

<b>Last Modified:</b> 12-04-2024	6.11:8.1.0	<b>Doc ID:</b> RM1000000291YW
<b>Model Year Start:</b> 2023	<b>Model:</b> Prius Prime	<b>Prod Date Range:</b> [12/2022 - ]
<b>Title:</b> AUDIO / VIDEO: AUDIO AND VISUAL SYSTEM: B15DB87; Telematics Transceiver Missing Message; 2023 - 2024 MY Prius Prime [12/2022 - ]		

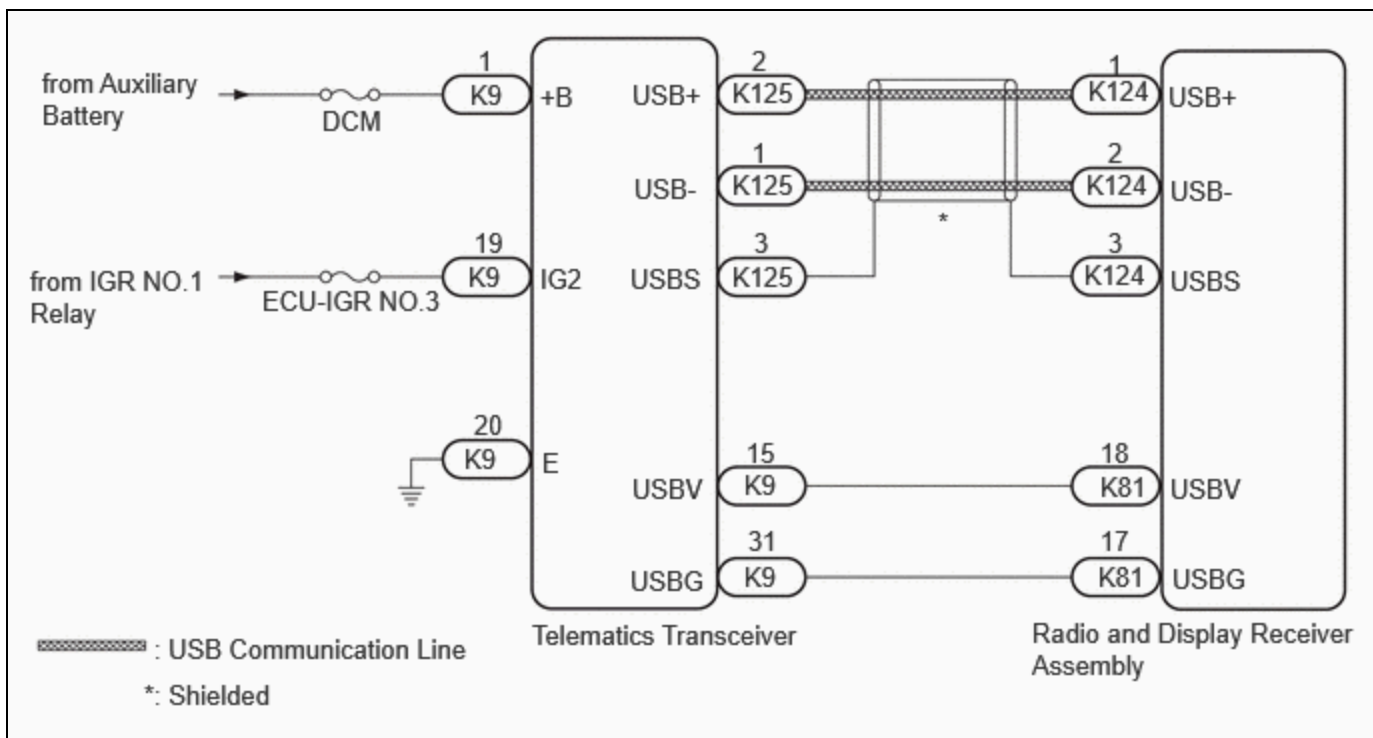
<b>DTC</b>	<b>B15DB87</b>	<b>Telematics Transceiver Missing Message</b>
------------	----------------	---

## DESCRIPTION

When the radio and display receiver assembly cannot detect the DCM (telematics transceiver), this DTC will be stored.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY
B15DB87	Telematics Transceiver Missing Message	When 90 seconds has elapsed after turning the ignition switch to ON and the DCM (telematics transceiver) cannot be detected, the DCM (telematics transceiver) is judged to be disconnected after comparison with the past USB connected devices information.  (2 trip detection logic)	<ul style="list-style-type: none"> <li>DCM (telematics transceiver)</li> <li>Radio and display receiver assembly</li> <li>Harness or connector</li> </ul>	Navigation System	A

## WIRING DIAGRAM



## CAUTION / NOTICE / HINT

### NOTICE:

- Inspect the fuses for circuits related to this system before performing the following procedure.
- When replacing the DCM (telematics transceiver), make sure to replace it with a new one.
- Depending on the parts that are replaced during vehicle inspection or maintenance, performing initialization, registration or calibration may be needed. Refer to Precaution for Audio and Visual System.

Click here 

### HINT:

- The Telematics System performs communication between devices via USB communication. If a malfunction such as a short in a communication line, short to +B or short to ground occurs in the USB circuit, communication will stop and the Telematics System will not operate correctly.
- This DTC may be stored due to environmental reasons such as electrical noise or interference.

## PROCEDURE

<b>1.</b>	<b>CLEAR DTC</b>
-----------	------------------

(a) Clear the DTCs.

**Body Electrical > Navigation System > Clear DTCs**

### NEXT



<b>2.</b>	<b>CHECK DTC</b>
-----------	------------------

Pre-procedure1

(a) Turn the ignition switch off.

Procedure1

(b) Check for DTCs.

**Body Electrical > Navigation System > Trouble Codes**

RESULT	PROCEED TO
B15DB87 is not output	A
B15DB87 is output	B

Post-procedure1

(c) None

**A**  **USE SIMULATION METHOD TO CHECK**



**3. CHECK HARNESS AND CONNECTOR (DCM [TELEMATICS TRANSCEIVER] POWER SOURCE)**

Pre-procedure1

(a) Disconnect the K9 DCM (telematics transceiver) connector.

Procedure1

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

Standard Resistance:



[Click Location & Routing\(K9\).](#)

[Click Connector\(K9\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K9-20 (E) - Body ground	Always	Below 1 Ω	Ω

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

Standard Voltage:



[Click Location & Routing\(K9\).](#)

[Click Connector\(K9\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K9-1 (+B) - K9-20 (E)	Ignition switch off	11 to 14 V	V
K9-19 (IG2) - K9-20 (E)	Ignition switch ON	11 to 14 V	V

Post-procedure1

(d) None

**NG** **REPAIR OR REPLACE HARNESS OR CONNECTOR**



**4. CHECK HARNESS AND CONNECTOR (RADIO AND DISPLAY RECEIVER ASSEMBLY - DCM [TELEMATICS TRANSCEIVER])**

Pre-procedure1

- (a) Disconnect the K81 radio and display receiver assembly connector.
- (b) Disconnect the K9 DCM (telematics transceiver) connector.

Procedure1

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

Standard Resistance:



[Click Location & Routing\(K81,K9\).](#)

[Click Connector\(K81\).](#)

[Click Connector\(K9\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K81-18 (USBV) - K9-15 (USBV)	Always	Below 1 Ω	Ω
K81-17 (USBG) - K9-31 (USBG)	Always	Below 1 Ω	Ω
K81-18 (USBV) - Body ground	Always	10 kΩ or higher	kΩ
K81-17 (USBG) - Body ground	Always	10 kΩ or higher	kΩ

Post-procedure1

- (d) None

**NG** **REPAIR OR REPLACE HARNESS OR CONNECTOR**

**OK**



<b>5.</b>	<b>INSPECT RADIO AND DISPLAY RECEIVER ASSEMBLY (USBV, USBG)</b>
-----------	---

Pre-procedure1

- (a) With the radio and display receiver assembly connectors connected, disconnect the K9 DCM (telematics transceiver) connector.

Procedure1

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

Standard Resistance:



[Click Location & Routing\(K9\).](#)

[Click Connector\(K9\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K9-31 (USBG) - Body ground	Always	Below 1 $\Omega$	$\Omega$

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

Standard Voltage:



[Click Location & Routing\(K9\).](#)

[Click Connector\(K9\).](#)

TESTER CONNECTION	SWITCH CONDITION	SPECIFIED CONDITION	RESULT
K9-15 (USBV) - K9-31 (USBG)	Ignition switch ON	3 V or higher	V

Post-procedure1

(d) None

**NG** **REPLACE RADIO AND DISPLAY RECEIVER ASSEMBLY**

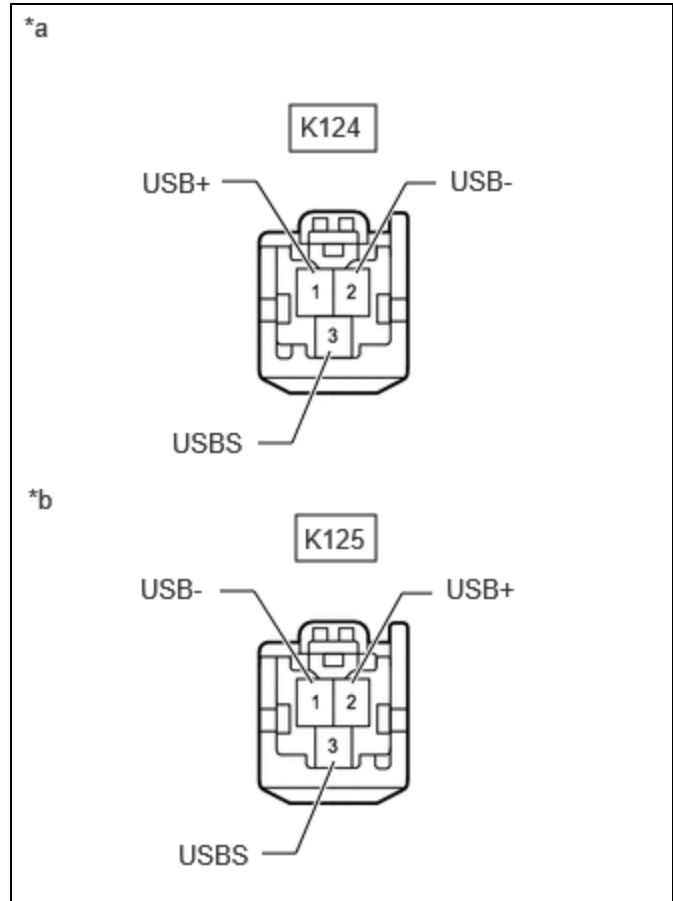
**OK**



<b>6.</b>	<b>CHECK HARNESS AND CONNECTOR (RADIO AND DISPLAY RECEIVER ASSEMBLY - DCM [TELEMATICS TRANSCEIVER])</b>
-----------	---

Pre-procedure1

(a) Disconnect the K124 radio and display receiver assembly connector.



*a	Front view of telephone ECU wire connector (to Radio and Display Receiver Assembly)
*b	Front view of telephone ECU wire connector (to DCM (Telematics Transceiver))

(b) Disconnect the K125 DCM (telematics transceiver) connector.

Procedure1

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

Standard Resistance:



[Click Location & Routing\(K124,K125\)](#)

[Click Connector\(K124\)](#)

[Click Connector\(K125\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K124-1 (USB+) - K125-2 (USB+)	Always	Below 1 Ω	Ω
K124-2 (USB-) - K125-1 (USB-)	Always	Below 1 Ω	Ω
K124-3 (USBS) - K125-3 (USBS)	Always	Below 1 Ω	Ω
K124-1 (USB+) - Body ground	Always	10 kΩ or higher	kΩ

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K124-2 (USB-) - Body ground	Always	10 kΩ or higher	kΩ
K124-3 (USBS) - Body ground	Always	10 kΩ or higher	kΩ

Post-procedure1

(d) None

**NG**  **REPAIR OR REPLACE HARNESS OR CONNECTOR**

**OK**



<b>7.</b>	<b>REPLACE DCM (TELEMATICS TRANSCEIVER)</b>
-----------	---

(a) Replace the DCM (telematics transceiver) with a new one.

**HINT:**

Click here 

**NEXT**



<b>8.</b>	<b>CLEAR DTC</b>
-----------	------------------

(a) Clear the DTCs.

**Body Electrical > Navigation System > Clear DTCs**

**NEXT**



<b>9.</b>	<b>CHECK FOR DTC</b>
-----------	----------------------

Pre-procedure1

- (a) Turn the ignition switch off.
- (b) Turn the ignition switch to ON and wait for 90 seconds.
- (c) Turn the ignition switch off.
- (d) Turn the ignition switch to ON and wait for 90 seconds.

Procedure1

(e) Using the GTS, recheck for DTCs and proceed to the following step.

**Body Electrical > Navigation System > Trouble Codes**

RESULT	PROCEED TO
B15DB87 is not output	A
B15DB87 is output	B

Post-procedure1

(f) None

**A ▶ END (DCM [TELEMATICS TRANSCEIVER] IS DEFECTIVE)**

**B ▶ REPLACE RADIO AND DISPLAY RECEIVER ASSEMBLY**

