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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [12/2022 -]
Title: NETWORKING: LIN COMMUNICATION SYSTEM: B278588; Communication between ECUs connected by LIN Bus off; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

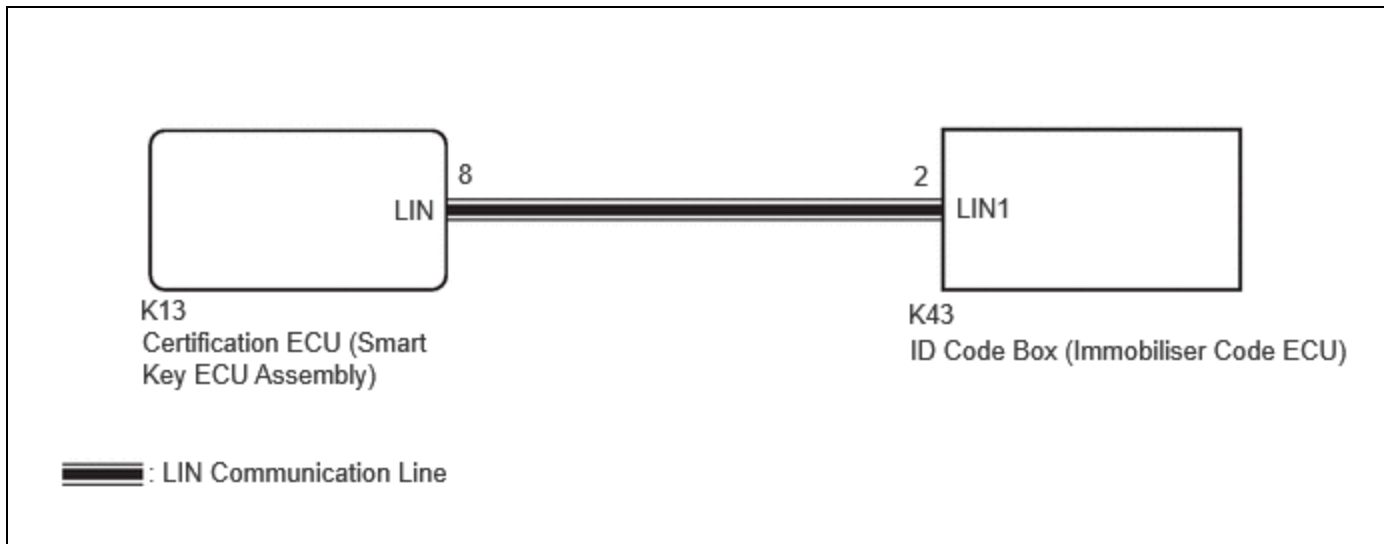
DTC	B278588	Communication between ECUs connected by LIN Bus off
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DESCRIPTION

The certification ECU (smart key ECU assembly) communicates with the ID code box (immobiliser code ECU) via LIN communication. If a malfunction signal is received from the ID code box (immobiliser code ECU) 3 times consecutively, this DTC is stored.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY
B278588	Communication between ECUs connected by LIN Bus off	The certification ECU (smart key ECU assembly) detects a communication error with an ECU connected to the certification bus lines 3 times consecutively.	<ul style="list-style-type: none"> • Certification ECU (smart key ECU assembly) • ID code box (immobiliser code ECU) • Wire harness or connector 	Smart Key	A

WIRING DIAGRAM



CAUTION / NOTICE / HINT

NOTICE:

- Before performing the inspection, check that DTC B278987 or B278C87 is not output.

[Click here](#) INFO

- 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.

- Before replacing the certification ECU (smart key ECU assembly) or ID code box (immobiliser code ECU), refer to Registration.

Click here 

PROCEDURE

1.	CHECK HARNESS AND CONNECTOR (CERTIFICATION ECU (SMART KEY ECU ASSEMBLY) - ID CODE BOX (IMMOBILISER CODE ECU))
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Pre-procedure1

- Disconnect the K13 certification ECU (smart key ECU assembly) connector.
- Disconnect the K43 ID code box (immobiliser code ECU) connector.

Procedure1

- Measure the resistance according to the value(s) in the table below.

NOTICE:

Make sure that each ECU is in sleep mode before performing the inspection. To enter sleep mode, turn the ignition switch from ON to off and wait for 180 seconds or more without operating any switches.

Standard Resistance:



[Click Location & Routing\(K13,K43\).](#)

[Click Connector\(K13\).](#)

[Click Connector\(K43\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K13-8 (LIN) - K43-2 (LIN1)	Ignition switch off	Below 1 Ω	Ω
K13-8 (LIN) or K43-2 (LIN1) - Body ground	Ignition switch off	10 k Ω or higher	k Ω

Post-procedure1

- None

NG  **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK



2. CLEAR DTC

Pre-procedure1

(a) Connect the K13 certification ECU (smart key ECU assembly) connector.

Procedure1

(b) Clear the DTCs.

Body Electrical > Smart Key > Clear DTCs

Post-procedure1

(c) None

NEXT



3. CHECK FOR DTC

(a) Recheck for DTCs.

Body Electrical > Smart Key > Trouble Codes

RESULT	PROCEED TO
B278588 is output	A
B278588 is not output	B

A **REPLACE CERTIFICATION ECU (SMART KEY ECU ASSEMBLY)**

Click here [INFO](#)

B **REPLACE ID CODE BOX (IMMOBILISER CODE ECU)**

Click here [INFO](#)

