUMENT PANEL WIRE (CENTER AIRBAG SENSOR - NO. 2 INSTRUMENT PANEL WIRE)



- a. Disconnect the instrument panel wire connector from the No. 2 instrument panel wire.
- b. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- c. Measure the voltage according to the value(s) in the table below.

Standard Voltage:

Tester Connection	Switch Condition	Specified Condition
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FE4-13 (PAON) - Body ground	Engine switch on (IG)	Below 1 V
FE4-12 (P-AB) - Body ground	Engine switch on (IG)	Below 1 V

- d. Turn the engine switch off.
- e. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- f. Using a service wire, connect terminals 23 (PAON) and 17 (P-AB) of connector B.

NOTICE:

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

- g. Measure the resistance according to the value(s) in the table below.

Standard Resistance:

Tester Connection	Condition	Specified Condition
FE4-13 (PAON) - FE4-12 (P-AB)	Always	Below 1 Ω

- h. Disconnect the service wire from connector B.
- i. Measure the resistance according to the value(s) in the table below.

Standard Resistance:

Tester Connection	Condition	Specified Condition
FE4-13 (PAON) - FE4-12 (P-AB)	Always	1 M Ω or higher
FE4-13 (PAON) - Body ground	Always	1 M Ω or higher
FE4-12 (P-AB) - Body ground	Always	1 M Ω or higher

Result

Result	Proceed to
OK (w/ Multi-display)	A
OK (w/o Multi-display)	B
NG	C

B

[Go to step 8](#)

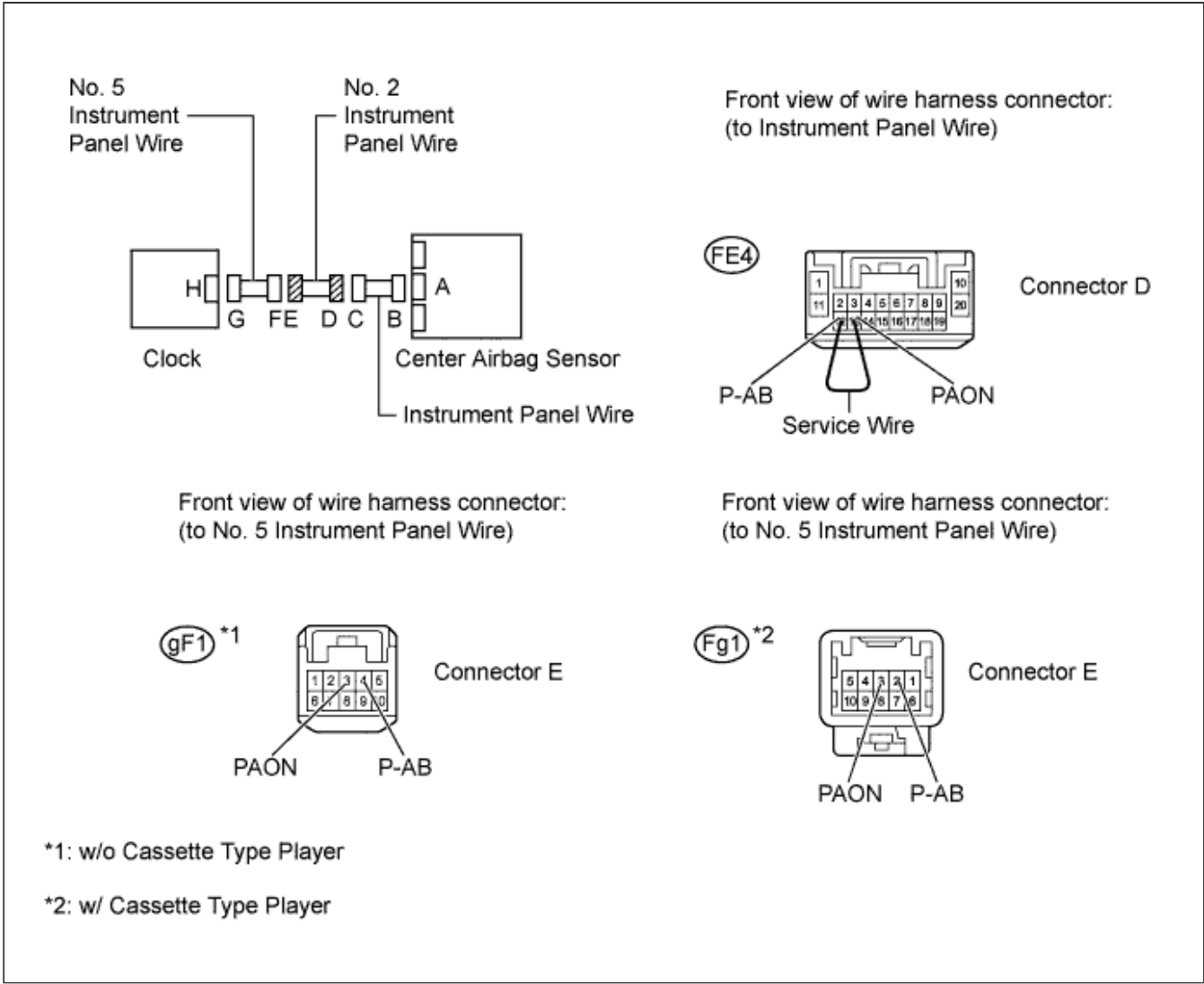
C

REPLACE INSTRUMENT PANEL WIRE

A

REPLACE NO. 2 INSTRUMENT PANEL WIRE

8.CHECK NO. 2 INSTRUMENT PANEL WIRE (INSTRUMENT PANEL WIRE - NO. 5 INSTRUMENT PANEL WIRE)



- a. Disconnect the No. 2 instrument panel wire connector from the No. 5 instrument panel wire.
- b. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- c. Measure the voltage according to the value(s) in the table below.

Standard Voltage:

w/o Cassette Type Player

Tester Connection	Switch Condition	Specified Condition
gF1-3 (PAON) - Body ground	Engine switch on (IG)	Below 1 V

gF1-4 (P-AB) - Body ground	Engine switch on (IG)	Below 1 V
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w/ Cassette Type Player

Tester Connection	Switch Condition	Specified Condition
Fg1-3 (PAON) - Body ground	Engine switch on (IG)	Below 1 V
Fg1-2 (P-AB) - Body ground	Engine switch on (IG)	Below 1 V

- d. Turn the engine switch off.
- e. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- f. Using a service wire, connect terminals 13 (PAON) and 12 (P-AB) of connector D.

NOTICE:

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

- g. Measure the resistance according to the value(s) in the table below.

Standard Resistance:**w/o Cassette Type Player**

Tester Connection	Condition	Specified Condition
gF1-3 (PAON) - gF1-4 (P-AB)	Always	Below 1 Ω

w/ Cassette Type Player

Tester Connection	Condition	Specified Condition
Fg1-3 (PAON) - Fg1-2 (P-AB)	Always	Below 1 Ω

- h. Disconnect the service wire from connector D.
- i. Measure the resistance according to the value(s) in the table below.

Standard Resistance:**w/o Cassette Type Player**

Tester Connection	Condition	Specified Condition
gF1-3 (PAON) - gF1-4 (P-AB)	Always	1 MΩ or higher
gF1-3 (PAON) - Body ground	Always	1 MΩ or higher
gF1-4 (P-AB) - Body ground	Always	1 MΩ or higher

w/ Cassette Type Player

Tester Connection	Condition	Specified Condition
Fg1-3 (PAON) - Fg1-2 (P-AB)	Always	1 MΩ or higher
Fg1-3 (PAON) - Body ground	Always	1 MΩ or higher
Fg1-2 (P-AB) - Body ground	Always	1 MΩ or higher

NG**REPLACE NO. 2 INSTRUMENT PANEL WIRE****OK****REPLACE NO. 5 INSTRUMENT PANEL WIRE****9.CHECK CONNECTION OF CONNECTORS**

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

seconds.

- c. Check that the connectors are properly connected to the center airbag sensor and the multi-display or clock.

OK:

The connectors are properly connected.

NG

CONNECT CONNECTORS PROPERLY

OK

10.CHECK CONNECTORS

- a. Disconnect the connectors from the center airbag sensor and the multi-display or clock.
- b. Check that the connectors (on the center airbag sensor side and multi-display side or clock side) are not damaged.

OK:

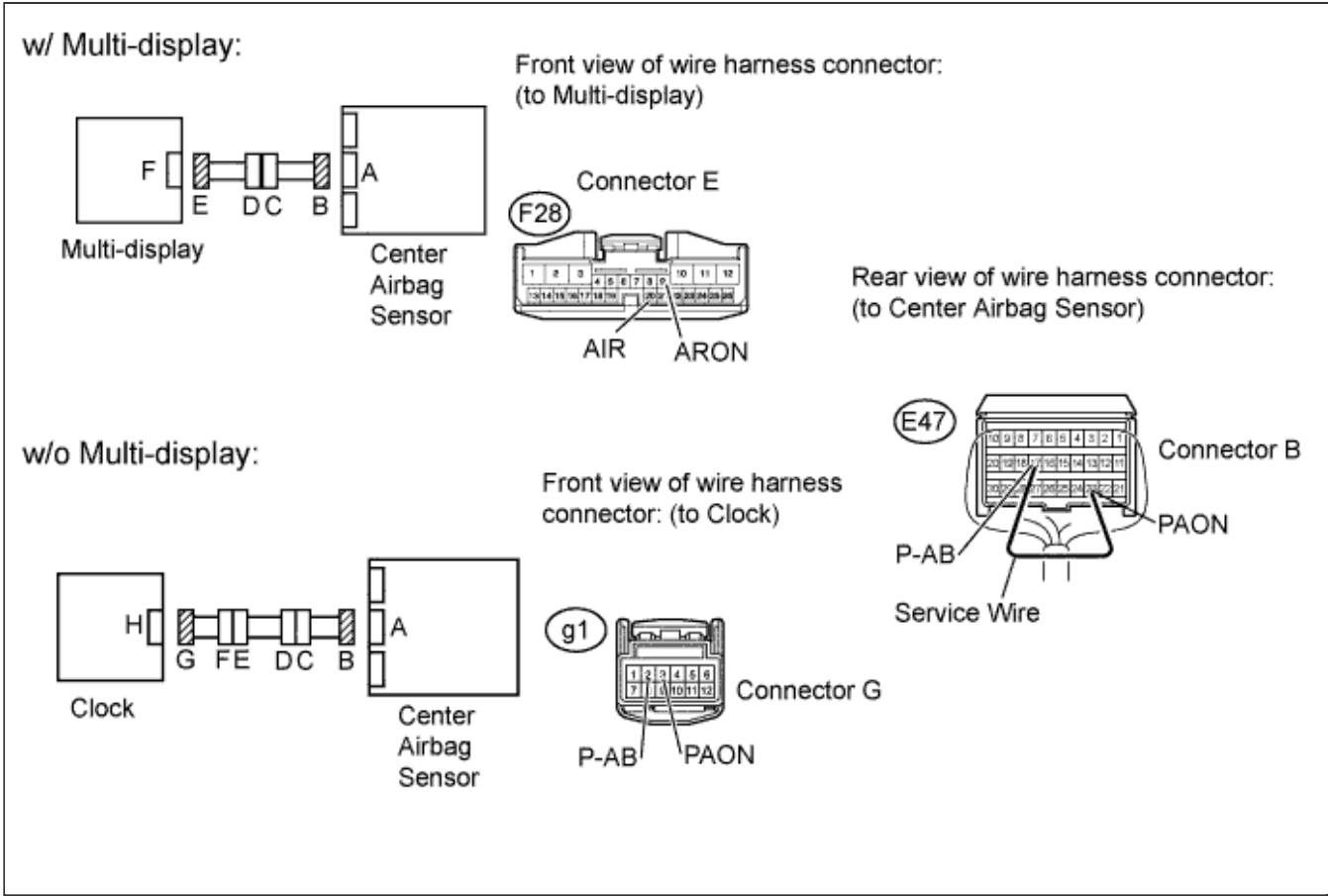
The connectors are not deformed or damaged.

NG

REPLACE HARNESS AND CONNECTOR

OK

11.CHECK PASSENGER AIRBAG ON/OFF INDICATOR CIRCUIT



- a. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- b. Measure the voltage according to the value(s) in the table below.

Standard Voltage:

w/ Multi-display

Tester Connection	Switch Condition	Specified Condition
F28-9 (ARON) - Body ground	Engine switch on (IG)	Below 1 V
F28-20 (AIR) - Body ground	Engine switch on (IG)	Below 1 V

w/o Multi-display

Tester Connection	Switch Condition	Specified Condition
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g1-3 (PAON) - Body ground	Engine switch on (IG)	Below 1 V
g1-2 (P- AB) - Body ground	Engine switch on (IG)	Below 1 V

- c. Turn the engine switch off.
- d. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- e. Using a service wire, connect terminals 23 (PAON) and 17 (P-AB) of connector B.

NOTICE:

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

- f. Measure the resistance according to the value(s) in the table below.

Standard Resistance:**w/ Multi-display**

Tester Connection	Condition	Specified Condition
F28-9 (ARON) - F28-20 (AIR)	Always	Below 1 Ω

w/o Multi-display

Tester Connection	Condition	Specified Condition
g1-3 (PAON) - g1-2 (P- AB)	Always	Below 1 Ω

- g. Disconnect the service wire from connector B.
- h. Measure the resistance according to the value(s) in the table below.

Standard Resistance:**w/ Multi-display**

Tester Connection	Condition	Specified Condition
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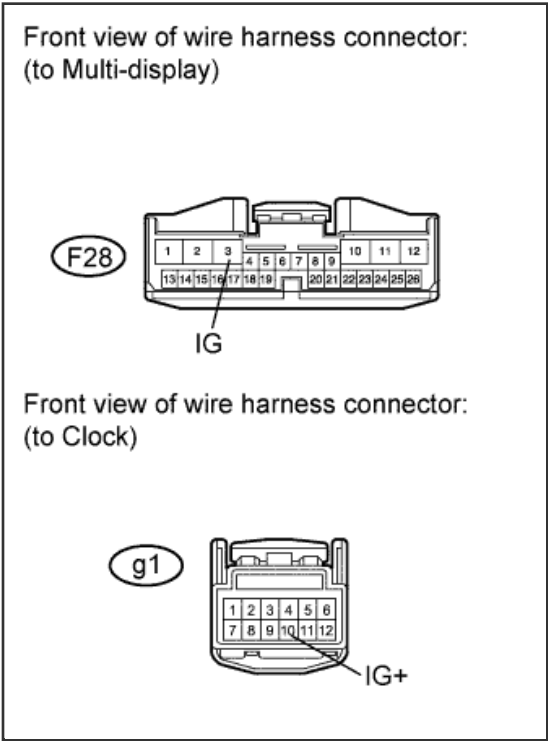
F28-9 (ARON) - F28-20 (AIR)	Always	1 MΩ or higher
F28-9 (ARON) - Body ground	Always	1 MΩ or higher
F28-20 (AIR) - Body ground	Always	1 MΩ or higher

w/o Multi-display

Tester Connection	Condition	Specified Condition
g1-3 (PAON) - g1-2 (P-AB)	Always	1 MΩ or higher
g1-3 (PAON) - Body ground	Always	1 MΩ or higher
g1-2 (P-AB) - Body ground	Always	1 MΩ or higher

NG[Go to step 15](#)**OK****12.CHECK PASSENGER AIRBAG ON/OFF INDICATOR (SOURCE VOLTAGE)**

- a. Turn the engine switch off.
- b. Connect the connectors to the center airbag sensor.
- c. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- d. Measure the voltage according to the value(s) in the table below.



Standard Voltage:

w/ Multi-display

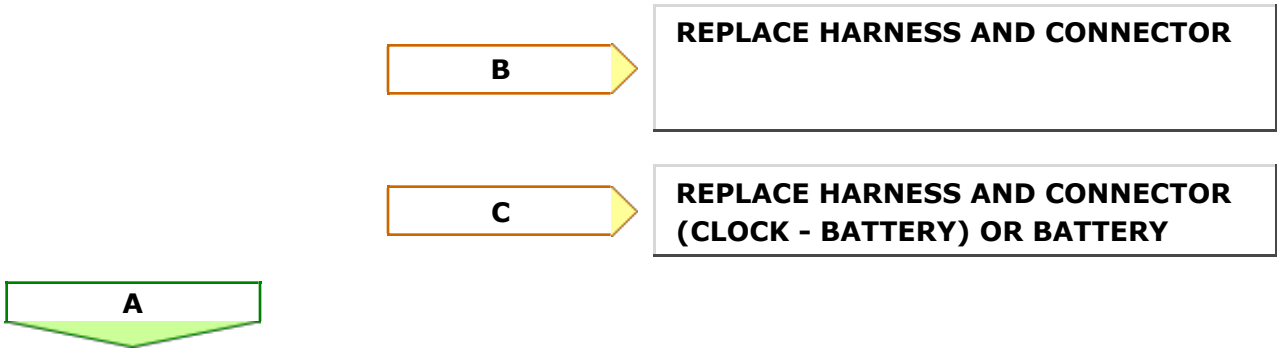
Tester Connection	Switch Condition	Specified Condition
F28-3 (IG) - Body ground	Engine switch on (IG)	11 to 14 V

w/o Multi-display

Tester Connection	Switch Condition	Specified Condition
g1-10 (IG+) - Body ground	Engine switch on (IG)	11 to 14 V

Result

Result	Proceed to
OK	A
NG (w/ Multi-display)	B
NG (w/o Multi-display)	C



13.CHECK PASSENGER AIRBAG ON/OFF INDICATOR

- a. Turn the engine switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Connect the connector to the multi-display or clock.
- d. Disconnect the connectors from the center airbag sensor.
- e. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- f. Check the indicator according to the table below.

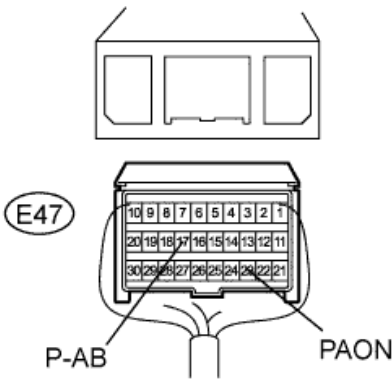
OK:

Tester Connection	Switch Condition	Passenger airbag ON/OFF indicator
E47-23 (PAON) - Body ground	Engine switch on (IG)	"ON" comes on
E47-17 (P-AB) - Body ground	Engine switch on (IG)	"OFF" comes on

Result

Result	Proceed to
OK	A

Rear view of wire harness connector:
(to Center Airbag Sensor)



NG (w/ Multi-display)	B
NG (w/o Multi-display)	C

B

REPLACE MULTI-DISPLAY ([Click here](#))

C

REPLACE CLOCK ([Click here](#))

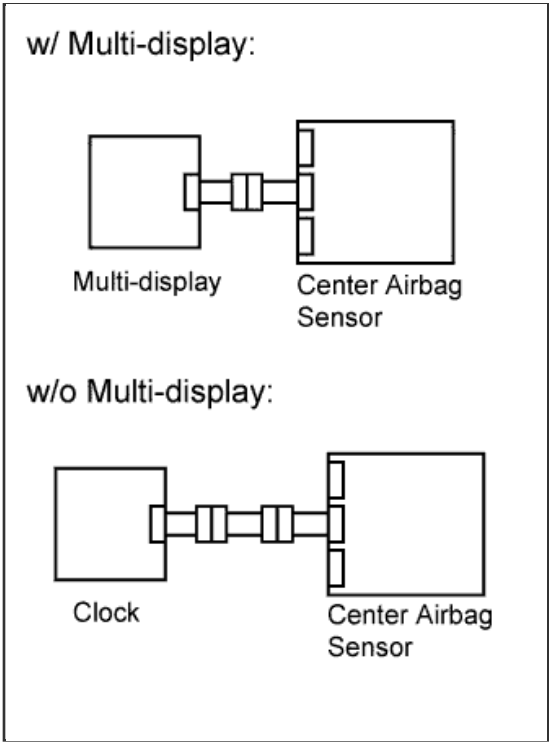


14.CHECK CENTER AIRBAG SENSOR

- a. Turn the engine switch off.
- b. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- c. Connect the connectors to the center airbag sensor.
- d. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- e. Turn the engine switch on (IG), and wait for at least 60 seconds.
- f. Clear the DTCs ([Click here](#)).
- g. Turn the engine switch off.
- h. Turn the engine switch on (IG), and wait for at least 60 seconds.
- i. Check for DTCs ([Click here](#)).

OK:
DTC B1660 is not output.

HINT:
Codes other than DTC B1660 may be output at this time, but they are not related to this check.



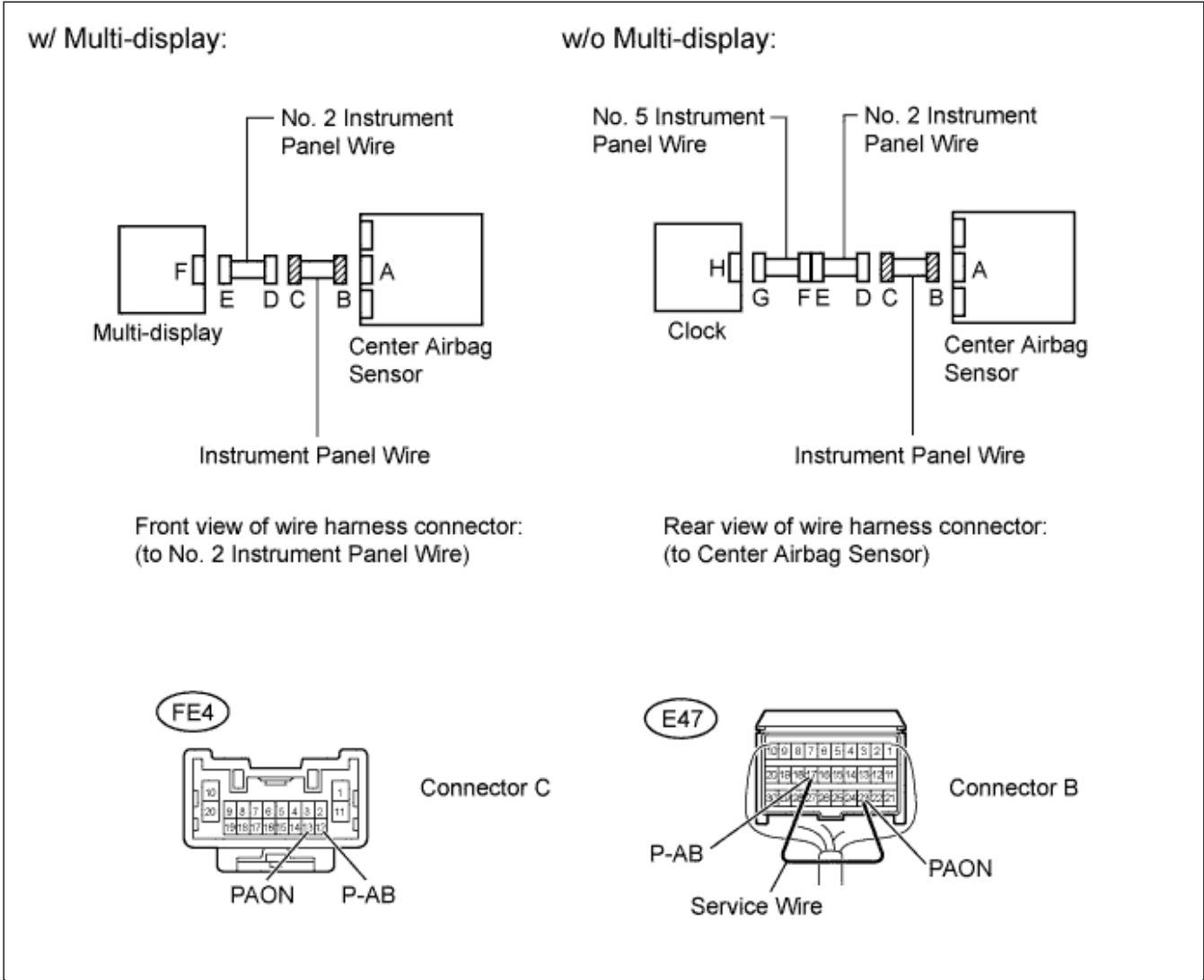
NG

REPLACE CENTER AIRBAG SENSOR ASSEMBLY ([Click here](#))

OK

USE SIMULATION METHOD TO CHECK ([Click here](#))

15.CHECK INSTRUMENT PANEL WIRE (CENTER AIRBAG SENSOR - NO. 2 INSTRUMENT PANEL WIRE)



- a. Disconnect the instrument panel wire connector from the No. 2 instrument panel wire.
- b. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- c. Measure the voltage according to the value(s) in the table below.

Standard Voltage:

Tester Connection	Switch Condition	Specified Condition
----------------------	---------------------	------------------------

FE4-13 (PAON) - Body ground	Engine switch on (IG)	Below 1 V
FE4-12 (P-AB) - Body ground	Engine switch on (IG)	Below 1 V

- d. Turn the engine switch off.
- e. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- f. Using a service wire, connect terminals 23 (PAON) and 17 (P-AB) of connector B.

NOTICE:

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

- g. Measure the resistance according to the value(s) in the table below.

Standard Resistance:

Tester Connection	Condition	Specified Condition
FE4-13 (PAON) - FE4-12 (P-AB)	Always	Below 1 Ω

- h. Disconnect the service wire from connector B.
- i. Measure the resistance according to the value(s) in the table below.

Standard Resistance:

Tester Connection	Condition	Specified Condition
FE4-13 (PAON) - FE4-12 (P-AB)	Always	1 M Ω or higher
FE4-13 (PAON) - Body ground	Always	1 M Ω or higher
FE4-12 (P-AB) - Body ground	Always	1 M Ω or higher

Result

Result	Proceed to
OK (w/ Multi-display)	A
OK (w/o Multi-display)	B
NG	C

B

[Go to step 16](#)

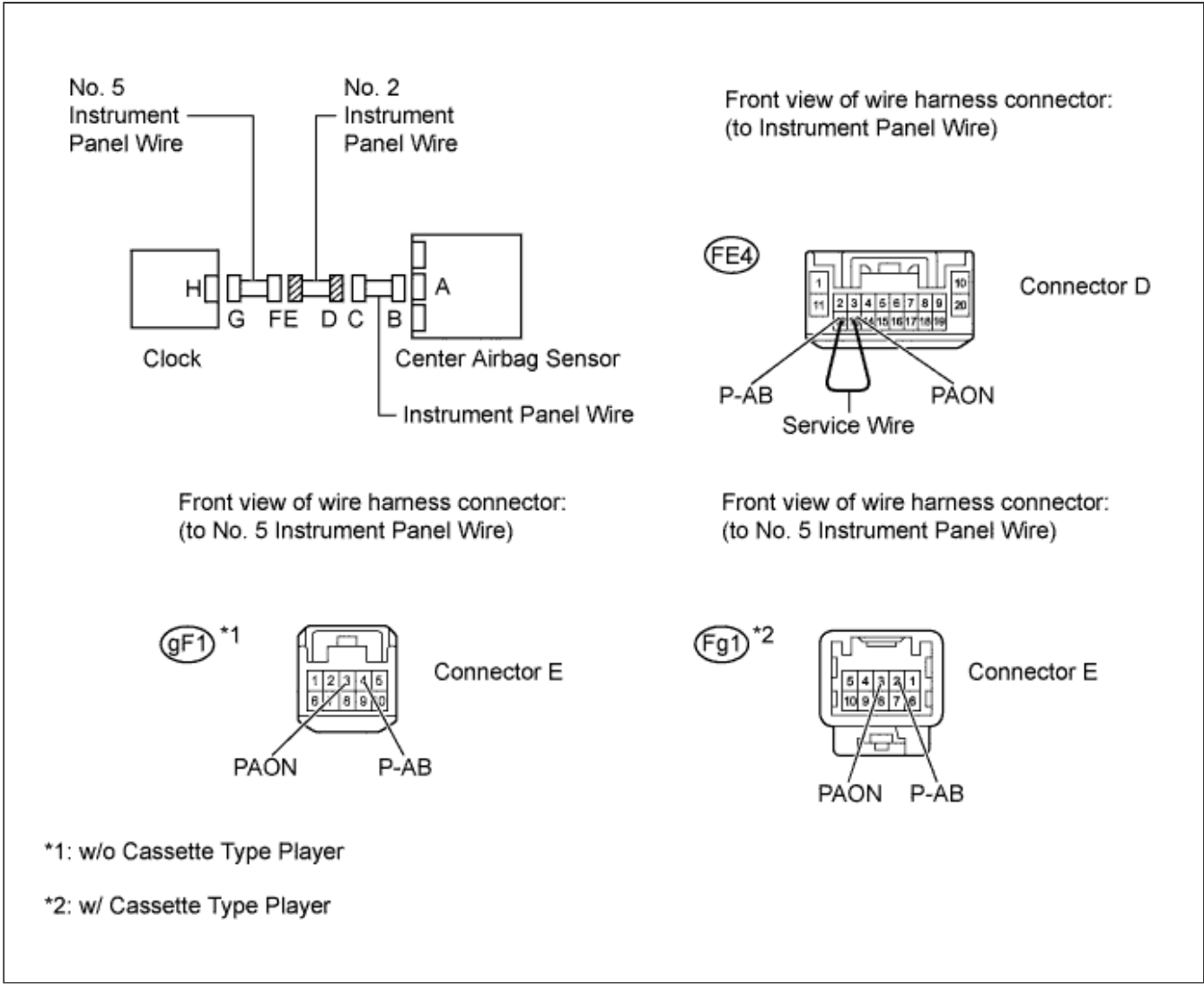
C

REPLACE INSTRUMENT PANEL WIRE

A

REPLACE NO. 2 INSTRUMENT PANEL WIRE

16.CHECK NO. 2 INSTRUMENT PANEL WIRE (INSTRUMENT PANEL WIRE - NO. 5 INSTRUMENT PANEL WIRE)



- a. Disconnect the No. 2 instrument panel wire connector from the No. 5 instrument panel wire.
- b. Connect the cable to the negative (-) battery terminal, and wait for at least 2 seconds.
- c. Measure the voltage according to the value(s) in the table below.

Standard Voltage:

w/o Cassette Type Player

Tester Connection	Switch Condition	Specified Condition
gF1-3 (PAON) - Body ground	Engine switch on (IG)	Below 1 V

gF1-4 (P-AB) - Body ground	Engine switch on (IG)	Below 1 V
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w/ Cassette Type Player

Tester Connection	Switch Condition	Specified Condition
Fg1-3 (PAON) - Body ground	Engine switch on (IG)	Below 1 V
Fg1-2 (P-AB) - Body ground	Engine switch on (IG)	Below 1 V

- d. Turn the engine switch off.
- e. Disconnect the cable from the negative (-) battery terminal, and wait for at least 90 seconds.
- f. Using a service wire, connect terminals 13 (PAON) and 12 (P-AB) of connector D.

NOTICE:

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

- g. Measure the resistance according to the value(s) in the table below.

Standard Resistance:**w/o Cassette Type Player**

Tester Connection	Condition	Specified Condition
gF1-3 (PAON) - gF1-4 (P-AB)	Always	Below 1 Ω

w/ Cassette Type Player

Tester Connection	Condition	Specified Condition
Fg1-3 (PAON) - Fg1-2 (P-AB)	Always	Below 1 Ω

- h. Disconnect the service wire from connector D.
- i. Measure the resistance according to the value(s) in the table below.

Standard Resistance:**w/o Cassette Type Player**

Tester Connection	Condition	Specified Condition
gF1-3 (PAON) - gF1-4 (P-AB)	Always	1 MΩ or higher
gF1-3 (PAON) - Body ground	Always	1 MΩ or higher
gF1-4 (P-AB) - Body ground	Always	1 MΩ or higher

w/ Cassette Type Player

Tester Connection	Condition	Specified Condition
Fg1-3 (PAON) - Fg1-2 (P-AB)	Always	1 MΩ or higher
Fg1-3 (PAON) - Body ground	Always	1 MΩ or higher
Fg1-2 (P-AB) - Body ground	Always	1 MΩ or higher

NG**REPLACE NO. 2 INSTRUMENT PANEL WIRE****OK****REPLACE NO. 5 INSTRUMENT PANEL WIRE**

