

DTC	P0711	Transmission Fluid Temperature Sensor "A" Performance
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CIRCUIT DESCRIPTION

The ATF temperature sensor converts fluid temperature into a resistance value which is input into the ECM.

DTC No.	DTC Detecting Condition	Trouble Area
P0711	(A) Both (a) and (b) are detected: (2-trip detection logic) (a) Intake air and engine coolant temps. are more than -10°C (14°F) at engine start (b) After normal driving for over 20 min. and 9 km (6 mile) or more, ATF temp. is less than 20°C (68°F) (B) After 17 min. of engine start, the ATF temp. is 110°C (230°F) or more (2-trip detection logic).	• Open or short in ATF temperature sensor No. 1 circuit • ATF temperature sensor No. 1 • ECM

MONITOR DESCRIPTION

The ATF temperature sensor converts the ATF temperature to an electrical resistance value. Based on the resistance, the ECM determines the ATF temperature and detects an opens or shorts in the ATF temperature circuit or a fault of the ATF temperature sensor.

After running the vehicle for a certain period, the ATF temperature should increase. If the ATF temperature is below 10°C (50°F) after running the vehicle for a certain period, the ECM interprets this as a fault, and turns on the MIL.

When the ATF temperature is 110°C (230°F) or more after 17 minutes of engine cold start, the ECM also determines this as a fault, turns on the MIL, and stores the DTC.

MONITOR STRATEGY

Related DTCs	P0711	ATF temperature sensor/Rationality check
Required sensors/Components	ATF temperature sensor	
Frequency of operation	Continuous	
Duration	3 sec.	
MIL operation	2 driving cycles	
Sequence of operation	None	

TYPICAL ENABLING CONDITIONS

Item	Specification	
	Minimum	Maximum
The monitor will run whenever the following DTCs are not present.	See page DI-361	
ATF Temperature sensor "A" circuit	There is no malfunction in the circuit shown on the left.	
ECT (Engine coolant temperature) sensor circuit		
IAT (Intake air temperature) sensor circuit		
Time after engine start	18 min. and 20 sec. or more	–
ECT	-15°C (5°F) or more	–
Driving distance after engine start	9 km (6 mile) or more	–
IAT (12 sec. after engine start)	-20°C (-4°F) or more	–
ECT (12 sec. after engine start)	-20°C (-4°F) or more	–

TYPICAL MALFUNCTION THRESHOLDS

Detection criteria	Threshold
ATF Temperature	Less than 10°C (50°F) (ATF temperature = –10°C (14°F) at engine start) (Conditions vary with ATF temperature at engine start)

COMPONENT OPERATING RANGE

Parameter	Standard value
ATF temperature sensor	Atmospheric temperature to approx. 130°C (266°F)

WIRING DIAGRAM

See page [DI-410](#).

INSPECTION PROCEDURE

1	Check other DTCs output (in addition to DTC P0711).
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PREPARATION:

- Warm up the engine.
- Turn the ignition switch off.
- Connect the OBD II scan tool or hand-held tester to the DLC3.
- Turn the ignition switch to the ON position.
- Push the "ON" button of the OBD II scan tool or the hand-held tester.
- Select the item "DIAGNOSIS/ENHANCED OBD II/DTC INFO/CURRENT CODES".

CHECK:

Read the DTCs using the OBD II scan tool or the hand-held tester.

RESULT:

Display (DTC output)	Proceed to
Only "P0711" is output	A
"P0711" and other DTCs	B

HINT:

If any other codes besides "P0711" is output, perform the troubleshooting for those DTCs first.

B

Go to relevant DTC chart (See page [DI-389](#)).

A

2	Check transmission fluid level (See page DI-361).
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NG	Add fluid.
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OK

Replace the transmission wire (ATF temperature sensor).