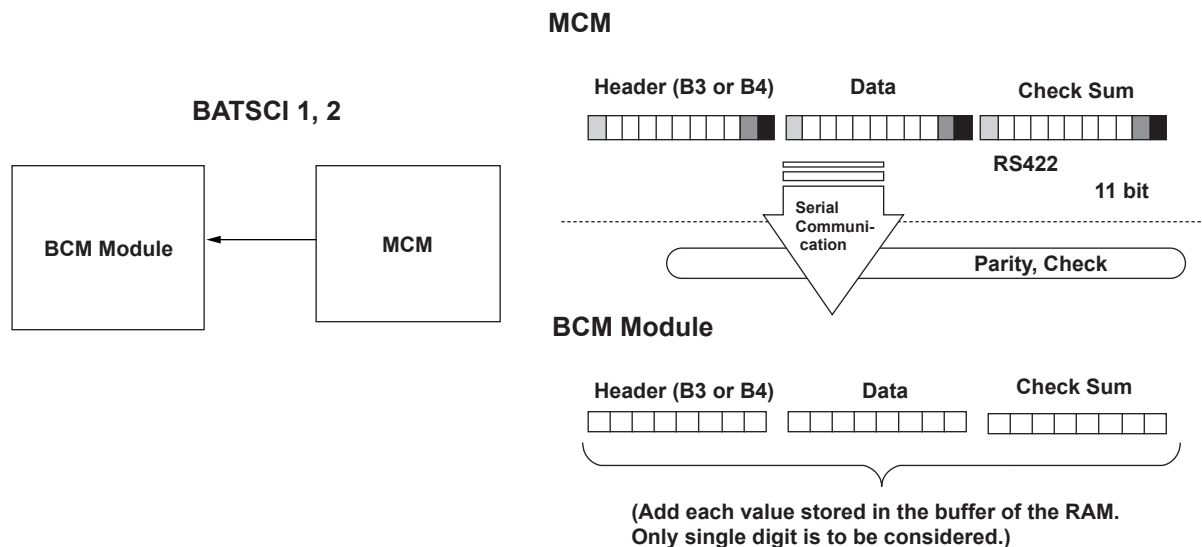


Advanced Diagnostics

DTC P1648 (75): Motor Control Module (MCM) Communication Signal Circuit Problem



P1648-0072

General Description

Data is transmitted and received between the MCM (motor control module) and the BCM (battery condition monitor) module. Various commands are included in the stream of data, and some are unable to control without limitation by the final value, which is normal, when there is an open in the line or a faulty circuit for the interface. The BCM module measures a time interval during which the command update has not been executed based on the periodic process by the internal timer. If the time interval is beyond a set time period, the BCM uses the safe value for the control instead, then provides timing for the MCM to signal the abnormality of the data received from the MCM. The data update is resumed when the normal data is received, and the fail safe maintains the latest value. If no data update is executed over a set time period, a malfunction is detected and a DTC is stored.

Monitor Execution, Sequence, Duration, DTC Type

Execution	Continuous
Sequence	None
Duration	4 seconds or more
DTC Type	One drive cycle, MIL ON, IMA system indicator ON

Enable Conditions

Condition	Minimum	Maximum
BCM power-supply voltage	7.5 V	—
Ignition switch	ON	
No active DTCs	MCM, BCM	

Malfunction Threshold

No signals are received for at least 4 seconds.

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.