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<b>Model Year Start:</b> 2023	<b>Model:</b> Prius Prime	<b>Prod Date Range:</b> [03/2023 - ]
<b>Title:</b> THEFT DETERRENT / KEYLESS ENTRY: SMART KEY SYSTEM (for Start Function): U010387,....,U114F87; Lost Communication with Gear Shift Control Module "A" Missing Message; 2023 - 2024 MY Prius Prius Prime [03/2023 - ]		

<b>DTC</b>	<b>U010387</b>	<b>Lost Communication with Gear Shift Control Module "A" Missing Message</b>
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<b>DTC</b>	<b>U012987</b>	<b>Lost Communication with Brake System Control Module "A" Missing Message</b>
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<b>DTC</b>	<b>U014087</b>	<b>Lost Communication with Body Control Module Missing Message</b>
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<b>DTC</b>	<b>U015587</b>	<b>Lost Communication with Instrument Panel Cluster (IPC) Control Module</b>
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<b>DTC</b>	<b>U016387</b>	<b>Lost Communication with Navigation Control Module Missing Message</b>
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<b>DTC</b>	<b>U023087</b>	<b>Lost Communication with Rear Gate Module Missing Message</b>
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<b>DTC</b>	<b>U029387</b>	<b>Lost Communication with Hybrid/EV Powertrain Control Module Missing Message</b>
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<b>DTC</b>	<b>U111087</b>	<b>Lost Communication with Intuitive Parking Assist Module Missing Message</b>
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<b>DTC</b>	<b>U111787</b>	<b>Lost Communication with Accessory Gateway Missing Message</b>
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<b>DTC</b>	<b>U113A87</b>	<b>Lost Communication with Solar Charging Control Module Missing Message</b>
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<b>DTC</b>	<b>U114F87</b>	<b>Lost Communication with Power Integration Module Missing Message</b>
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## DESCRIPTION

These DTCs are stored when a malfunction occurs in the CAN communication circuit.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY	NOTE
U010387	Lost Communication with Gear Shift Control Module "A" Missing Message	CAN communication error between certification ECU (smart key ECU assembly) and transmission floor shift assembly (1-trip detection logic*1)	Transmission floor shift assembly	Power Source Control	B	<b>DTC Output Confirmation Operation:</b>  Turn the ignition switch to ON and wait at least 10 seconds.
U012987	Lost Communication with Brake System Control Module "A" Missing Message	CAN communication error between certification ECU (smart key ECU assembly) and No. 2 skid control ECU (brake actuator assembly) (1-trip detection logic*1)	No. 2 skid control ECU (brake actuator assembly)	Smart Key Power Source Control	B	<b>DTC Output Confirmation Operation:</b>  Turn the ignition switch to ON and wait at least 10 seconds.
U014087	Lost Communication with Body Control Module Missing Message	CAN communication malfunction between certification ECU (smart key ECU assembly) and main body ECU (multiplex network body ECU) (1-trip detection logic*1)	Main body ECU (multiplex network body ECU)	Smart Key Power Source Control	B	<b>DTC Output Confirmation Operation:</b>  Always
U015587	Lost Communication with Instrument Panel Cluster (IPC) Control Module	CAN communication malfunction between certification ECU (smart key ECU assembly) and combination meter assembly (1-trip detection logic*1)	Combination meter assembly	Smart Key Power Source Control	B	<b>DTC Output Confirmation Operation:</b>  Turn the ignition switch to ON and wait at least 10 seconds.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY	NOTE
U016387	Lost Communication with Navigation Control Module Missing Message	CAN communication malfunction between certification ECU (smart key ECU assembly) and radio and display receiver assembly (1-trip detection logic*1)	Radio and display receiver assembly	Smart Key Power Source Control	B	<b>DTC Output Confirmation Operation:</b>  Turn the ignition switch to ON and wait at least 10 seconds.
U023087	Lost Communication with Rear Gate Module Missing Message	CAN communication malfunction between certification ECU (smart key ECU assembly) and multiplex network door ECU (1-trip detection logic*1)*2	Multiplex network door ECU	Smart Key	B	<b>DTC Output Confirmation Operation:</b>  Turn the ignition switch to ON and wait at least 10 seconds.
U029387	Lost Communication with Hybrid/EV Powertrain Control Module Missing Message	CAN communication error between certification ECU (smart key ECU assembly) and hybrid vehicle control ECU (1-trip detection logic*1)	Hybrid vehicle control ECU	Smart Key Power Source Control	B	<b>DTC Output Confirmation Operation:</b>  Turn the ignition switch to ON and wait at least 10 seconds.
U111087	Lost Communication with Intuitive Parking Assist Module Missing Message	CAN communication error between certification ECU (smart key ECU assembly) and clearance warning ECU assembly (1-trip detection logic*1)	Clearance warning ECU assembly	Smart Key Power Source Control	B	<b>DTC Output Confirmation Operation:</b>  Turn the ignition switch to ON and wait at least 10 seconds.
U111787	Lost Communication with Accessory Gateway Missing Message	CAN communication malfunction between the certification ECU (smart key ECU assembly) and the option connector (bus buffer ECU) for	Option connector (bus buffer ECU)	Smart Key Power Source Control	B	<b>DTC Output Confirmation Operation:</b>  Turn the ignition switch to ON and wait

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY	NOTE
		approximately 10 seconds or more.				at least 10 seconds.
U113A87	Lost Communication with Solar Charging Control Module Missing Message	CAN communication malfunction between certification ECU (smart key ECU assembly) and solar energy control unit (1-trip detection logic*1)*3	Solar energy control ECU assembly	Power Source Control	B	<b>DTC Output Confirmation Operation:</b>  Turn the ignition switch to ON and wait at least 10 seconds.
U114F87	Lost Communication with Power Integration Module Missing Message	CAN communication error between certification ECU (smart key ECU assembly) and power distribution box assembly (1-trip detection logic*1)	Power distribution box assembly	Power Source Control	B	<b>DTC Output Confirmation Operation:</b>  Turn the ignition switch to ON and wait at least 10 seconds.

\*1: Only detected while a malfunction is present.

\*2: w/ Power Back Door System

\*3: Solar Charging System

#### Vehicle Condition and Fail-safe Function when Malfunction Detected

DTC CODE	VEHICLE CONDITION WHEN MALFUNCTION DETECTED	FAIL-SAFE FUNCTION WHEN MALFUNCTION DETECTED
U010387	The vehicle power source mode cannot be turned off by the automatic P position function. (it is possible for the power source to be turned off by manually selecting the P position)	-
U012987	There is no effect on vehicle behavior.	-
U014087	<ul style="list-style-type: none"> <li>Doors cannot be locked or unlocked.</li> <li>The warning (wireless buzzer) does not sound.</li> </ul>	-
U015587	The warning (meter buzzer) does not sound and no warning messages displayed on the multi-information display.	-
U016387	"ACC customize" (ACC power source enabled) remains "ON"	-
U023087*1	Power back door system does not operate.	-
U029387	There is no effect on vehicle behavior.	-

DTC CODE	VEHICLE CONDITION WHEN MALFUNCTION DETECTED	FAIL-SAFE FUNCTION WHEN MALFUNCTION DETECTED
U111087	<ul style="list-style-type: none"> <li>Advanced park (Remote Controlled Function) (exiting parking space function) cannot be used*2</li> <li>The vehicle power source mode cannot be turned off by the advanced park (Remote Controlled Function) (entering parking space function). (It is possible for the power source to be turned off manually)*2</li> </ul>	-
U111787	The hybrid control system cannot be started using the wireless remote control function.	-
U113A87*3	Solar charging system does not operate.	-
U114F87	It will take longer for the automatic power off function to begin operating.	-

\*1: w/ Power Back Door System

\*2: w/ Advanced Park (Remote Controlled Function)

\*3: Solar Charging System

### Related Data List and Active Test Items

DTC NO.	DATA LIST AND ACTIVE TEST
U010387	
U012987	
U014087	
U015587	
U016387	
U023087*1	-
U029387	
U111087	
U111787	
U113A87*2	
U114F87	

\*1: w/ Power Back Door System

\*2: Solar Charging System

## 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.

- After repair, confirm that no DTCs are output by performing "DTC Output Confirmation Operation".

### HINT:

When the cable is disconnected and reconnected to the negative (-) auxiliary battery terminal, the power source mode returns to the state it was in before the cable was disconnected.

## **PROCEDURE**

### **1. CHECK FOR DTC**

(a) Check for DTCs and note any DTCs that are output.

RESULT	PROCEED TO
U010387, U012987, U014087, U015587, U016387, U023087, U029387, U111087, U111787, U113A87 or U114F87 is output	A
DTCs other than U010387, U012987, U014087, U015587, U016387, U023087, U029387, U111087, U111787, U113A87 and U114F87 are output	B

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

**A**



### **2. CLEAR DTC**

(a) Clear the DTCs.

(b) Turn the ignition switch off.

**NEXT**



### **3. CHECK FOR DTC**

(a) Turn the ignition switch to ON and wait for 10 seconds or more.

(b) Check for DTCs and note any DTCs that are output.

RESULT	PROCEED TO
U010387, U012987, U014087, U015587, U016387, U023087, U029387, U111087, U111787, U113A87 or U114F87 is output	A
U010387, U012987, U014087, U015587, U016387, U023087, U029387, U111087, U111787, U113A87 and U114F87 are not output	B

**A ▶ GO TO CAN COMMUNICATION SYSTEM (HOW TO PROCEED WITH TROUBLESHOOTING)**

for PHEV Model: Click here [INFO](#)

for HEV Model: Click here [INFO](#)

**B ▶ GO TO CHECK FOR INTERMITTENT PROBLEMS**

