

DESCRIPTION AND OPERATION

Transaxle Cooling

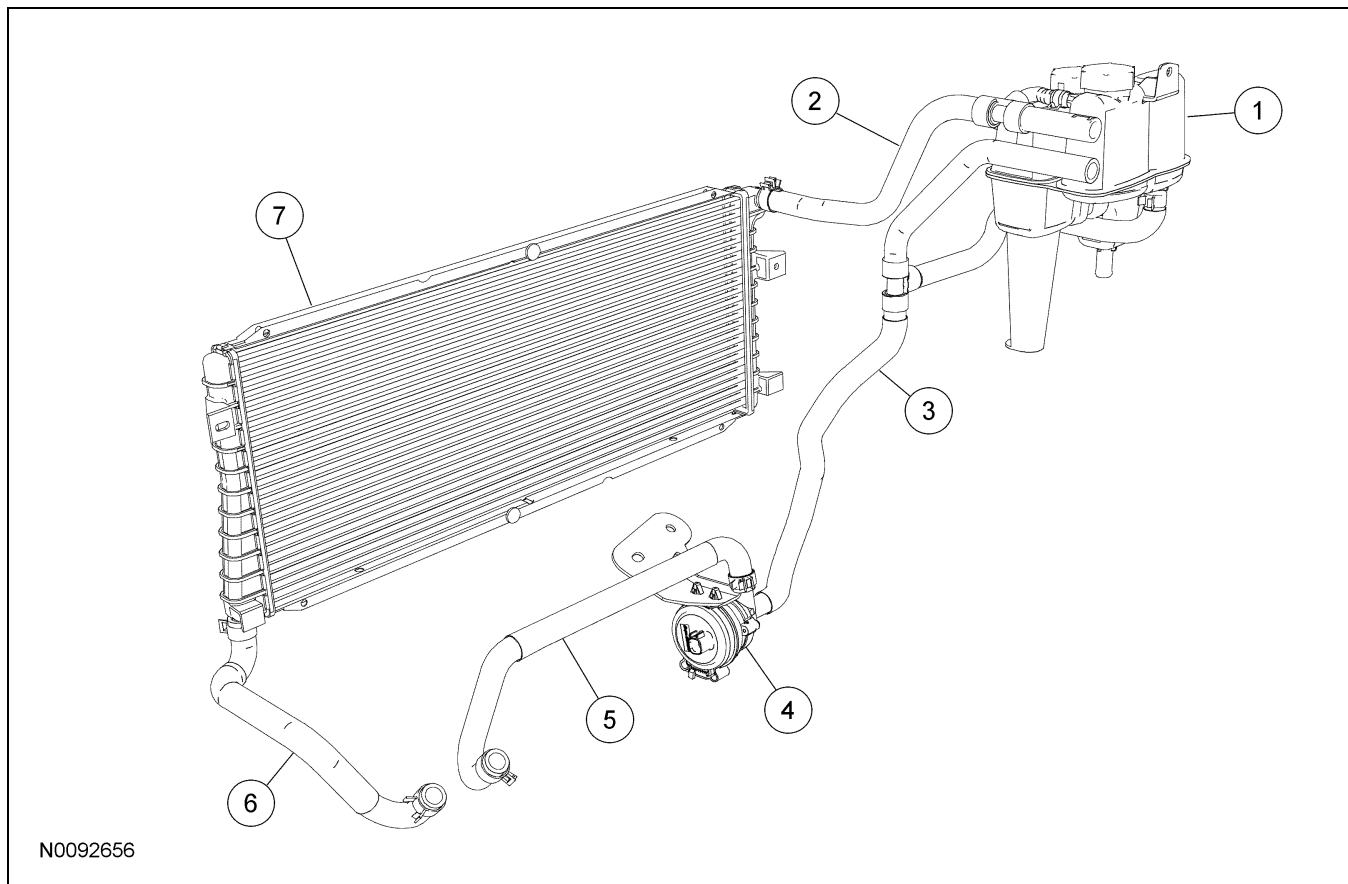
Motor Electronics Cooling System (MECS)

The vehicle uses a pump driven cooling system, referred to as the Motor Electronics Cooling System (MECS) pump, to transfer heat generated by the Electronically Controlled Continuously Variable Transmission (eCVT) and the Hybrid Electric Vehicle (HEV) DC/DC converter to the atmosphere. The system uses a coolant-to-air radiator design.

The MECS pump is an electric pump that runs any time the ignition is in the ON position. Unlike traditional cooling systems, there is no thermostat in the MECS, so coolant flow should be continuous and considerably less than traditional powertrain cooling systems.

The flow direction is from the degas bottle and DC/DC converter to the MECS pump through the eCVT, then through the MECS radiator from the LH to RH side of the vehicle back to the degas bottle.

The MECS cooling pump will make an audible noise if it is running and a slight vibration may be felt by touch. Flow can be verified by visually inspecting for coolant flow into the degas bottle. Flow can be viewed easily in the degas bottle by holding a light source behind the degas bottle. Only a portion of the coolant flow is diverted to the degas bottle via the “T” in the coolant outlet hose. Additional flow can be routed to the degas bottle by closing off the flow past the “T” and into the DC/DC converter.

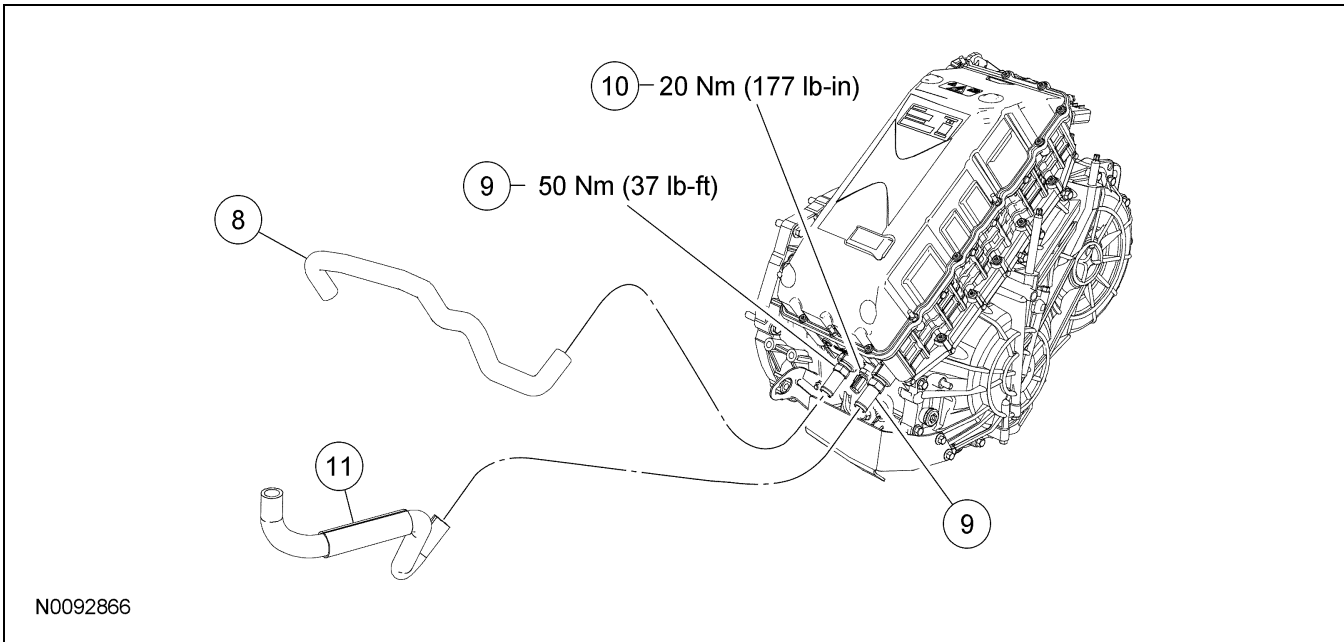


Item	Part Number	Description
1	8A080	Degas bottle
2	8B274	Motor Electronics Cooling System (MECS) outlet hose
3	8A567	Degas bottle-to-pump hose

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Item	Part Number	Description
4	8C419	MECS coolant pump
5	15179	MECS coolant pump-to-transaxle hose
6	8B273	Transaxle-to-radiator hose
7	8005	MECS radiator

DESCRIPTION AND OPERATION (Continued)



Item	Part Number	Description
8	15179	MECS coolant pump-to-transaxle hose
9	7D723	Coolant tubes (inlet/outlet)

Item	Part Number	Description
10	12A648	Engine Coolant Temperature (ECT) sensor
11	8B273	Transaxle-to-radiator hose

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