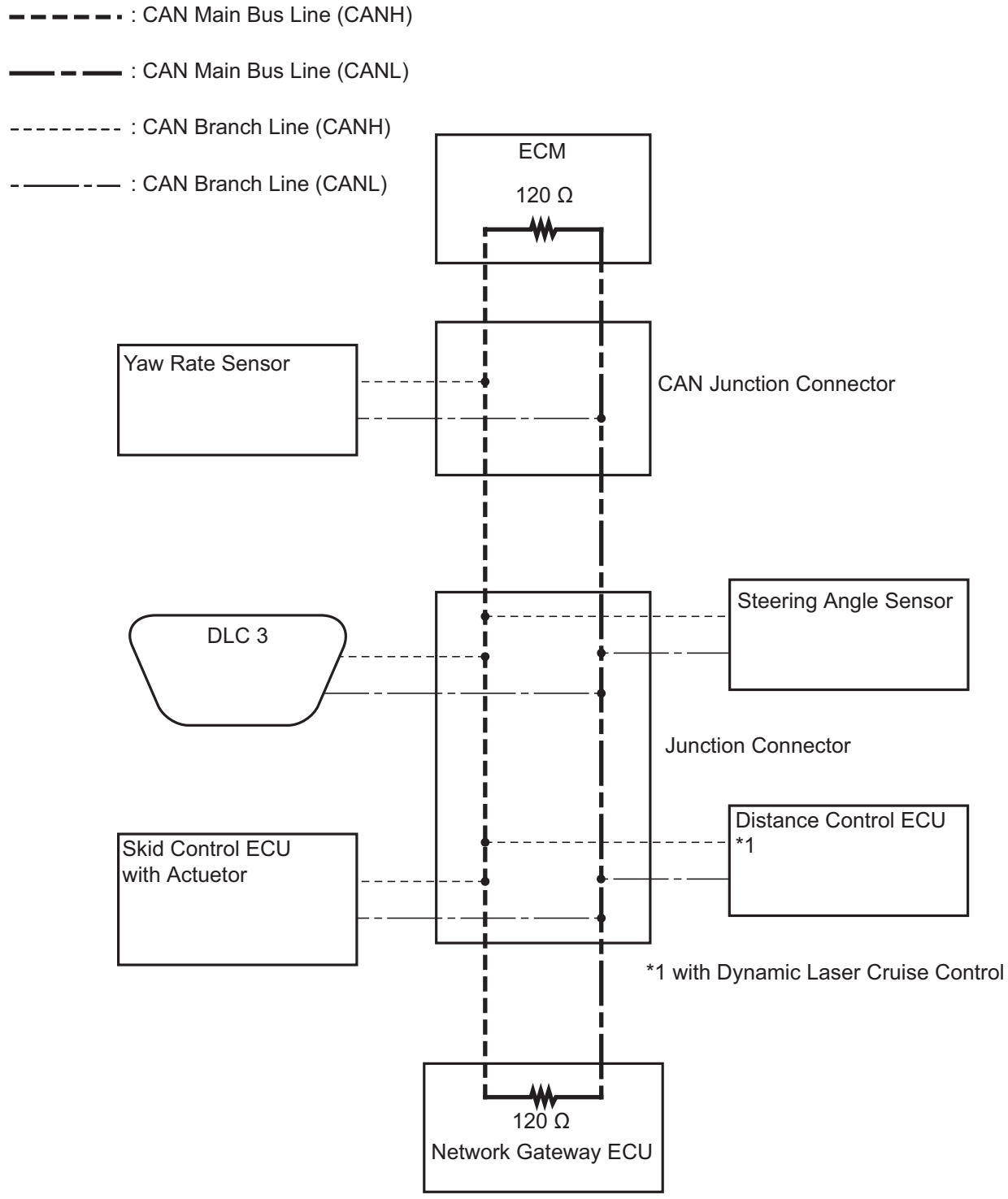
CAN Bus Line

DESCRIPTION

When any DTC for the CAN communication system is output, first measure the resistance between the terminals of the DLC3 to specify the trouble area, and check that there is no short in the CAN main wire, between the main wire, and +B or GND.

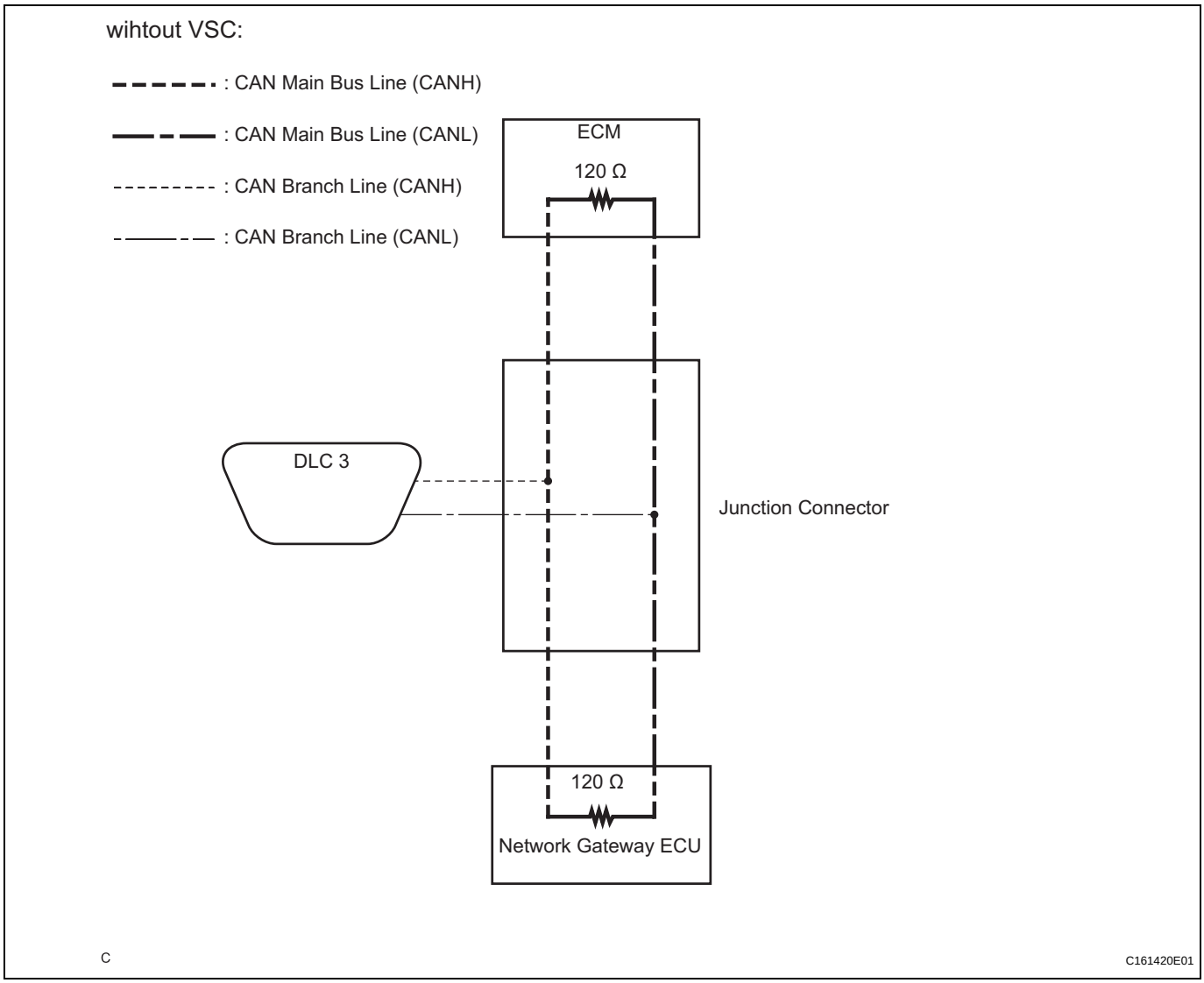
WIRING DIAGRAM

with VSC:



C

C161419E01



INSPECTION PROCEDURE

NOTICE:

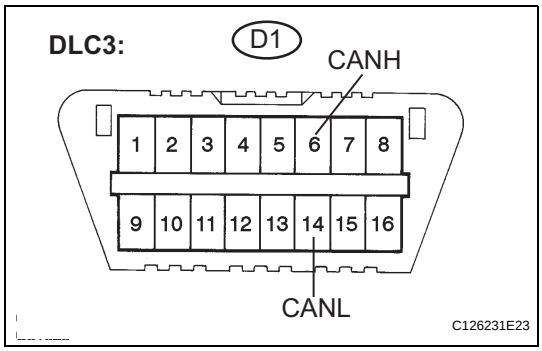
- **Turn the ignition switch off before measuring the resistances of CAN bus main wires and CAN bus branch wires.**
- **After the ignition switch is turned off, check that the key reminder warning system and light reminder warning system are not in operation.**
- **Before measuring the resistance, leave the vehicle as is for at least 1 minute and do not operate the ignition switch, any other switches, or the doors. If any doors need to be opened in order to check connectors, open the doors and leave them open.**

HINT:

Operating the ignition switch, any switches, or any doors triggers related ECU and sensor communication with the CAN. This communication will cause the resistance value to change.

CA

1 CHECK CAN BUS WIRE (MAIN WIRE FOR DISCONNECTION, CAN BUS LINES FOR SHORT CIRCUIT)



(a) Turn the ignition switch off.
(b) Measure the resistance according to the value(s) in the table below.
Standard resistance

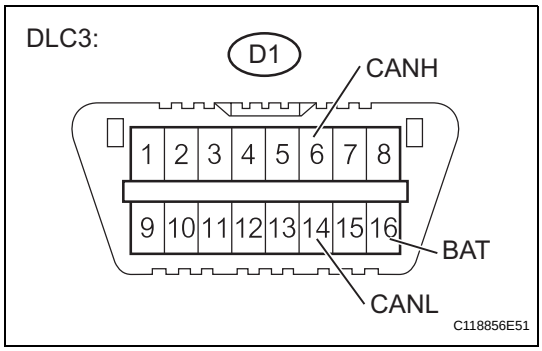
Tester Connection	Condition	Result	Proceed to
D1-6 (CANH) - D1-14 (CANL)	Ignition switch off	54 to 69 Ω	A
D1-6 (CANH) - D1-14 (CANL)	Ignition switch off	69 Ω or higher	B
D1-6 (CANH) - D1-14 (CANL)	Ignition switch off	Below 54 Ω	C

B → **CHECK OPEN IN CAN MAIN BUS LINE (See page CA-40)**

C → **CHECK CAN BUS LINES FOR SHORT CIRCUIT (See page CA-46)**

A

2 CHECK FOR SHORT TO B+ IN CAN BUS WIRE



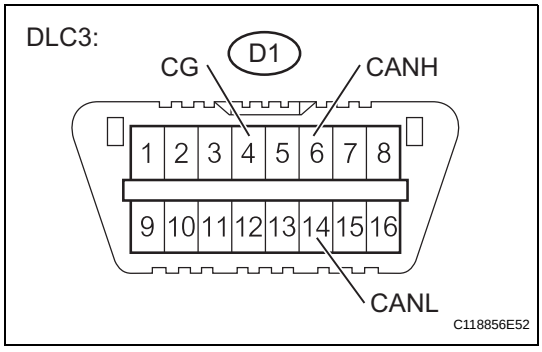
(a) Measure the resistance according to the value(s) in the table below.
Standard resistance

Tester Connection	Condition	Specified Condition
D1-6 (CANH) - D1-16 (BAT)	Ignition switch off	6 kΩ or higher
D1-14 (CANL) - D1-16 (BAT)	Ignition switch off	6 kΩ or higher

NG → **CHECK CAN BUS LINE FOR SHORT TO +B (See page CA-60)**

OK

3 CHECK FOR SHORT TO GND IN CAN BUS WIRE



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

Tester Connection	Condition	Specified Condition
D1-6 (CANH) - D1-4 (CG)	Ignition switch off	200 Ω or higher
D1-14 (CANL) - D1-4 (CG)	Ignition switch off	200 Ω or higher

NG → **CHECK CAN BUS LINE FOR SHORT TO GND (See page CA-75)**

OK

GO TO HOW TO PROCEED WITH TROUBLESHOOTING (See page CA-7)