DTC	P0711	TRANSMISSION FLUID TEMPERATURE SENSOR "A" PERFORMANCE

CIRCUIT DESCRIPTION

See page 05–569.

DTC No.	DTC Detection Condition	Trouble Area
P0711	Both (a) and (b) are detected: (2–trip detection logic) (a) Intake air and engine coolant temps. are more than –20°C (–4°F) at engine start (b) After normal driving for over 18 min. and 9 km (6 mile) or more, ATF temp. is less than 10°C (50°F)	• Open or short in ATF temperature sensor circuit • Transmission wire (ATF temperature sensor) • ECM

MONITOR DESCRIPTION

This DTC indicates that there is a problem with output from the automatic transmission fluid (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 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.

WIRING DIAGRAM

See page 05–569.

INSPECTION PROCEDURE

HINT:
Using the Intelligent Tester II 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 shorten labor time. however, some item values may not be displayed for G.C.C. or Australia bound vehicles.

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.

(a) Warm up the engine.
(b) Turn the ignition switch off.
(c) Connect the Intelligent Tester II to the DLC3.
(d) Turn the ignition switch to the ON position.
(e) Turn on the tester.
(f) Select the item ”Enter / Diagnosis / OBD·MOBD / Power train / Engine and ECT / Data List”.
(g) Follow the instructions on the tester and read the Data List.

Item	Measurement Item/ Range (display)	Normal Condition
A/T Oil Temperature 1	ATF Temp. Sensor Value/ min.: –40°C (–40°F) max.: 215°C (419°F)	• After Stall Test; Approx. 80°C (176°F) • Equal to ambient temperature when cold soak

HINT:
When DTC P0712 is output and Intelligent Tester II output is 150°C (302°F) or more, there is a short circuit.
When DTC P0713 is output and Intelligent Tester II output is –40°C (–40°F), there is an open circuit.
Measure the resistance between terminal OIL (OT) and body ground.

Temperature Displayed	Malfunction
–40˚C (–40˚F)	Open circuit
150˚C (302˚F) or more	Short circuit

HINT:
If a circuit related to the ATF temperature sensor becomes open, P0713 is immediately set (in 0.5 second).
When P0713 is set, P0711 cannot be detected.
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 II to the DLC3.
(b) Turn the ignition switch to the ON position.
(c) Turn on the tester.
(d) Select the item "Power train / Engine and ECT / DTC / Current or Pending".
(e) Read the DTCs using the Intelligent Tester II.

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 RELEVANT DTC CHART (SEE PAGE 05–560)**

A

2	CHECK TRANSMISSION FLUID LEVEL (SEE PAGE 40–2)

OK:
Automatic transmission fluid level is correct.

NG → **ADD FLUID**

OK

REPLACE TRANSMISSION WIRE (SEE PAGE 40–28)