

<b>DTC</b>	<b>P0AAC</b>	<b>HYBRID BATTERY PACK AIR TEMPERATURE SENSOR "A" CIRCUIT</b>
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## CIRCUIT DESCRIPTION

The intake air temperature sensor is provided on the HV battery assembly. Its resistance value varies with the changes in the intake air temperature. The characteristics of the intake air temperature sensor are the same as the battery temperature sensors (see page 05-920 for details).

The battery ECU uses the signals from the intake air temperature sensor for adjusting the air flow speed of the battery blower assembly.

DTC No.	DTC Detection Condition	Trouble Area
P0AAC	Temperature detected by intake air temperature sensor is lower than standard (open) or higher than standard (short) (1 trip detection logic)	<ul style="list-style-type: none"> <li>• HV battery assembly (intake air temperature sensor)</li> <li>• Battery ECU</li> </ul>

### HINT:

After confirming DTC P0AAC, confirm BATT INSIDE AIR in DIAGNOSIS / ENHANCED OBD II / HV BATTERY / DATA LIST using the hand-held tester or the OBD II scan tool.

Temperature Displayed	Malfunction
-45°C (-49°F) or less	Open or +B short circuit
95°C (203°F) or more	GND short circuit

## MONITOR DESCRIPTION

If the temperature indicated by the intake air temperature sensor is lower than the standard level (open), or is higher than the standard level (short), the battery ECU determines that a malfunction has occurred. If the battery ECU detects an abnormal intake air temperature, it will illuminate the MIL and set a DTC.

## MONITOR STRATEGY

Related DTCs	P0AAC: Intake cooling air temperature sensor/Range check
Required sensor/components	Intake air temperature sensor
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	–

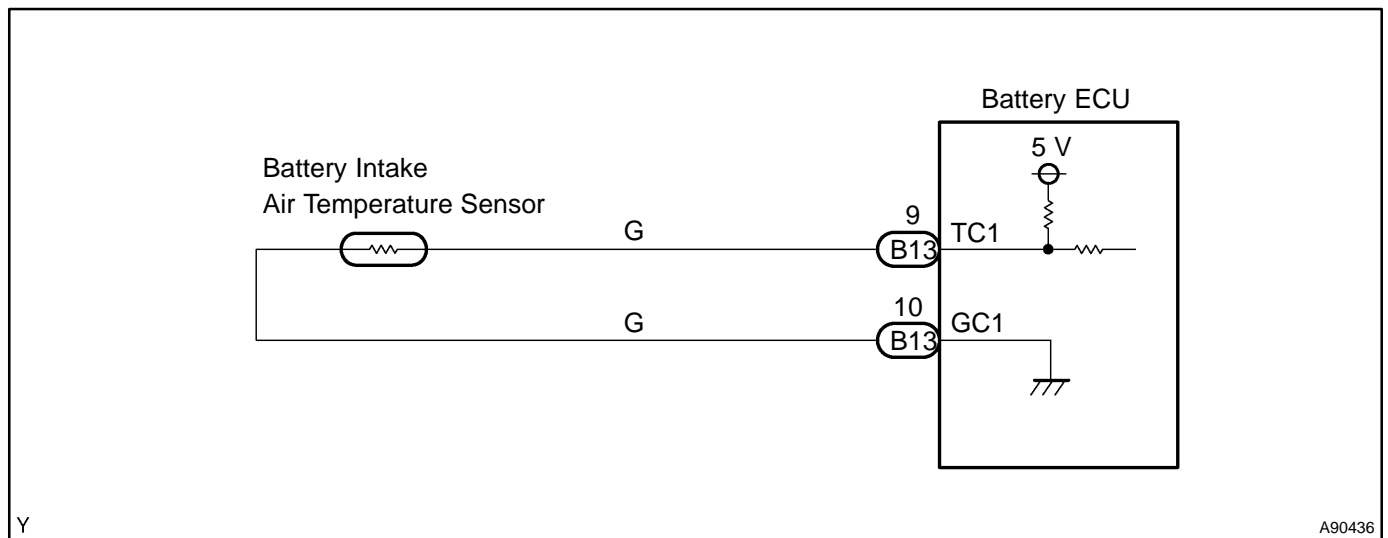
## TYPICAL MALFUNCTION THRESHOLDS

Resistance of intake air temperature sensor	1.108 kΩ or less or 247.7 kΩ or more
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## COMPONENT OPERATING RANGE

Intake air temperature sensor	9 to 11 kΩ (at 25°C (77°F))
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## WIRING DIAGRAM



## INSPECTION PROCEDURE

### CAUTION:

- Before inspecting the high-voltage system, take safety precautions to prevent electrical shocks, such as wearing insulated gloves and removing the service plug grip. After removing the service plug grip, put it in your pocket to prevent other technicians from reconnecting it while you are servicing the high-voltage system.
- After disconnecting the service plug grip, wait at least for 5 minutes before touching any of the high-voltage connectors or terminals.

### HINT:

At least 5 minutes is required to discharge the high-voltage condenser inside the inverter.

### 1 READ OUTPUT DTC(DTC P0A1F IS OUTPUT)

- Connect the hand-held tester or the OBD II scan tool to the DLC3.
- Turn the power switch ON (IG).
- Turn the hand-held tester or the OBD II scan tool ON.
- On the hand-held tester, enter the following menus: DIAGNOSIS / ENHANCED OBD II / HV BATTERY / DTC INFO / TROUBLE CODES.

For the OBD II scan tool, see its instruction manual.

- Read DTCs.

**Result: DTC P0A1F is output**

YES

**REPLACE BATTERY ECU ASSY**  
(See page 21-98)

NO

## 2 CHECK CONNECTION OF INTAKE AIR TEMPERATURE SENSOR CONNECTOR

### CAUTION:

Wear insulated gloves before performing the following operation.

- (a) Turn the power switch OFF.
- (b) Remove the service plug grip (see page 21-116).

### NOTICE:

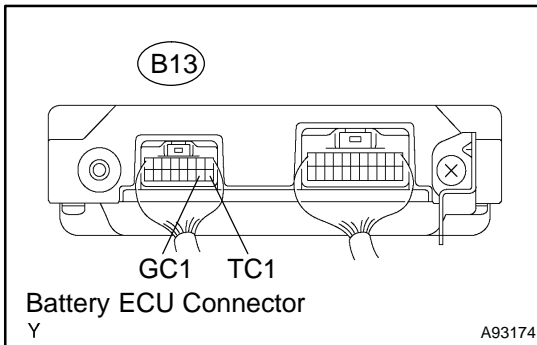
Turning the power switch ON (READY) with the service plug grip removed could cause malfunction. Therefore, never turn the power switch ON (READY) in this state.

- (c) Check the connection condition of the B13 battery ECU connector.

**OK: Connector has been connected securely and there is no poor connection.**

### HINT:

Since the intake air temperature sensor is not available as a unit and if replacement is required, replace the entire HV battery assembly.



NG

CONNECT SECURELY

OK

REPLACE HV SUPPLY BATTERY ASSY (See page 21-54)