DTC	B1214	Short to B+ in Door System Communication Bus Malfunction

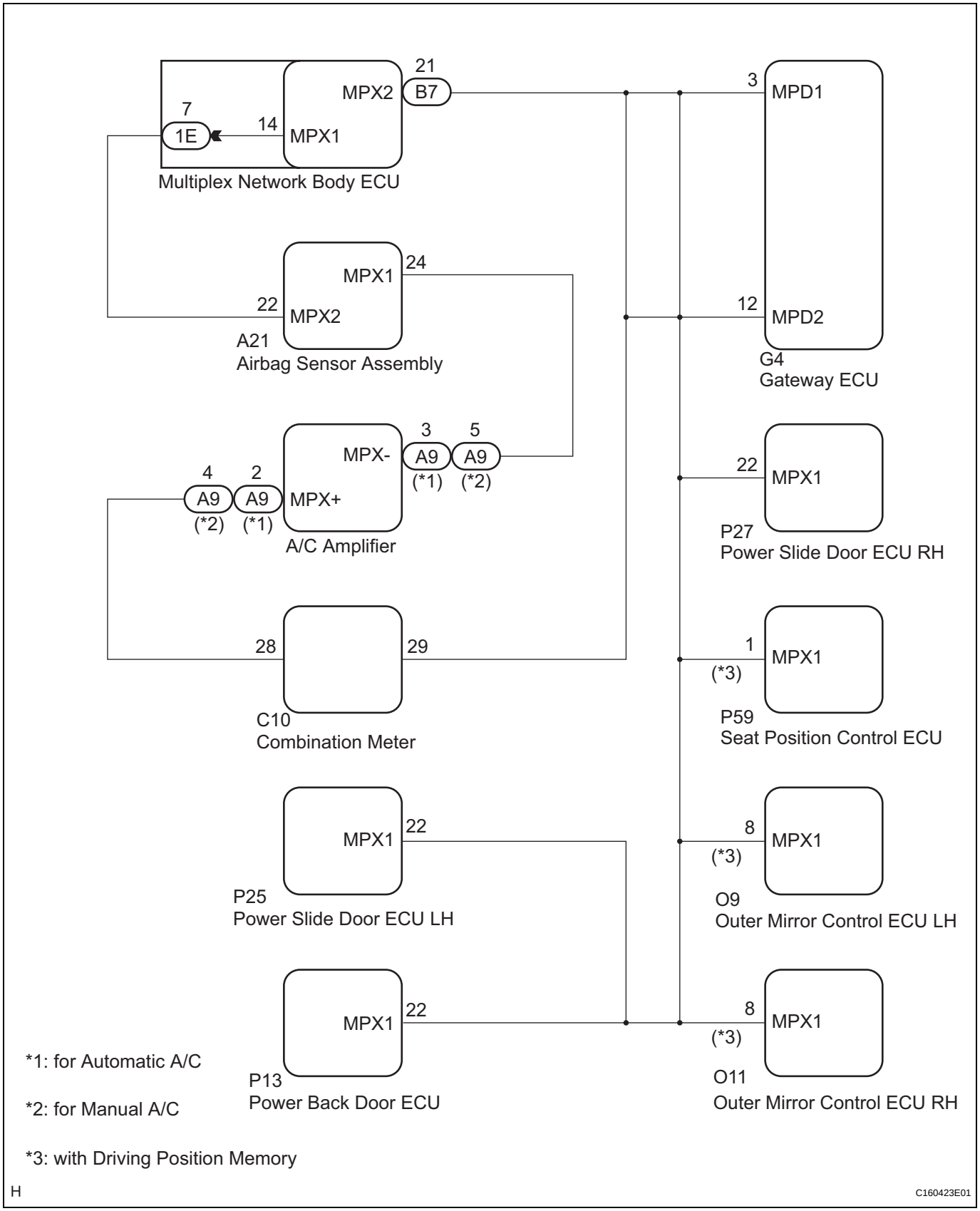
DTC	B1215	Short to GND in Door System Communication Bus Malfunction

DESCRIPTION

DTCs B1214 and B1215 are output when a short to +B or the body ground occurs on the communication bus. Detecting this condition disables all the BEAN communication and outputs some DTCs.

DTC No.	DTC Detection Condition	Trouble Area
B1214	Communication circuit and +B battery system short	• Multiplex network gateway ECU • Multiplex network body ECU • Airbag sensor assembly • A/C amplifier • Combination meter • Power slide door ECU LH • Power slide door ECU RH • Power back door ECU • Seat position control ECU • Outer mirror control ECU LH • Outer mirror control ECU RH • Wire harness
B1215	Communication circuit and body ground short	• Multiplex network gateway ECU • Multiplex network body ECU • Airbag sensor assembly • A/C amplifier • Combination meter • Power slide door ECU LH • Power slide door ECU RH • Power back door ECU • Seat position control ECU • Outer mirror control ECU LH • Outer mirror control ECU RH • Wire harness

WIRING DIAGRAM



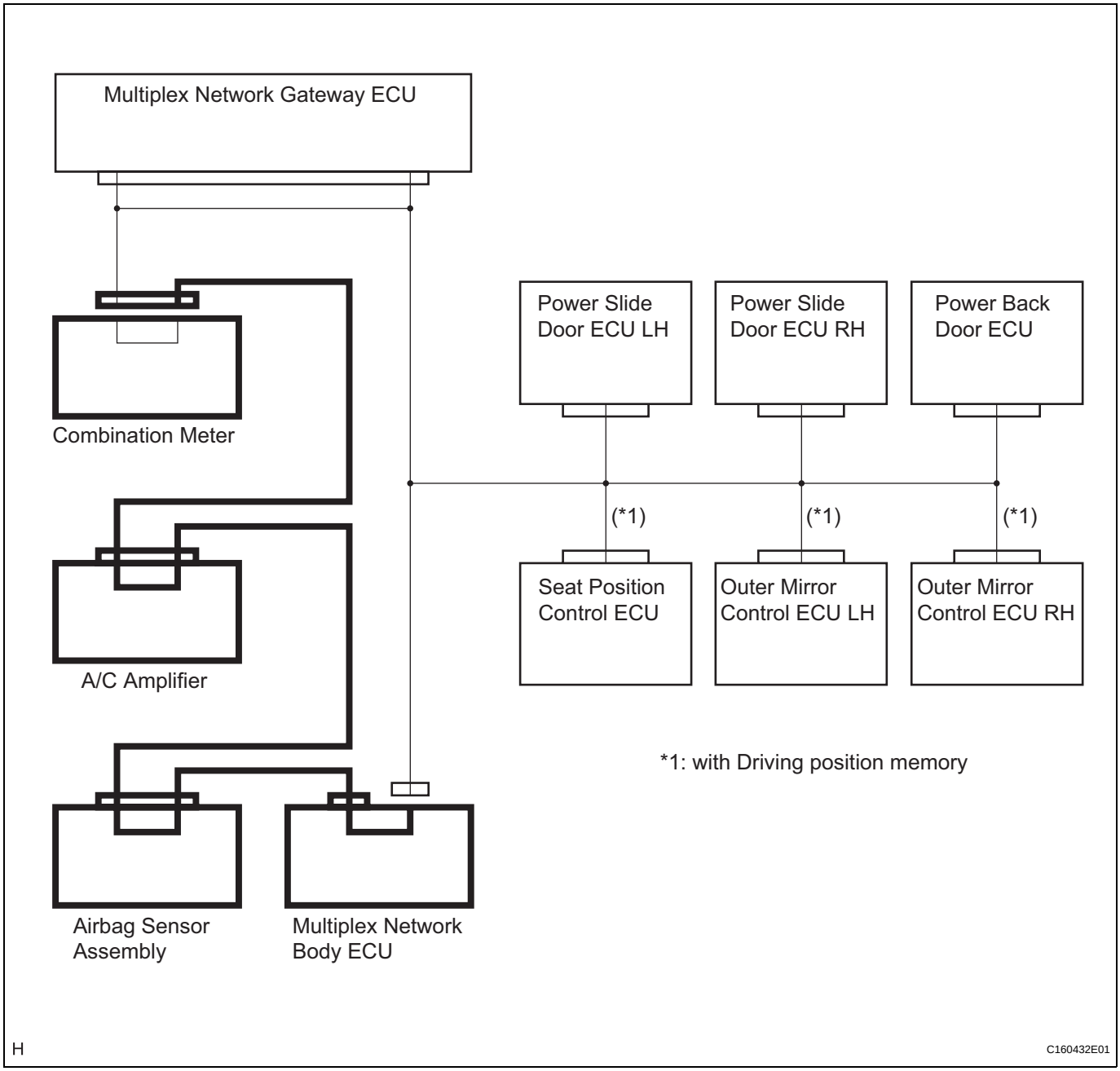
INSPECTION PROCEDURE

NOTICE:

Disconnect connectors in operational sequence, and start the next operation after the connectors are connected.

1	CHECK DTC (MULTIPLEX NETWORK BODY ECU - COMBINATION METER)

(a) Check the DTC when the B7 connector of the multiplex network body ECU and the combination meter connector are disconnected.



OK:

DTC B1214 or B1215 is not output.

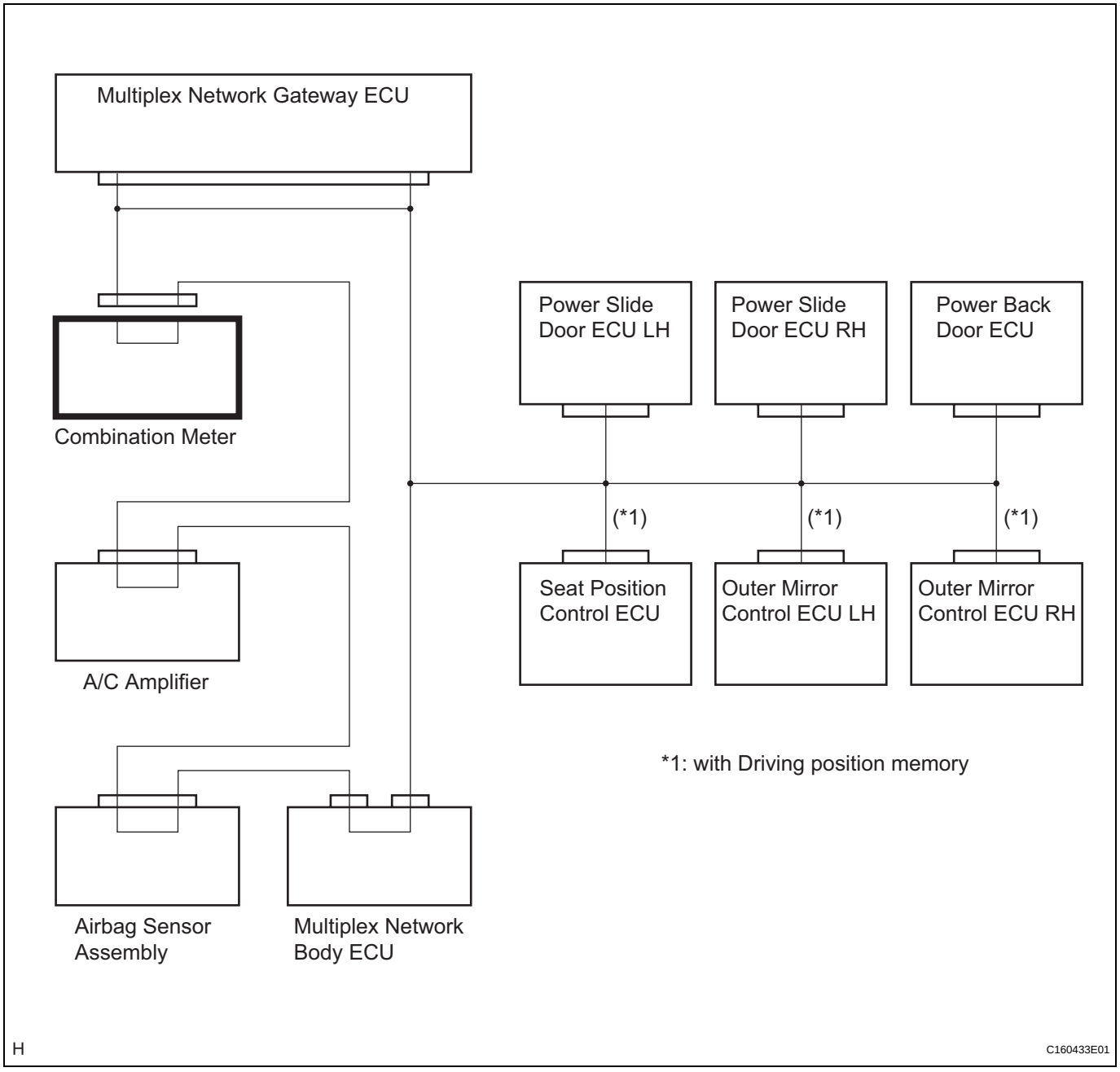
HINT:
When the output of the DTC stops, there is a malfunction between the B7 connector of the multiplex network body ECU and the combination meter.

NG → **Go to step 8**

OK

2	CHECK DTC (COMBINATION METER)

(a) Check whether the output of the DTC stops when the combination meter connector is disconnected.



OK:
DTC B1214 or B1215 is not output.

MP

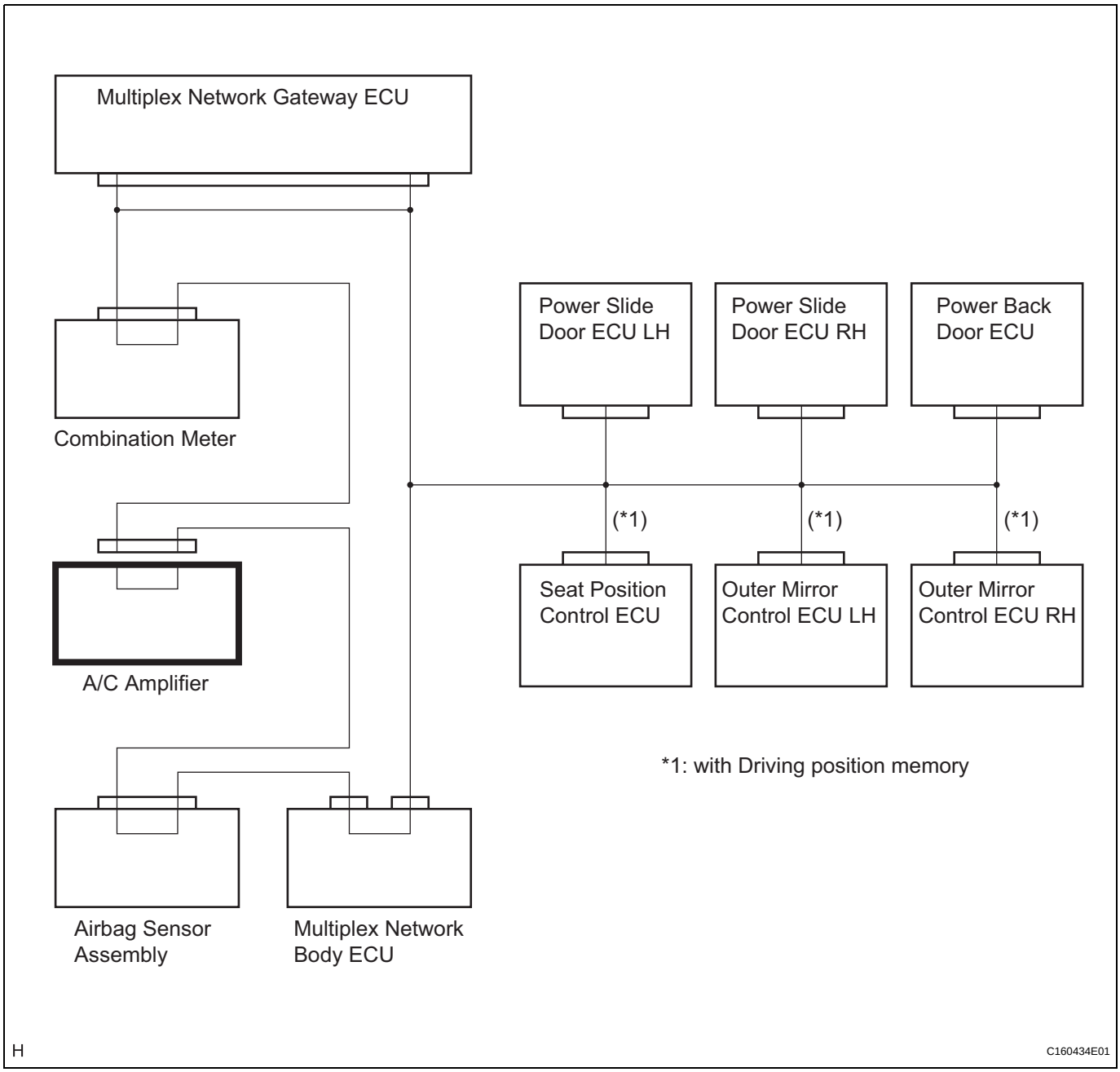
HINT:
When the output of the DTC stops, the combination meter is malfunctioning.

OK → **REPLACE COMBINATION METER**

NG

3	CHECK DTC (A/C AMPLIFIER)

(a) Check whether the output of the DTC stops when the A/C amplifier connector is disconnected.



OK:
DTC B1214 or B1215 is not output.

MP

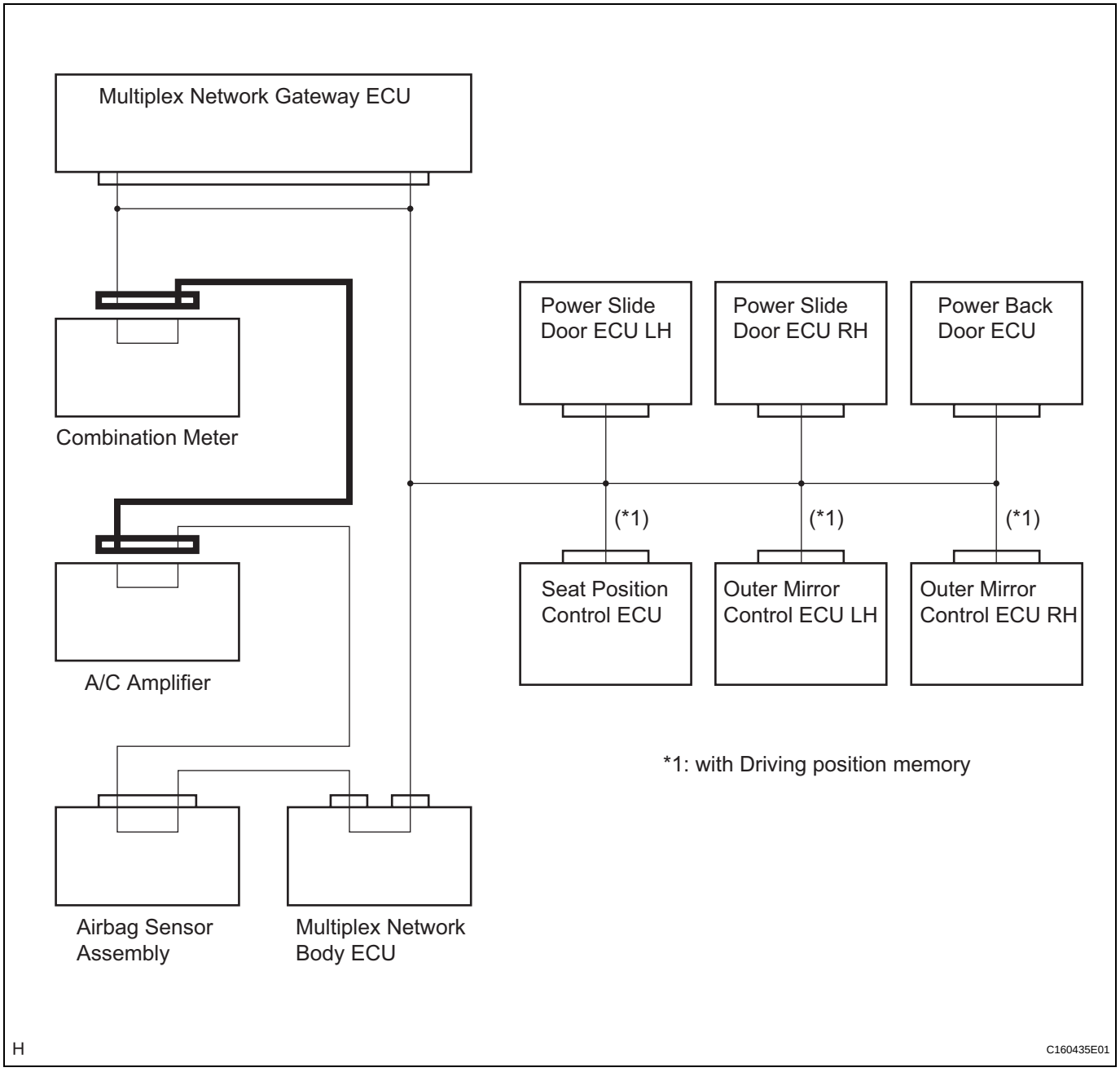
HINT:
When the output of the DTC stops, the A/C amplifier is malfunctioning.

OK → **REPLACE A/C AMPLIFIER**

NG

4	CHECK HARNESS AND CONNECTOR (COMBINATION METER - A/C AMPLIFIER)

(a) Check whether the output of the DTC stops when the combination meter connector and the A/C amplifier connector are disconnected.



OK:
DTC B1214 or B1215 is not output.

MP

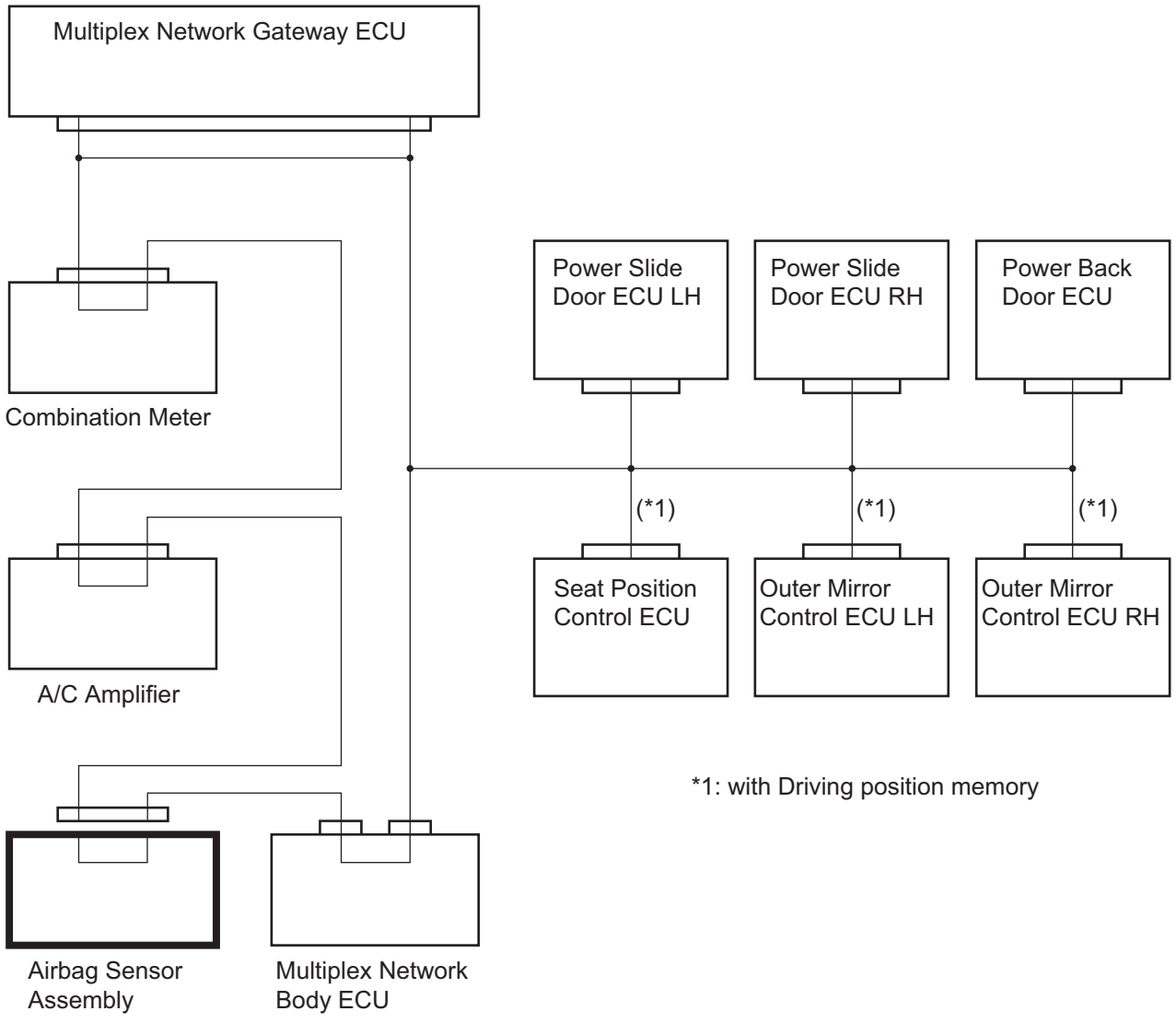
HINT:
When the output of the DTC stops, the wire harness between the combination meter and the A/C amplifier is malfunctioning.

OK → **REPAIR OR REPLACE HARNESS OR CONNECTOR (COMBINATION METER - A/C AMPLIFIER)**

NG

5	CHECK DTC (AIRBAG SENSOR ASSEMBLY)

(a) Check whether the output of the DTC stops when the airbag sensor assembly connector is disconnected.



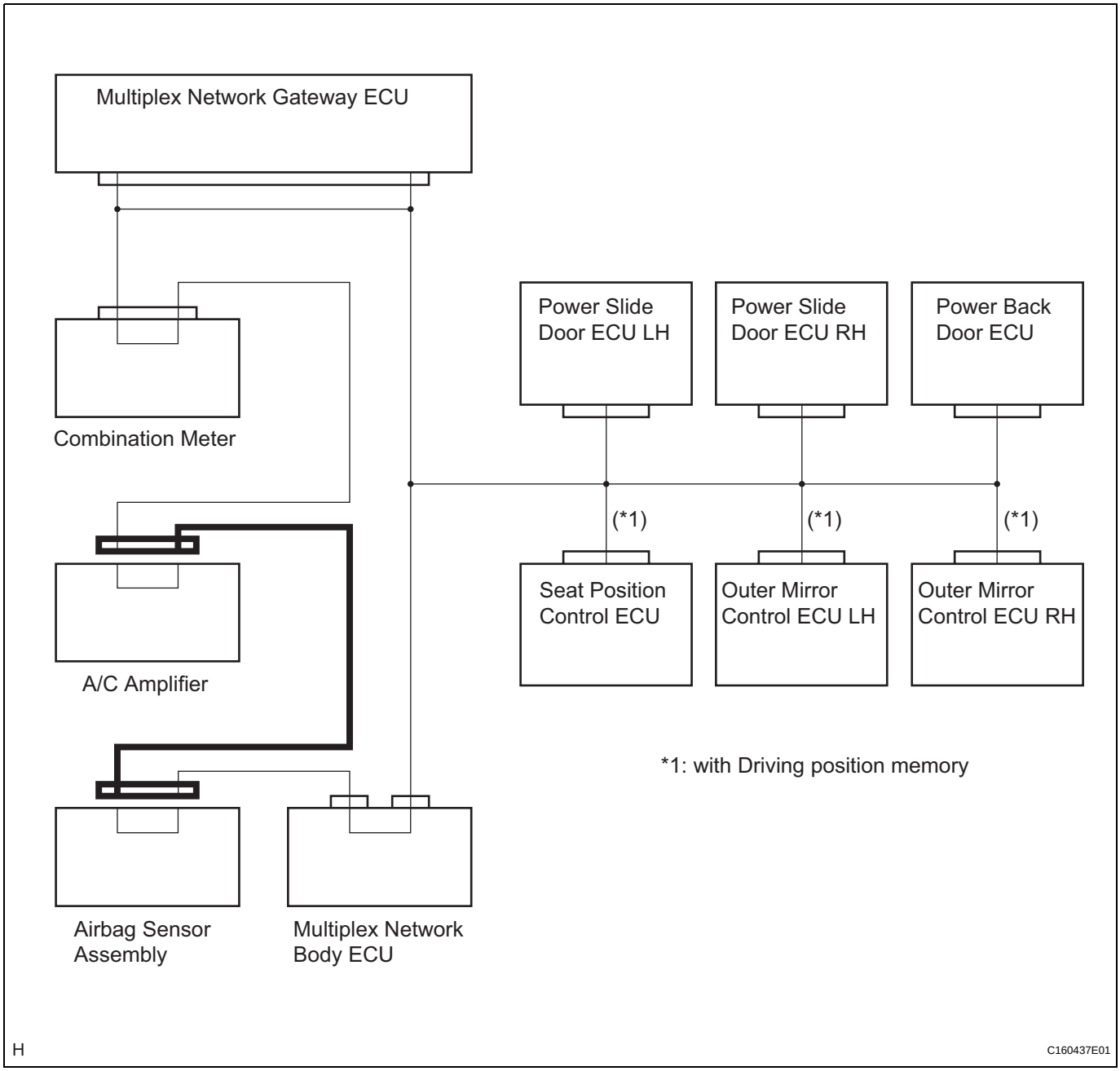
OK:
DTC B1214 or B1215 is not output.
HINT:
When the output of the DTC stops, the airbag sensor assembly is malfunctioning.

OK → **REPLACE AIRBAG SENSOR ASSEMBLY**

NG

6	CHECK HARNESS AND CONNECTOR (A/C AMPLIFIER - AIRBAG SENSOR ASSEMBLY)

(a) Check whether the output of the DTC stops when the A/C amplifier connector and the airbag sensor assembly connector are disconnected.



OK:

DTC B1214 or B1215 is not output.

HINT:

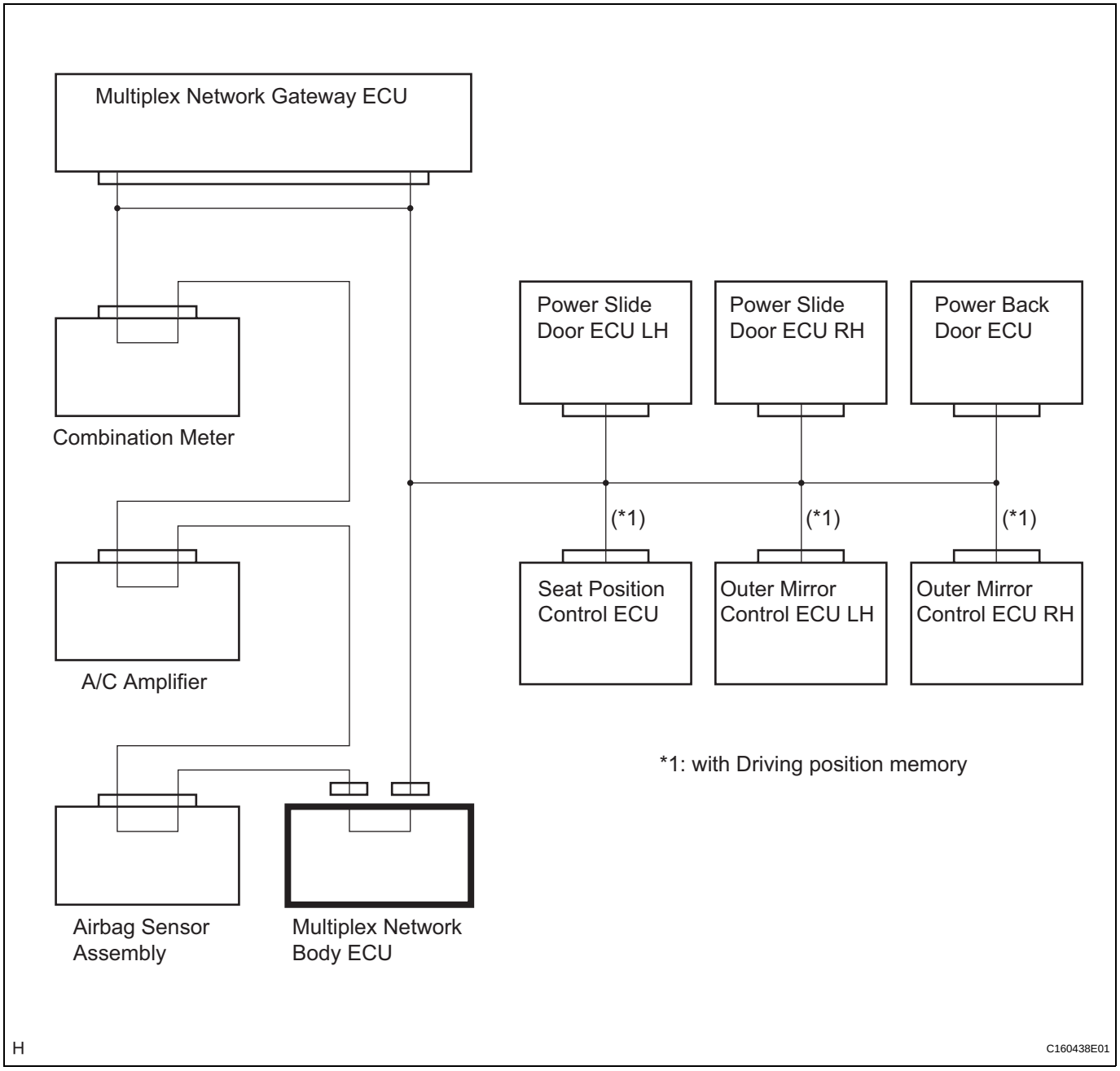
When the output of the DTC stops, the wire harness between the A/C amplifier and airbag sensor assembly is malfunctioning.

OK	**REPAIR OR REPLACE HARNESS OR CONNECTOR (A/C AMPLIFIER - AIRBAG SENSOR ASSEMBLY)**

NG

7	**CHECK DTC (MULTIPLEX NETWORK BODY ECU)**

(a) Check whether the output of the DTC stops when the B7 and 1E connectors of the multiplex network body ECU are disconnected.



OK:

DTC B1214 or B1215 is not output.

HINT:

When the output of the DTC stops, the multiplex network body ECU is malfunctioning.

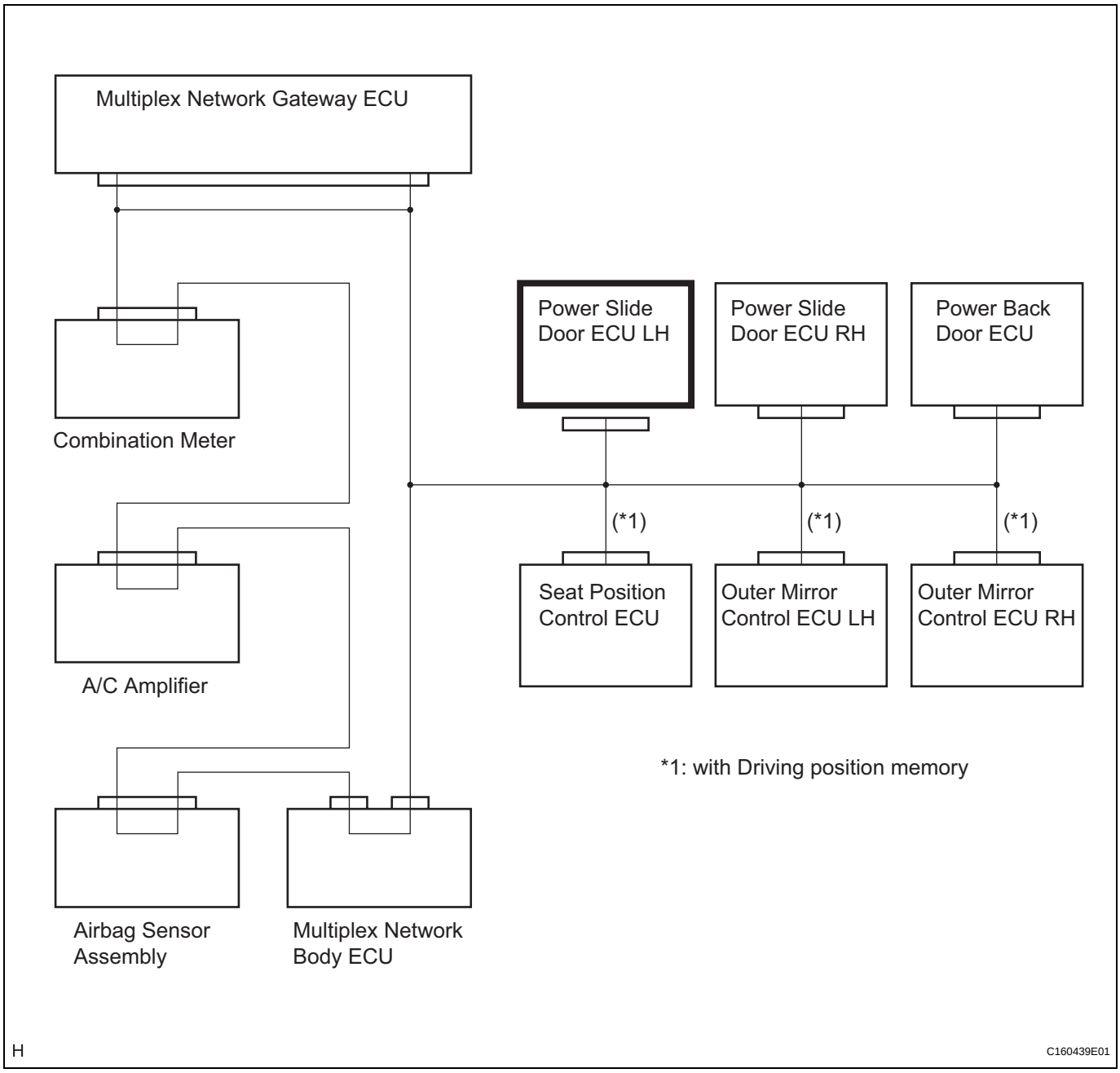
OK → **REPLACE MULTIPLEX NETWORK BODY ECU**

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR (AIRBAG SENSOR ASSEMBLY - MULTIPLEX NETWORK BODY ECU)

8	CHECK DTC (POWER SLIDE DOOR ECU LH)

(a) Check whether the output of the DTC stops when the power slide door ECU LH connector is disconnected.



OK:

DTC B1214 or B1215 is not output.

HINT:

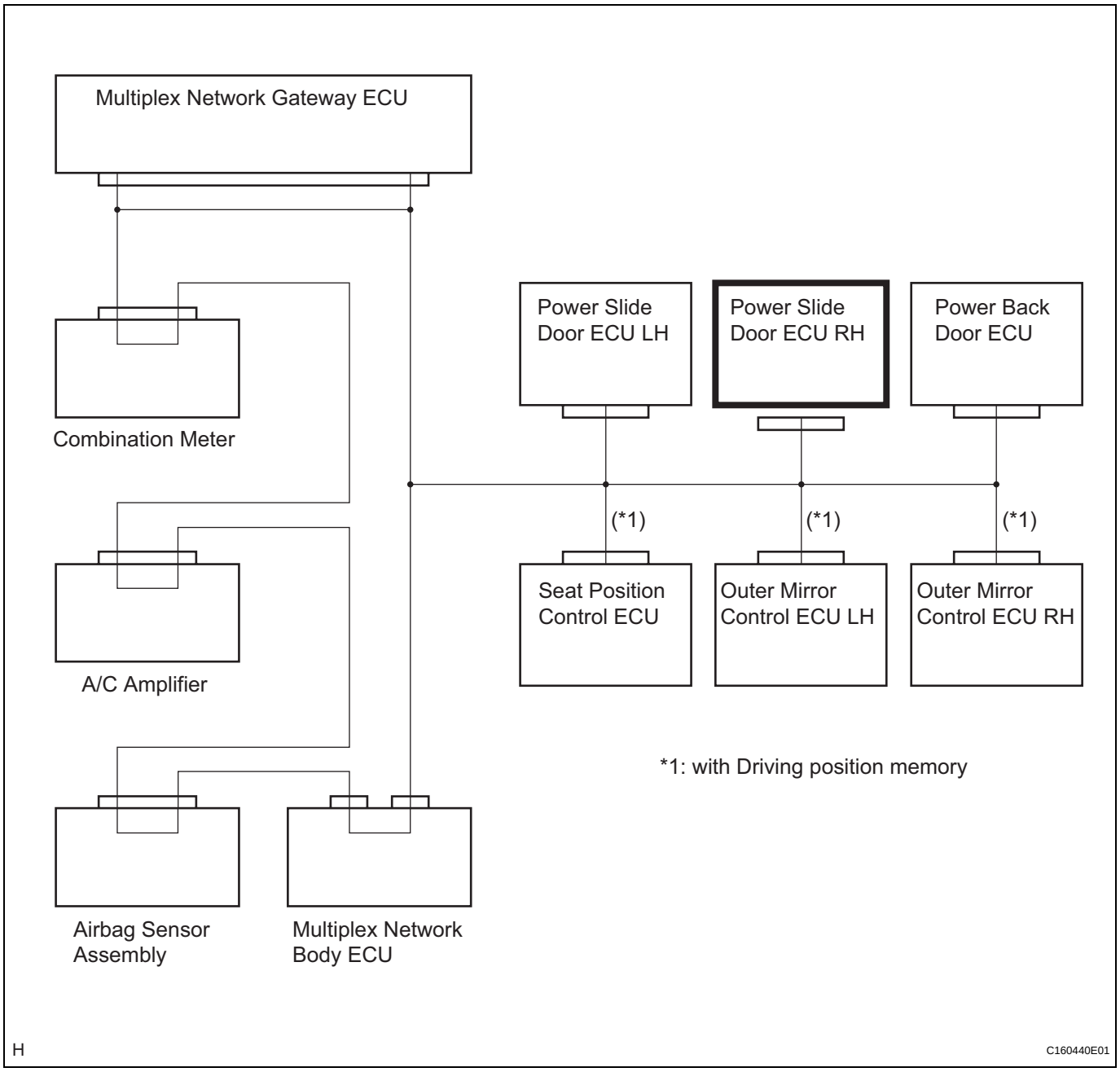
When the output of the DTC stops, the power slide door ECU LH is malfunctioning.

OK	REPLACE POWER SLIDE DOOR ECU LH

NG

9	CHECK DTC (POWER SLIDE DOOR ECU RH)

(a) Check whether the output of the DTC stops when the power slide door ECU RH connector is disconnected.



OK:

DTC B1214 or B1215 is not output.

HINT:

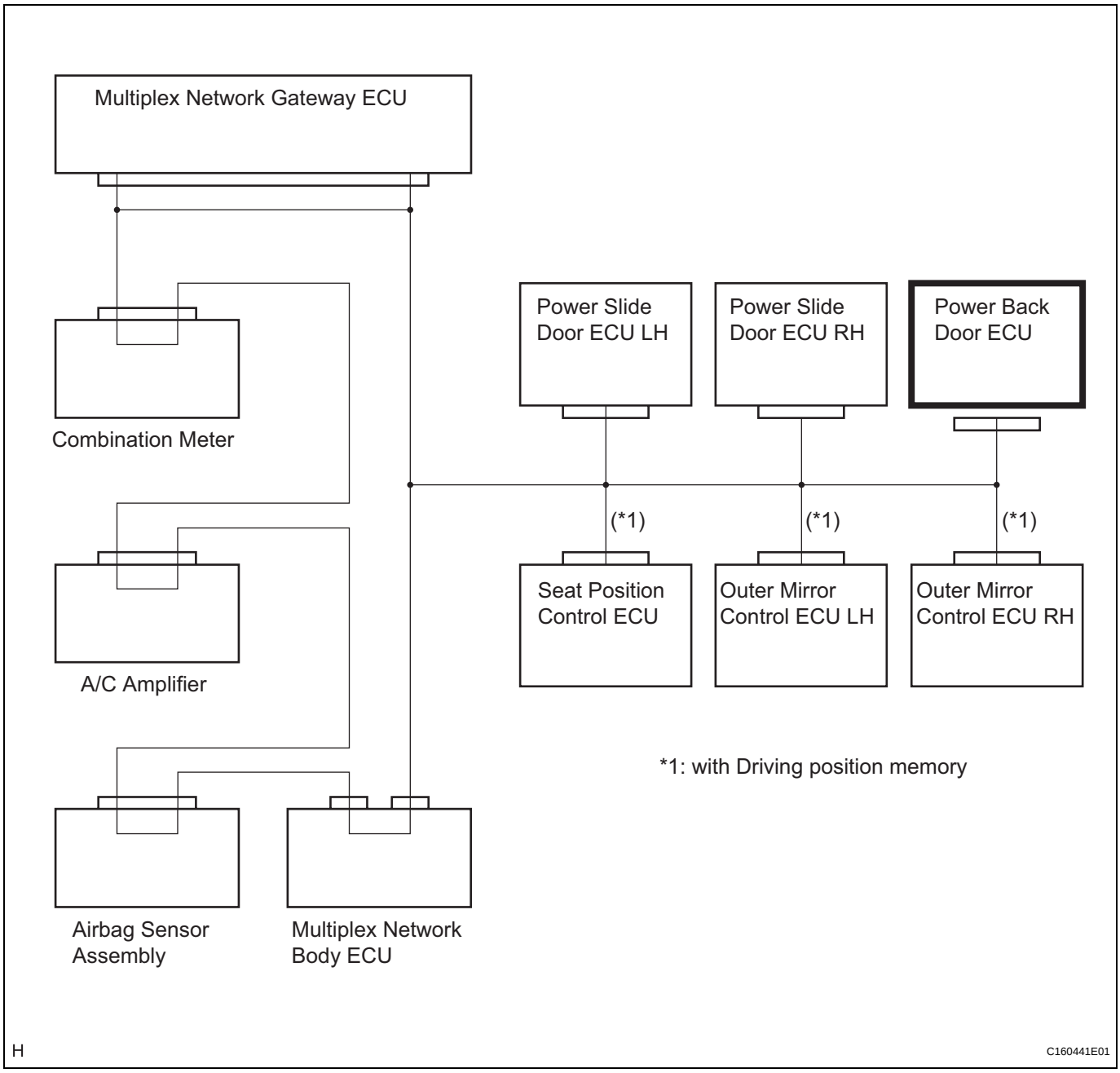
When the output of the DTC stops, the power slide door ECU RH is malfunctioning.

OK	REPLACE POWER SLIDE DOOR ECU RH

NG

10	CHECK DTC (POWER BACK DOOR ECU)

(a) Check whether the output of the DTC stops when the power back door ECU connector is disconnected.



OK:

DTC B1214 or B1215 is not output.

HINT:

When the output of the DTC stops, the power back door ECU is malfunctioning.

OK → **REPLACE POWER BACK DOOR ECU**

NG

11	CONFIRM MODEL

Result

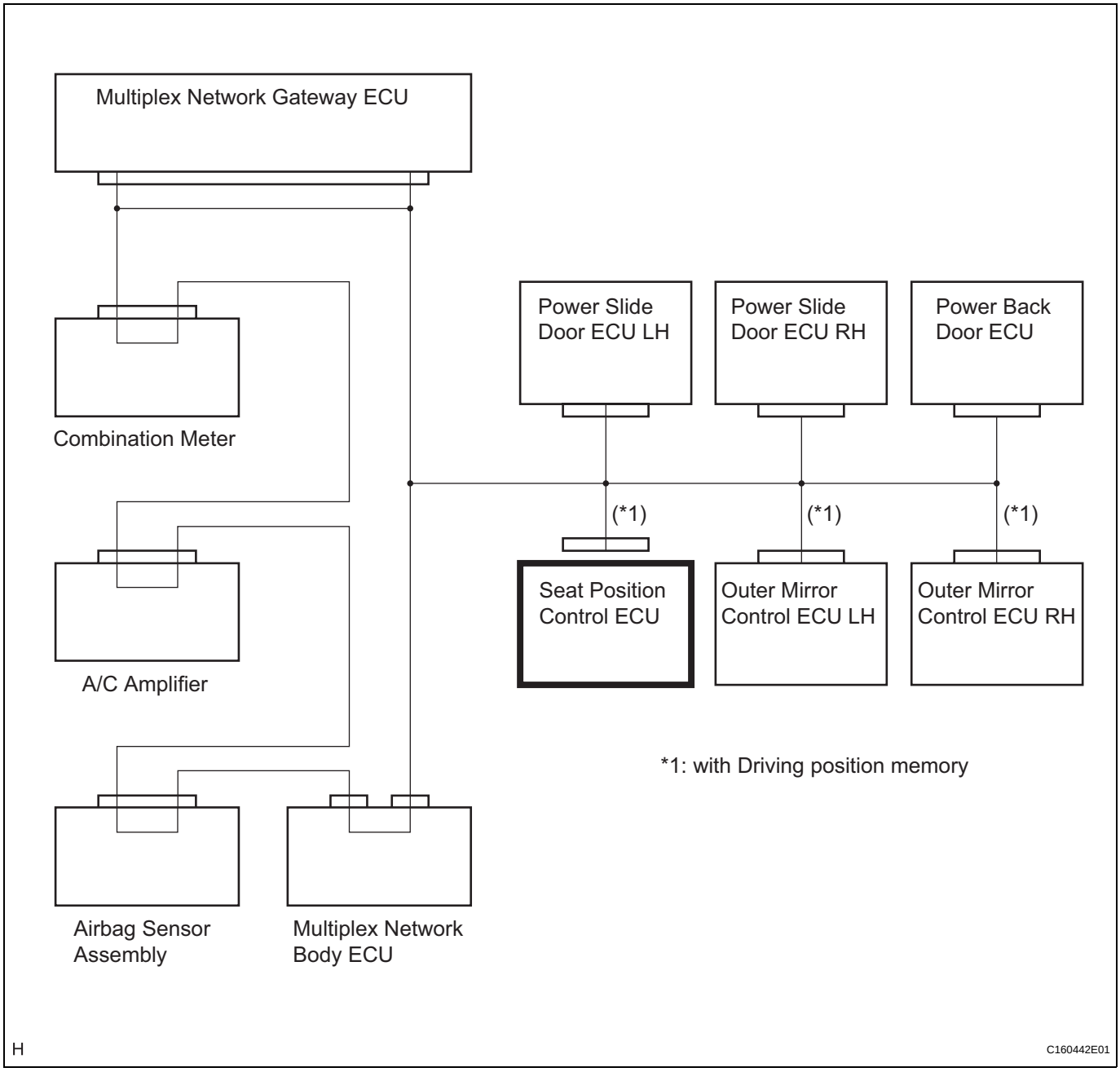
Result	Proceed to
with Driving position memory	A
without Driving position memory	B

B → Go to step 15

A

12	CHECK DTC (SEAT POSITION CONTROL ECU)

(a) Check whether the output of the DTC stops when the seat position control ECU connector is disconnected.



OK:

DTC B1214 or B1215 is not output.

HINT:

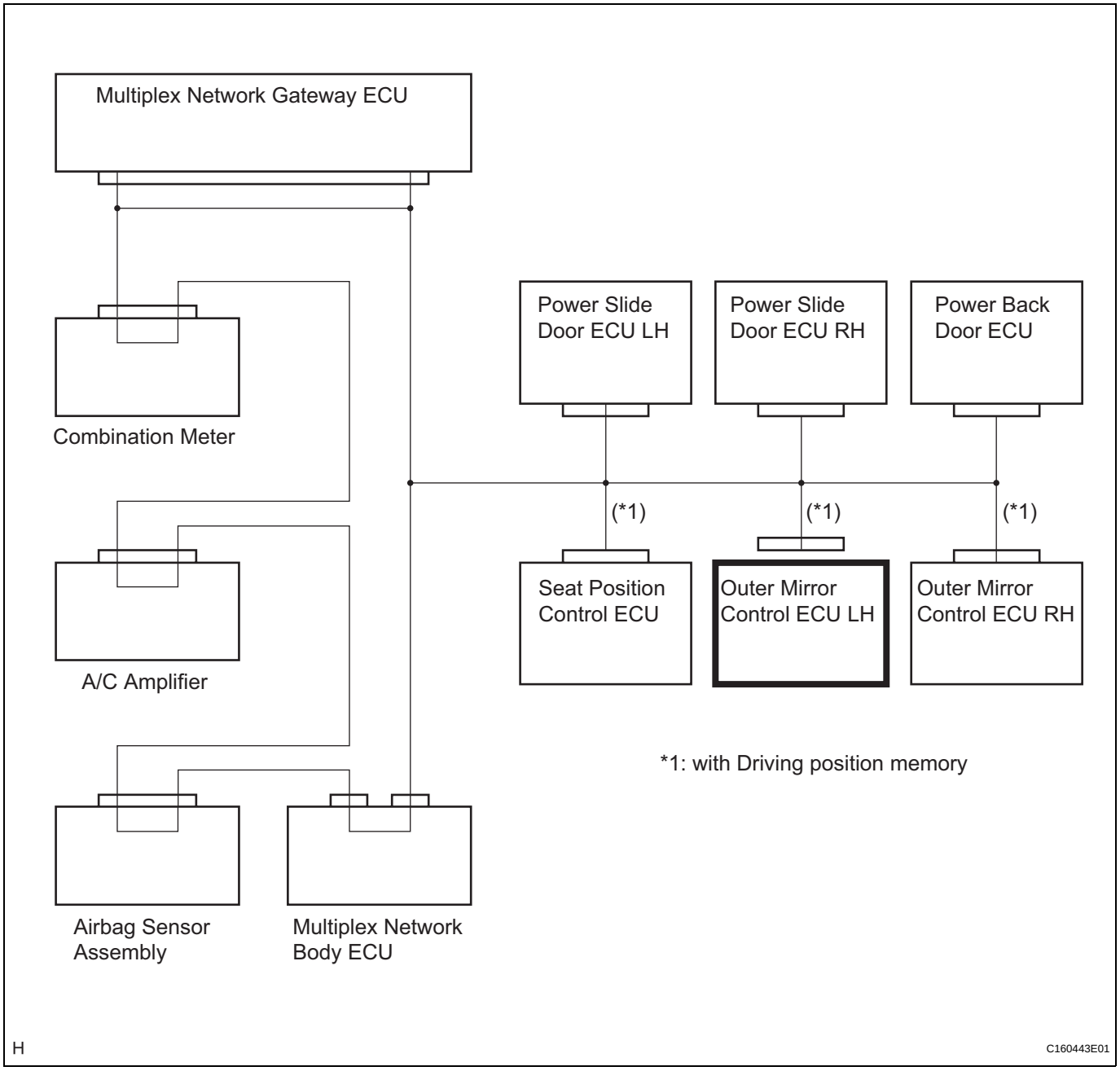
When the output of the DTC stops, the seat position control ECU is malfunctioning.

OK	**REPLACE SEAT POSITION CONTROL ECU**

NG

13	**CHECK DTC (OUTER MIRROR CONTROL ECU LH)**

(a) Check whether the output of the DTC stops when the outer mirror control ECU LH connector is disconnected.



OK:

DTC B1214 or B1215 is not output.

HINT:

When the output of the DTC stops, the outer mirror control ECU LH is malfunctioning.

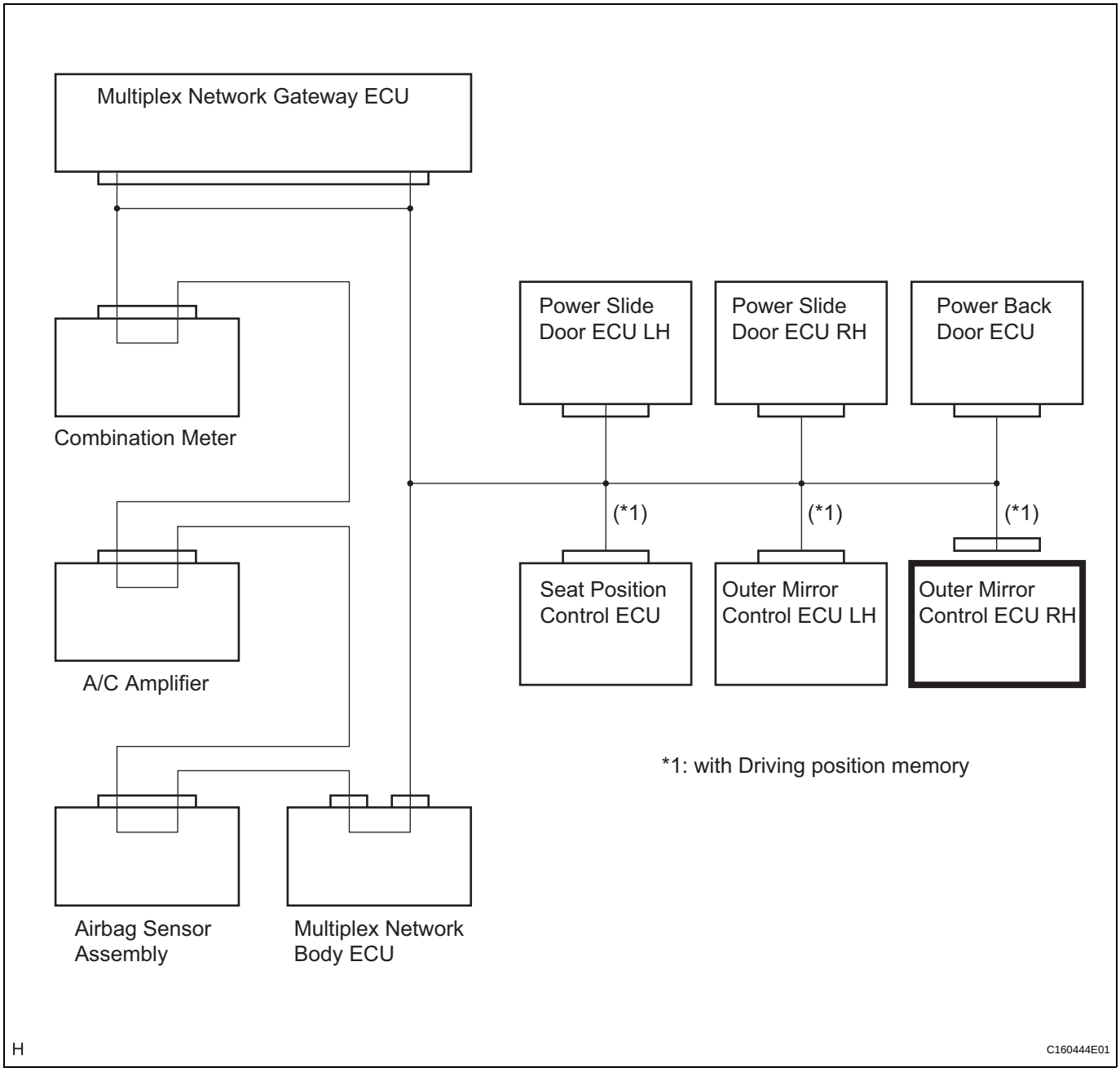
OK	**REPLACE OUTER MIRROR CONTROL ECU LH**

NG

14	**CHECK DTC (OUTER MIRROR CONTROL ECU RH)**

(a) Check whether the output of the DTC stops when the outer mirror control ECU RH connector is disconnected.

MP



OK:

DTC B1214 or B1215 is not output.

HINT:

When the output of the DTC stops, the outer mirror control ECU RH is malfunctioning.

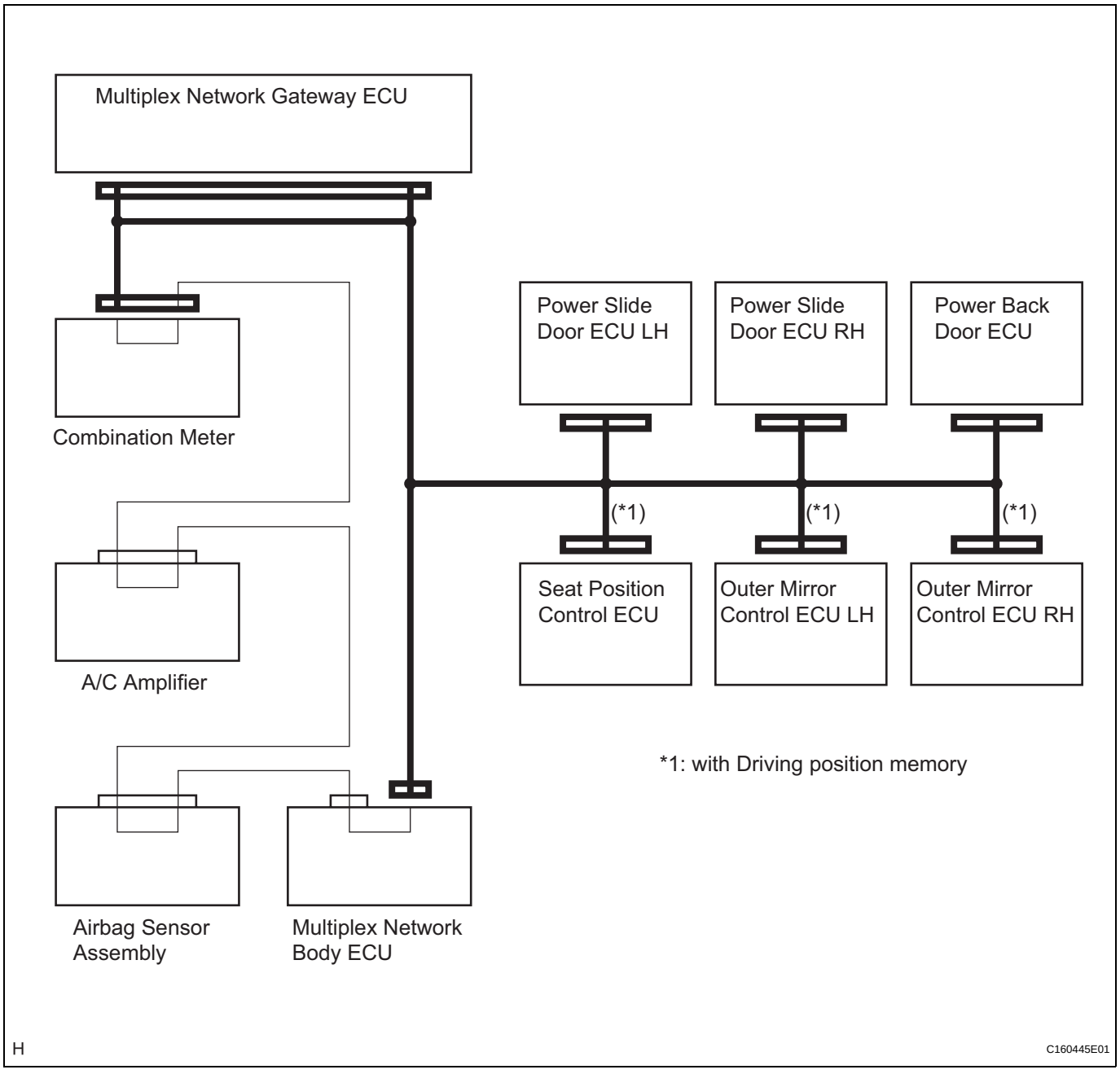
OK	**REPLACE OUTER MIRROR CONTROL ECU RH**

NG

15	**CHECK HARNESS AND CONNECTOR**

(a) Check for a short to +B or body ground.

(b) Disconnect the multiplex network gateway ECU, combination meter, power slide door ECU LH, power slide door ECU RH, power back door ECU, seat position control ECU (*1), outer mirror control ECU LH (*1), outer mirror control ECU RH (*1) and the B7 connector of the multiplex network body ECU.



HINT:
*1: with Driving position memory

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

Standard voltage

Tester Connection	Condition	Specified Condition
Combination meter connector / Multiplex network gateway ECU connector - Body ground	Always	Below 1 V
Multiplex network body ECU connector / Multiplex network gateway ECU connector - Body ground	Always	Below 1 V

MP

Tester Connection	Condition	Specified Condition
Power slide door ECU LH connector / Multiplex network gateway ECU connector - Body ground	Always	Below 1 V
Power slide door ECU RH connector / Multiplex network gateway ECU connector - Body ground	Always	Below 1 V
Power back door ECU connector / Multiplex network gateway ECU connector - Body ground	Always	Below 1 V
Seat position control ECU connector / Multiplex network gateway ECU connector - Body ground (*1)	Always	Below 1 V
Outer mirror control ECU LH connector / Multiplex network gateway ECU connector - Body ground (*1)	Always	Below 1 V
Outer mirror control ECU RH connector / Multiplex network gateway ECU connector - Body ground (*1)	Always	Below 1 V
Multiplex network body ECU connector / Combination meter connector - Body ground	Always	Below 1 V

HINT:
*1: with Driving position memory

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

Standard resistance

Tester Connection	Condition	Specified Condition
Combination meter connector / Multiplex network gateway ECU connector - Body ground	Always	10 kΩ or higher
Multiplex network body ECU connector / Multiplex network gateway ECU connector - Body ground	Always	10 kΩ or higher
Power slide door ECU LH connector / Multiplex network gateway ECU connector - Body ground	Always	10 kΩ or higher
Power slide door ECU RH connector / Multiplex network gateway ECU connector - Body ground	Always	10 kΩ or higher
Power back door ECU connector / Multiplex network gateway ECU connector - Body ground	Always	10 kΩ or higher
Seat position control ECU connector / Multiplex network gateway ECU connector - Body ground (*1)	Always	10 kΩ or higher
Outer mirror control ECU LH connector / Multiplex network gateway ECU connector - Body ground (*1)	Always	10 kΩ or higher
Outer mirror control ECU RH connector / Multiplex network gateway ECU connector - Body ground (*1)	Always	10 kΩ or higher
Multiplex network body ECU connector / Combination meter connector - Body ground	Always	10 kΩ or higher

HINT:
*1: with Driving position memory

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

REPLACE MULTIPLEX NETWORK GATEWAY ECU