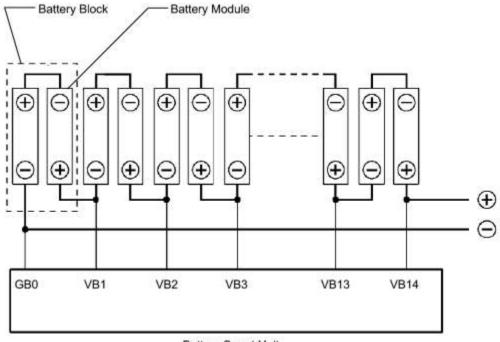
DESCRIPTION

• The HV battery uses nickel metal-hydride batteries and does not require external charging. The power management control ECU controls the SOC (state of charge) of the HV battery at a constant level during driving. The HV battery is composed of 28 modules, and each module consists of eight 1.2 V cells in series. The battery smart unit monitors battery block voltage at 14 locations. Each battery block is composed of 2 modules in a set.



Battery Smart Unit

DTC No.	DTC Detection Condition	Trouble Area
	Difference in voltage between battery blocks is larger than the standard (2 trip detection)	HV battery assemblyBattery smart unit

HINT:

• P0A80-123 will not be set unless the vehicle is driven for approximately 10 minutes after clearing the DTC.

MONITOR DESCRIPTION

The battery smart unit, which monitors the voltage of the battery blocks, determines that malfunction has occurred if a voltage difference between the battery blocks exceeds the standard. When the malfunction detection condition is satisfied, the power management control ECU (HV CPU) will illuminates the MIL and set a DTC.

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MONITOR STRATEGY

Related DTCs	P0A80 (INF 123): Rationality
Required sensors / components	Main: Battery voltage sensor inside battery smart unit
	Sub: Battery current sensor, battery temperature sensor
Frequency of operation	Continuous
Duration	TMC's intellectual property
MIL operation	TMC's intellectual property
Sequence of operation	None

TYPICAL ENABLING CONDITIONS

The monitor will run whenever the following DTCs are not present	TMC's intellectual property
Other conditions belong to TMC's intellectual property	-

TYPICAL MALFUNCTION THRESHOLDS

TMC's intellectual property

COMPONENT OPERATING RANGE

Battery smart unit DTC P0A80 (INF 123) is not detected
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CONFIRMATION DRIVING PATTERN

- 1. Connect the Techstream to the DLC3.
- 2. Turn the power switch on (IG) and turn the Techstream on.
- 3. Clear the DTCs (even if no DTCs are stored, perform the clear DTC procedure).
- 4. Turn the power switch off.
- 5. Turn the power switch on (READY) and turn the Techstream on.
- 6. Perform a universal trip.
- 7. With the select lever in N, leave the vehicle until SOC drops to 30%.

HINT:

Although DTC P3000 (INF 388) may be stored if the SOC drops to 20% or lower, this is not a malfunction.

- 8. Enter the following menus: Powertrain / Hybrid Control / Trouble Codes.
- 9. Check that permanent DTCs are cleared.

HINT:

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