Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM1000000029X3M
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [12/2022 -]
Title: SEAT: FRONT POWER SEAT CONTROL SYSTEM (w/ Memory): Wireless-linked Return Function does not Operate; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

Wireless-linked Return Function does not Operate

DESCRIPTION

When a door is unlocked using the wireless unlock function, the certification ECU (smart key ECU assembly) sends a key ID signal to the main body ECU (multiplex network body ECU). When a door is unlocked using the entry unlock function, the certification ECU (smart key ECU assembly) sends a door unlock signal and key ID signal to the main body ECU (multiplex network body ECU). When the main body ECU (multiplex network body ECU) receives the door unlock signal, it stores the key ID. When the driver door is opened, the memory call information of the stored key ID is sent to each driving position related control ECU. Each control ECU receives the information and then performs the memory call operation according to predetermined control timing values.

CAUTION / NOTICE / HINT

NOTICE:

- The front power seat control system uses the CAN communication system. First, confirm that there is no malfunction in the CAN communication system. Refer to the How to Proceed with Troubleshooting procedure.

  Click here INFO
- The seat position will not be stored if the SET switch and 2 or more of the seat memory switches (for example, M1 switch and M2 switch) are pressed simultaneously.

  If a memorizing operation has failed, release all of the switches. The seat memory function will not operate unless the switches are released.
- Make sure to initialize the position control ECU assembly LH after replacing the position control ECU assembly LH, seat assembly or any related parts (including removal and installation).

  Click here INFO
- Initializing the position control ECU assembly LH will clear the seat position memory.
- Before replacing the main body ECU (multiplex network body ECU) or certification ECU (smart key ECU assembly), refer to Registration.

  Click here INFO

PROCEDURE

1.	**CHECK FRONT POWER SEAT OPERATION**

(a) Check the operation of the power seat.

Click here INFO

(b) Check the seat position memory function.

Click here INFO

(c) Check the seat position restoration function.

Click here INFO

(d) Check the operation of memory registration of the memory call function.

Click here INFO

RESULT	PROCEED TO
OK	A
NG (Power seat operation)	B
NG (Seat position memory function)	C
NG (Seat position restoration function)	D
NG (Memory registration)	E

B ▶ **GO TO PROBLEM SYMPTOMS TABLE**

C ▶ **GO TO OTHER DIAGNOSIS PROCEDURE (Power Seat Position is not Memorized)**

D ▶ **GO TO OTHER DIAGNOSIS PROCEDURE (Power Seat does not Return to Memorized Position)**

E ▶ **GO TO OTHER DIAGNOSIS PROCEDURE (Wireless Transmitter Memory Function does not Operate)**

A ▼

2.	**CHECK MEMORY CALL FUNCTION (MEMORY REGISTRATION AND AUTOMATIC MEMORY CALL FUNCTION)**

(a) Check the memory registration and automatic memory call function of the memory call function.

Click here INFO

RESULT	PROCEED TO
Memory call function linked with the wireless unlock function does not operate.	A

RESULT	PROCEED TO
Memory call function linked with the entry unlock function does not operate.	B
Memory call function linked with the wireless unlock function and entry unlock function both do not operate.	C

B ▶ **GO TO STEP 6**

C ▶ **GO TO STEP 9**

A

▼

3.	**CHECK WIRELESS DOOR LOCK CONTROL SYSTEM**

(a) Check the wireless unlock function of the wireless door lock control system.

Click here INFO

OK:

Wireless unlock function is normal.

NG ▶ **GO TO WIRELESS DOOR LOCK CONTROL SYSTEM**

OK

▼

4.	**REPLACE POSITION CONTROL ECU ASSEMBLY LH**

(a) Replace the position control ECU assembly LH with a new or known good one.

Click here INFO

NEXT

▼

5.	**CHECK MEMORY CALL FUNCTION (MEMORY REGISTRATION AND AUTOMATIC MEMORY CALL FUNCTION)**

(a) Check the memory registration and automatic memory call function of the memory call function.

Click here INFO

OK:
Memory call function linked with the wireless unlock function operates normally.

OK ▶ **END (POSITION CONTROL ECU ASSEMBLY LH WAS DEFECTIVE)**

NG ▶ **REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)** INFO

6.	**CHECK SMART KEY SYSTEM (for Entry Function)**

(a) Check the entry unlock function of the smart key system.

Click here INFO

OK:
Entry unlock function is normal.

NG ▶ **GO TO SMART KEY SYSTEM (for Entry Function)**

OK ▼

7.	**REPLACE POSITION CONTROL ECU ASSEMBLY LH**

(a) Replace the position control ECU assembly LH with a new or known good one.

Click here INFO

NEXT ▼

8.	**CHECK MEMORY CALL FUNCTION (MEMORY REGISTRATION AND AUTOMATIC MEMORY CALL FUNCTION)**

(a) Check the memory registration and automatic memory call function of the memory call function.

Click here INFO

OK:
Memory call function linked with the entry unlock function operates normally.

OK ▶ **END (POSITION CONTROL ECU ASSEMBLY LH WAS DEFECTIVE)**

NG ▶ **REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)** INFO

9.	**READ VALUE USING GTS**

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

Body Electrical > Main Body > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
MEM Switch No. with Key ID 1	Memory switch linked with key ID1	NONE, D MEM SW1, D MEM SW2 or D MEM SW3*	NONE: No switches linked with key ID1 D MEM SW1: M1 switch linked with key ID1 D MEM SW2: M2 switch linked with key ID1 D MEM SW3: M3 switch linked with key ID1*	-
MEM Switch No. with Key ID 2	Memory switch linked with key ID2	NONE, D MEM SW1, D MEM SW2 or D MEM SW3*	NONE: No switches linked with key ID2 D MEM SW1: M1 switch linked with key ID2 D MEM SW2: M2 switch linked with key ID2 D MEM SW3: M3 switch linked with key ID2*	-
MEM Switch No. with Key ID 3	Memory switch linked with key ID3	NONE, D MEM SW1, D MEM SW2 or D MEM SW3*	NONE: No switches linked with key ID3 D MEM SW1: M1 switch linked with key ID3 D MEM SW2: M2 switch linked with key ID3 D MEM SW3: M3 switch linked with key ID3*	-
MEM Switch No. with Key ID 4	Memory switch linked with key ID4	NONE, D MEM SW1, D MEM SW2 or D MEM SW3*	NONE: No switches linked with key ID4 D MEM SW1: M1 switch linked with key ID4 D MEM SW2: M2 switch linked with key ID4 D MEM SW3: M3 switch linked with key ID4*	-

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
MEM Switch No. with Key ID 5	Memory switch linked with key ID5	NONE, D MEM SW1, D MEM SW2 or D MEM SW3*	NONE: No switches linked with key ID5 D MEM SW1: M1 switch linked with key ID5 D MEM SW2: M2 switch linked with key ID5 D MEM SW3: M3 switch linked with key ID5*	-
MEM Switch No. with Key ID 6	Memory switch linked with key ID6	NONE, D MEM SW1, D MEM SW2 or D MEM SW3*	NONE: No switches linked with key ID6 D MEM SW1: M1 switch linked with key ID6 D MEM SW2: M2 switch linked with key ID6 D MEM SW3: M3 switch linked with key ID6*	-
MEM Switch No. with Key ID 7	Memory switch linked with key ID7	NONE, D MEM SW1, D MEM SW2 or D MEM SW3*	NONE: No switches linked with key ID7 D MEM SW1: M1 switch linked with key ID7 D MEM SW2: M2 switch linked with key ID7 D MEM SW3: M3 switch linked with key ID7*	-

*: Not applicable

Body Electrical > Main Body > Data List

TESTER DISPLAY
MEM Switch No. with Key ID 1
MEM Switch No. with Key ID 2
MEM Switch No. with Key ID 3
MEM Switch No. with Key ID 4
MEM Switch No. with Key ID 5
MEM Switch No. with Key ID 6

TESTER DISPLAY
MEM Switch No. with Key ID 7

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

Body Electrical > Driver Seat > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
Memory No1	Seat position memorized with M1 switch	No Memory or Memory	Current memory status	-
Memory No2	Seat position memorized with M2 switch	No Memory or Memory	Current memory status	-

Body Electrical > Driver Seat > Data List

TESTER DISPLAY
Memory No1
Memory No2

OK:
A seat position has been memorized for the seat position memory switch linked to the electrical key transmitter sub-assembly. (For example, the value of "MEM Switch No. with Key ID1" is D MEM SW1 and the value of "Memory No1" is Memory.)

NG ▶ **PERFORM MEMORY CALL REGISTRATION**

OK ▼

10.	**READ VALUE USING GTS**

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

Body Electrical > Main Body > Data List

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
FR Door Courtesy Switch Status	Front door courtesy light switch assembly (RH) signal	Close or Open	Close: Front door RH closed	-

TESTER DISPLAY	MEASUREMENT ITEM	RANGE	NORMAL CONDITION	DIAGNOSTIC NOTE
			Open: Front door RH open	
FL Door Courtesy Switch Status	Front door courtesy light switch assembly (LH) signal	Close or Open	Close: Front door LH closed Open: Front door LH open	-

Body Electrical > Main Body > Data List

TESTER DISPLAY
FR Door Courtesy Switch Status
FL Door Courtesy Switch Status

OK:
On the GTS screen, Close or Open is displayed accordingly.

NG ▶ **GO TO LIGHTING SYSTEM (Front Door Courtesy Switch Circuit)**

OK ▼

11.	**REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)**

(a) Replace the main body ECU (multiplex network body ECU) with a new one.

Click here INFO

NEXT ▼

12.	**CHECK MEMORY CALL FUNCTION (MEMORY REGISTRATION AND AUTOMATIC MEMORY CALL FUNCTION)**

(a) Check the memory registration and automatic memory call function of the memory call function.

Click here INFO

OK:

Memory call functions linked with the wireless unlock function and entry unlock function operate normally.

OK ▶ **END (MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU) WAS DEFECTIVE)**

NG ▶ **REPLACE CERTIFICATION ECU (SMART KEY ECU ASSEMBLY)** INFO