

DTC	P0A1F	BATTERY ENERGY CONTROL MODULE
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CIRCUIT DESCRIPTION

For the purpose of calculating the SOC (state of charge) of the HV battery and ensuring safety in the event of malfunction in the HV battery assembly, the battery ECU provides the following control functions:

- **SOC calculation**
The battery ECU calculates the SOC by estimating the charging and discharging amperage and monitoring other values.
- **Cooling fan control**
The battery ECU controls the battery blower assembly in order to protect the HV battery assembly from the heat that is generated during charging and discharging. By maintaining a stable temperature, it promotes the effective operation of the HV battery assembly.
- **HV battery assembly malfunction monitoring**
If the battery ECU detects malfunction, it protects the HV battery assembly by limiting or stopping the charging or discharging of the HV battery in accordance with the temperature or voltage of the HV battery assembly.

DTC No.	DTC Detection Condition	Trouble Area
P0A1F	Battery ECU internal error (1 trip detection logic)	• Battery ECU

MONITOR DESCRIPTION

If the battery ECU detects an internal malfunction in the ECU itself, it illuminates the MIL and sets a DTC.

MONITOR STRATEGY

Related DTCs	P0A1F: Battery ECU/Rationality
Required sensor/components	Battery ECU
Frequency of operation	Continuous
Duration	TOYOTA's intellectual property
MIL operation	Immediately
Sequence of operation	None

TYPICAL ENABLING CONDITIONS

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

TYPICAL MALFUNCTION THRESHOLDS

Battery ECU	Abnormal
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COMPONENT OPERATING RANGE

Battery ECU	DTC P0A1F is not detected
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INSPECTION PROCEDURE

REPLACE BATTERY ECU ASSY (See page 21-98)
