DTC P0979 Shift Solenoid "C" Control Circuit Low (Shift Solenoid Valve S3)

DTC P0980 Shift Solenoid "C" Control Circuit High (Shift Solenoid Valve S3)

for Preparation Click here

DESCRIPTION

Shifting from 1st to 6th is performed in combination with the ON and OFF operation of shift solenoid valves SL1, SL2, S1, S2, S3, S4 and SR, which are controlled by the ECM. If an open or short circuit occurs in any of the shift solenoid valves, the ECM controls the remaining normal shift solenoid valves to allow the vehicle to be operated safely. Also, the ECM stops sending current to the open or short-circuited solenoid (<u>Click here</u>).

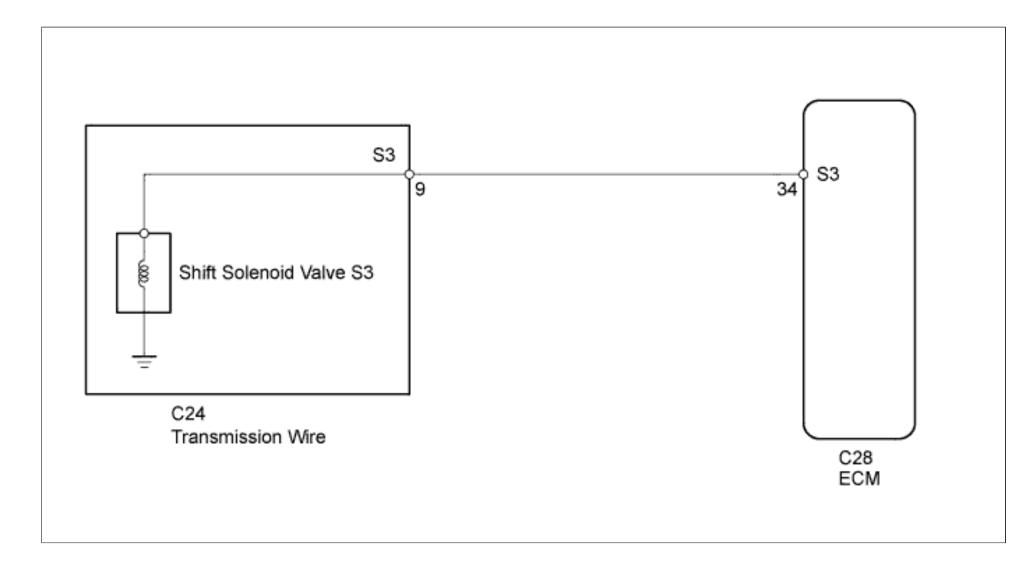
DTC Code	DTC Detection Condition	Trouble Area	
P0979	ECM detects a short in the solenoid valve S3 circuit 2 times when solenoid valve S3 is operated (1-trip detection logic).	Short in shift solenoid valve S3 circuitShift solenoid valve S3ECM	
P0980	ECM detects an open in the solenoid valve S3 circuit 2 times when solenoid valve S3 is not operated (1-trip detection logic).	Open in shift solenoid valve S3 circuitShift solenoid valve S3ECM	

MONITOR DESCRIPTION

These DTCs indicate an open or short in the shift solenoid valve S3 circuit. When there is an open or short circuit in any shift solenoid valve circuit, the ECM detects the problem, illuminates the MIL and stores the DTC. When shift solenoid valve S3 is ON, if its resistance is 8 Ω or less, the ECM determines there is a short in the shift solenoid valve S3 circuit.

When shift solenoid valve S3 is OFF, if its resistance is 100 k Ω or higher, the ECM determines there is an open in the shift solenoid valve S3 circuit (<u>Click here</u>).

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

Shift solenoid valve S3 is turned ON/OFF normally when the shift lever is in D:

ECM gear shift command	1st	2nd	3rd	4th	5th	6th
Shift solenoid valve S3	ON	ON	ON	OFF	OFF	OFF

1.INSPECT TRANSMISSION WIRE (SHIFT SOLENOID VALVE S3)

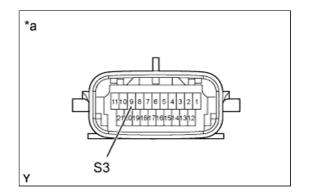
- a. Disconnect the C24 transmission wire connector.
- **b.** Measure the resistance according to the value(s) in the table below.

Standard Resistance:

Tester Connection	Condition	Specified Condition
9 (S3) - Body ground	20°C (68°F)	11 to 15 Ω

Text in Illustration

	Camananant without have an assessed
*a	Component without harness connected
	(Transmission Wire)



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Go to step 3

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2.CHECK HARNESS AND CONNECTOR (TRANSMISSION WIRE - ECM)

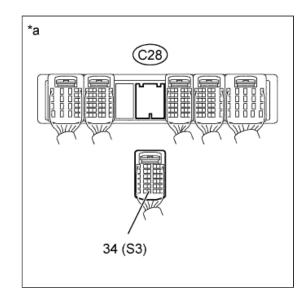
- a. Disconnect the C28 ECM connector.
- **b.** Measure the resistance according to the value(s) in the table below.

Standard Resistance:

Tester Connection		Specified Condition
C28-34 (S3) - Body ground	20°C (68°F)	11 to 15 Ω

Text in Illustration

l	*->	Front view of wire harness connector
l	та	(to ECM)



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REPAIR OR REPLACE HARNESS OR CONNECTOR

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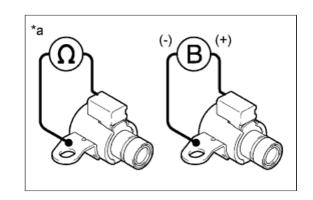
REPLACE ECM (Click here)

3.INSPECT SHIFT SOLENOID VALVE S3

- a. Remove shift solenoid valve S3.
- **b.** Measure the resistance according to the value(s) in the table below.

Standard Resistance:

Tester Connection	Condition	Specified Condition		
Shift solenoid valve S3 connector terminal - Shift solenoid valve S3 body	20°C (68°F)	11 to 15 Ω		



c. Apply 12 V battery voltage to the shift solenoid valve and check that the valve moves and makes an operating noise.

OK:

Measurement Condition	Specified Condition
 Battery positive (+) → Shift solenoid valve S3 connector Battery negative (-) → Shift solenoid valve S3 body 	Valve moves and makes an operating noise

Text in Illustration

*a Component without harness connected (Shift Solenoid Valve S3)

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REPLACE SHIFT SOLENOID VALVE S3 (Click here)

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REPAIR OR REPLACE TRANSMISSION WIRE (Click here)