

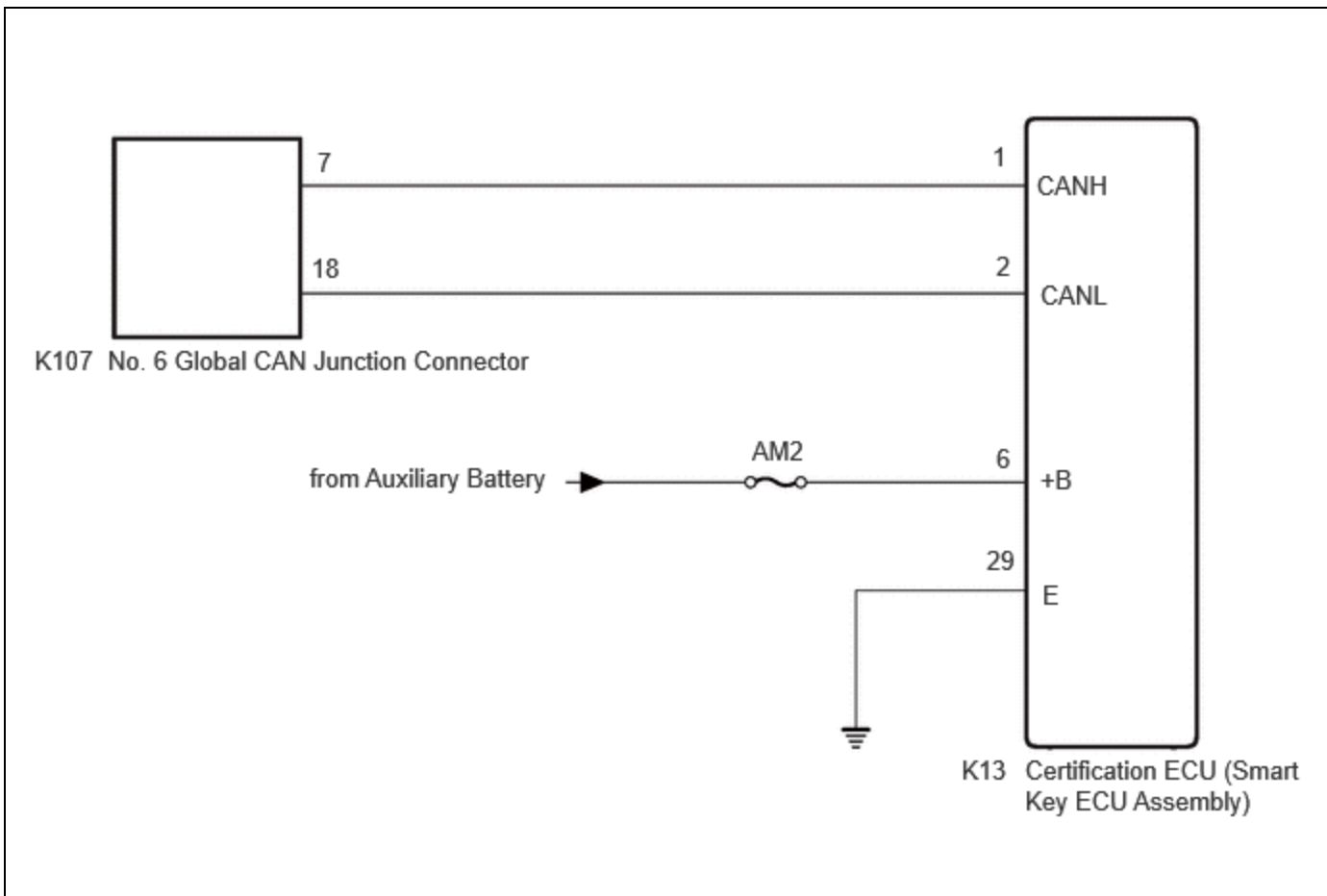
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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [03/2023 -]
Title: NETWORKING: CAN COMMUNICATION SYSTEM (for PHEV Model): Certification ECU Communication Stop Mode; 2023 - 2024 MY Prius Prime [03/2023 -]		

Certification ECU Communication Stop Mode

DESCRIPTION

DETECTION ITEM	SYMPTOM	TROUBLE AREA
Certification ECU Communication Stop Mode	Communication stop for "Certification (Smart)" and/or "Power Management" is indicated on the "Communication Bus Check" screen of the GTS. Click here INFO	<ul style="list-style-type: none"> • Certification ECU (smart key ECU assembly) branch line or connector • Power source circuit of certification ECU (smart key ECU assembly) • Certification ECU (smart key ECU assembly) ground circuit • Certification ECU (smart key ECU assembly)

WIRING DIAGRAM



CAUTION / NOTICE / HINT

CAUTION:

When performing the confirmation driving pattern, obey all speed limits and traffic laws.

NOTICE:

- Because the order of diagnosis is important to allow correct diagnosis, make sure to begin troubleshooting using How to Proceed with Troubleshooting when CAN communication system related DTCs are output.

Click here [INFO](#)

- Before measuring the resistance of the CAN bus, turn the ignition switch off and leave the vehicle for 1 minute or more without operating the key or any switches, or opening or closing the doors. After that, disconnect the cable from the negative (-) auxiliary battery terminal and leave the vehicle for 10 minutes or more before measuring the resistance.
- After the ignition switch is turned off, there may be a waiting time before disconnecting the negative (-) auxiliary battery terminal.

Click here [INFO](#)

- When disconnecting and reconnecting the auxiliary battery.

HINT:

When disconnecting and reconnecting the auxiliary battery, there is an automatic learning function that completes learning when the respective system is used.

Click here [INFO](#)

- Some parts must be initialized and set when replacing or removing and installing parts.

Click here [INFO](#)

- After performing repairs, perform the DTC check procedure and confirm that the DTCs are not output again.

DTC check procedure: Turn the ignition switch to ON and wait for 1 minute or more. Then operate the suspected malfunctioning system and drive the vehicle at 60 km/h (37 mph) or more for 5 minutes or more.

- After the repair, perform the CAN bus check and check that all the ECUs and sensors connected to the CAN communication system are displayed as normal.

[Click here](#) 

- Inspect the fuses for circuits related to this system before performing the following procedure.
- Before replacing the certification ECU (smart key ECU assembly), refer to Registration.

[Click here](#) 

HINT:

- Before disconnecting related connectors for inspection, push in on each connector body to check that the connector is not loose or disconnected.
- When a connector is disconnected, check that the terminals and connector body are not cracked, deformed or corroded.

PROCEDURE

1.	CHECK FOR OPEN IN CAN BUS LINES (CERTIFICATION ECU (SMART KEY ECU ASSEMBLY) BRANCH LINE)
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- Disconnect the cable from the negative (-) auxiliary battery terminal.
- Disconnect the K13 certification ECU (smart key ECU assembly) connector.
- Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(K13\)](#)

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

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K13-1 (CANH) - K13-2 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	54 to 69 Ω

NG  **REPAIR OR REPLACE CAN BRANCH LINES OR CONNECTOR (CERTIFICATION ECU (SMART KEY ECU ASSEMBLY))**

OK



2.	CHECK HARNESS AND CONNECTOR (POWER SOURCE CIRCUIT)
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- Measure the resistance according to the value(s) in the table below.

Standard Resistance:


[Click Location & Routing\(K13\)](#)
[Click Connector\(K13\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K13-29 (E) - Body ground	Cable disconnected from negative (-) auxiliary battery terminal	Below 1 Ω

(b) Reconnect the cable to the negative (-) auxiliary battery terminal.

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

Standard Voltage:


[Click Location & Routing\(K13\)](#)
[Click Connector\(K13\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K13-6 (+B) - Body ground	Ignition switch off	11 to 14 V

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

NG ► **REPAIR OR REPLACE HARNESS OR CONNECTOR (POWER SOURCE CIRCUIT)**

