Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM100000002BI1A
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [03/2023 -]
Title: HYBRID / BATTERY CONTROL: HYBRID CONTROL SYSTEM (for PHEV Model): P1CFA12; IGB Signal Circuit Short to Auxiliary Battery; 2023 - 2024 MY Prius Prime [03/2023 -]		

DTC	**P1CFA12**	**IGB Signal Circuit Short to Auxiliary Battery**

DESCRIPTION

The hybrid vehicle control ECU monitors the IGB signal received from the certification ECU (smart key ECU assembly). When an error is detected in the IGB signal, this DTC is stored.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
P1CFA12	IGB Signal Circuit Short to Auxiliary Battery	An IGB signal from the hybrid vehicle control ECU is on when the ignition switch is off. (1 trip detection logic)	• Wire harness or connector • Hybrid vehicle control ECU • Certification ECU (smart key ECU assembly)	Does not come on	Master Warning: Comes on	Hybrid Control	A	SAE Code: P1CFC

CONFIRMATION DRIVING PATTERN

HINT:

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

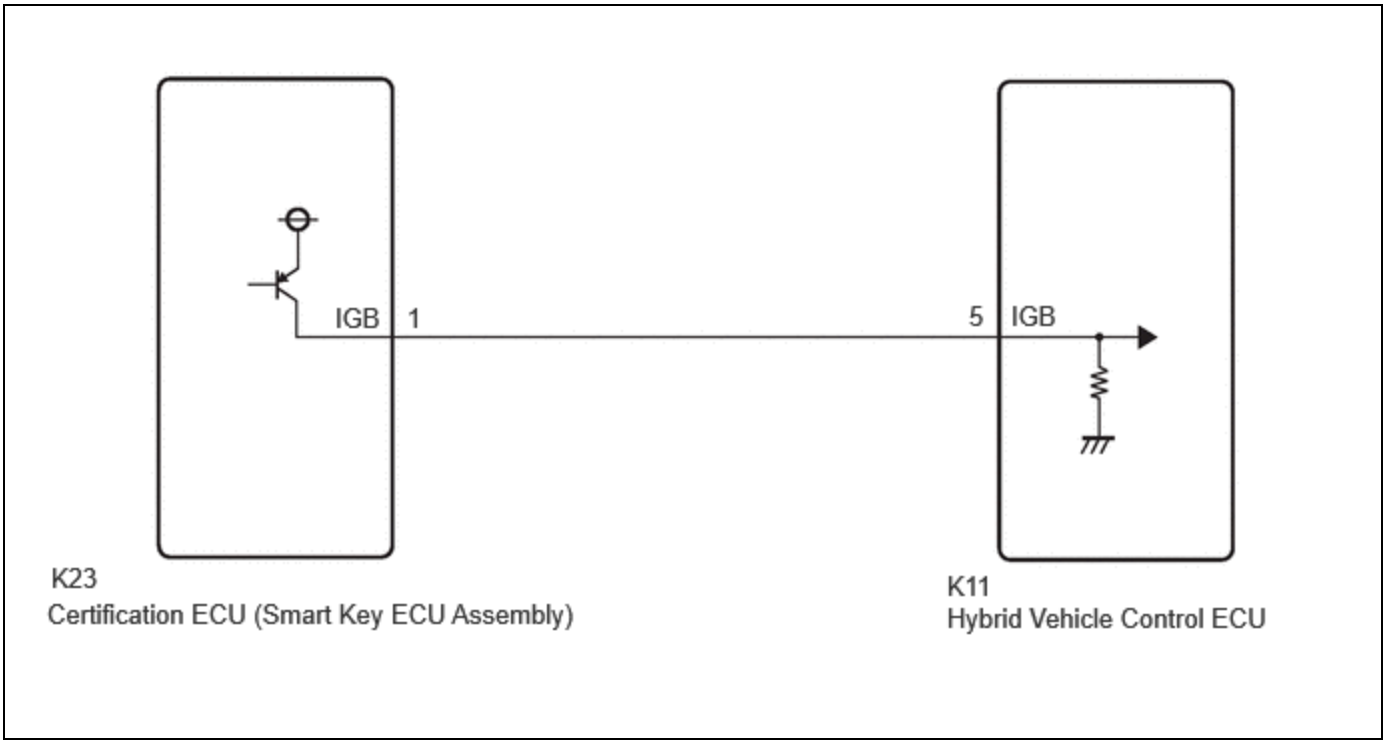
Click here INFO

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. Enter the following menus: Powertrain / Hybrid Control / Utility / All Readiness.
4. 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 driving pattern again.

WIRING DIAGRAM



CAUTION / NOTICE / HINT

NOTICE:

Before replacing the certification ECU (smart key ECU assembly), refer to Registration.

Click here INFO

PROCEDURE

1.	**CHECK CONNECTOR CONNECTION CONDITION (HYBRID VEHICLE CONTROL ECU CONNECTOR)**

Click here INFO

NG ▶ **CONNECT SECURELY**

OK ▼

2.	**CHECK CONNECTOR CONNECTION CONDITION (CERTIFICATION ECU (SMART KEY ECU ASSEMBLY))**

(a) Check the connector connection condition of the certification ECU (smart key ECU assembly).

HINT:

Click here INFO

OK:

The connector is connected securely and there are no contact problems.

NG ▶ **CONNECT SECURELY**

OK ▼

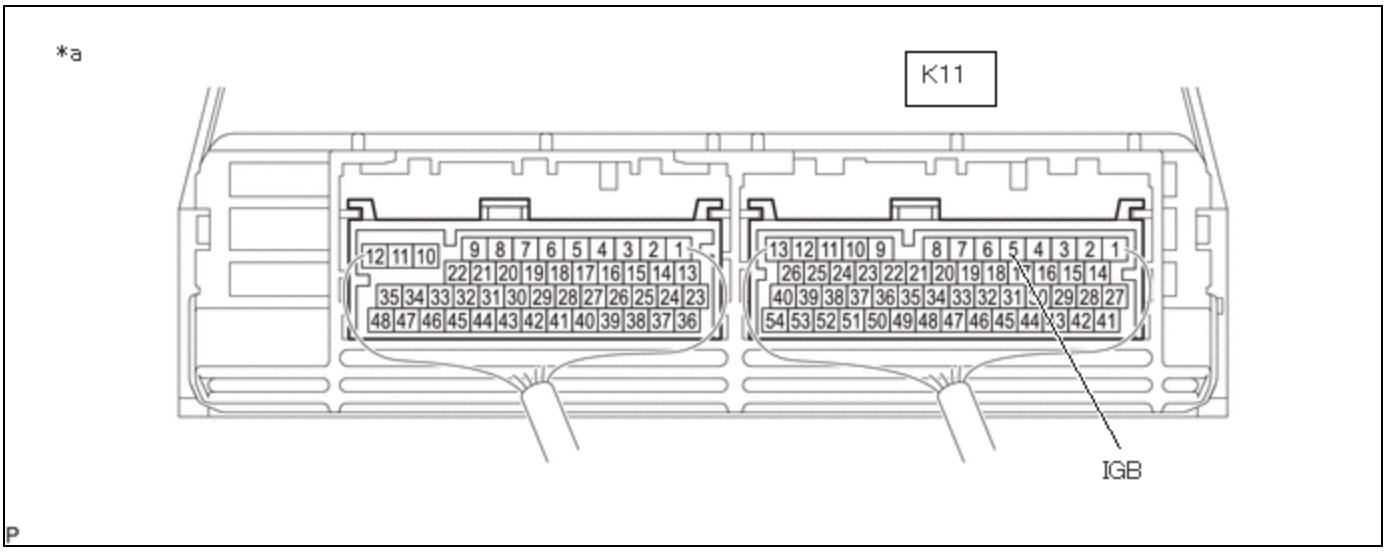
3.	**CHECK HARNESS AND CONNECTOR (IGB TERMINAL VOLTAGE)**

Pre-procedure1

(a) Turn the ignition switch off.

Procedure1

(b) Measure the voltage according to the value(s) in the table below.



*a	Component with harness connected (Hybrid Vehicle Control ECU)	-	-

Standard Voltage:

EWD INFO

Click Location & Routing(K11)
Click Connector(K11)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K11-5 (IGB) - Body ground	Ignition switch off	Below 1 V	V

Post-procedure1

(c) None.

OK ▶ **REPLACE HYBRID VEHICLE CONTROL ECU**

NG ▼

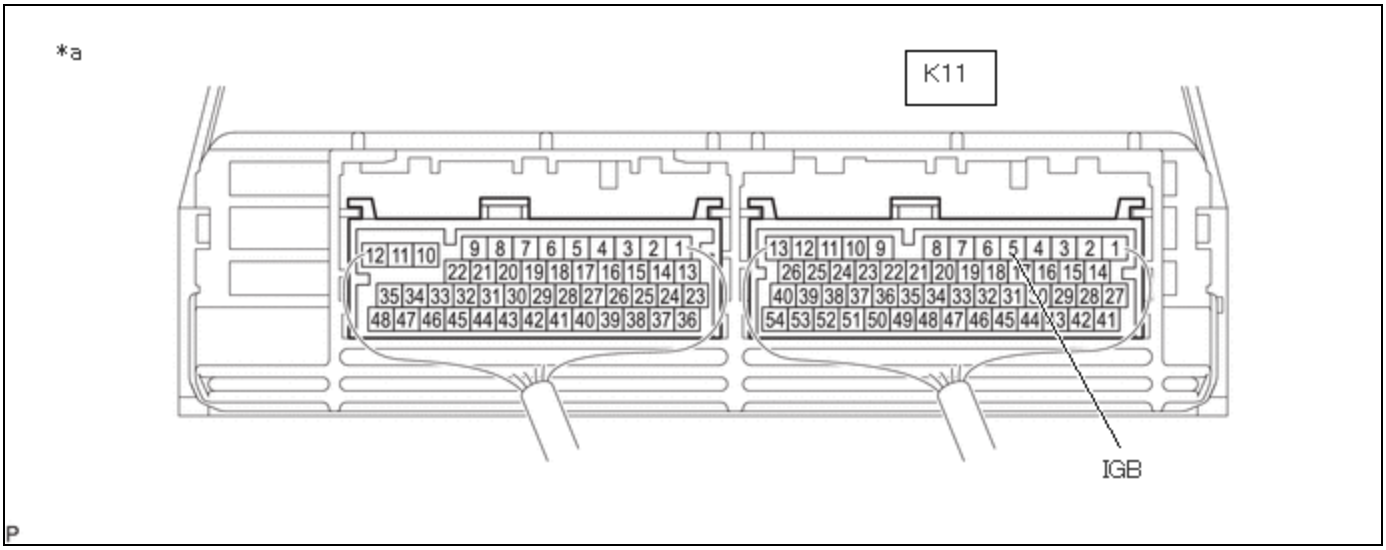
4.	**CHECK HARNESS AND CONNECTOR (HYBRID VEHICLE CONTROL ECU - CERTIFICATION ECU (SMART KEY ECU ASSEMBLY))**

Pre-procedure1

(a) Disconnect the certification ECU (smart key ECU assembly) connector.

Procedure1

(b) Measure the voltage according to the value(s) in the table below.



*a	Component with harness connected (Hybrid Vehicle Control ECU)	-	-

Standard Voltage:

EWD INFO

Click Location & Routing(K11)
Click Connector(K11)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K11-5 (IGB) - Body ground	Ignition switch off	Below 1 V	V

Post-procedure1

(c) Reconnect the certification ECU (smart key ECU assembly) connector.

OK ▶ **REPLACE CERTIFICATION ECU (SMART KEY ECU ASSEMBLY)**

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