

DTC	P1121	COOLANT FLOW CONTROL VALVE POSITION SENSOR CIRCUIT STUCK
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HINT:

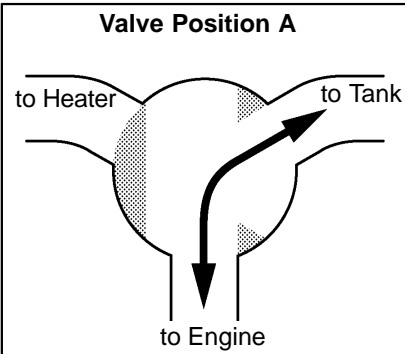
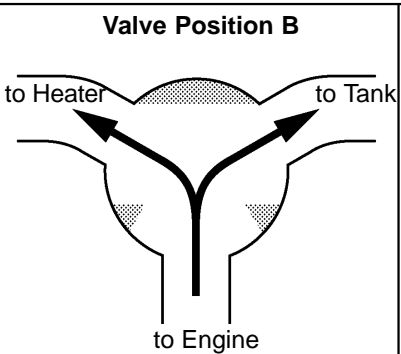
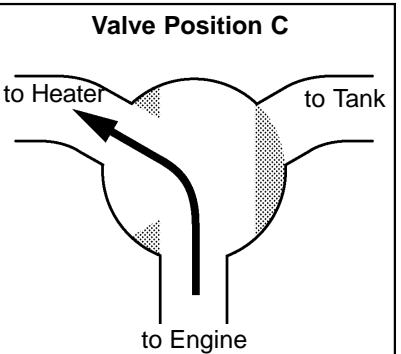
- Although each DTC title says "Coolant Flow Control Valve", these DTCs are related to the water valve.
- CHS stands for Coolant Heat Storage.

CIRCUIT DESCRIPTION

Refer to DTC P1120 on page [05-280](#) .

DTC No.	Detection Condition	Trouble Area
P1121	<ul style="list-style-type: none"> • Water valve position sensor output voltage: No change despite the ECM sending a valve control signal or slow response • CHS tank outlet temperature sensor output: 60°C (140°F) or more (when hot coolant recovering starts) • CHS tank outlet temperature sensor output: No change despite the hot coolant is recovered 	<ul style="list-style-type: none"> • Water valve • Cooling system (clogging) • ECM

MONITOR DESCRIPTION

Valve Position A	Valve Position B	Valve Position C
		
Preheat mode Storage operation (after Power Switch OFF)	Storage operation (During Driving)	No storage operation (Engine Running)

The ECM monitors the position of the water valve based on the valve position signal that is output by the water valve position sensor (potentiometer), which is coupled coaxially to the valve. The water valve effects control in three steps as indicated above, and the ECM determines the position of the valve according to the voltage of the respective step.

In order to ensure the proper monitoring of the water valve, the ECM checks for malfunctions with the combination of the output of the potentiometer and CHS tank outlet temperature sensor.

If no changes occur in the valve position signal that is being input into the ECM or if the response signal from the water valve is very slow, despite of the ECM commanding the water valve motor to operate the ECM determines that malfunction has occurred in the water valve position sensor circuit, and sets a DTC.

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