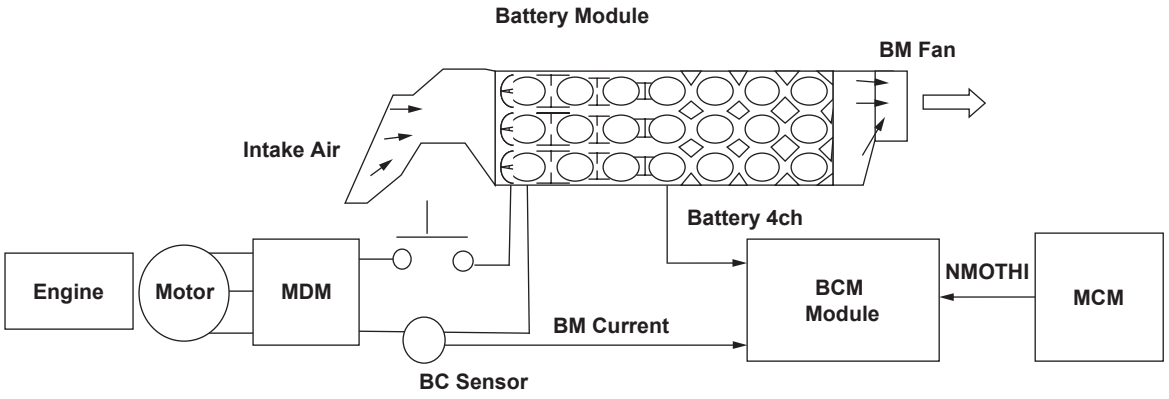
DTC P1448 (63): Battery Module Overheating



P1448-0071

General Description

To control the BM (battery module) temperature, the IMA (integrated motor assist) system is equipped with a BM fan. The motor assist stops regenerating and the IMA system is shut down by an increase in the BM temperature if the BM fan is malfunctioning. Therefore, a malfunction in the BM fan is detected to avoid problems caused by overheating. If the BM cooling system works normally when the BM temperature is high and the BM is in the power save mode, the BM temperature decreases depending on the input/output current.
If the amount of decrease in the BM temperature is out of a set value when comparing both the input/output current and the BM temperature with their predetermined values, a malfunction is detected and a DTC is stored.

Monitor Execution, Sequence, Duration, DTC Type

Execution	Continuous
Sequence	None
Duration	30 minutes or more
DTC Type	One drive cycle, MIL ON, IMA system indicator ON

Enable Conditions

Condition	Minimum	Maximum
BCM module power-supply voltage	7.5 V	—
BM fan mode	Low	—
IMA battery module temperature	131ºF (55ºC)	—
Engine speed	1,500 rpm	—
No active DTCs	BM, IMA	

Malfunction Threshold

Battery Current Average (A)	Decreasing Temperature of Battery Module ºF (ºC)
0	2.3 (1.3) or less
2	2.2 (1.2) or less
4	1.6 (0.9) or less
6	1.1 (0.6) or less
8	0.5 (0.3) or less

Diagnosis Details

Conditions for illuminating the MIL
When a malfunction is detected, the MIL comes on and the DTC and the freeze frame data are stored in the ECM memory.

Conditions for clearing the MIL
The MIL will be cleared if the malfunction does not recur during three consecutive trips in which the diagnostic runs.
The MIL, the DTC, and the freeze frame data can be cleared by using the scan tool Clear command or by disconnecting the battery.