| DTC | C1777 | STEERING ANGLE SENSOR CIRCUIT |
|---|---|---|

## CIRCUIT DESCRIPTION

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

| DTC No. | DTC Detecting Condition | Trouble Area |
|---|---|---|
| C1777 | Steering sensor signal is abnormal for 5 seconds or more. | • Steering sensor<br>• Steering angle sensor circuit<br>• Suspension control ECU |

# WIRING DIAGRAM



F45835

F46756
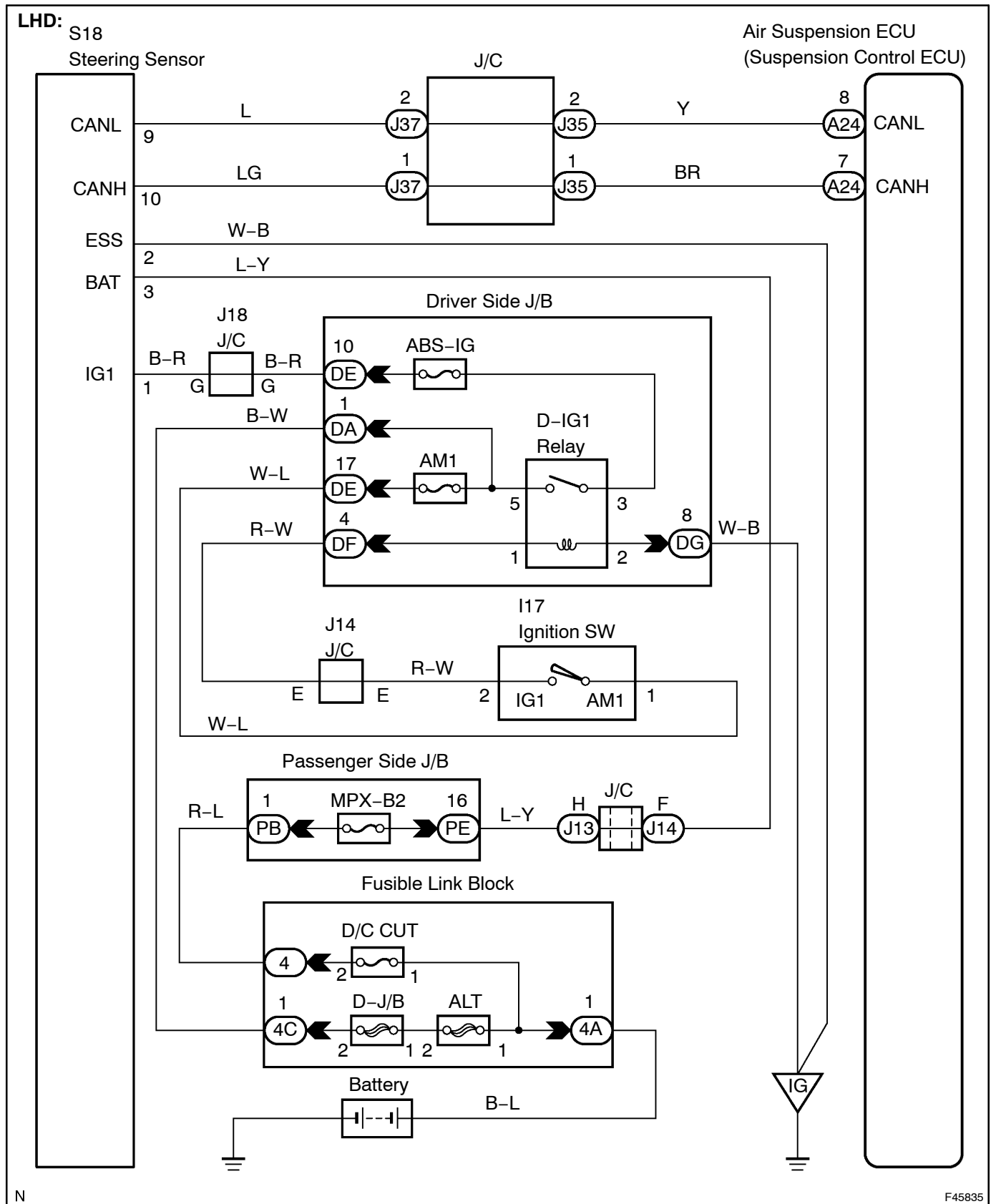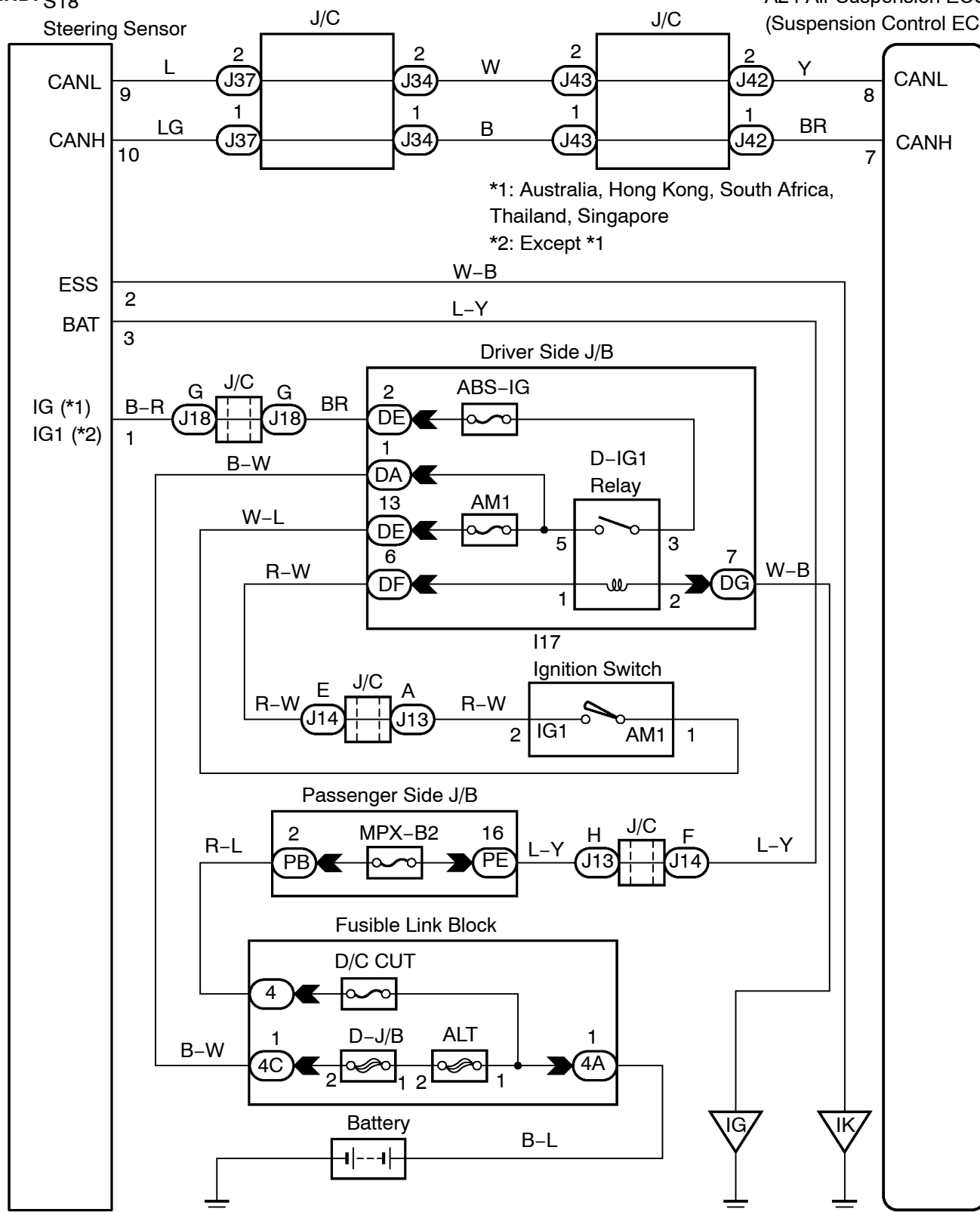
# INSPECTION PROCEDURE

| 1 | READ VALUE ON INTELLIGENT TESTER II |
|---|---|

(a) Connect the intelligent tester II to the DLC3.

(b) Turn the ignition switch to the ON position and turn the intelligent tester II main switch on.

(c) Select the item below in the DATA LIST and read its value displayed on the intelligent tester II.
**AIR SUS:**

| Item | Normal Condition |
|---|---|
| STEERING ANGLE | Actual steering angle<br>Left turn: reading increases<br>Right turn: reading decreases |

(d) Check that the steering wheel turning angle value of the steering angle position sensor displayed on the intelligent tester II changes when turning the steering wheel.
**Standard:**
**Steering wheel turning angle value changes.**

| NG > | Go to step 2 |
|---|---|

| OK |
|---|

| REPLACE SUSPENSION CONTROL ECU (**SEE PAGE 25–20**) |
|---|

| 2 | CHECK DIAGNOSTIC CODE OUTPUT |
|---|---|

(a) Check if the normal system code is output in the CAN communication system (see page 05–3306).
**OK:**
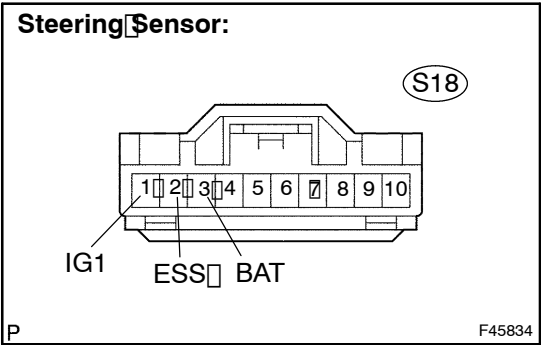**No DTC is output in the CAN communication system.**

| NG > | REPAIR CIRCUIT INDICATED BY OUTPUT CODE |
|---|---|

| OK |
|---|

| 3 | CHECK HARNESS AND CONNECTOR(STEERING SENSOR POWER SOURCE) |

**Steering Sensor:**

S18

IG1   ESS   BAT

P                                    F45834

(a) Disconnect the steering sensor S18 connector.
(b) Turn the ignition switch to the ON position.
(c) Measure the voltage according to the value(s) in the table below.
**Standard:**

| Tester Connection | Specified Condition |
| --- | --- |
| S18–1 (IG1) – S18–2 (ESS) | 10 to 14 V |
| S18–3 (BAT) – S18–2 (ESS) | 10 to 14 V |

NG > **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

**REPLACE STEERING SENSOR (SEE PAGE 32–65)**