

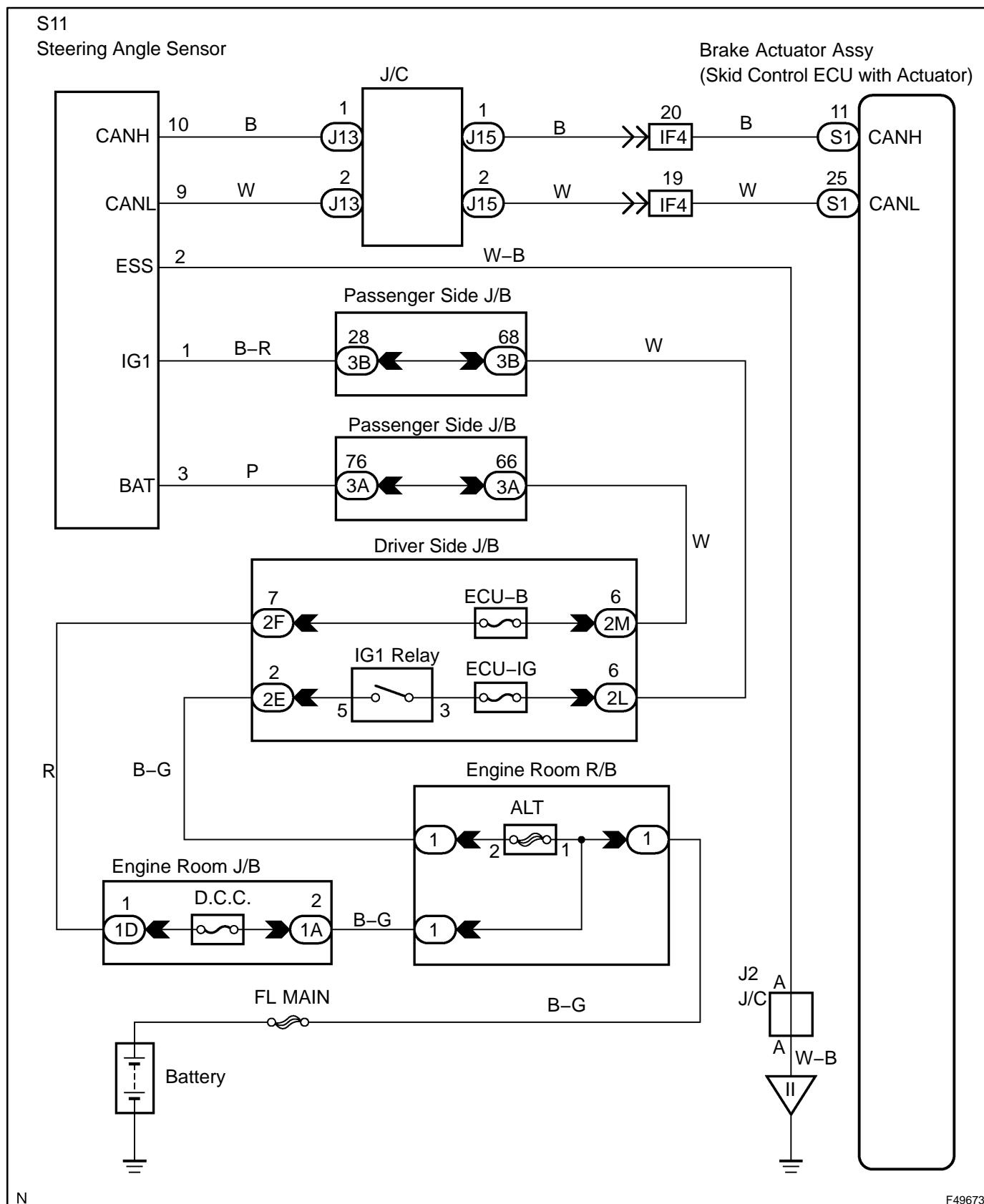
DTC	C1231/31	MALFUNCTION IN STEERING ANGLE SENSOR CIRCUIT
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CIRCUIT DESCRIPTION

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

DTC No.	DTC Detecting Condition	Trouble Area
C1231/31	When ECU IG1 terminal voltage is 9.5 V or more, the steering angle sensor malfunction signal is received.	<ul style="list-style-type: none">• Steering angle sensor• Steering angle sensor circuit• CAN communication system

WIRING DIAGRAM



INSPECTION PROCEDURE

NOTICE:

When replacing the brake actuator assy, perform zero point calibration (see page 05-987).

HINT:

- When U0073/94, U0100/65, U0121/94, U0123/62, U0124/95 and/or U0126/63 are output together with C1231/31, inspect and repair the trouble areas indicated by U0073/94, U0100/65, U0121/94, U0123/62, U0124/95 or U0126/63 first.
- When the speed sensor or the yaw rate sensor has trouble, DTCs for the steering angle sensor may be output even when the steering angle sensor is normal. When DTCs for the speed sensor or yaw rate sensor are output together with other DTCs for the steering angle sensor, inspect and repair the speed sensor and yaw rate sensor first, and then inspect and repair the steering angle sensor.
- Start the inspection from step 1 when using the hand-held tester and start from step 2 when not using the hand-held tester.

1 READ VALUE OF HAND-HELD TESTER(STEERING ANGLE SENSOR)

- Connect the hand-held tester to the DLC3.
- Start the engine.
- Select the DATA LIST mode on the hand-held tester.

Item	Measurement Item / Range (Display)	Normal Condition
STEERING ANG	Steering sensor/ Min.: -1152 deg, Max.: 1150.875 deg	Min.: -128 deg/s Max.: 128 deg/s

- Check that there is no difference between the speed value output from the speed sensor displayed on the hand-held tester and the speed value displayed on the speedometer when driving the vehicle.

OK:

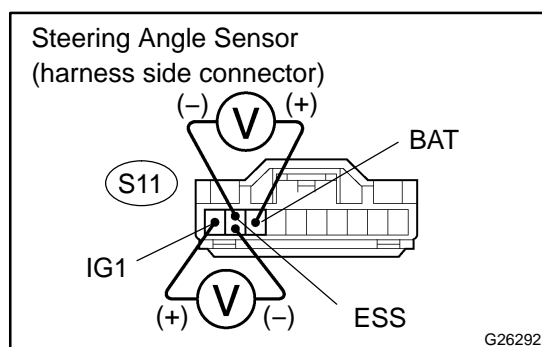
Steering angle value should change.

OK

REPLACE BRAKE ACTUATOR ASSY
(SEE PAGE 32-63)

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2 CHECK TERMINAL VOLTAGE(STEERING ANGLE SENSOR CONNECTOR)



- Remove the steering wheel and the column lower cover.
- Disconnect the steering angle sensor connector S11.
- Turn the ignition switch to the ON position.
- Measure the voltage according to the value(s) in the table below.

Standard:

Tester Connection	Specified Condition
S11-1 (IG1) - S11-2 (ESS)	10 to 14 V
S11-3 (BAT) - S11-2 (ESS)	10 to 14 V

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REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

REPLACE STEERING ANGLE SENSOR (SEE PAGE 32-72)