DTC	B1214	DOOR SYSTEM COMMUNICATION BUS MALFUNCTION (+B SHORT)

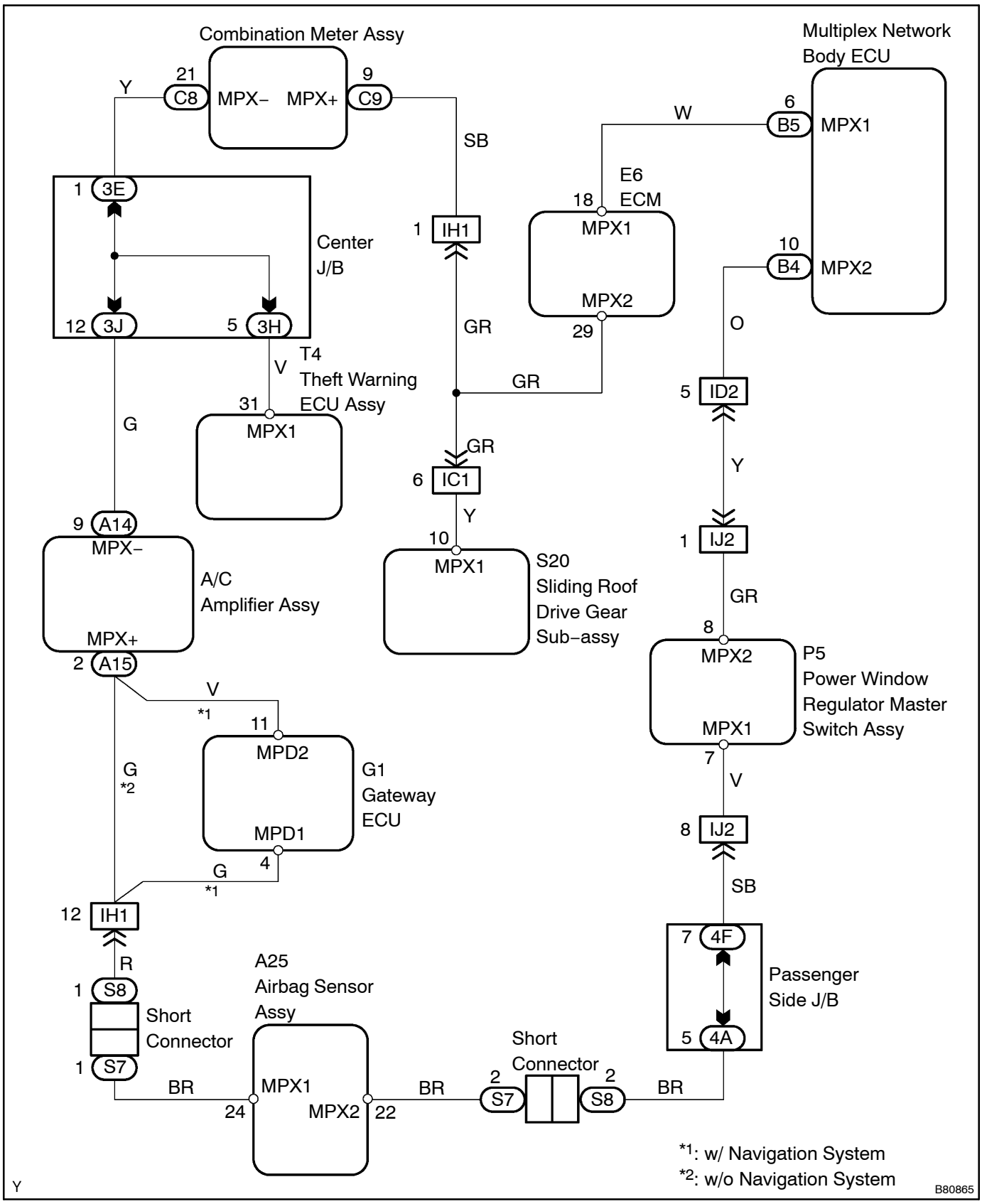
DTC	B1215	DOOR SYSTEM COMMUNICATION BUS MALFUNCTION (GND SHORT)

CIRCUIT DESCRIPTION

DTCs B1214 and B1215 will be output when +B and body ground is short–circuited on the communication bus. Detecting this condition will make all the BEAN communication unable and output some DTCs.

DTC No.	DTC Detection Condition	Trouble Area
B1214	Communication circuit and +B battery system short	• Power window regulator master switch assy (door ECU) • ECM • Air conditioner amplifier assy (A/C ECU) • Combination meter assy (meter ECU) • Theft warning ECU assy (theft deterrent ECU) • Sliding roof drive gear sub–assy (sliding roof ECU) • Wire harness • Multiplex network body ECU
B1215	Communication circuit and body ground short	• Power window regulator master switch assy (door ECU) • ECM • Air conditioner amplifier assy (A/C ECU) • Combination meter assy (meter ECU) • Theft warning ECU assy (theft deterrent) • Sliding roof drive gear sub–assy (sliding roof ECU) • Wire harness • Multiplex network body ECU

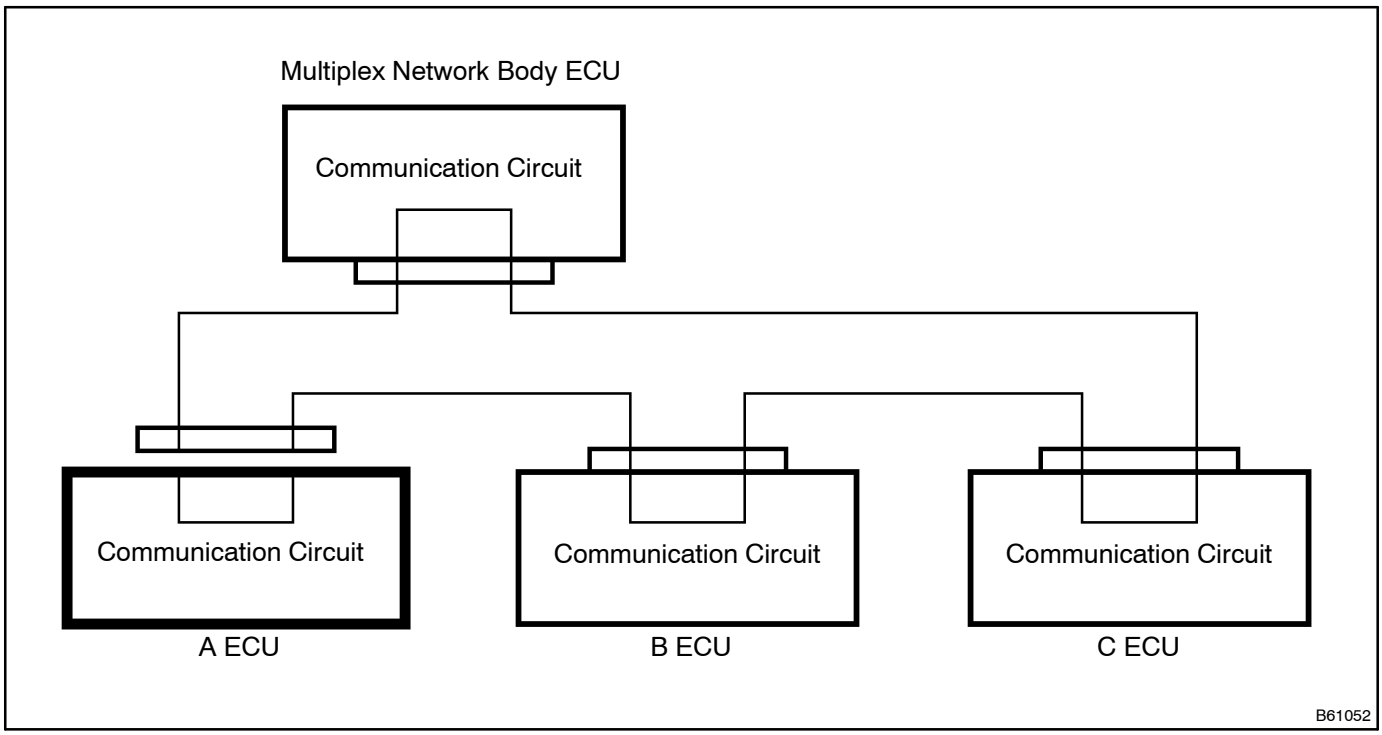
WIRING DIAGRAM



INSPECTION PROCEDURE

1	CHECK DTC (A ECU)

(a) Disconnect the A ECU connector and check for DTCs B1214 and B1215.



OK: DTCs B1214 and B1215 are not output.

NOTICE:

Disconnect the connectors one by one. Reconnect the connector before starting the next check.

HINT:

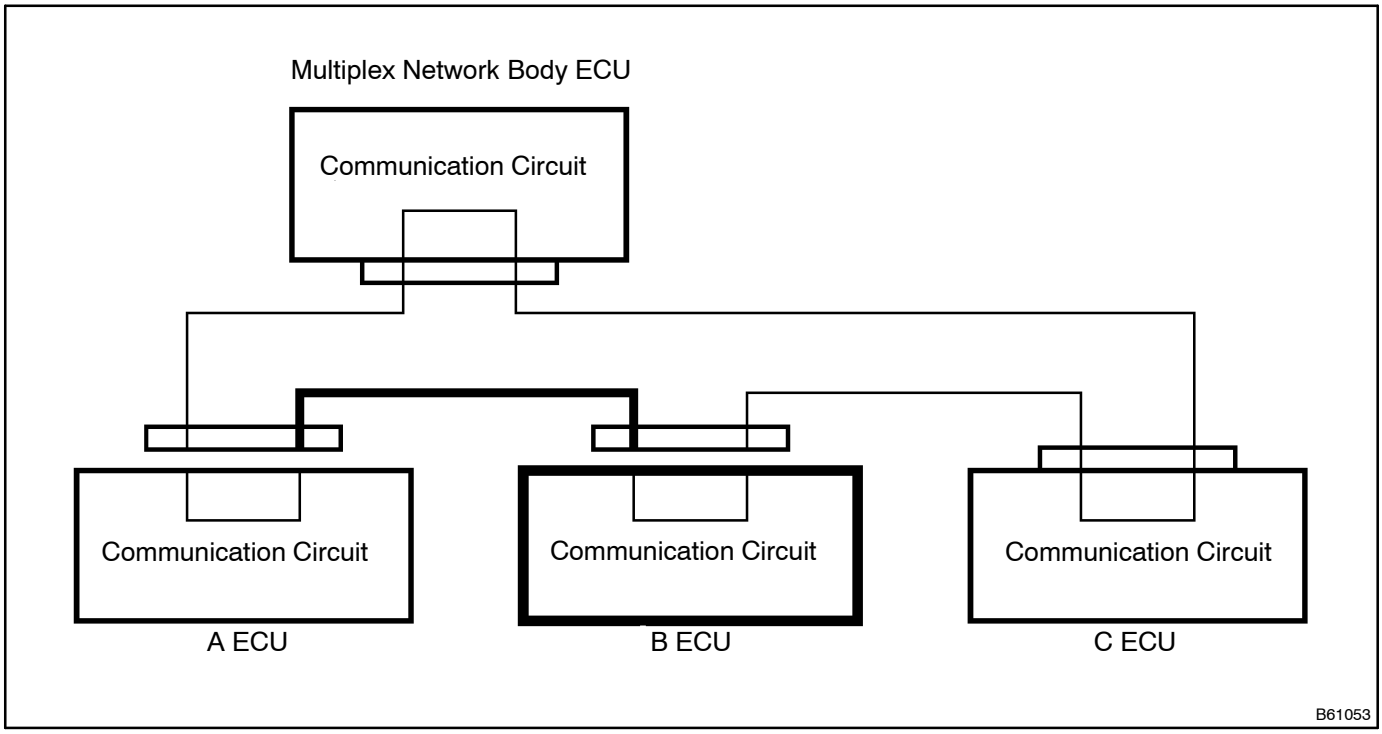
- The A ECU in the door system bus represents the power window master switch assy (door ECU).
- If the result is as specified, the disconnected A ECU power window master switch assy (door ECU) is malfunctioning.

OK	REPLACE A ECU

NG

2	CHECK DTC (B ECU)

(a) Disconnect the A ECU and B ECU connectors and check for DTCs B1214 and B 1215.



OK: DTCs B1214 and B1215 are not output.

NOTICE:

Disconnect the connectors one by one. Reconnect the connector before starting the next check.

HINT:

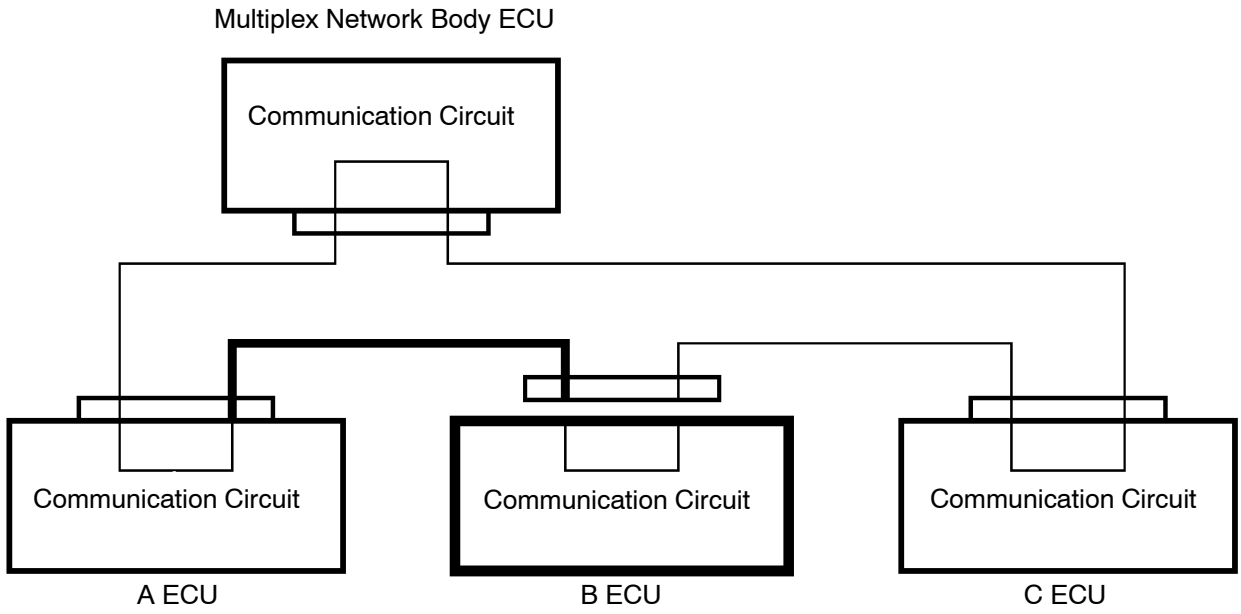
- The B ECU in door system bus represents one of the following: sliding roof drive gear sub–assy (sliding roof ECU), combination meter assy (meter ECU), A/C amplifier assy (A/C ECU) or theft warning ECU assy.
- If the result is as specified, the disconnected B ECU (one of the ECUs from the above list) or the wire harness between the A ECU and B ECU is malfunctioning.

NG	Go to step 4

OK

3	CHECK WIRE HARNESS BETWEEN A ECU AND B ECU

(a) Disconnect the B ECU connectors and check for DTCs B1214 and B1215.



OK: DTCs B1214 and B1215 are not output.

NOTICE:

Disconnect the connectors one by one. Reconnect the connector before starting the next check.

HINT:

If the result is as specified, the wire harness between the A ECU and B ECU is functioning normally but the disconnected B ECU is malfunctioning.

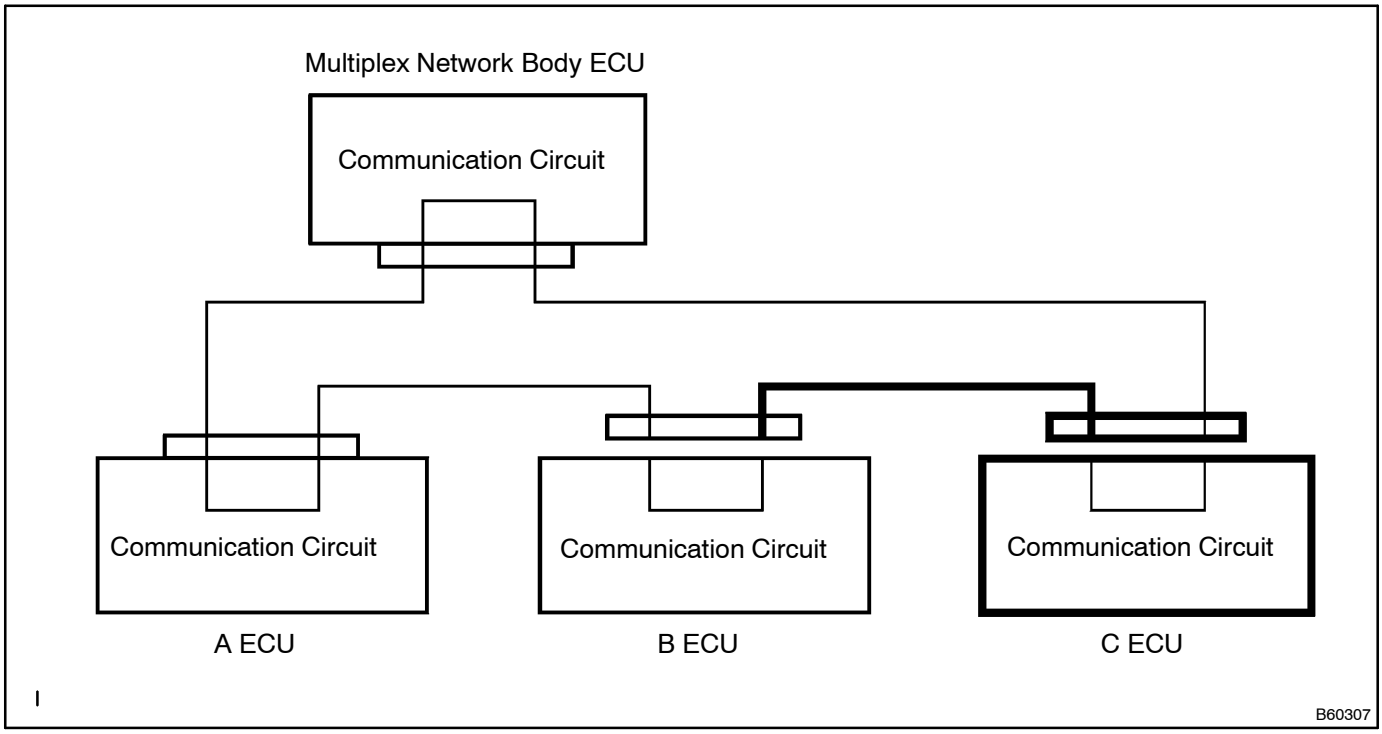
NG → **REPAIR OR REPLACE WIRE HARNESS BETWEEN A ECU AND B ECU**

OK

REPLACE B ECU

4	CHECK DTC (C ECU)

(a) Disconnect the B ECU and C ECU connectors and check for DTCs B1214 and B 1215.



OK: DTCs B1214 and B1215 are not output.

NOTICE:

Disconnect the connectors one by one. Reconnect the connector before starting the next check.

HINT:

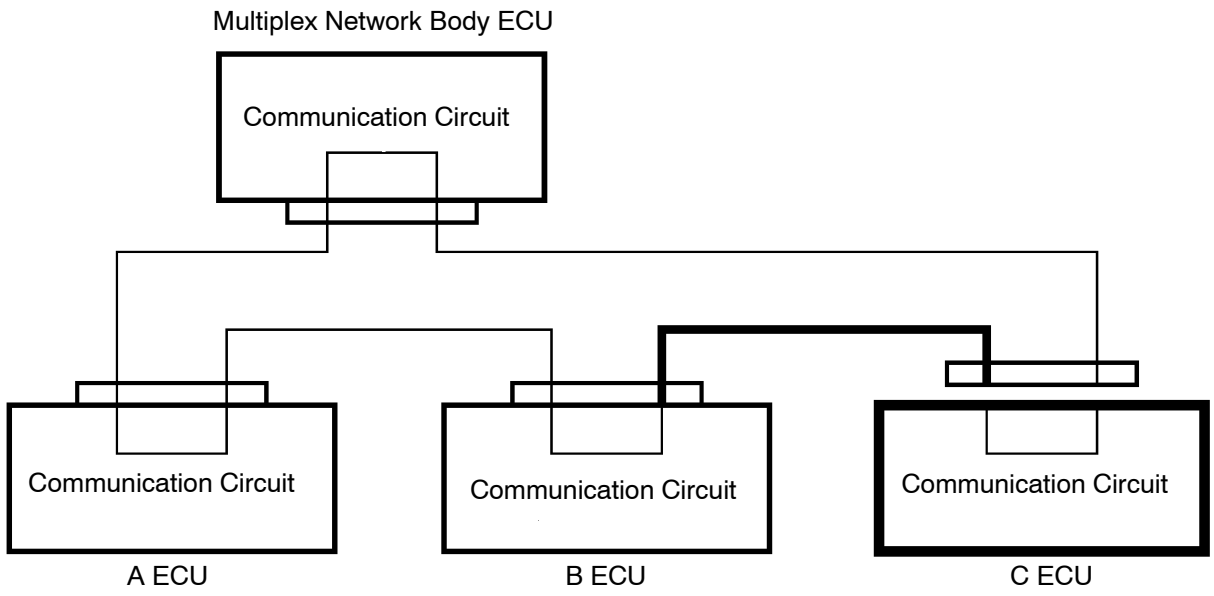
- The C ECU in the door system bus represents the ECM.
- If the result is as specified, the disconnected C ECU (ECM) or the wire harness between the B ECU and C ECU is malfunctioning.

NG	Go to step 6

OK

5	CHECK WIRE HARNESS BETWEEN B ECU AND C ECU

(a) Disconnect the C ECU connectors and check for DTCs B1214 and B1215.



OK: DTCs B1214 and B1215 are not output.

NOTICE:

Disconnect the connectors one by one. Reconnect the connector before starting the next check.

HINT:

If the result is as specified, the wire harness between the B ECU and C ECU is functioning normally but the disconnected C ECU is malfunctioning.

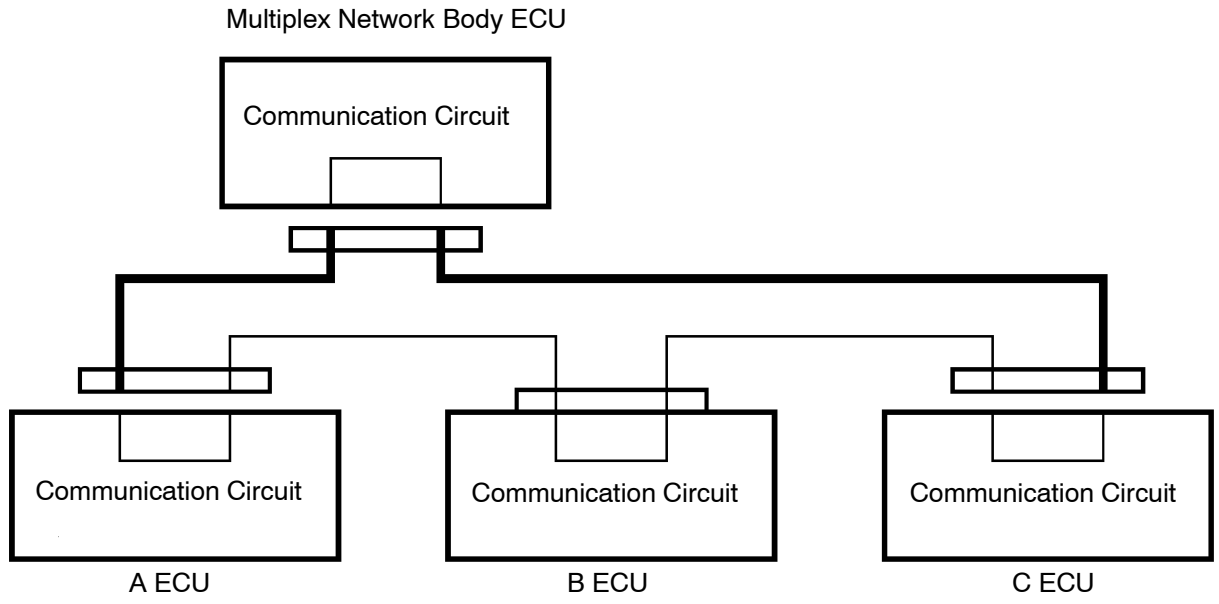
NG → **REPAIR OR REPLACE WIRE HARNESS BETWEEN B ECU AND C ECU**

OK

REPLACE C ECU

6	CHECK WIRE HARNESS MULTIPLEX NETWORK BODY ECU AND A ECU OR C ECU

(a) Disconnect the connectors of the A ECU, C ECU and multiplex network body ECU.
(b) Measure the voltage and resistance of the wire harness side connectors.



Standard:

Tester Connection	Specified Condition
A ECU connector/multiplex network body ECU connector – body ground	0 V
C ECU connector/multiplex network body ECU connector – body ground	0 V
A ECU connector/multiplex network body ECU connector – body ground	10 kΩ or higher
C ECU connector/multiplex network body ECU connector – body ground	10 kΩ or higher

HINT:

- The A ECU in the door system bus represents the power window regulator master switch (door ECU).
- The C ECU in the door system bus represents the ECM.

NG → **REPAIR OR REPLACE WIRE HARNESS BETWEEN MULTIPLEX NETWORK BODY ECU AND A ECU OR C ECU**

OK

REPLACE MULTIPLEX NETWORK BODY ECU