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|---|---|---|
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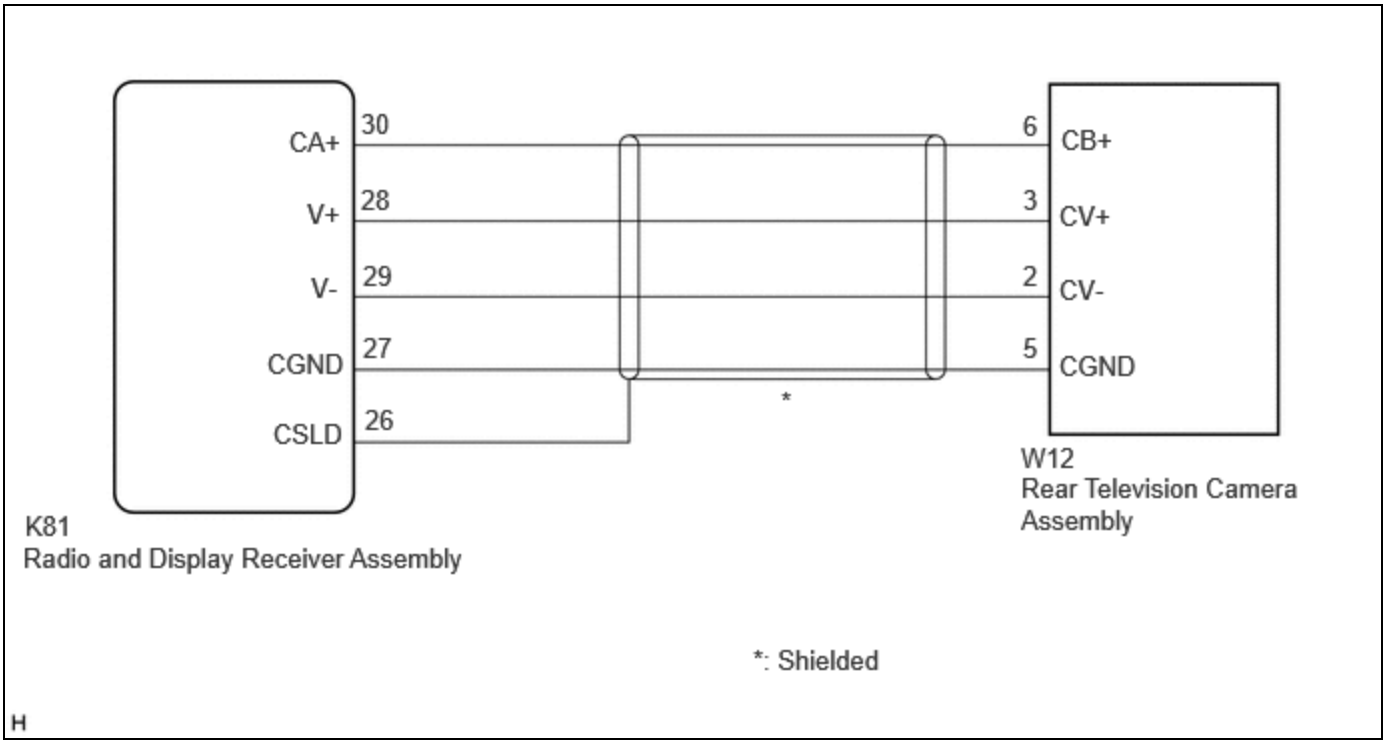
| **Model Year Start:** 2023 | **Model:** Prius Prime | **Prod Date Range:** [12/2022 - ] |
| **Title:** PARK ASSIST / MONITORING: REAR VIEW MONITOR SYSTEM: Image from Camera for Rear View Monitor is Abnormal; 2023 - 2024 MY Prius Prius Prime [12/2022 - ] | | |

**Image from Camera for Rear View Monitor is Abnormal**

## DESCRIPTION

The video signal of the rear television camera assembly is transmitted to the radio and display receiver assembly.

## WIRING DIAGRAM




## PROCEDURE

| | |
|---|---|
| **1.** | **CHECK HARNESS AND CONNECTOR (RADIO AND DISPLAY RECEIVER ASSEMBLY - REAR TELEVISION CAMERA ASSEMBLY)** |

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

(b) Disconnect the W12 rear television camera assembly connector.

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

Standard Resistance:

EWD INFO

**Click Location & Routing(K81,W12)**

Click Connector(K81)
Click Connector(W12)

| TESTER CONNECTION | CONDITION | SPECIFIED CONDITION |
|---|---|---|
| K81-30 (CA+) - W12-6 (CB+) | Always | Below 1 Ω |
| K81-28 (V+) - W12-3 (CV+) | Always | Below 1 Ω |
| K81-29 (V-) - W12-2 (CV-) | Always | Below 1 Ω |
| K81-27 (CGND) - W12-5 (CGND) | Always | Below 1 Ω |
| K81-26 (CSLD) - Body ground | Always | Below 1 Ω |
| K81-30 (CA+) or W12-6 (CB+) - Body ground | Always | 10 kΩ or higher |
| K81-28 (V+) or W12-3 (CV+) - Body ground | Always | 10 kΩ or higher |
| K81-29 (V-) or W12-2 (CV-) - Body ground | Always | 10 kΩ or higher |
| K81-27 (CGND) or W12-5 (CGND) - Body ground | Always | 10 kΩ or higher |

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

**OK** ▼

| | |
|---|---|
| **2.** | **INSPECT RADIO AND DISPLAY RECEIVER ASSEMBLY** |

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

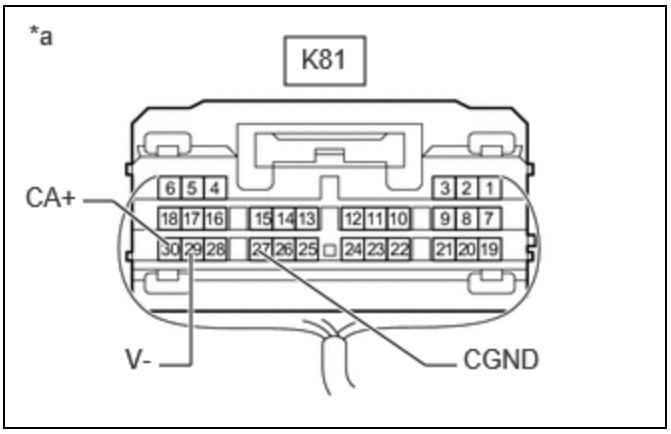
(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

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

| TESTER CONNECTION | CONDITION | SPECIFIED CONDITION |
|---|---|---|
| K81-29 (V-) - Body ground | Always | Below 1 Ω |
| K81-27 (CGND) - Body ground | Always | Below 1 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 |
|---|---|---|
| K81-30 (CA+) - K81-27 (CGND) | Ignition switch ACC | 5.5 to 7.05 V |

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

**OK**
▼

| | |
|---|---|
| **3.** | **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.

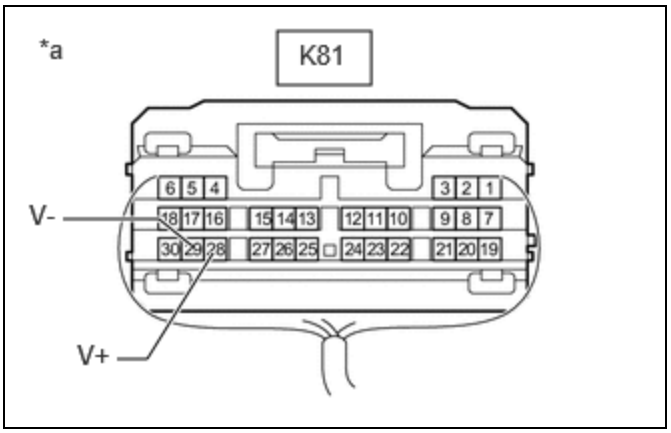
**HINT:**

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.

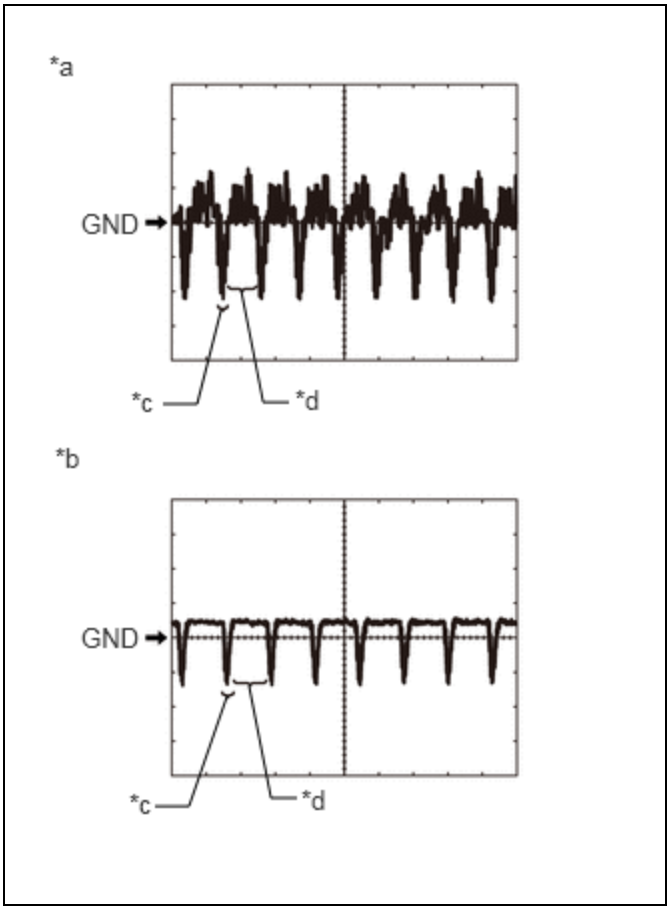
OK:

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 | Ignition switch ON, reverse (R) selected |




| | |
|---|---|
| *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 |

**HINT:**

- The video waveform changes according to the image sent by the rear television camera assembly.
- The video waveform is constantly output when the ignition switch is turned to ACC.
- Make sure that the rear camera is enabled in general settings.

**OK** ▶ **PROCEED TO NEXT SUSPECTED AREA SHOWN IN PROBLEM SYMPTOMS TABLE**

**NG** ▶ **REPLACE REAR TELEVISION CAMERA ASSEMBLY**