DTC	P0711	Transmission Fluid Temperature Sensor "A" Performance

DESCRIPTION

Refer to DTC P0710 (see page AX-43).

DTC No.	DTC Detection Condition	Trouble Area
P0711	Both (a) and (b) are detected (2 trip detection logic): (a) 12 sec. after engine start, temperature of atmosphere and that of engine coolant temperature are more than -10°C (14°F) (b) After normal driving for over 17 min. and 9 km (5.6 miles), ATF temperature is less than 10°C (50°F)	• Transaxle fluid level • ATF temperature sensor • ECM

MONITOR DESCRIPTION

This DTC indicates that there is a problem with output from the ATF temperature sensor and that the sensor itself is defective. 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 open and short circuits of the ATF temperature circuit or faults in 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 illuminates the MIL.

MONITOR STRATEGY

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

AX

TYPICAL ENABLING CONDITIONS

The monitor will run whenever this DTC is not present.	None
Time after engine start	16 min. and 40 sec. or more
ECT	-15°C (5°F) or more
ATF temperature circuit	Not circuit malfunction
ECT (Engine coolant temperature) sensor circuit	Not circuit malfunction
Throttle sensor circuit	Not circuit malfunction
IAT (Intake air temperature) sensor circuit	Not circuit malfunction
Driving distance after engine start	9 km (5.6 miles) or more
IAT (12 sec. after engine start)	-10°C (14°F) or more
ECT (12 sec. after engine start)	-10°C (14°F) or more

TYPICAL MALFUNCTION THRESHOLDS

ATF temperature	Less than 10°C (50°F)

COMPONENT OPERATING RANGE

ATF temperature	Resistance: 79 Ω to 156 kΩ

WIRING DIAGRAM

Refer to DTC P0710 (see page AX-44).

HINT:
Using the intelligent tester's DATA LIST allows switch, sensor, actuator and other item values to be read without removing any parts. Reading the DATA LIST early in troubleshooting is one way to save time.
NOTICE:
In the table below, the values listed under "Normal Condition" are reference values. Do not depend solely on these reference values when deciding whether a part is faulty or not.
1. Warm up the engine.
2. Turn the ignition switch OFF.
3. Connect the intelligent tester to the CAN VIM. Then connect the CAN VIM to the DLC3.
4. Turn the ignition switch ON.
5. Turn the intelligent tester ON.
6. Enter the following menus: DIAGNOSIS / ENHANCED OBD II / DATA LIST.
7. Follow the instructions on the tester and read the DATA LIST.

Item	Measurement Item/ Range (Display)	Normal Condition	Diagnostic Note
AT FLUID TEMP	ATF temperature sensor value/ Min.: -40°C (-40°F) Max.: 215°C (419°F)	• After stall test: Approximately 80°C (176°F) • Equal to ambient temperature during cold soak	If value is -40°C (-40°F) or 215°C (419°F), ATF temperature sensor circuit is opened or short circuited

HINT:
- When DTC P0712 is output and the intelligent tester output is 150°C (302°F) or more, there is a short circuit.
- When DTC P0713 is output and the intelligent tester output is -40°C (-40°F), there is an open circuit. Measure the resistance between terminal THO1 (OT) and the body ground.

Temperature Displayed	Malfunction
-40°C (-40°F)	Open circuit
150°C (302°F) or more	Short circuit

AX

HINT:
If a circuit related to the ATF temperature sensor becomes open, P0713 is set in approximately 0.5 seconds.
It is not necessary to inspect the circuit when P0711 is set.

1	CHECK OTHER DTCS OUTPUT (IN ADDITION TO DTC P0711)

(a) Connect the intelligent tester to the CAN VIM. Then connect the CAN VIM to the DLC3.
(b) Turn the ignition switch ON and push the intelligent tester main switch ON.
(c) Enter the following menus: DIAGNOSIS / ENHANCED OBD II / DTC INFO / CURRENT CODES.
(d) Read the DTCs using the intelligent tester.

Result

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

HINT:
If any other codes besides P0711 are output, perform troubleshooting for those DTCs first.

B → GO TO DTC CHART

A

2	CHECK TRANSAXLE FLUID LEVEL

OK:
Automatic transaxle fluid level is correct.

NG → ADD FLUID

OK

REPLACE TRANSMISSION WIRE