

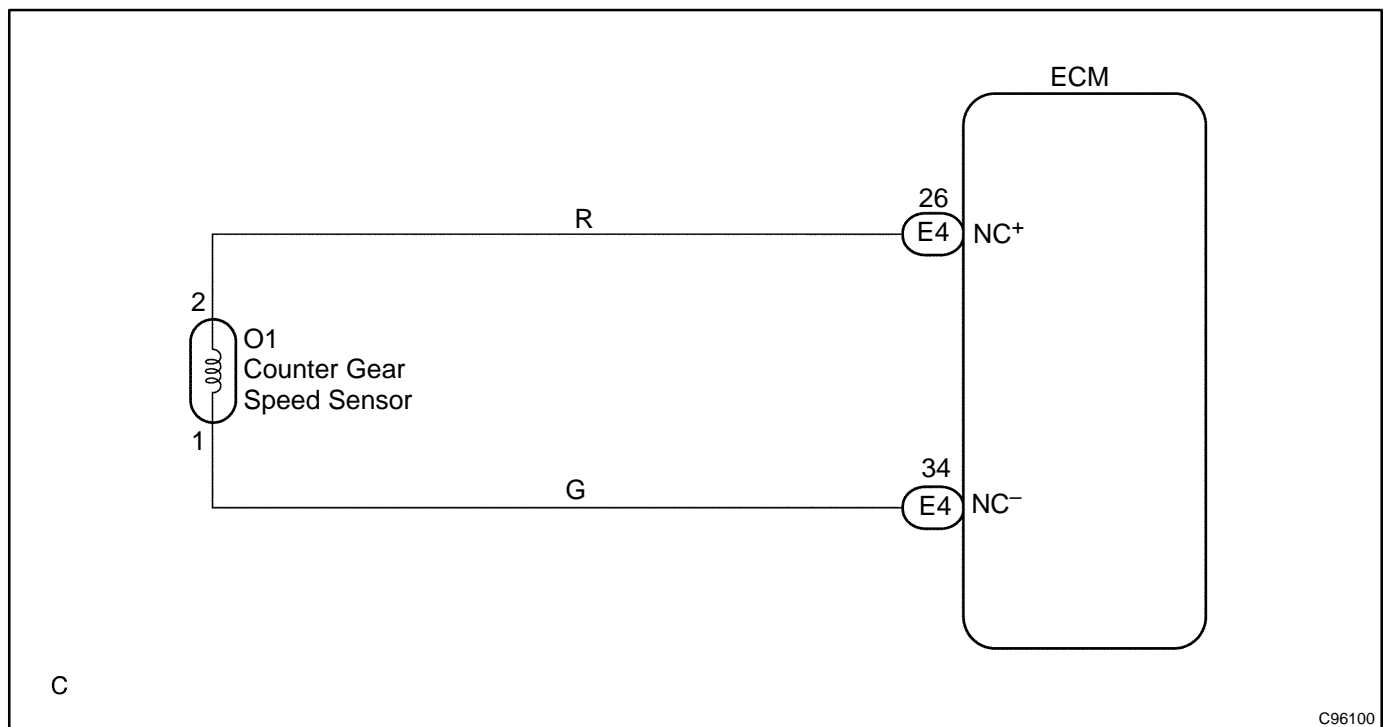
<b>DTC</b>	<b>P1730</b>	<b>NC REVOLUTION SENSOR CIRCUIT MALFUNCTION</b>
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### CIRCUIT DESCRIPTION

This sensor detects the rotation speed of the counter gear. By comparing the counter gear speed signal (NC) and the input turbine speed sensor signal (NT), the ECM detects the shift timing of the gears and appropriately controls the engine torque and hydraulic pressure in response to various conditions, thus performing smooth gear shifting.

DTC No.	DTC Detection Condition	Trouble Area
P1730	ECM detects conditions (a), (b), (c) and (d) continuity for 5 sec. or more: (1 trip detection logic) (a) Vehicle speed: 50 km/h (20 mph) or more (b) 2nd, 3rd or O/D gear (c) Solenoid valves and park/neutral position switch are normal (d) NC < 300 rpm	<ul style="list-style-type: none"> <li>• Open or short in transmission revolution sensor (NC) circuit</li> <li>• Transmission revolution sensor (NC)</li> <li>• ECM</li> </ul>

### WIRING DIAGRAM



## INSPECTION PROCEDURE

### 1 READ VALUE OF OBD II SCAN TOOL OR HAND-HELD TESTER

- (a) Warm up the engine.
- (b) Turn the ignition switch OFF.
- (c) Connect the OBD II scan tool or Hand-held tester to the DLC3.
- (d) Turn the ignition switch ON and push the OBD II scan tool or Hand-held tester main SW ON.
- (e) Select the item "SPD (NC)" in the DATALIST and read its value displayed on the OBD II scan tool or Hand-held tester.

**NOTICE:**

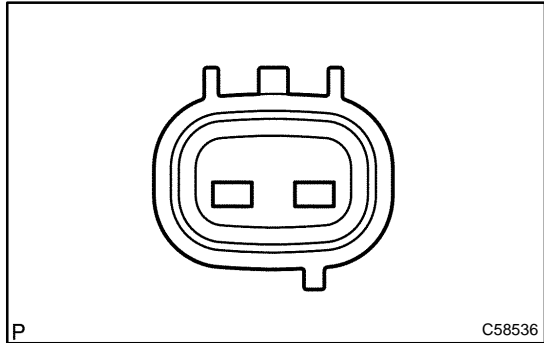
The values given below for "Normal Condition" are representative values, so a vehicle may still be normal even if its value differs from those listed here. Do not depend solely on the "Normal Condition" here when deciding whether or not the part is faulty.

Item	Measurement Item/ Display (Range)	Normal Condition	Diagnostic Note
SPD (NC)	Counter Gear Speed display: 50 r/min	D Position is warmed up,4th (O/D); Same as input shaft speed	←

**OK** → CHECK AND REPLACE ECM(See page 01-34)

**NG**

### 2 INSPECT TRANSMISSION REVOLUTION SENSOR(NC)



- (a) Disconnect the transmission revolution sensor connector from the transaxle.
- (b) Measure the resistance between terminals of transmission revolution sensor.

**OK:**

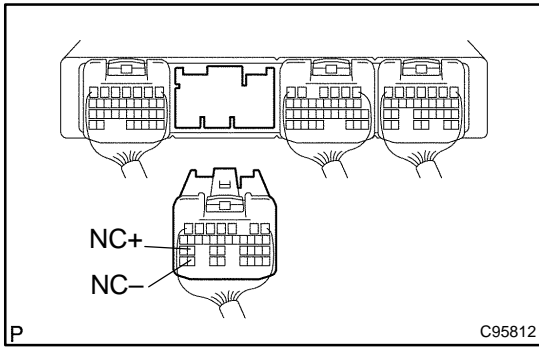
**Resistance:**

**TOYOTA made: 500 – 620 Ω at 20 °C (68 °F)**

**AISIN made: 560 – 680 Ω at 20 °C (68 °F)**

**NG** → REPLACE TRANSMISSION REVOLUTION SENSOR(NC)(See page 40-46)

**OK**

**3 CHECK HARNESS AND CONNECTOR(SPEED SENSOR – ECM)**

- (a) Connect the transmission revolution sensor connector.
- (b) Disconnect the ECM connector.
- (c) Measure the resistance between terminals NC+ and NC-.

**OK:****Resistance:****TOYOTA made: 500 – 620  $\Omega$  at 20 °C (68 °F)****AISIN made: 560 – 680  $\Omega$  at 20 °C (68 °F)****NG****REPAIR OR REPLACE HARNESS OR  
CONNECTOR(See page 01-34)****OK****CHECK AND REPLACE ECM(See page 01-34)**