Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM10000000291ZE
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [12/2022 -]
Title: AUDIO / VIDEO: AUDIO AND VISUAL SYSTEM: C162287; Rear Camera Image Signal Missing Message; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

DTC	**C162287**	**Rear Camera Image Signal Missing Message**

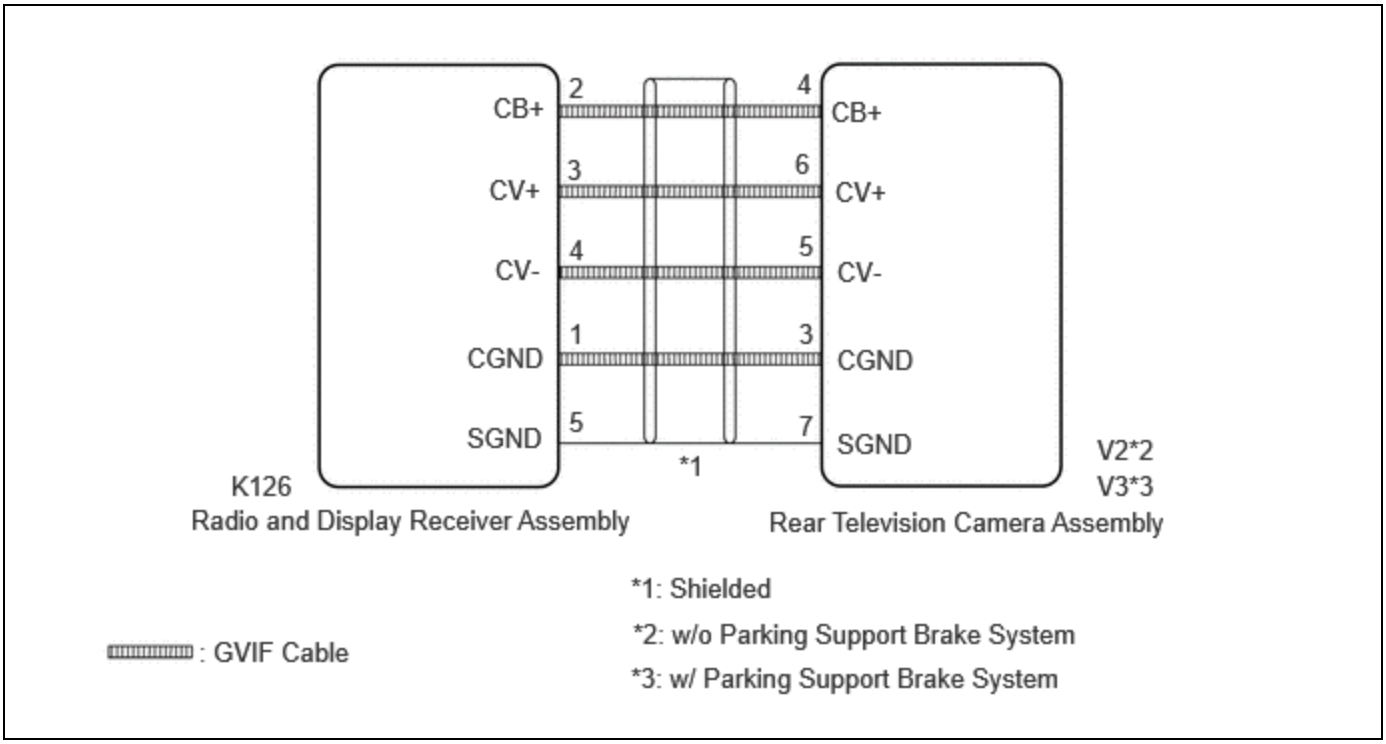
DESCRIPTION

This DTC is stored if the radio and display receiver assembly judges that the signal from the rear television camera assembly is not normal.

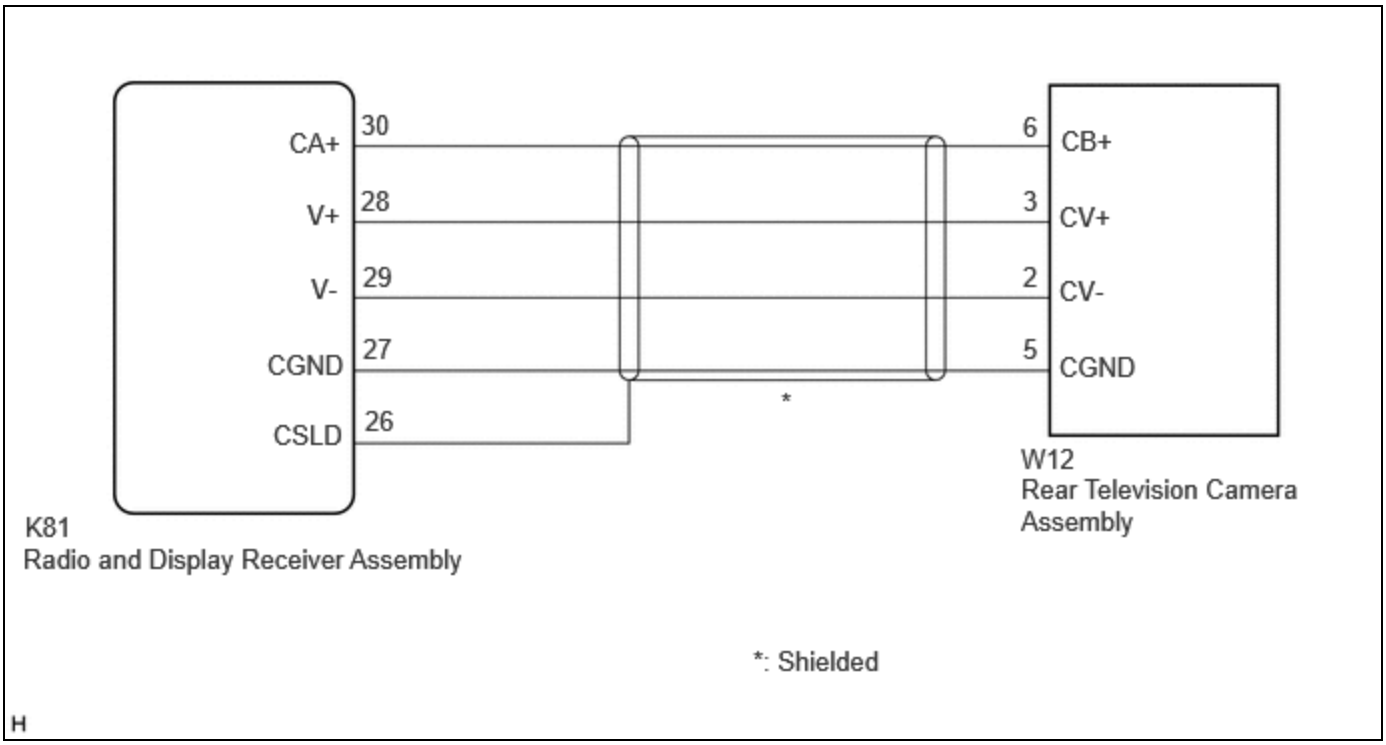
DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	DTC OUTPUT FROM	PRIORITY
C162287	Rear Camera Image Signal Missing Message	When the ignition switch is ON, a malfunction is detected in the image signal of the rear television camera assembly (2 trip detection logic)	• Harness or connector • Radio and display receiver assembly • Rear television camera assembly	Navigation System	B

WIRING DIAGRAM

w/ Back Guide Monitor System



w/ Rear View Monitor System



CAUTION / NOTICE / HINT

NOTICE:

Depending on the parts that are replaced during vehicle inspection or maintenance, performing initialization, registration or calibration may be needed.

Click here INFO

PROCEDURE

1.	**CHECK MODEL**

(a) Choose the model to be inspected.

RESULT	PROCEED TO
w/ Back Guide Monitor System	A
w/ Rear View Monitor System	B

B ▶ **GO TO STEP 5**

A ▼

2.	**CHECK HARNESS AND CONNECTOR (RADIO AND DISPLAY RECEIVER ASSEMBLY - REAR TELEVISION CAMERA ASSEMBLY)**

Pre-procedure1

(a) Disconnect the K126 radio and display receiver assembly connector.

(b) Disconnect the V2*1 or V3*2 rear television camera assembly connector.

Procedure1

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

Standard Resistance:

EWD INFO

Click Location & Routing(K126)
Click Connector(K126)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K126-2 (CB+) - V2*1 or V3*2-4 (CB+)	Always	Below 1 Ω	Ω
K126-3 (CV+) - V2*1 or V3*2-6 (CV+)	Always	Below 1 Ω	Ω
K126-4 (CV-) - V2*1 or V3*2-5 (CV-)	Always	Below 1 Ω	Ω
K126-1 (CGND) - V2*1 or V3*2-3 (CGND)	Always	Below 1 Ω	Ω
K126-5 (SGND) - Body ground	Always	Below 1 Ω	Ω
K126-2 (CB+) or V2*1 or V3*2-4 (CB+) - Body ground	Always	10 kΩ or higher	kΩ
K126-3 (CV+) or V2*1 or V3*2-6 (CV+) - Body ground	Always	10 kΩ or higher	kΩ

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K126-4 (CV-) or V2*1 or V3*2-5 (CV-) - Body ground	Always	10 kΩ or higher	kΩ
K126-1 (CGND) or V2*1 or V3*2-3 (CGND) - Body ground	Always	10 kΩ or higher	kΩ

*1: w/o Parking Support Brake System
*2: w/ Parking Support Brake System

Post-procedure1

(d) None

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

OK ▼

3.	**INSPECT RADIO AND DISPLAY RECEIVER ASSEMBLY**

Pre-procedure1

(a) Reconnect the K126 radio and display receiver assembly connector.

Procedure1

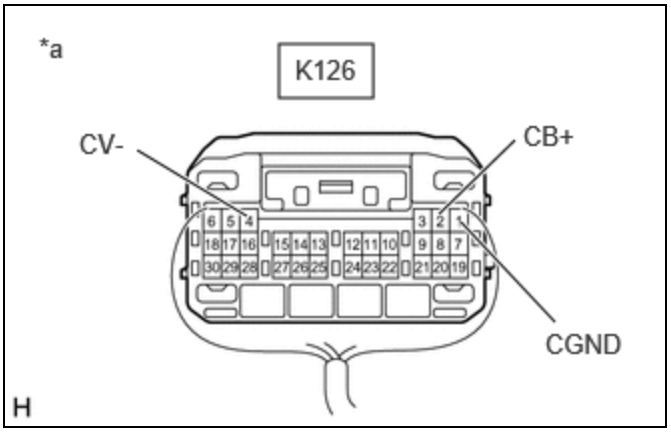
(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K126)
Click Connector(K126)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K126-4 (CV-) - Body ground	Always	Below 1 Ω	Ω
K126-1 (CGND) - Body ground	Always	Below 1 Ω	Ω



*a	Component with harness connected (Radio and Display Receiver Assembly)

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

Standard Voltage:

EWD INFO

Click Location & Routing(K126)
Click Connector(K126)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K126-2 (CB+) - K126-1 (CGND)	Power switch on (ACC)	5.5 to 7.05 V	V

Post-procedure1

(d) None

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

OK ▼

4.	**INSPECT REAR TELEVISION CAMERA ASSEMBLY**

(a) Reconnect the V2*1 or V3*2 rear television camera assembly connector.

*1: w/o Parking Support Brake System
*2: w/ Parking Support Brake System

(b) Using an oscilloscope, check the waveform of the rear television camera assembly.

HINT:

A waterproof connector is used for the rear television camera assembly. Therefore, inspect the waveform at the radio and display receiver assembly with the connector connected.

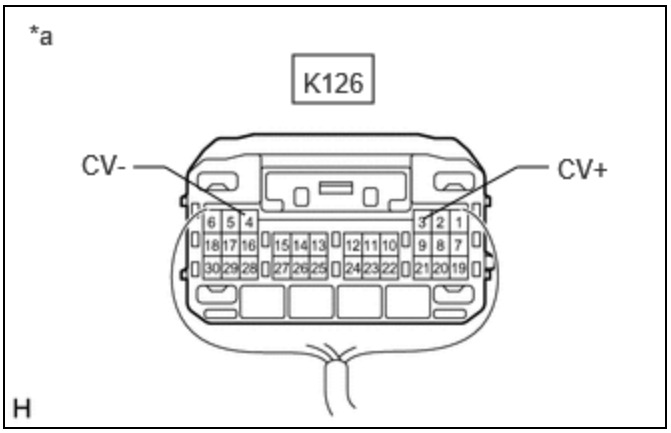
OK:

Waveform is similar to that shown in the illustration.

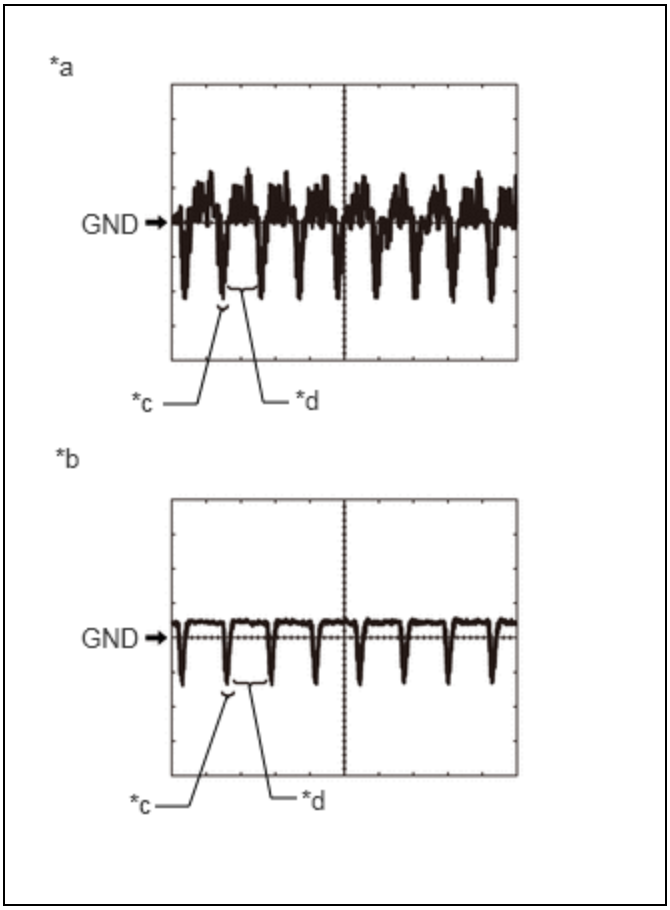
ITEM	CONTENT
Measurement terminal	K126-3 (CV+) - K126-4 (CV-)
Measurement setting	200 mV/DIV., 50 µs./DIV.
Condition	Power switch on (IG), shift lever in R

HINT:

- The video waveform changes according to the image sent by the rear television camera assembly.
- The video waveform is constantly output when the power switch is turned on (ACC).



*a	Component with harness connected (Radio and Display Receiver Assembly)



*a	Waveform 1 (camera lens is not covered, displaying an image)
*b	Waveform 2 (camera lens is covered, blacking out the screen)
*c	Synchronization Signal
*d	Video Waveform

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

NG ▶ **REPLACE REAR TELEVISION CAMERA ASSEMBLY**

for Wagon: Click here INFO

for Hatchback: Click here INFO

5.	**CHECK HARNESS AND CONNECTOR (RADIO AND DISPLAY RECEIVER ASSEMBLY - REAR TELEVISION CAMERA ASSEMBLY)**

Pre-procedure1

(a) Disconnect the K81 radio and display receiver assembly connector.

(b) Disconnect the O115 rear television camera assembly connector.

Procedure1

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

Standard Resistance:

EWD INFO

Click Location & Routing(K81)
Click Connector(K81)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K81-30 (CA+) - O115-6 (CB+)	Always	Below 1 Ω	Ω
K81-28 (V+) - O115-3 (CV+)	Always	Below 1 Ω	Ω
K81-29 (V-) - O115-2 (CV-)	Always	Below 1 Ω	Ω
K81-27 (CGND) - O115-5 (CGND)	Always	Below 1 Ω	Ω
K81-30 (CA+) or O115-6 (CB+) - Body ground	Always	10 kΩ or higher	kΩ
K81-28 (V+) or O115-3 (CV+) - Body ground	Always	10 kΩ or higher	kΩ
K81-29 (V-) or O115-2 (CV-) - Body ground	Always	10 kΩ or higher	kΩ
K81-27 (CGND) or O115-5 (CGND) - Body ground	Always	10 kΩ or higher	kΩ

Post-procedure1

(d) None

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

OK ▼

6.	**INSPECT RADIO AND DISPLAY RECEIVER ASSEMBLY**

Pre-procedure1

(a) Reconnect the K81 radio and display receiver assembly connector.

Procedure1

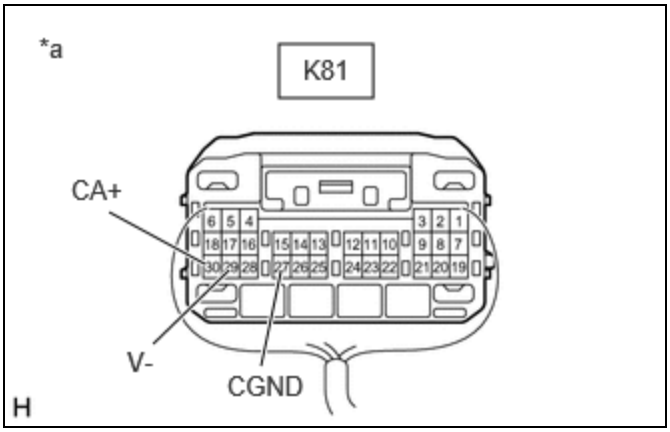
(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(K81)
Click Connector(K81)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K81-29 (V-) - Body ground	Always	Below 1 Ω	Ω
K81-27 (CGND) - Body ground	Always	Below 1 Ω	Ω



*a	Component with harness connected (Radio and Display Receiver Assembly)

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

Standard Voltage:

EWD INFO

Click Location & Routing(K81)
Click Connector(K81)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K81-30 (CA+) - K81-27 (CGND)	Power switch on (ACC)	5.5 to 7.05 V	V

Post-procedure1

(d) None

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

OK ▼

7.	**INSPECT REAR TELEVISION CAMERA ASSEMBLY**

(a) Reconnect the W12 rear television camera assembly connector.

(b) Using an oscilloscope, check the waveform of the rear television camera assembly.

HINT:

A waterproof connector is used for the rear television camera assembly. Therefore, inspect the waveform at the radio and display receiver assembly with the connector connected.

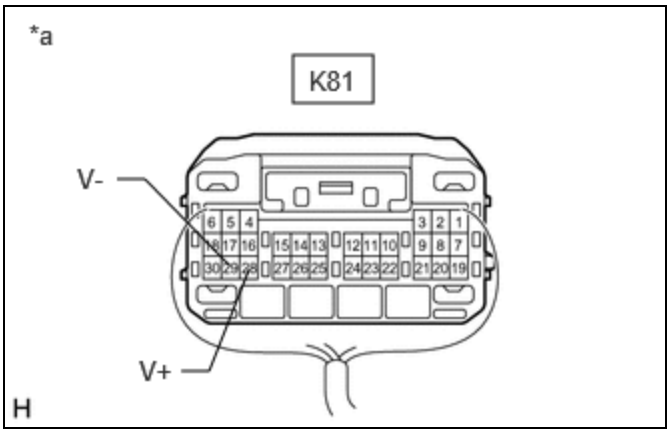
OK:

Waveform is similar to that shown in the illustration.

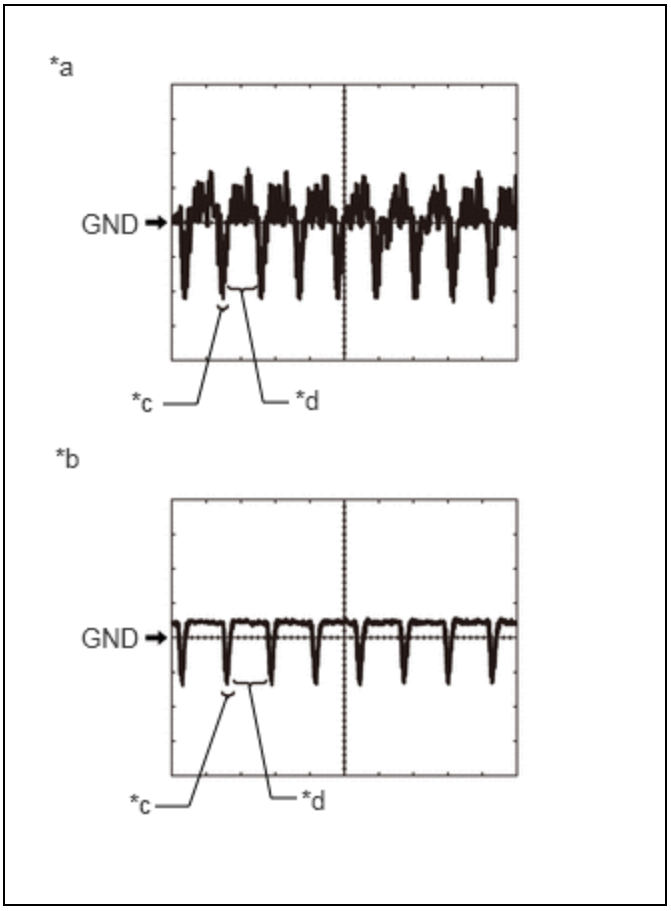
ITEM	CONTENT
Measurement terminal	K81-28 (V+) - K81-29 (V-)
Measurement setting	200 mV/DIV., 50 µs./DIV.
Condition	Power switch on (IG), shift lever in R

HINT:

- The video waveform changes according to the image sent by the rear television camera assembly.
- The video waveform is constantly output when the power switch is turned on (ACC).



*a	Component with harness connected (Radio and Display Receiver Assembly)



*a	Waveform 1 (camera lens is not covered, displaying an image)

*b	Waveform 2 (camera lens is covered, blacking out the screen)
*c	Synchronization Signal
*d	Video Waveform

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

NG ▶ **REPLACE REAR TELEVISION CAMERA ASSEMBLY**