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Title: THEFT DETERRENT / KEYLESS ENTRY: DIGITAL KEY SYSTEM: HOW TO PROCEED WITH TROUBLESHOOTING; 2023 - 2024 MY Prius Prius Prime [03/2023 -   ]

HOW TO PROCEED WITH TROUBLESHOOTING

CAUTION / NOTICE / HINT

NOTICE:

Make sure that the digital key system has not been disabled by a customize setting.

HINT:

- Replace parts related to digital key system according to the inspection procedure.
- If the digital key system does not operate, check the customize settings and make sure that the smart key system and digital key system are not disabled.
- If 2 or more digital keys are registered to the system, make sure to perform troubleshooting with all of them.

PROCEDURE

1.	**VEHICLE BROUGHT TO WORKSHOP**

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2.	**PRE-CHECK**

(a) Confirm that inspection of cause of malfunction not related to vehicle settings or vehicle components has been completed.

NOTICE:

With regards to the main cause of malfunctions not related to vehicle settings or vehicle components, refer to Precautions for Inspection or Registration before performing an inspection.

Click here **INFO**

NEXT
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3.	**CUSTOMER PROBLEM ANALYSIS**

HINT:

- In troubleshooting, confirm that the problem symptoms have been accurately identified. Preconceptions should be discarded in order to make an accurate judgment. To clearly understand what the problem symptoms are, it is extremely important to ask the customer about the problem and the conditions at the time the malfunction occurred.
- Gather as much information as possible for reference. Past malfunctions that seem unrelated may also help in some cases.
- The following 5 items are important points for problem analysis:

What	Vehicle model, system name
When	Date and time, frequency, whether the problem occurred recently or has been occurring for a long time
Where	Whether the problem occurs at specified location
Under what conditions?	Whether the doors were locked or unlocked, whether the ignition switch was ON, whether the hybrid control system was starting
How did it happen?	Ask the customer for details about the vehicle operating conditions, environment and malfunction.

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4.	READ AND SAVE VEHICLE CONTROL HISTORY (ROB)

NOTICE:

- If the vehicle or vehicle controls are operated (for example, during initial inspection when the vehicle is brought in for repair) before vehicle control history (RoB) has been read and saved, the vehicle control vehicle control history (RoB) information could be lost.
- The vehicle control vehicle control history (RoB) function uses the current system time of the GTS and the time counter inside the controlling ECU to calculate the times shown in the vehicle control vehicle control history (RoB). For this reason, before reading the vehicle control vehicle control history (RoB), first make sure that the GTS system clock is accurately set to the current time.

(a) Read and save vehicle control history (RoB) using the GTS.

Body Electrical > Main Body > Utility

TESTER DISPLAY
Vehicle Control History (RoB)

NEXT
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5.	BASIC CHECK

(a) Measure the auxiliary battery voltage with the ignition switch off.

Standard Voltage:

11 to 14 V

If the voltage is below 11 V, recharge or replace the auxiliary battery before proceeding to the next step.

(b) Check the fuses and relays.

(c) Check the connector connections and terminals to make sure that there are no abnormalities such as loose connections, deformation, etc.

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6.	CHECK COMMUNICATION FUNCTION OF CAN COMMUNICATION SYSTEM*

(a) Using the GTS, check for CAN communication system DTCs.

for PHV: Click here INFO

for PHEV: Click here INFO

RESULT	PROCEED TO
CAN DTCs are not output	A
CAN DTCs are output	B

B ▶ **GO TO CAN COMMUNICATION SYSTEM**

for HEV: Click here INFO

for PHEV: Click here INFO

A
▼

7.	CHECK COMMUNICATION FUNCTION OF LIN COMMUNICATION SYSTEM*

(a) Using the GTS, check for LIN communication system DTCs.

Click here INFO

RESULT	PROCEED TO
LIN DTCs are not output	A
LIN DTCs are output	B

B ▶ **GO TO LIN COMMUNICATION SYSTEM**

A
▼

8.	CHECK CUSTOMIZE ITEMS

(a) Check that the digital key system and smart key system is set to on.

for Digital Key System: Click here `INFO`

for Smart Key System (for Entry Function): Click here `INFO`

for Smart Key System (for Start Function): Click here `INFO`

HINT:
- If the digital key system is set to off, all functions of the digital key system will not function.
- If the smart key system is set to off, some functions of the digital key system will not function.

RESULT	PROCEED TO
Digital key system and smart key system are enabled	A
Digital key system is disabled	B
Smart key system is disabled	C

B ▶ **GO TO CUSTOMIZE PARAMETERS**

C ▶ **GO TO CUSTOMIZE PARAMETERS**

A
▼

9.	CHECK FOR DTC*

(a) Check for DTCs.

Body Electrical > Smart Key > Trouble Codes

RESULT	PROCEED TO
No DTCs are output	A

RESULT	PROCEED TO
Smart key system or digital key system DTCs are output	B
DTCs other than smart key system and digital key system DTCs are output	C

B ▶ **GO TO DIAGNOSTIC TROUBLE CODE CHART**

for Smart Key System (for Entry Function): Click here `INFO`

for Smart Key System (for Start Function): Click here `INFO`

C ▶ **GO TO DIAGNOSTIC TROUBLE CODE CHART**

A

▼

10.	PROBLEM SYMPTOMS TABLE

(a) Refer to Problem Symptoms Table.

Click here `INFO`

RESULT	PROCEED TO
Fault is not listed in Problem Symptoms Table (Fault can be simulated)	A
Fault is not listed in Problem Symptoms Table (Fault cannot be simulated)	B
Fault is listed in Problem Symptoms Table	C

B ▶ **CHECK FOR INTERMITTENT PROBLEMS**

C ▶ **GO TO STEP 12**

A

▼

11.	OVERALL ANALYSIS AND TROUBLESHOOTING

(a) Terminals of ECU

Click here INFO

(b) Data List / Active Test

Click here INFO

(c) Operation Check

Click here INFO

NEXT
▼

12.	**REPAIR OR REPLACE**

NEXT
▼

13.	**CONFIRMATION TEST**

NEXT ▶ **END**