

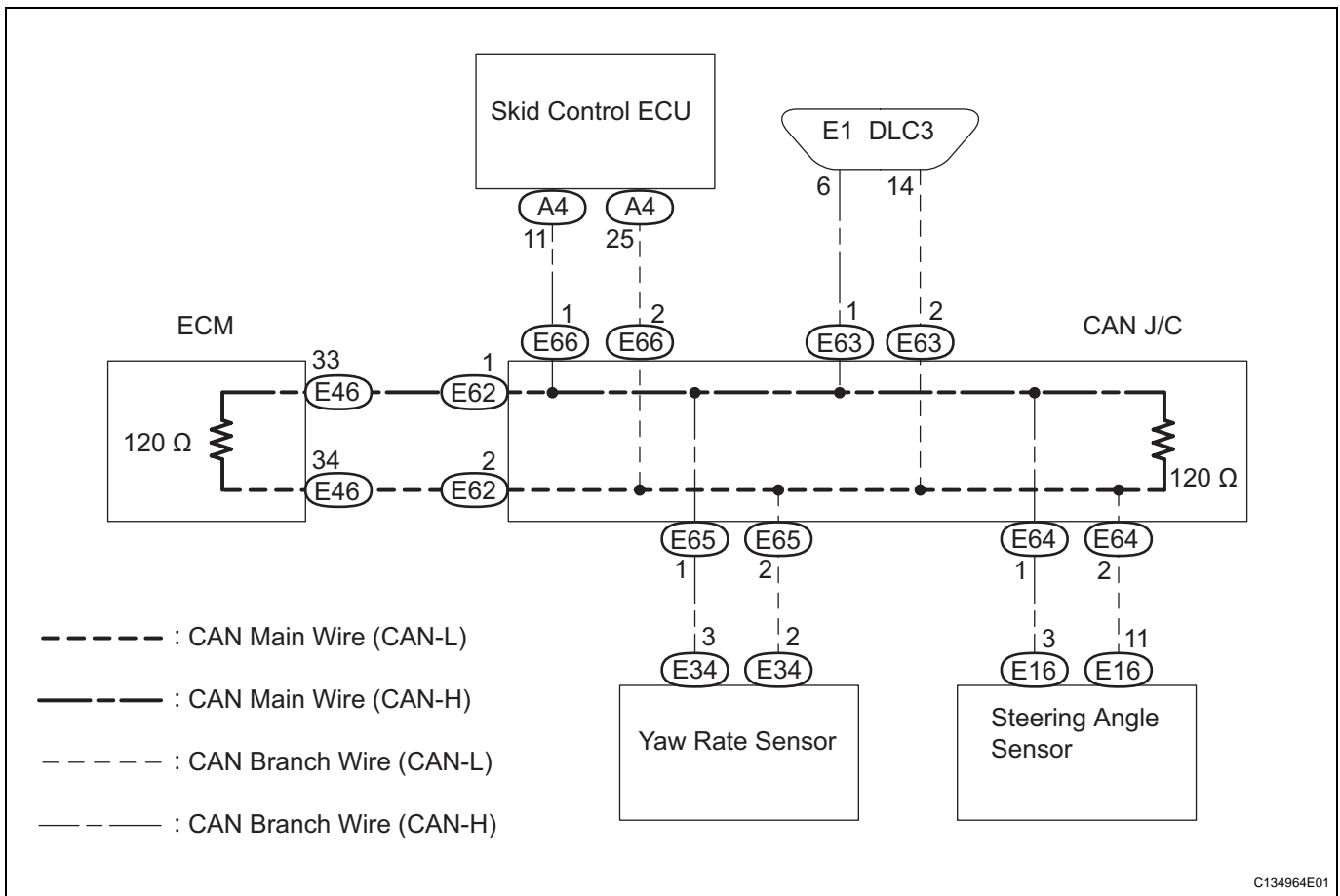
## Open in One Side of CAN Branch Line

### DESCRIPTION

If 2 or more ECUs and/or sensors do not appear on the intelligent tester "BUS CHECK" screen via the CAN VIM, one side of the CAN branch wire may be open. (one side of the CAN-H [branch wire] / CANL [branch wire] of the ECU and/or sensor is open.)

Symptom	Trouble Area
2 or more ECUs and/or sensors do not appear on intelligent tester "BUS CHECK" screen via CAN VIM.	<ul style="list-style-type: none"> <li>• Open in one side of CAN branch wire</li> <li>• Skid control ECU</li> <li>• Yaw rate sensor</li> <li>• Steering angle sensor</li> </ul>

### WIRING DIAGRAM



### INSPECTION PROCEDURE

#### NOTICE:

- Turn the ignition switch off before measuring the resistances of the CAN main wire and the CAN branch wire.
- After the ignition switch is turned off, check that the key reminder warning system is 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 doors need to be opened in order to check connectors, open the doors and leave them open.

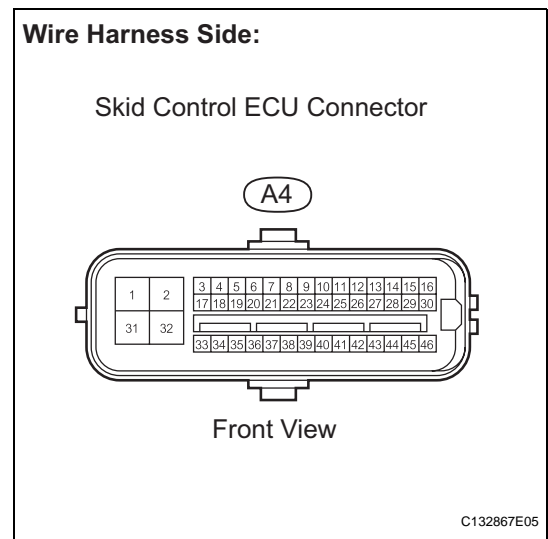
**HINT:**

Operating the ignition switch, any switches or any doors triggers related ECU and sensor communication with the CAN, which causes resistance variation.

**HINT:**

- The following is the troubleshooting procedure of an open in either CANH or CANL of the ECU A (SENSOR A).
- Perform the following inspection for the ECUs (sensors) which are not displayed on the intelligent tester. If malfunctions cannot be identified, then perform the following inspection for the ECUs (sensors) connected to CAN communication.

**1 CHECK OPEN IN ONE SIDE OF CAN BRANCH LINE (SKID CONTROL ECU)**



- (a) Disconnect the skid control ECU connector.
- (b) Select "BUS CHECK" on the intelligent tester via the CAN VIM (See page CA-14).

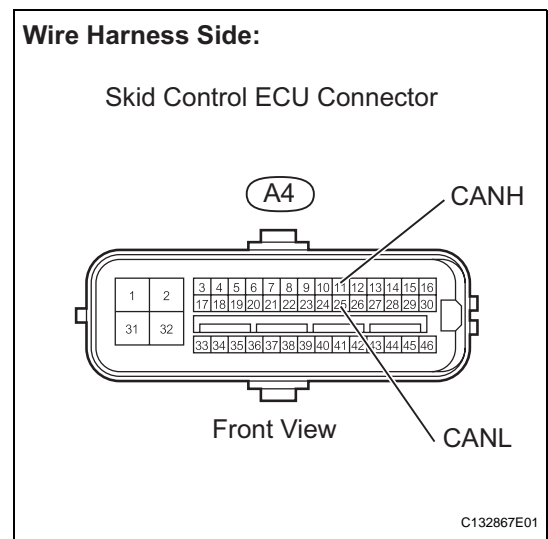
**Result**

Result	Proceed to
ABS/VSC/TRAC not displayed on the intelligent tester.	A
Several ECUs and sensors other than ABS/VSC/TRAC not displayed on intelligent tester.	B

**B** → **Go to step 3**

**A**

**2 CHECK OPEN IN ONE SIDE OF CAN BRANCH LINE (SKID CONTROL ECU BRANCH WIRE)**



- (a) Measure the resistance.
- Standard resistance.**

Tester Connection	Condition	Specified Condition
A4-11 (CANH) - A4-25 (CANL)	Ignition switch OFF	54 to 69 Ω

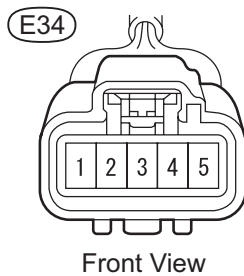
**NG** → **REPAIR OR REPLACE CAN BRANCH WIRE CONNECTED TO SKID CONTROL ECU (CAN-H, CAN-L)**

OK

**REPLACE MASTER CYLINDER SOLENOID****3 CHECK OPEN IN ONE SIDE OF CAN BRANCH LINE (YAW RATE SENSOR)**

Wire Harness Side:

Yaw Rate Sensor Connector



C125957E11

- (a) Disconnect the yaw rate sensor connector.  
 (b) Select "BUS CHECK" on the intelligent tester via the CAN VIM (See page CA-14).

**Result**

Result	Proceed to
YAW/DECELERATE not displayed on the intelligent tester.	A
Several ECUs and sensors other than YAW/DECELERATE not displayed on intelligent tester.	B

B

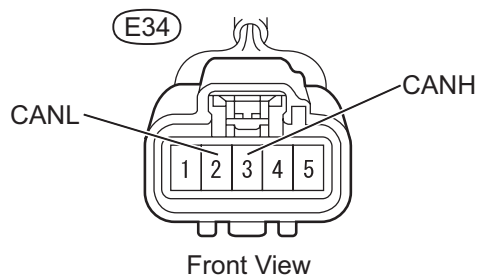
Go to step 5

A

**4 CHECK OPEN IN ONE SIDE OF CAN BRANCH LINE (YAW RATE SENSOR BRANCH WIRE)**

Wire Harness Side:

Yaw Rate Sensor Connector



C125957E09

- (a) Measure the resistance.  
**Standard resistance.**

Tester Connection	Condition	Specified Condition
E34-3 (CANH) - E34-2 (CANL)	Ignition switch OFF	54 to 69 $\Omega$

NG

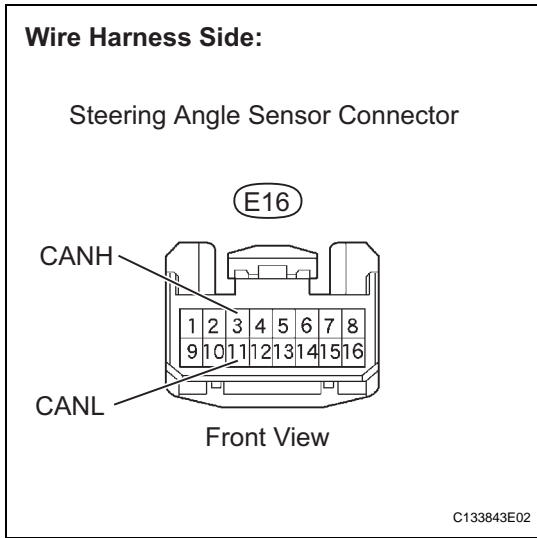
**REPAIR OR REPLACE CAN BRANCH WIRE CONNECTED TO YAW RATE SENSOR (CAN-H, CAN-L)**

OK

**REPLACE YAW RATE SENSOR**

CA

**5 CHECK OPEN IN ONE SIDE OF CAN BRANCH LINE (STEERING ANGLE SENSOR BRANCH WIRE)**



- (a) Disconnect the steering angle sensor connector.
- (b) Measure the resistance.

**Standard resistance.**

Tester Connection	Condition	Specified Condition
E16-3 (CANH) - E16-11 (CANL)	Ignition switch OFF	54 to 69 Ω

**NG** → **REPAIR OR REPLACE CAN BRANCH WIRE CONNECTED TO STEERING ANGLE SENSOR (CAN-H, CAN-L)**

**OK**

**REPLACE STEERING ANGLE SENSOR**