

<b>Last Modified:</b> 12-04-2024	6.11:8.1.0	<b>Doc ID:</b> RM100000029097
<b>Model Year Start:</b> 2023	<b>Model:</b> Prius Prime	<b>Prod Date Range:</b> [12/2022 - ]
<b>Title:</b> THEFT DETERRENT / KEYLESS ENTRY: SMART KEY SYSTEM (for Entry Function): Touching Unlock Sensor for Certain Period of Time does not Unlock All Doors; 2023 - 2024 MY Prius Prius Prime [12/2022 - ]		

## Touching Unlock Sensor for Certain Period of Time does not Unlock All Doors

## DESCRIPTION

If the entry unlock function of the driver door cannot be operated by touching and holding the unlock sensor of the driver door, but can be operated through other methods, it can be determined that the request code is being transmitted properly from the driver door. In this case, the certification ECU (smart key ECU assembly) may be malfunctioning.

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

Click here [INFO](#)

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

Click here [INFO](#)

- Check that there are no electrical key transmitter sub-assemblies in the vehicle.
- After repair, confirm that no DTCs are output.

### HINT:

- If the driver door entry lock and unlock functions do not operate, the cause of the malfunction may be stored in the certification ECU (smart key ECU assembly).
- If the cause of the malfunction is stored in the certification ECU (smart key ECU assembly), the following table is helpful in checking whether the malfunction was caused by wave interference.

### Body Electrical > Smart Key > Utility

TESTER DISPLAY
Vehicle Control History (RoB)

## PROCEDURE

### 1. CHECK POWER DOOR LOCK SYSTEM

(a) When the door control switch on the multiplex network master switch assembly is operated, check that the doors unlock and lock according to the switch operation.

Click here [INFO](#)

OK:

Door locks operate normally.

**NG**  **GO TO POWER DOOR LOCK SYSTEM**

Click here [INFO](#)

**OK**



<b>2.</b>	<b>CHECK CUSTOMIZE SETTING (DOOR UNLOCK SENSOR TOUCH TIME ADJUST)</b>
-----------	---

(a) Read the customize setting according to the display on the GTS.

**Smart Key / Access**

TESTER DISPLAY	DESCRIPTION	DEFAULT	SETTING	ECU
Door Unlock Sensor Touch Time Adjust	Function that sets the length of time the unlock sensor on the door outside handle assembly (for driver door) must be touched to unlock all of the doors.	OFF	\$00:OFF,\$01:Short,\$02:Middle,\$03:Long	Certification ECU (Smart key ECU assembly)

RESULT	PROCEED TO
The customize setting is set to Short, Middle or Long	A
The customize setting is set to OFF	B

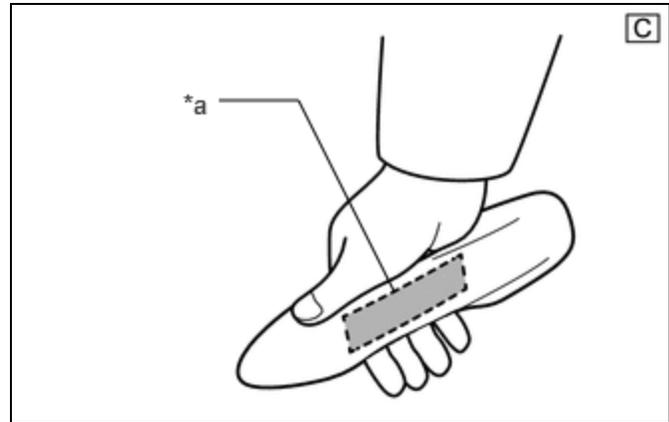
**B**  **PERFORM CUSTOMIZE SETTING**

**A**



<b>3.</b>	<b>READ VALUE USING GTS (DRIVER SIDE UNLOCK SENSOR)</b>
-----------	---

(a) Turn the ignition switch off.



(b) Open and close the driver door.

*a	Unlock Sensor (Backside)
----	--------------------------

(c) With the electrical key transmitter sub-assembly outside of the vehicle, press the lock switch of the electrical key transmitter sub-assembly to lock all of the doors.

(d) Hold the electrical key transmitter sub-assembly at the same height as the door outside handle assembly and approximately 0.3 m (0.984 ft.) from the driver door.

(e) Check that the LED of the electrical key transmitter sub-assembly blinks.

(f) Read the Data List according to the display on the GTS.

(g) Touch the unlock sensor on the backside of the front door outside handle assembly (for driver door) for 2 seconds or more.\*

\*: Perform this step 3 seconds or more after performing step (c).

**HINT:**

When checking the operation of the unlock sensor again, make sure to perform the procedure from step (a).

**Body Electrical > Smart Key > Data List**

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Driver Side Unlock Sensor	Driver door touch sensor (unlock sensor)	OFF or ON	OFF: Driver door touch sensor (unlock sensor) not touched  ON: Driver door touch sensor (unlock sensor) touched	<ul style="list-style-type: none"> <li>Displays whether the unlock sensor is on or off (even if the sensor is touched and contact is maintained, "ON" is displayed only momentarily).</li> <li>Use this Data List item to help determine if there is an unlock sensor malfunction when the entry unlock function does not operate.</li> </ul>

OK:

The GTS display changes correctly in response to the operation of the front door outside handle assembly (for driver door).

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

Click here [INFO](#)

**NG ▶ REPLACE FRONT DOOR OUTSIDE HANDLE ASSEMBLY (FOR DRIVER DOOR)**

Click here [INFO](#)

