

| | | |
|--|---------------------------|--------------------------------------|
| Last Modified: 12-04-2024 | 6.11:8.1.0 | Doc ID: RM100000029A4K |
| Model Year Start: 2023 | Model: Prius Prime | Prod Date Range: [12/2022 -] |
| Title: HYBRID / BATTERY CONTROL: HYBRID BATTERY SYSTEM (for M20A-FXS): P33E600,P33E700; Hybrid/EV Battery Stack 1 Capacity Decline; 2023 - 2024 MY Prius Prius Prime [12/2022 -] | | |

| | | |
|------------|----------------|---|
| DTC | P33E600 | Hybrid/EV Battery Stack 1 Capacity Decline |
|------------|----------------|---|

| | | |
|------------|----------------|---|
| DTC | P33E700 | Hybrid/EV Battery Stack 2 Capacity Decline |
|------------|----------------|---|

DESCRIPTION

The HV battery is composed of 60 cells (3.7 V each) in series. The battery ECU assembly monitors the capacity of each HV battery cell to detect malfunctions of the HV battery.

| DTC NO. | DETECTION ITEM | DTC DETECTION CONDITION | TROUBLE AREA | MIL | WARNING INDICATE | DTC OUTPUT FROM | PRIORITY | NOTE |
|---------|--|--|--------------|------------------|---------------------------------------|-----------------|----------|-----------------|
| P33E600 | Hybrid/EV Battery Stack 1 Capacity Decline | Full charge capacity of the No. 1 HV supply stack sub-assembly is less than the specified value. (1 trip detection logic) | HV battery | Does not come on | Master Warning Light: Comes on | HV Battery | A | SAE Code: P33E6 |
| P33E700 | Hybrid/EV Battery Stack 2 Capacity Decline | Full charge capacity of the No. 2 HV supply stack sub-assembly is less than the specified value. (1 trip detection logic) | HV battery | Does not come on | Master Warning Light: Comes on | HV Battery | A | SAE Code: P33E7 |

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](#)

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. Drive the vehicle on urban roads for approximately 10 minutes.

(This DTC may not be stored if the vehicle is stopped or being driven at a constant speed.)

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.

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 negative (-) auxiliary 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, HYBRID CONTROL) |
|-----------|--|

Pre-procedure1

(a) None

Procedure1

(b) Check for DTCs.

Powertrain > HV Battery > Trouble Codes

Powertrain > Hybrid Control > Trouble Codes

| RESULT | PROCEED TO |
|--|------------|
| "P33E600 or P33E700" only is output, or DTCs except the ones in the table below are also output. | A |
| DTCs of hybrid battery system in the table below are output. | B |
| DTCs of hybrid control system in the table below are output. | C |

| SYSTEM | RELEVANT DTC | |
|-----------------------|--------------|--|
| Hybrid battery system | P060A47 | Hybrid/EV Battery Energy Control Module Monitoring Processor Watchdog / Safety MCU Failure |
| | P060B49 | Hybrid/EV Battery Energy Control Module A/D Processing Internal Electronic Failure |

| SYSTEM | RELEVANT DTC | |
|-----------------------|--------------|---|
| | P060687 | Hybrid/EV Battery Energy Control Module Processor to Monitoring Processor Missing Message |
| Hybrid control system | P0A1F94 | Hybrid/EV Battery Energy Control Module Unexpected Operation |

Post-procedure1

(c) Turn the ignition switch off.

A ► **REPLACE HV BATTERY**

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

C ► **GO TO DTC CHART (HYBRID CONTROL SYSTEM)**

