| DTC	C1223/43	ABS Control System Malfunction

DESCRIPTION

This DTC is output when the VSC system detects a malfunction in the ABS system. When DTC C1223/43 is stored, there is no malfunction in the skid control ECU.

DTC No.	DTC Detecting Condition	Trouble Areas
C1223/43	ABS control system abnormal	ABS control system

1	CHECK DTC (ABS)

(a) Clear the DTC (See page BC-118).
(b) Check if the same DTC is recorded.

Result	Proceed to
DTC output	A
DTC not output	B

B ▷ END

A
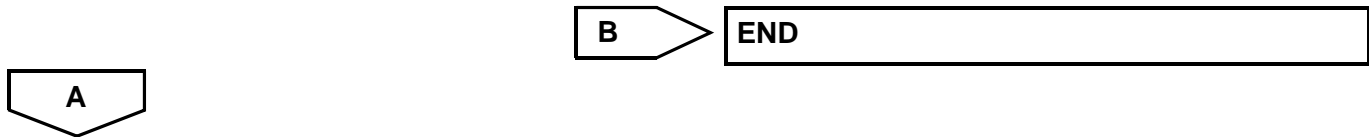
REPAIR CIRCUITS INDICATED BY OUTPUT DTCS

BC

DTC	C1231/31	Steering Angle Sensor Circuit Malfunction

DTC	C1290/66	Steering Angle Sensor Zero Point Malfunction

DESCRIPTION

The steering angle sensor signal is sent to the skid control ECU via the CAN communication system. When there is a malfunction in the communication system, the DTC will be detected by the diagnosis function.

DTC No.	DTC Detecting Conditions	Trouble Areas
C1231/31	When ECU IG1 terminal voltage 9.5 V or more, steering angle sensor malfunction signal received.	• Master cylinder solenoid (skid control ECU) • Steering angle sensor • Steering angle sensor circuit • CAN communication system
C1290/66	Steering angle sensor zero point calibration position significantly differs from recorded value.	Steering angle sensor

BC

WIRING DIAGRAM

C124769E01
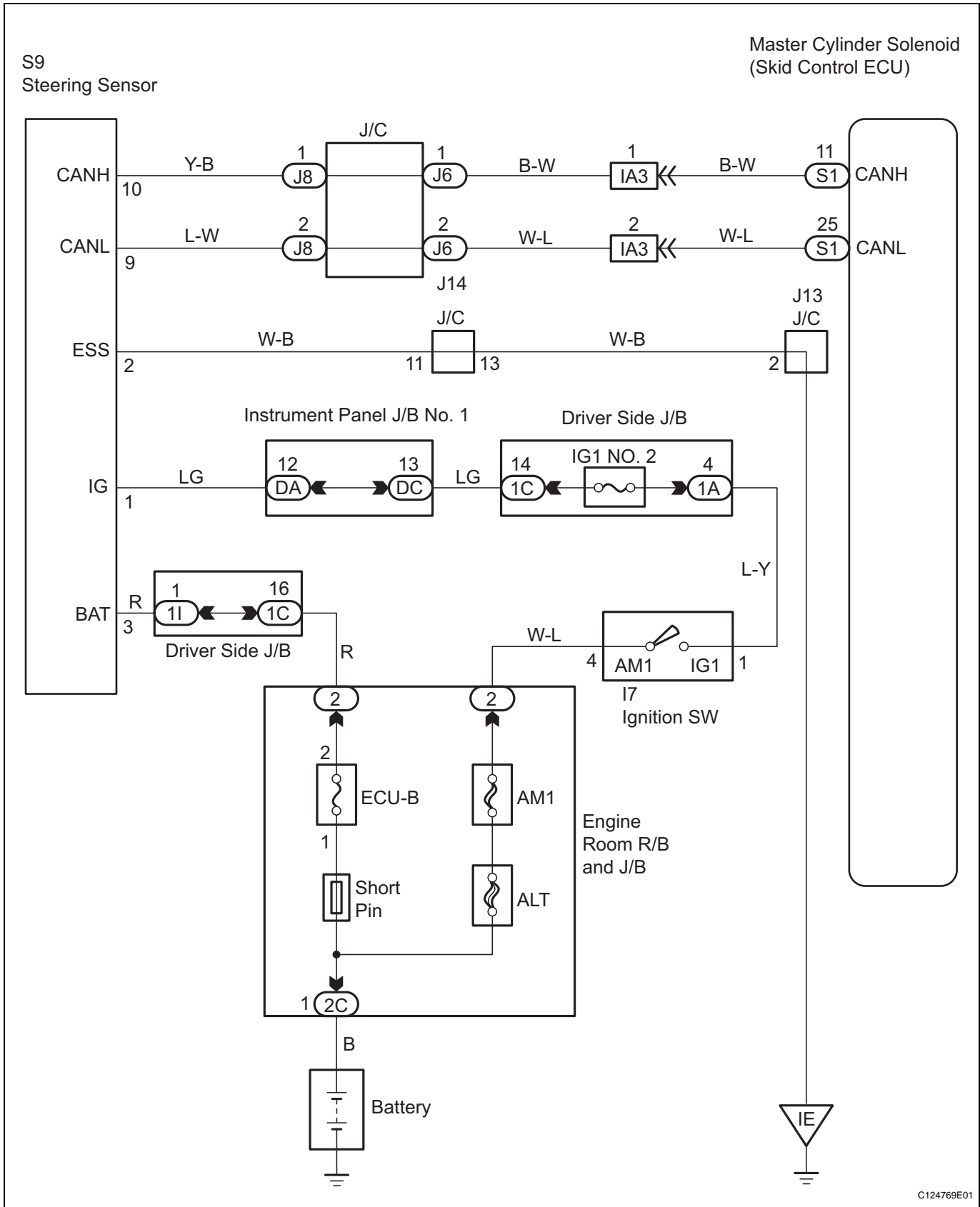
HINT:
- When U0073/94, U0123/62, U0124/95 or U0126/63 are output together with C1231/31, inspect and repair the trouble areas indicated by U0073/94, U0123/62, U0124/95 or U0126/63 first.

• When the speed sensor or the yaw rate sensor has trouble, DTCs relating to the steering angle sensor may be output even when the steering angle sensor is normal. When DTCs relating to the speed sensor (C0200/31, C0205/32, C0210/33, C0215/34, C1235/35, C1236/36, C1238/38, C1239/39) or yaw rate (deceleration) sensor (C1232/32, C1234/34, C1243/43, C1244/44, C1245/45, C1381/97) are output together with other DTCs relating to the steering angle sensor, inspect and repair the speed sensor and yaw rate (deceleration) sensor first, and then inspect and repair the steering angle sensor.

1	CHECK CAN COMMUNICATION SYSTEM

(a) Check CAN communication system DTC (See page CA-7).

Result	Proceed to
DTC not output	A
DTC output	B

NG ⟩ **REPAIR CAN COMMUNICATION SYSTEM**

OK

2	READ VALUE OF DATA LIST (STEERING ANGLE SENSOR)

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch to the ON position.
(c) Turn the tester ON.
(d) Select "DATA LIST" mode on the intelligent tester.

Item	Measurement Item / Range (Display)	Normal Condition	Diagnostic Note
STEERING ANG	Steering sensor/ Min.: -1152 deg, Max.: 1150.875 deg	Left turn: Increase Right turn: Decrease	-

BC

(e) Check that the steering angle sensor value displayed on the intelligent tester changes when turning the steering wheel.
OK:
   Steering angle sensor value changes.

OK (When troubleshooting in accordance with DTC CHART)	A
OK (When troubleshooting in accordance with PROBLEM SYMPTOMS TABLE)	B
NG	C

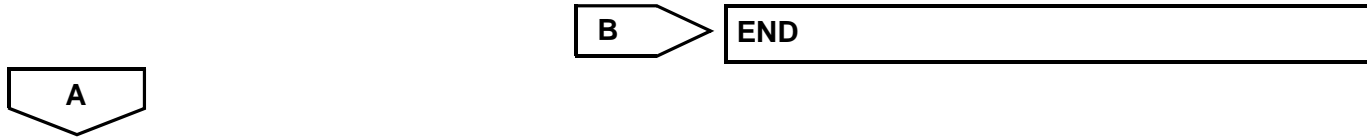**B** ⟩ **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE**

C ⟩ **Go to step 4**

A

3	RECONFIRM DTC

(a) Clear the DTCs (See page BC-118).

(b) Check if the same DTCs are recorded.

Result	Proceed to
DTC output	A
DTC not output	B

B ⟩ **END**

A
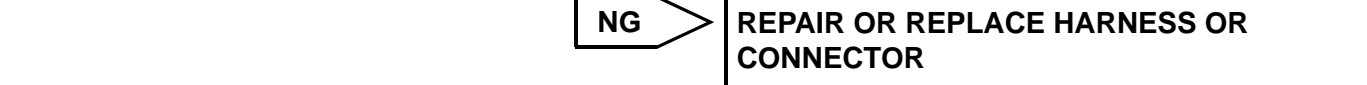
REPLACE MASTER CYLINDER SOLENOID

4	CHECK TERMINAL VOLTAGE (STEERING ANGLE SENSOR)

(a) Remove the steering wheel and the column lower cover.
(b) Disconnect the steering angle sensor connector.
(c) Turn the ignition switch to the ON position.
(d) Measure the voltage.
Standard Voltage

Tester Connection	Specified Condition
S9-1 (IG1) - S9-2 (ESS)	10 to 14 V
S9-3 (BAT) - S9-2 (ESS)	10 to 14 V

(e) Turn the ignition switch to OFF.
(f) Reconnect the steering angle sensor connector.
(g) Reinstall the steering wheel and the column lower cover.

NG ⟩ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

BC

OK

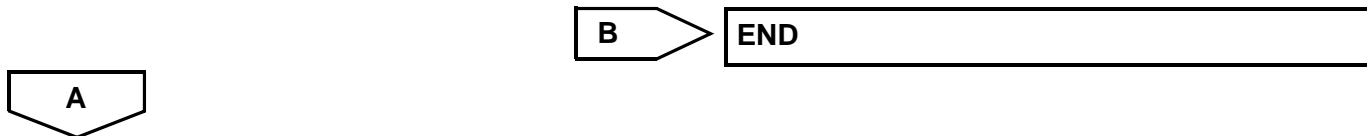| 5	REPLACE STEERING ANGLE SENSOR

(a) Replace the steering angle sensor (See page BC-311).

NEXT

6	RECONFIRM DTC

(a) Clear the DTCs (See page BC-118).
(b) Check if the same DTCs are recorded.

Result	Proceed to
DTC output	A
DTC not output	B

B ⟩ **END**

A

REPLACE MASTER CYLINDER SOLENOID