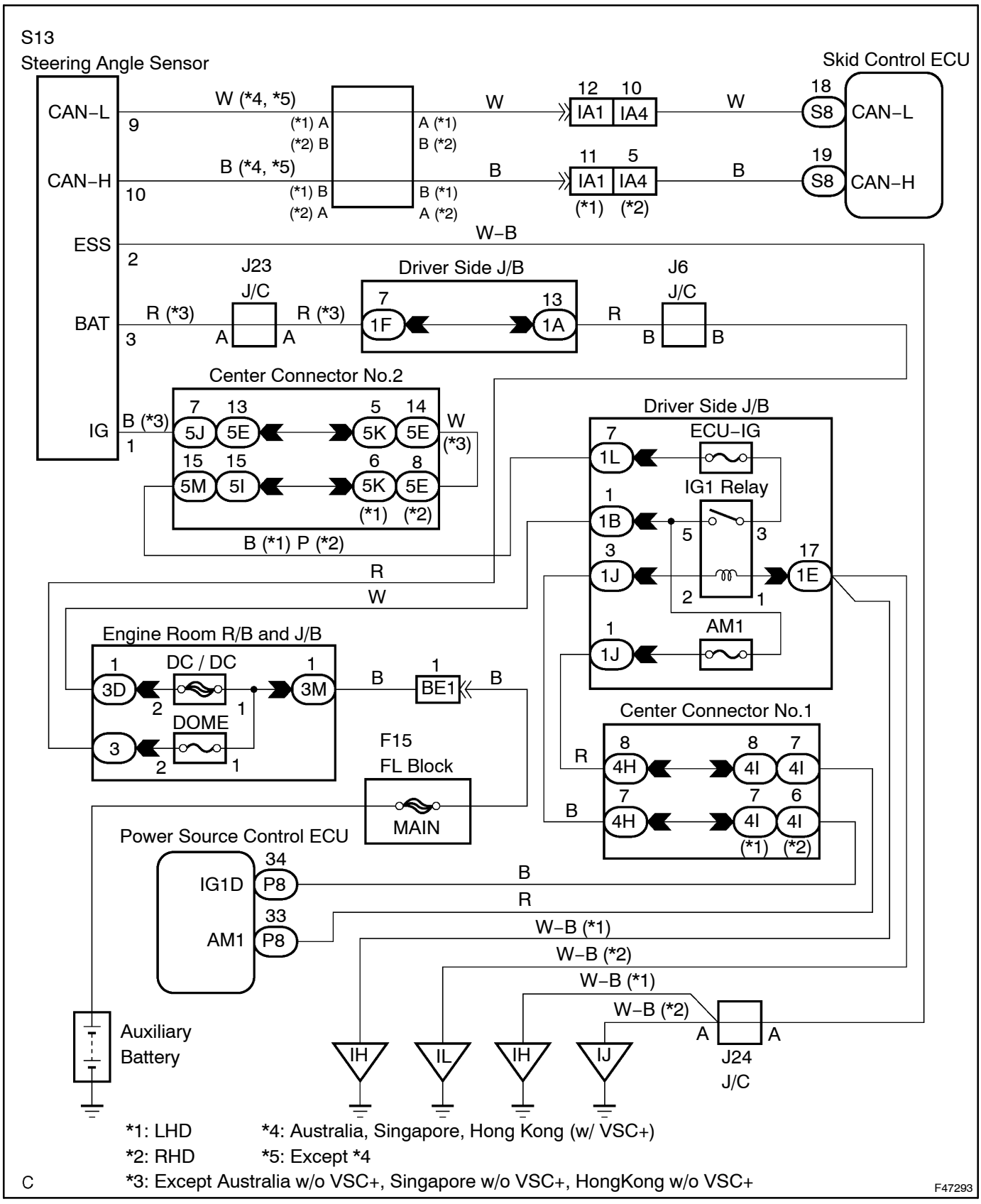
DTC	C1231/31	MALFUNCTION IN STEERING ANGLE SENSOR CIRCUIT

CIRCUIT DESCRIPTION

The skid control ECU inputs the steering sensor signal through the CAN communication. When a malfunction occurs in the communication line with the steering sensor, DTC U0126/63 (malfunction in communication with steering angle sensor) is output.

DTC No.	DTC Detecting Condition	Trouble Area
C1231/31	• Steering angle sensor malfunction signal is received when data transmission is valid (internal malfunction is detected at sensor self–check). • A signal of +B open in steering angle sensor is received when communication with sensor is valid.	• Steering angle sensor • Skid control ECU

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

- When U0126 is output together with C1231/31, inspect and repair the trouble areas indicated by U0126/63 first.
- When the speed sensor or the yaw rate (deceleration) 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 (deceleration) sensor first, and then inspect and repair the steering angle sensor.

1 CHECK HARNESS AND CONNECTOR (MOMENTARY INTERRUPTION)

(a) Using the intelligent tester II, check for any momentary interruption in the wire harness and connectors between the skid control ECU and steering angle sensor (see page 05–719).

Item	Measurement Item / Range (Display)	Normal Condition
Yaw Rate Open	Yaw rate sensor open detection / OPN–DET or NORMAL	NORMAL: Normal condition

OK:
There are no momentary interruptions.

NG → REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

2 READ VALUE OF INTELLIGENT TESTER II

(a) Connect the intelligent tester II to the DLC3.
(b) Turn the power switch ON (READY).
(c) Select the DATA LIST mode on the intelligent tester II.

Item	Measurement Item / Range (Display)	Normal Condition
Steering Angle Sensor	Steering sensor / Min.: −1152 deg, Max.: 1150.875 deg	Left turn: Increase Right turn: Decrease

(d) Check that the steering angle sensor value of the steering angle sensor observed in the intelligent tester II changes when the steering wheel is moved.

OK:
Steering angle value should change.

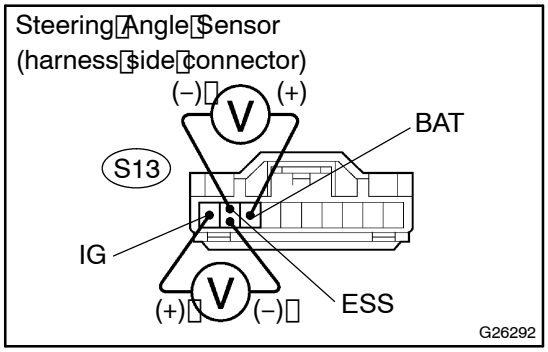
NG → Go to step 3

OK

REPLACE SKID CONTROL ECU ASSY (SEE PAGE 32–81 or 32–82)

NOTICE:
When replacing the skid control ECU assy, perform initialization of linear solenoid valve and calibration (see page 05–721).

3 CHECK TERMINAL VOLTAGE(STEERING ANGLE SENSOR CONNECTOR)



(a) Remove the steering wheel and the column lower cover.
(b) Disconnect the steering angle sensor connector.
(c) Turn the power switch ON (READY).
(d) Measure the voltage according to the value(s) in the table below.

Standard:

Tester Connection	Specified Condition
S13–1 (IG) – S13–2 (ESS)	10 to 14 V

(e) Measure the voltage according to the value(s) in the table below.

Standard:

Tester Connection	Specified Condition
S13–3 (BAT) – S13–2 (ESS)	10 to 14 V

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

REPLACE STEERING ANGLE SENSOR (SEE PAGE 32–85)