DTC	P0985	SHIFT SOLENOID ”E” CONTROL CIRCUIT LOW (SHIFT SOLENOID VALVE SR)

DTC	P0986	SHIFT SOLENOID ”E” CONTROL CIRCUIT HIGH (SHIFT SOLENOID VALVE SR)

CIRCUIT DESCRIPTION

Shifting from 1st to 5th is performed in combination with ”ON” and ”OFF” operation of the shift solenoid valves SL1, SL2, S1, S2 and SR which are controlled by the ECM. If an open or short circuit occurs in either of the shift solenoid valves, the ECM controls the remaining normal shift solenoid valves to allow the vehicle to be operated smoothly (see page 05–1045).

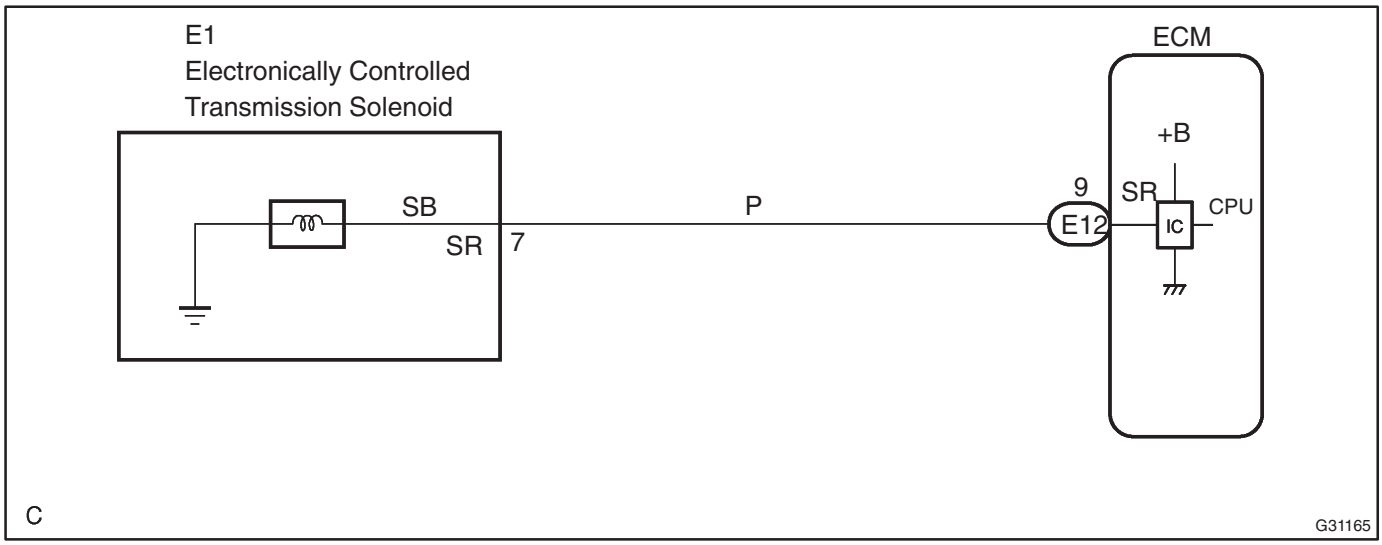
DTC No.	DTC Detection Condition	Trouble Area
P0985	ECM detects short in solenoid valve SR circuit 2 times when solenoid valve SR is operated (1–trip detection logic)	• Short in shift solenoid valve SR circuit • Shift solenoid valve SR • ECM
P0986	ECM detects open in solenoid valve SR circuit 2 times when solenoid valve SR is not operated (1–trip detection logic)	• Open in shift solenoid valve SR circuit • Shift solenoid valve SR • ECM

MONITOR DESCRIPTION

These DTCs indicate an open or short in the shift solenoid valve SR circuit. When there is an open or short circuit in any shift solenoid valve circuit, the ECM detects the problem and illuminates the MIL and stores the DTC. When the shift solenoid valve SR is on, if resistance is 8 Ω or less, the ECM determines there is a short in the shift solenoid valve SR circuit.

When the shift solenoid valve SR is off, if resistance is 100 kΩ or more, the ECM determines there is an open in the shift solenoid valve SR circuit (see page 05–1045).

WIRING DIAGRAM



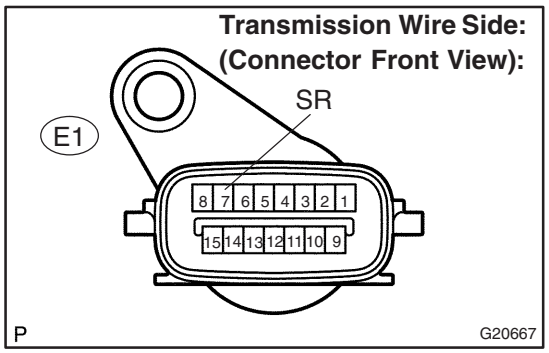
INSPECTION PROCEDURE

HINT:

- The shift solenoid valve SR is turned on/off normally when the shift lever is in the D position:

ECM command gearshift	1st	2nd	3rd	4th	5th
Shift solenoid valve SR	OFF	OFF	OFF	OFF	ON

1 INSPECT TRANSMISSION WIRE(SR)



(a) Disconnect the transmission wire connector from the transmission.

(b) Measure the resistance according to the value(s) in the table below.

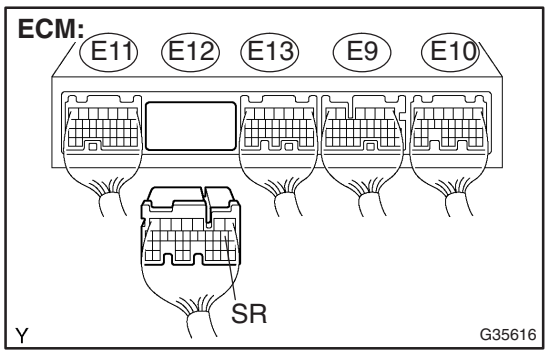
Standard:

Tester Connection	Specified Condition 20°C (68°F)
7 – Body ground	11 to 15 Ω

NG → **Go to step 3**

OK

2 CHECK HARNESS AND CONNECTOR(TRANSMISSION WIRE – ECM)



(a) Connect the transmission connector to the transmission.

(b) Disconnect the connector from the ECM.

(c) Measure the resistance according to the value(s) in the table below.

Standard:

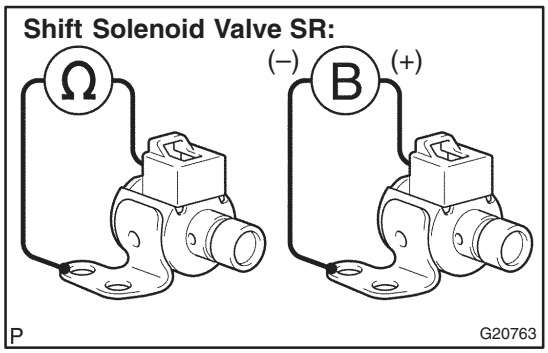
Tester Connection	Specified Condition 20°C (68°F)
E12 – 9 (SR) – Body ground	11 to 15 Ω

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR (SEE PAGE 01–36)**

OK

REPLACE ECM

3 INSPECT SHIFT SOLENOID VALVE(SR)



(a) Remove the shift solenoid valve SR.

(b) Measure the resistance according to the value(s) in the table below.

Standard:

Tester Connection	Specified Condition 20°C (68°F)
Solenoid Connector (SR) – Solenoid Body (SR)	11 to 15 Ω

(c) Connect the positive (+) lead to the terminal of the solenoid connector, and the negative (–) lead to the solenoid body.

OK:

The solenoid makes an operating sound.

NG → **REPLACE SHIFT SOLENOID VALVE(SR)**

OK

REPAIR OR REPLACE TRANSMISSION WIRE (SEE PAGE 40–68)