

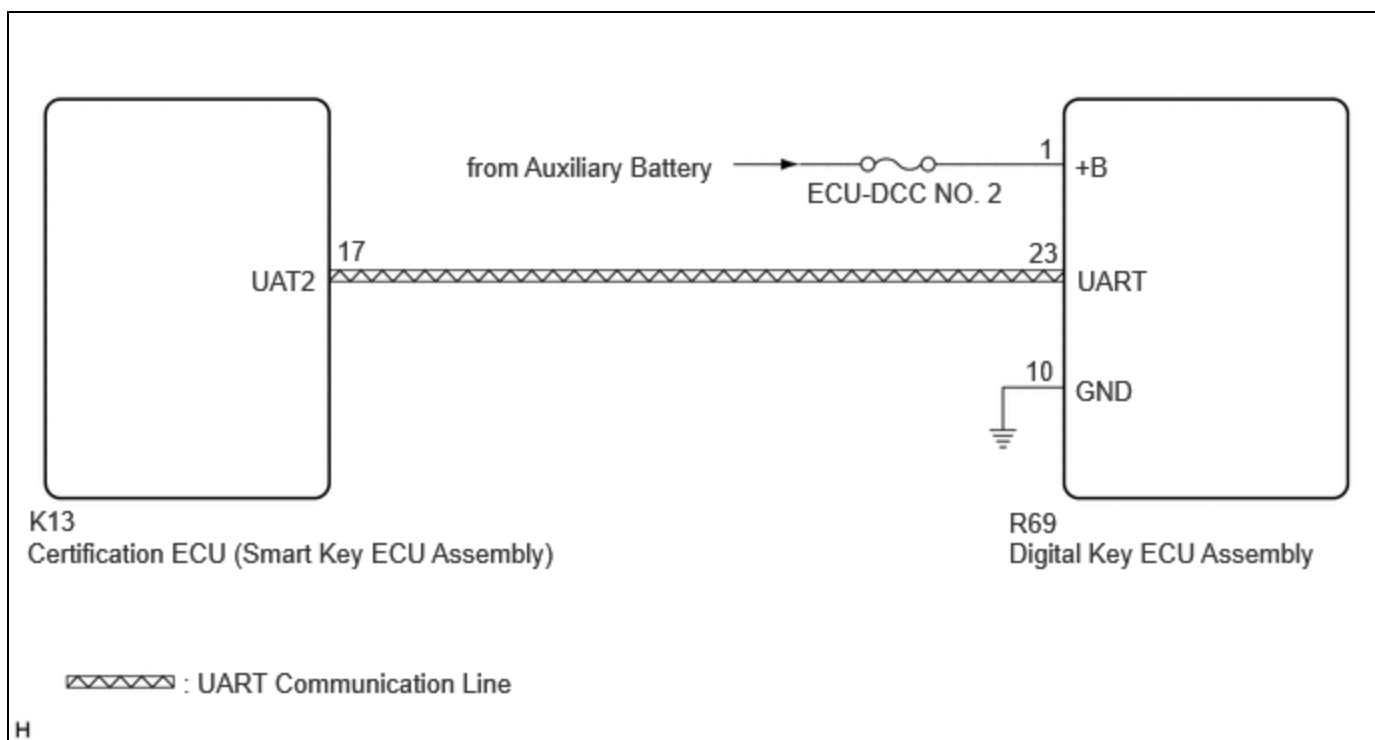
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<b>Model Year Start:</b> 2023	<b>Model:</b> Prius Prime	<b>Prod Date Range:</b> [12/2022 - ]
<b>Title:</b> THEFT DETERRENT / KEYLESS ENTRY: DIGITAL KEY SYSTEM: Digital Key cannot be Canceled; 2023 - 2024 MY Prius Prius Prime [12/2022 - ]		

## Digital Key cannot be Canceled

## DESCRIPTION

After the ignition switch was turned ON using the electrical key transmitter sub-assembly, it is possible to cancel the digital key system. If it is not possible to cancel the digital key system after the ignition switch was turned ON using the electrical key transmitter sub-assembly, there may be a malfunction in the communication system between the certification ECU (smart key ECU assembly) and the digital key ECU assembly.

## WIRING DIAGRAM



## CAUTION / NOTICE / HINT

### NOTICE:

- Before performing troubleshooting of the vehicle, refer to Precautions for Inspection or Registration to check for a cause of the malfunction which is not related to vehicle settings or vehicle components.

[Click here](#) **INFO**

- Make sure that no DTCs are output. If any DTCs are output, proceed to Diagnostic Trouble Code Chart.
- Before replacing the certification ECU (smart key ECU assembly) or digital key ECU assembly, refer to Registration.

[Click here](#) **INFO**

## PROCEDURE

## 1. CHECK CUSTOMIZE SETTING USING GTS (Auto Entry Function by Digital key)

(a) Select the setting by referring to the table below.

### Smart Key / Access

TESTER DISPLAY	DESCRIPTION	DEFAULT	SETTING	ECU
Auto Entry Function by Digital Key	Function that enables or disables the digital key system	Normal	\$00:Normal,\$01:Cancel	Certification ECU (Smart key ECU assembly)

OK:

The digital key system can be canceled

**OK**  **GO TO AUDIO AND VISUAL SYSTEM (HOW TO PROCEED WITH TROUBLESHOOTING)**

Click here

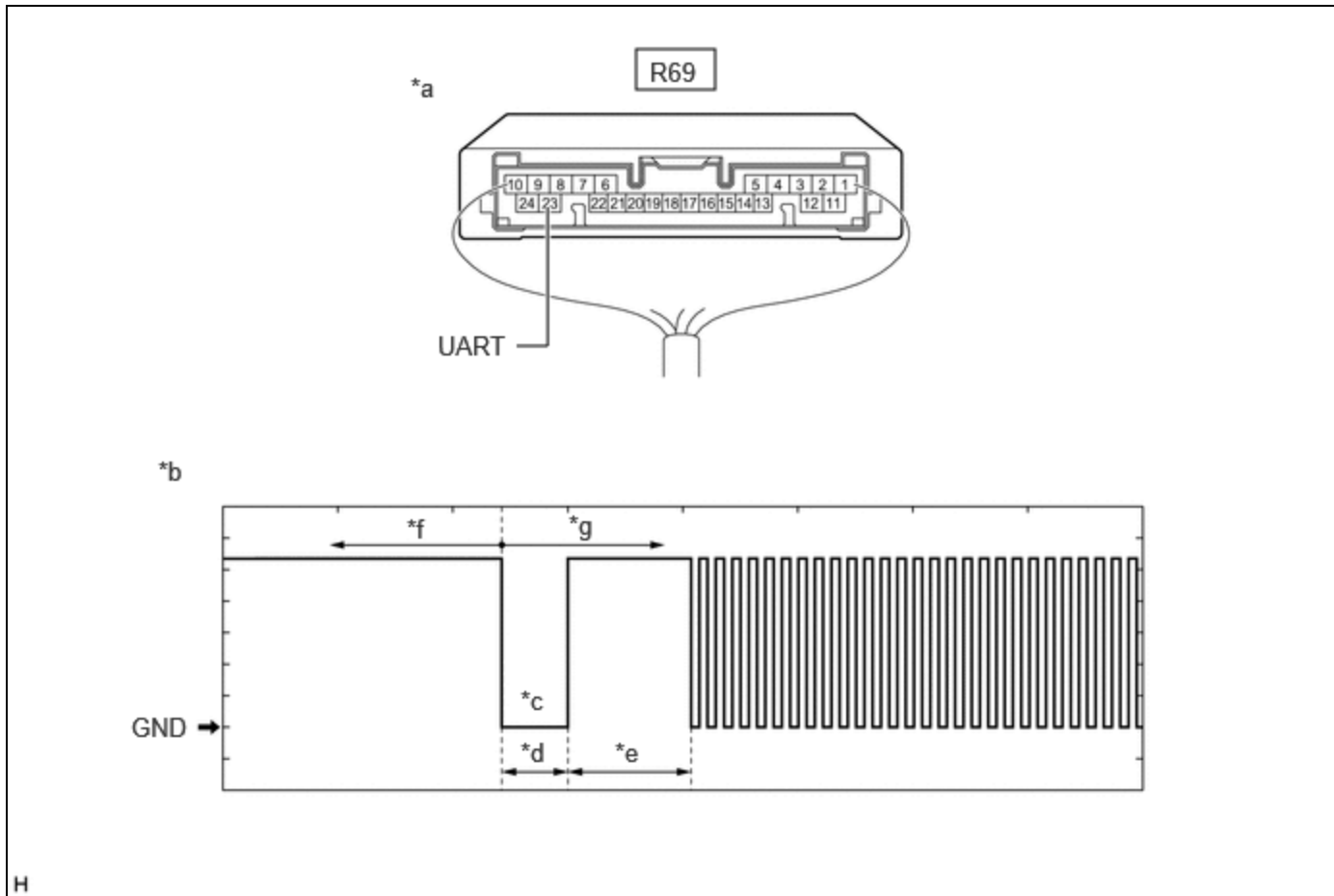
[INFO](#)

**NG**



## 2. CHECK DIGITAL KEY ECU ASSEMBLY (TERMINAL UART)

(a) Using an oscilloscope, check the waveform.



*a	Component with harness connected (Digital Key ECU Assembly)	*b	Waveform
*c	Wakeup signal from digital key ECU assembly	*d	Approximately 15 ms.
*e	15 to 50 ms.	*f	Before door lock/unlock operation using digital key
*g	After door lock/unlock operation using digital key	-	-

**NOTICE:**

The waveform shown in the illustration is an example for reference only. Noise, chattering, etc. are not shown.

OK:



[Click Location & Routing\(R69\).](#)

[Click Connector\(R69\).](#)

TESTER CONNECTION	CONDITION	TOOL SETTING	SPECIFIED CONDITION
R69-23 (UART) - Body ground	All of the following conditions are met: <ul style="list-style-type: none"> <li>Ignition switch off</li> <li>Door lock/unlock operation has been not performed via digital key → performed</li> </ul>	2 V/DIV., 20 ms./DIV.	Pulse generation (See waveform)

RESULT	PROCEED TO
OK (Normal Waveform)	A
NG (No Wakeup Signal)	B
NG (Normal Waveform Not Output)	C
NG (Stuck Low)	D

**B ▶ REPLACE DIGITAL KEY ECU ASSEMBLY**

Click here [INFO](#)

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

Click here [INFO](#)

**D ▶ GO TO STEP 7**

**A**



**3. REPLACE DIGITAL KEY ECU ASSEMBLY**

(a) Replace the digital key ECU assembly with a new one.

Click here [INFO](#)

**NEXT**



**4. REGISTER DIGITAL KEY CODE**

(a) Register the digital key code to the digital key ECU assembly.

Click here [INFO](#)

**NEXT**



## 5. REGISTER NEW OWNER KEY

(a) Register the owner key using the original digital key.

### HINT:

Refer to the digital key application.

## NEXT



## 6. CHECK CUSTOMIZE SETTING USING MULTI-DISPLAY

(a) Use the electrical key transmitter sub-assembly and turn the ignition switch to ON.

### NOTICE:

The digital key system can be canceled only after the ignition switch was turned ON using the electrical key transmitter sub-assembly.

(b) Use the multi-display and check the customize settings of the digital key system.

Click here [INFO](#)

OK:

The digital key system can be canceled

**OK** ► END (DIGITAL KEY ECU ASSEMBLY WAS DEFECTIVE)

**NG** ► REPLACE CERTIFICATION ECU (SMART KEY ECU ASSEMBLY)

Click here [INFO](#)

## 7. INSPECT CERTIFICATION ECU (SMART KEY ECU ASSEMBLY)

(a) Disconnect the R69 digital key ECU assembly connector.

(b) Measure the voltage according to the value(s) in the table below.

Standard Voltage:



[Click Location & Routing\(R69\)](#)

[Click Connector\(R69\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
R69-23 (UART) - Body ground	Ignition switch off	11 to 14 V

**OK ▶ REPLACE DIGITAL KEY ECU ASSEMBLY**

Click here [INFO](#)

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

Click here [INFO](#)

