

DTC	P1790	ST Solenoid Valve Circuit Malfunction
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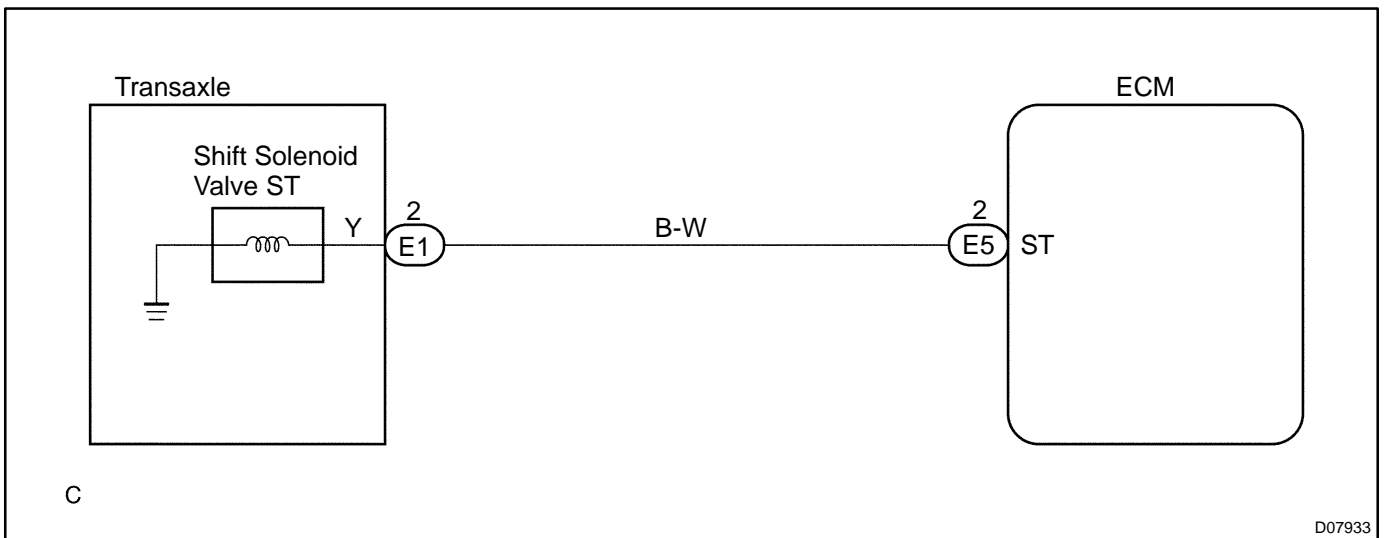
CIRCUIT DESCRIPTION

Shift solenoid valve ST is switched ON-OFF by a signal from ECM so that let in or out timing of 2nd brake is adjusted by operating orifice control valve. Therefore, shift solenoid valve ST operates when letting in or out reverse clutch.

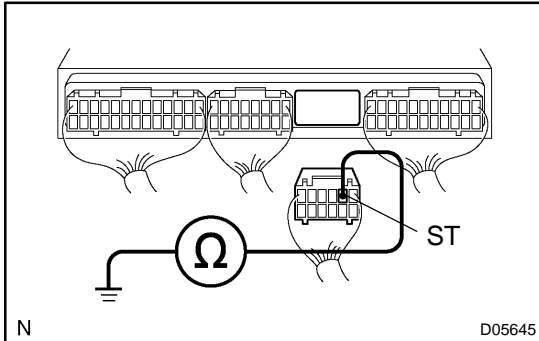
If it is broken, the shift shock becomes big.

DTC No.	DTC Detecting Condition	Trouble Area
P1790	ECU memorizes DTC P1790 if (a) or (b) condition below is detected once or more, but ECU does not start MIL blinking. (a) Solenoid resistance is 30 Ω or lower (short circuit) when solenoid energized. (b) Solenoid resistance is 100 kΩ or higher (open circuit) when solenoid is not energized.	<ul style="list-style-type: none"> • Open or short in shift solenoid valve ST circuit • Shift solenoid valve ST • MIL

WIRING DIAGRAM



INSPECTION PROCEDURE

1 Measure resistance between terminal ST of ECM and body ground.
**PREPARATION:**

Disconnect the connector from ECM.

CHECK:

Measure resistance between terminal ST of ECM and body ground.

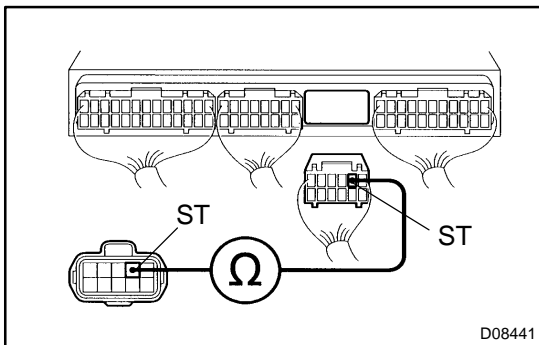
OK:

Resistance: 11 - 15 Ω at 20 °C (68 °F)

OK

Check and replace the ECM (See page [IN-29](#)).

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2 Measure harness and connector between ECM and automatic transaxle solenoid connector.
**PREPARATION:**

Disconnect the solenoid connector from the automatic transaxle.

CHECK:

Measure the harness and connector between terminal ST of ECM and terminal ST of solenoid connector.

OK:

Resistance: 0 Ω

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Repair or replace the harness or connector.

OK

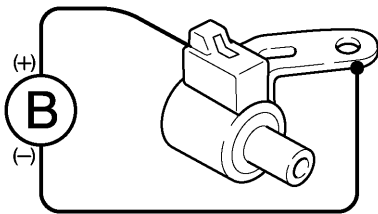
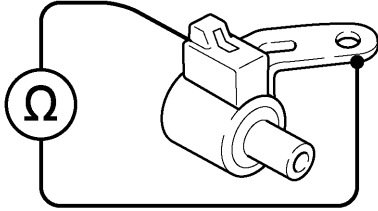
3 Check connection of the connectors.

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Connect the connectors correctly.

OK

4 Check shift solenoid valve ST.



PREPARATION:

- (a) Jack up the vehicle.
- (b) Remove the oil pan.
- (c) Disconnect the solenoid connector.
- (d) Remove the shift solenoid valve ST.

CHECK:

- (a) Measure resistance between solenoid connector and body ground.
- (b) Connect positive \oplus lead to terminal of solenoid connector, negative \ominus lead to solenoid body.

OK:

- (a) Resistance: 11 - 15 Ω at 20 °C (68 °F)
- (b) The solenoid makes an operating noise.

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Replace the solenoid valve.

OK

Repair or replace the solenoid wire.