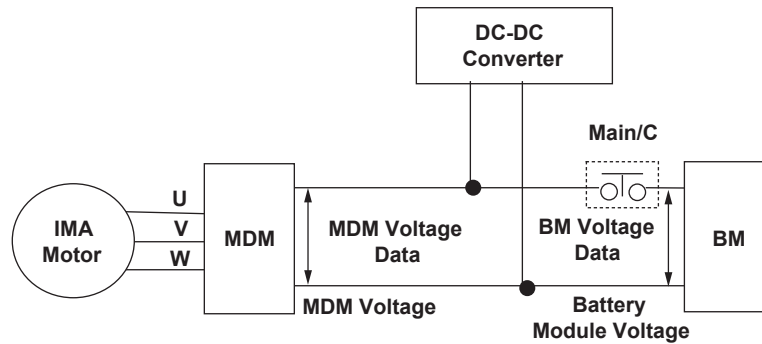


# Advanced Diagnostics

## DTC P1576 (12): Motor Drive Module (MDM) Voltage Problem



P1576-0072

### General Description

To avoid an increase or a decrease in motor output caused by the voltage sensor malfunctioning, it is necessary to compare voltage transmitted from the BCM (battery condition monitor) module with the MDM (motor driver module) voltage. If the difference between them is more than a set value for a specified time period or longer, a malfunction is detected and a DTC is stored.

### Monitor Execution, Sequence, Duration, DTC Type

Execution	Continuous
Sequence	None
Duration	2 seconds or more
DTC Type	One drive cycle, MIL ON, IMA system indicator ON

### Enable Conditions

Condition	Minimum	Maximum
MCM power-supply voltage	10.5 V	—
PDU voltage sensor (VPIN)	100 V	—
High battery voltage sensor (VHB)	100 V	—
Ignition switch	ON	
No active DTCs	Mode signal circuit, MPI, IMA system, Detection signal circuit, Engine speed signal circuit, BCM, MDM	
Other	Other than PDU voltage sensor (VPIN) input voltage that is out of the upper and lower malfunction threshold (failure range)	

## **Malfunction Threshold**

The VPIN (PDU voltage) minus the VES (high battery sensor voltage) equals 10 V or more for at least 2 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.