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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: THEFT DETERRENT / KEYLESS ENTRY: SMART KEY SYSTEM (for Start Function): B278E87; Immobiliser Amp Missing Message; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

DTC	B278E87	Immobiliser Amp Missing Message
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DESCRIPTION

A transponder key amplifier is built into the certification ECU (smart key ECU assembly).

When a communication malfunction occurs with the transponder key amplifier inside the certification ECU (smart key ECU assembly), this DTC is stored.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY	NOTE
B278E87	Immobiliser Amp Missing Message	A communication malfunction with the transponder key amplifier inside the certification ECU (smart key ECU assembly) is detected. (1-trip detection logic*).	Certification ECU (smart key ECU assembly)	Smart Key	A	DTC Output Confirmation Operation: Any time

*: Only detected while a malfunction is present and the ignition switch is ON.

Vehicle Condition and Fail-safe Function when Malfunction Detected

VEHICLE CONDITION WHEN MALFUNCTION DETECTED	FAIL-SAFE FUNCTION WHEN MALFUNCTION DETECTED
Hybrid control system cannot be started when transmitter battery is depleted by holding electrical key transmitter sub-assembly near power switch and pressing and holding power switch with shift position in P	-

Related Data List and Active Test Items

DTC NO.	DATA LIST AND ACTIVE TEST
B278E87	-

CAUTION / NOTICE / HINT

NOTICE:

- When using the GTS with the ignition switch off, perform lock and unlock operations using the door control switch of the multiplex network master switch assembly at intervals of 1.5 seconds or less until communication between the GTS and the vehicle begins, and then select the vehicle model manually.

Then select Model Code "KEY REGIST" under manual mode and enter the following menus: Body Electrical / Smart Key(CAN). While using the GTS, periodically perform lock and unlock operations using

the door control switch of the multiplex network master switch assembly at intervals of 1.5 seconds or less to maintain communication between the GTS and the vehicle.

- The smart key system (for Start Function) uses the LIN communication system and CAN communication system. Inspect the communication function by following How to Proceed with Troubleshooting. Troubleshoot the smart key system (for Start Function) after confirming that the communication systems are functioning properly.

[Click here](#) INFO

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

[Click here](#) INFO

- After performing repairs, confirm that no DTCs are output again.

PROCEDURE

1.	CLEAR DTC
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(a) Clear the DTCs.

Body Electrical > Smart Key > Clear DTCs

NEXT



2.	CHECK FOR DTC
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(a) Press the power switch with the electric key transmitter sub-assembly not in the cabin.

(b) Check for DTCs.

Body Electrical > Smart Key > Trouble Codes

RESULT	PROCEED TO
B278E87 is output	A
B278E87 is not output	B

A **REPLACE CERTIFICATION ECU (SMART KEY ECU ASSEMBLY)** INFO

B **USE SIMULATION METHOD TO CHECK**

