

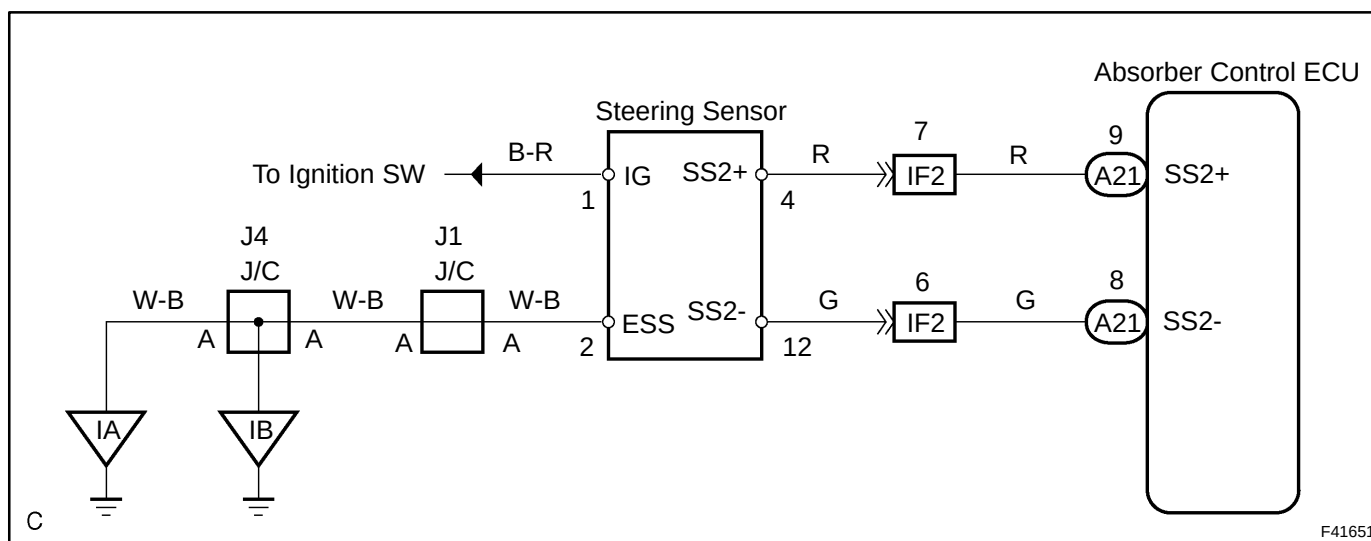
DTC	C1777/77	STEERING ANGLE SENSOR CIRCUIT
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CIRCUIT DESCRIPTION

The steering sensor is mounted on the combination switch assy, and detects the steering wheel angle and its direction.

DTC No.	DTC Detecting Condition	Trouble Area
C1777/77	Steering sensor system signal is abnormal.	- Steering sensor - Steering angle sensor circuit - Absorber control ECU

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

Start the inspection from the step 1 in case of using hand-held tester and start from step 2 in case of not using hand-held tester.

1 READ VALUE OF HAND-HELD TESTER

- (a) Connect the hand-held tester to the DLC3.
- (b) Turn the ignition switch to ON and push the hand-held tester main switch ON.
- (c) Select the item "STEERING ANGLE" in the DATA LIST and read its value displayed on the hand-held tester.
- (d) Check that the steering wheel turning angle value of the steering angle position sensor displayed on the hand-held tester is changing when turning the steering wheel.

OK:

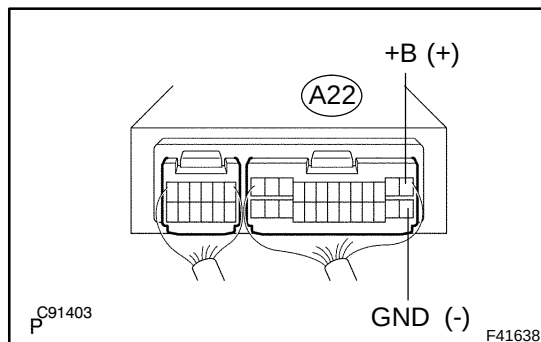
Steering wheel turning angle value must be changing.

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CHECK AND REPLACE ABSORBER CONTROL ECU(See page 01-31)

OK

2 INSPECT ABSORBER CONTROL ECU



- (a) Remove the absorber control ECU with the connector still connected.
- (b) Turn the ignition switch to ON.
- (c) Measure voltage between terminal A22 -1 (+B) and A22 - 14 (GND) of the absorber control ECU.

OK:

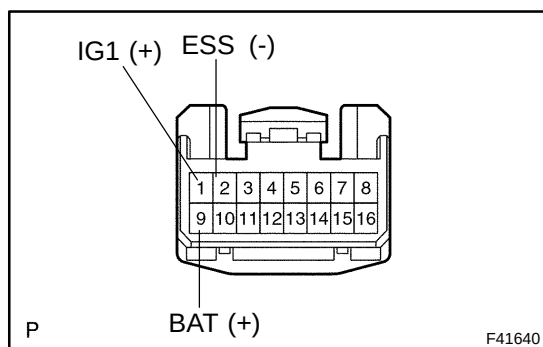
Voltage 10 - 14 V

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REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

3 CHECK HARNESS AND CONNECTOR(STEERING SENSOR)



- Disconnect the steering sensor connector.
- Turn the ignition switch ON.
- Measure voltage between terminal 1 (IG1) and 2 (ESS), 2 (ESS) and 9 (BAT) of the steering sensor harness side connector.

OK:

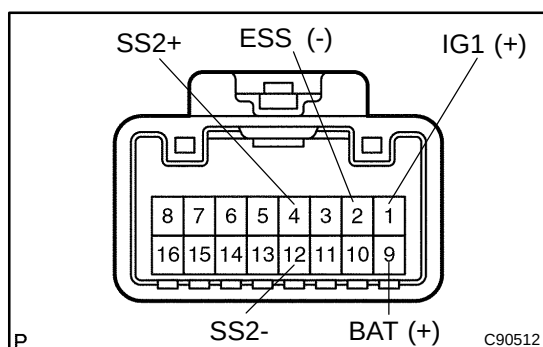
Voltage 10 - 14 V

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REPAIR OR REPLACE HARNESS OR CONNECTOR

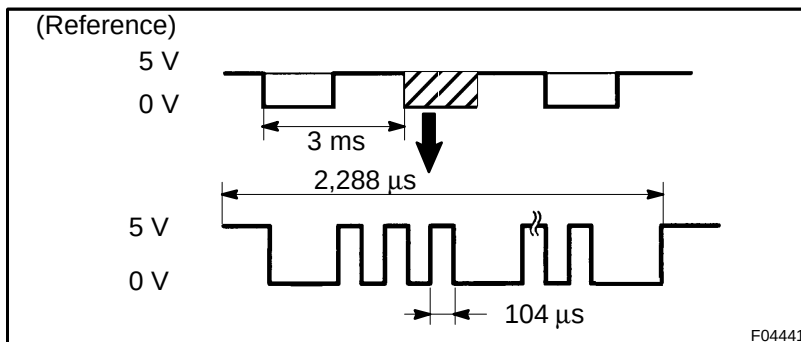
OK

4 INSPECT STEERING SENSOR



- Disconnect the steering angle sensor connector.
- Apply battery positive voltage between terminals 1 (IG1) and 2 (ESS), 2 (ESS) and 9 (BAT).
- Connect the oscilloscope to the terminals 4 (SS2+) and 12 (SS2-) of the steering angle sensor.
- Turn the steering column shaft slowly and check the signal waveform.

OK:



HINT:

The above signal waveform does not repeat ON and OFF regularly and this ON-OFF interval changes case by case according to the data.

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REPLACE STEERING SENSOR

OK

CHECK AND REPLACE ABSORBER CONTROL ECU(See page 01-31)