Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM100000002BHWS
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [03/2023 -]
Title: HYBRID / BATTERY CONTROL: HYBRID BATTERY SYSTEM (for PHEV Model): P19CF62; Hybrid/EV Battery Pack Coolant Temperature Sensor System Signal Compare Failure; 2023 - 2024 MY Prius Prime [03/2023 -]		

DTC	**P19CF62**	**Hybrid/EV Battery Pack Coolant Temperature Sensor System Signal Compare Failure**

DESCRIPTION

The battery ECU assembly monitors the HV battery coolant temperature using the battery pack coolant temperature sensors (thermistors).

The battery ECU assembly detects malfunctions in the battery pack coolant temperature sensors (thermistors) and outputs DTCs.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
P19CF62	Hybrid/EV Battery Pack Coolant Temperature Sensor System Signal Compare Failure	Difference between the values of 4 battery pack coolant temperature sensors is the specified value or more (1 trip detection logic)	• No. 1 traction battery cooler tube (duct inlet 1) • No. 1 traction battery cooler conductor (duct outlet 1) • Wire harness or connector • Battery ECU assembly	Comes on	Master Warning: Comes on	HV Battery	A	SAE Code: P19CF

MONITOR DESCRIPTION

The battery ECU assembly detects malfunctions in the battery pack coolant temperature sensors (thermistors) and outputs DTCs.

MONITOR STRATEGY

Related DTCs	P19CF (INF P19CF62): Hybrid/EV Battery Pack Coolant Temperature Sensor Signal Compare Failure
Required sensors/components	Air Conditioning Thermistor

Frequency of operation	Continuous
Duration	TMC's intellectual property
MIL operation	1 driving cycle
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 P19CF (INF P19CF62) 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 30 minutes or more.[*1]
3. Turn the ignition switch to ON (READY) and wait for 1 minute or more.[*2]

HINT:

[*1] to [*2]: 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 or N/A, perform the normal judgment procedure again.

WIRING DIAGRAM

Refer to the wiring diagram for DTC P0C4211.

Click here INFO

CAUTION / NOTICE / HINT

CAUTION:

Refer to the precautions before inspecting high voltage circuit.

Click here INFO

NOTICE:

- After the ignition switch is turned off, there may be a waiting time before disconnecting the auxiliary negative (-) battery terminal.

  Click here INFO
- When disconnecting and reconnecting the auxiliary battery.

HINT:

When disconnecting and reconnecting the auxiliary battery, there is an automatic learning function that completes learning when the respective system is used.

Click here INFO

PROCEDURE

1.	**CHECK DTC OUTPUT (HV BATTERY)**

(a) Check for DTCs.

Powertrain > HV Battery > Trouble Codes

RESULT	PROCEED TO
"P19CF62" only is output.	A
DTCs except "P19CF62" of hybrid battery system are output.	B

B ▶ **GO TO DTC CHART (HYBRID BATTERY SYSTEM)**

A

▼

2.	**CHECK CONNECTOR CONNECTION CONDITION (BATTERY ECU ASSEMBLY)**

HINT:

Click here INFO

NG ▶ **CONNECT SECURELY**

OK

▼

3.	**CHECK NO. 1 TRACTION BATTERY COOLER TUBE (DUCT INLET 1)**

HINT:

Click here INFO

NG ▶ **GO TO STEP 6**

OK ▼

4.	**CHECK NO. 1 TRACTION BATTERY COOLER CONDUCTOR (DUCT OUTLET 1)**

HINT:

Click here INFO

OK ▶ **REPLACE BATTERY ECU ASSEMBLY**

NG ▼

5.	**CHECK HARNESS AND CONNECTOR (NO. 1 TRACTION BATTERY COOLER CONDUCTOR (DUCT OUTLET 1) - BATTERY ECU ASSEMBLY)**

HINT:

Click here INFO

OK ▶ **REPLACE NO. 1 TRACTION BATTERY COOLER CONDUCTOR**

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

6.	**CHECK HARNESS AND CONNECTOR (NO. 1 TRACTION BATTERY COOLER TUBE (DUCT INLET 1) - BATTERY ECU ASSEMBLY)**

HINT:

Click here INFO

OK ▶ **REPLACE NO. 1 TRACTION BATTERY COOLER TUBE**

NG ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**