

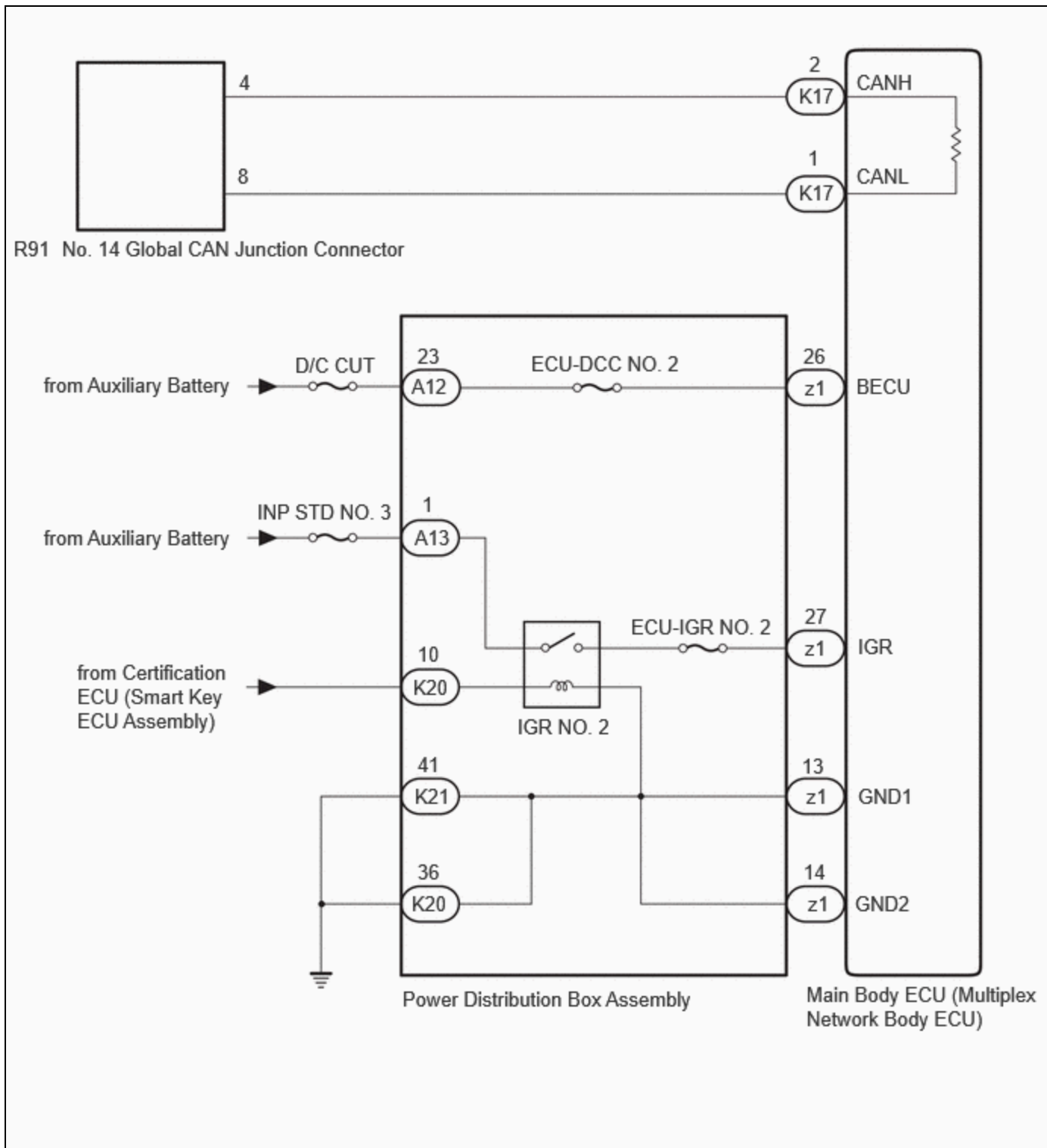
Last Modified: 12-04-2024	6.11:8.1.0	Doc ID: RM10000002B6IS
Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [03/2023 -]
Title: NETWORKING: CAN COMMUNICATION SYSTEM (for PHEV Model): Main Body ECU Communication Stop Mode; 2023 - 2024 MY Prius Prime [03/2023 -]		

Main Body ECU Communication Stop Mode

DESCRIPTION

DETECTION ITEM	SYMPTOM	TROUBLE AREA
Main Body ECU Communication Stop Mode	Communication stop for "Main Body" is indicated on the "Communication Bus Check" screen of the GTS. Click here INFO	<ul style="list-style-type: none"> • Main body ECU (multiplex network body ECU) main line or connector • Power source circuit of main body ECU (multiplex network body ECU) or power distribution box assembly • Main body ECU (multiplex network body ECU) or power distribution box assembly ground circuit • Main body ECU (multiplex network body ECU) or power distribution box 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](#) INFO

- Inspect the fuses for circuits related to this system before performing the following procedure.
- Before replacing the main body ECU (multiplex network body ECU), refer to Registration.

[Click here](#) INFO

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 (MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU) MAIN LINE)
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- (a) Disconnect the cable from the negative (-) auxiliary battery terminal.
- (b) Disconnect the K17 main body ECU (multiplex network body ECU) connector.
- (c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(K17\).](#)

[Click Connector\(K17\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K17-2 (CANH) - K17-1 (CANL)	Cable disconnected from negative (-) auxiliary battery terminal	108 to 132 Ω

NG ► **REPAIR OR REPLACE CAN MAIN BUS LINES OR CONNECTOR (MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU))**

OK
▼

2. CHECK HARNESS AND CONNECTOR (BECU SIGNAL CIRCUIT)

(a) Remove the main body ECU (multiplex network body ECU).

Click here [INFO](#)

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

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

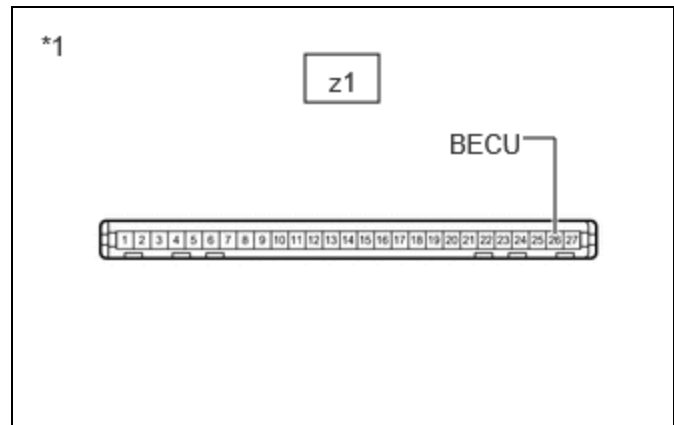
Standard Voltage:



[Click Location & Routing\(z1\)](#)

[Click Connector\(z1\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
z1-26 (BECU) - Body ground	Ignition switch off	11 to 14 V



*1 Power Distribution Box Assembly

NOTICE:

Perform this inspection with the wire harness connected to the power distribution box assembly.

OK ► **CHECK ECU POWER SOURCE CIRCUIT**

NG
▼

3. CHECK HARNESS AND CONNECTOR (BECU SIGNAL CIRCUIT)

- (a) Disconnect the cable from the negative (-) auxiliary battery terminal.
- (b) Disconnect the A12 power distribution box assembly connector.
- (c) Reconnect the cable to the negative (-) auxiliary battery terminal.
- (d) Measure the voltage according to the value(s) in the table below.

Standard Voltage:



[Click Location & Routing\(A12\).](#)

[Click Connector\(A12\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
A12-23 - Body ground	Ignition switch off	11 to 14 V

OK ► REPLACE POWER DISTRIBUTION BOX ASSEMBLY

NG ► REPAIR OR REPLACE HARNESS OR CONNECTOR
(BECU SIGNAL CIRCUIT)

