Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM1000000029A4E
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [12/2022 -]
Title: HYBRID / BATTERY CONTROL: HYBRID BATTERY SYSTEM (for M20A-FXS): P1AFD1C; Flying Capacitor/Internal Control Module Hybrid/EV Battery Monitor Voltage Out of Range; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

DTC	**P1AFD1C**	**Flying Capacitor/Internal Control Module Hybrid/EV Battery Monitor Voltage Out of Range**

DESCRIPTION

The battery ECU assembly monitors the HV battery voltage. If the battery ECU assembly detects a malfunction of its internal voltage detection circuits, it will store this DTC.

HINT:

If this DTC is output, it will be necessary to replace the battery ECU assembly.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
P1AFD1C	Flying Capacitor/Internal Control Module Hybrid/EV Battery Monitor Voltage Out of Range	Both of the following conditions are met: The battery ECU assembly detects a malfunction of its internal voltage detection circuits. The difference between the total voltage of all battery cells and the stack voltage is large. (1 trip detection logic)	Battery ECU assembly	Comes on	Master Warning: Comes on	HV Battery	A	SAE Code: P1AFD

MONITOR DESCRIPTION

If the battery ECU assembly detects a malfunction in its internal voltage detection circuits, it will illuminate the MIL and store a DTC.

MONITOR STRATEGY

Related DTCs	P1AFD (INF P1AFD1C): Battery Voltage Sensor Circuit Range/Performance
Required sensors/components	Battery ECU assembly

Frequency of operation	Continuous
Duration	TMC's intellectual property
MIL operation	Immediately
Sequence of operation	None

TYPICAL ENABLING CONDITIONS

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

TYPICAL MALFUNCTION THRESHOLDS

TMC's intellectual property	-

COMPONENT OPERATING RANGE

Battery ECU assembly	DTC P1AFD (INF P1AFD1C) is not detected

CONFIRMATION DRIVING PATTERN

HINT:

- After repair has been completed, clear the DTC and then check that the vehicle has returned to normal by performing the following All Readiness check procedure.

  Click here INFO
- When clearing the permanent DTCs, refer to the "CLEAR PERMANENT DTC" procedure.

  Click here INFO

1. Clear the DTCs (even if no DTCs are stored, perform the clear DTC procedure).
2. Turn the ignition switch off and wait for 2 minutes or more.
3. With ignition switch ON and wait for 10 seconds or more.[*1]

HINT:

[*1]: Normal judgment procedure.

The normal judgment procedure is used to complete DTC judgment and also used when clearing permanent DTCs.

4. Enter the following menus: Powertrain / HV Battery / Utility / All Readiness.
5. Check the DTC judgment result.

HINT:

- If the judgment result shows NORMAL, the system is normal.
- If the judgment result shows ABNORMAL, the system has a malfunction.
- If the judgment result shows INCOMPLETE, perform the normal judgment procedure again.

PROCEDURE

1.	**REPLACE BATTERY ECU ASSEMBLY**

HINT:

Click here INFO

NEXT END