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Model Year Start: 2023	Model: Prius Prime	Prod Date Range: [03/2023 -]
Title: SUPPLEMENTAL RESTRAINT SYSTEMS: AIRBAG SYSTEM: SRS Warning Light Remains ON; 2023 - 2024 MY Prius Prius Prime [03/2023 -]		

SRS Warning Light Remains ON

DESCRIPTION

The SRS warning light is located in the combination meter assembly.

When the SRS is normal, the SRS warning light comes on for approximately 6 seconds after the ignition switch is turned from off to ON, and then goes off automatically.

If there is a malfunction in the SRS, the SRS warning light comes on to inform the driver of a problem.

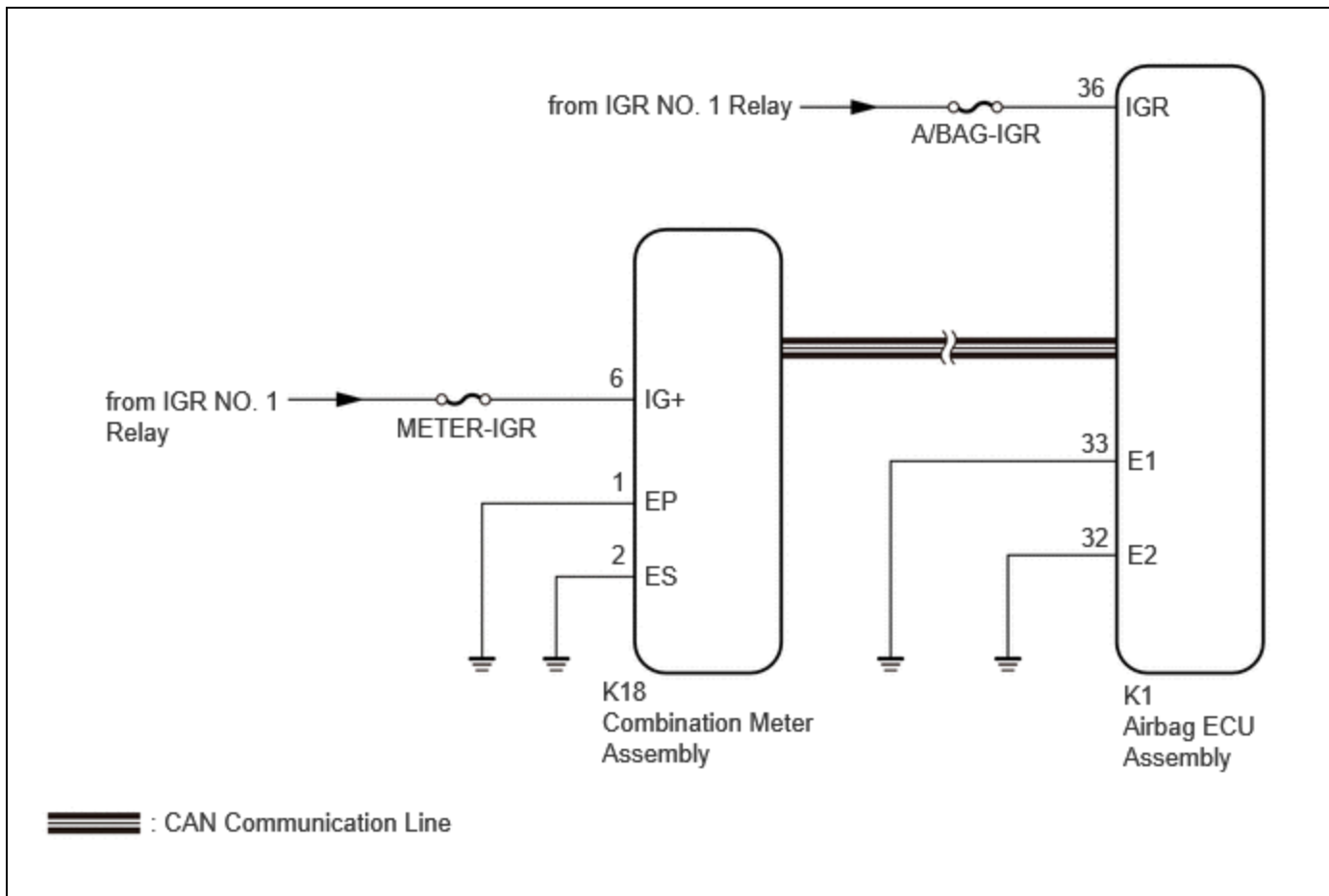
The SRS is equipped with a voltage-increase circuit (DC-DC converter) in the airbag ECU assembly in case the source voltage drops.

When the auxiliary battery voltage drops, the voltage-increase circuit (DC-DC converter) functions to increase the voltage of the SRS to normal voltage.

A malfunction in this circuit is not recorded in the airbag ECU assembly. The SRS warning light automatically goes off when the source voltage returns to normal.

The signal to illuminate the SRS warning light is transmitted from the airbag ECU assembly to the combination meter assembly through the CAN communication system.

WIRING DIAGRAM



CAUTION / NOTICE / HINT

NOTICE:

- After the ignition switch is turned off, there may be a waiting time before disconnecting the negative (-) auxiliary battery terminal.

Click here [INFO](#)

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](#)

- After replacing the airbag ECU assembly, refer to work procedure.

Click here [INFO](#)

- Inspect the fuses for circuits related to this system before performing the following procedure.
- When replacing the combination meter assembly, always replace it with a new one. If a combination meter assembly which was installed to another vehicle is used, the information stored in it will not match the information from the vehicle and a DTC may be stored.

HINT:

When the SRS warning light is illuminated due to a drop in supply power voltage, check the vehicle control history (RoB) before performing an inspection as the airbag ECU assembly stores vehicle control history (RoB) (X210B).

Click here [INFO](#)

PROCEDURE

1. CHECK SRS WARNING LIGHT OPERATION

(a) Turn the ignition switch to ON and check the SRS warning light condition.

HINT:

The primary check is performed for approximately 6 seconds after the ignition switch is turned to ON.

RESULT	PROCEED TO
After the primary check period, the SRS warning light remains on.	A
After the primary check period, the SRS warning light goes off and comes on again.	B

B  **GO TO STEP 7**

A



2. CHECK AUXILIARY BATTERY

(a) Measure the auxiliary battery voltage with the ignition switch off.

Standard Voltage:

11 to 14 V

NG  **REPLACE OR RECHARGE AUXILIARY BATTERY**

OK



3. CHECK CONNECTION OF CONNECTOR

(a) Turn the ignition switch off.

(b) Disconnect the cable from the negative (-) auxiliary battery terminal, and wait for at least 60 seconds.

(c) Check that the connector is properly connected to the airbag ECU assembly.

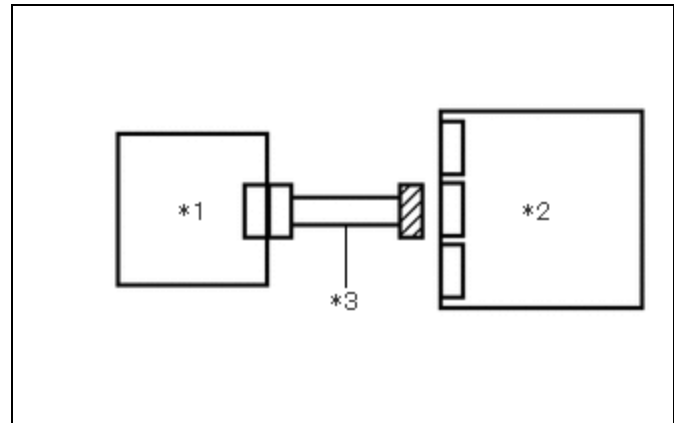
OK:

The connector is properly connected.

NG  **CONNECT CONNECTOR PROPERLY**

OK
4. CHECK CONNECTOR

(a) Disconnect the airbag ECU assembly connector.



*1	Combination Meter Assembly
*2	Airbag ECU Assembly
*3	Wire Harness

(b) Check that the terminals of the connector are not deformed or damaged.

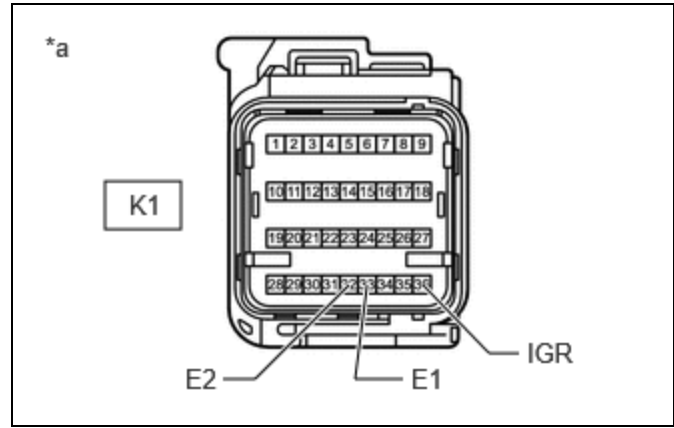
OK:

The terminals are not deformed or damaged.

NG **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK
5. CHECK HARNESS AND CONNECTOR (AIRBAG ECU ASSEMBLY - AUXILIARY BATTERY AND BODY GROUND)

(a) Connect the cable to the negative (-) auxiliary battery terminal, and wait for at least 2 seconds.



*a Front view of wire harness connector (to Airbag ECU Assembly)

- (b) Turn the ignition switch to ON.
- (c) Operate all components of the electrical systems (defogger, wipers, headlights, heater blower, etc.).
- (d) Measure the voltage according to the value(s) in the table below.

Standard Voltage:



[Click Location & Routing\(K1\)](#)
[Click Connector\(K1\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K1-36 (IGR) - Body ground	Ignition switch ON	8 to 16 V

- (e) Turn the ignition switch off.
- (f) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(K1\)](#)
[Click Connector\(K1\)](#)

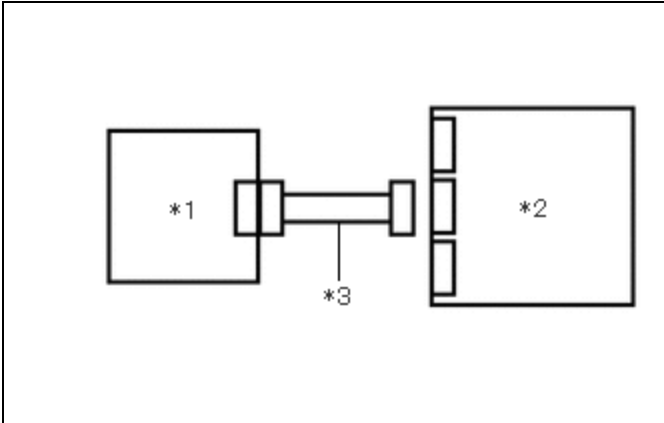
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K1-33 (E1) - Body ground	Always	Below 1 Ω
K1-32 (E2) - Body ground	Always	Below 1 Ω

NG ► REPAIR OR REPLACE HARNESS OR CONNECTOR

OK



6. CHECK SRS WARNING LIGHT



*1	Combination Meter Assembly
*2	Airbag ECU Assembly
*3	Wire Harness

(a) Turn the ignition switch to ON.

(b) Approximately 6 seconds after the ignition switch is turned to ON, check the condition of the SRS warning light.

RESULT	PROCEED TO
Turns off for 10 seconds, and then illuminates	A
Turns off for 10 seconds, and then remains off	B

A ▶ REPLACE AIRBAG ECU ASSEMBLY

B ▶ REPLACE COMBINATION METER ASSEMBLY

7. CHECK CAN COMMUNICATION SYSTEM

(a) Check if a CAN communication DTC is output.

for HEV Model: Click here [INFO](#)

for PHEV Model: Click here [INFO](#)

RESULT	PROCEED TO
DTC is not output	A
DTCs are output	B

B ▶ **GO TO CAN COMMUNICATION SYSTEM**

for HEV Model: Click here [INFO](#)

for PHEV Model: Click here [INFO](#)

A



8. CHECK AUXILIARY BATTERY

(a) Measure the auxiliary battery voltage with the ignition switch off.

Standard Voltage:

11 to 14 V

NG ▶ **REPLACE OR RECHARGE AUXILIARY BATTERY**

OK



9. CHECK CONNECTION OF CONNECTORS

(a) Turn the ignition switch off.

(b) Disconnect the cable from the negative (-) auxiliary battery terminal, and wait for at least 60 seconds.

(c) Check that the connectors are properly connected to the airbag ECU assembly and combination meter assembly.

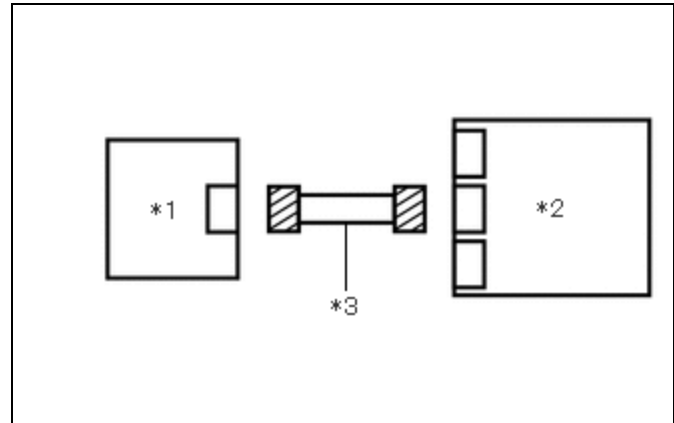
OK:

The connectors are properly connected.

NG ▶ **CONNECT CONNECTORS PROPERLY**

OK



10. CHECK CONNECTORS

*1	Combination Meter Assembly
*2	Airbag ECU Assembly
*3	Wire Harness

(a) Disconnect the airbag ECU assembly connector.

(b) Disconnect the combination meter assembly connector.

(c) Check that the terminals of the connectors are not deformed or damaged.

OK:

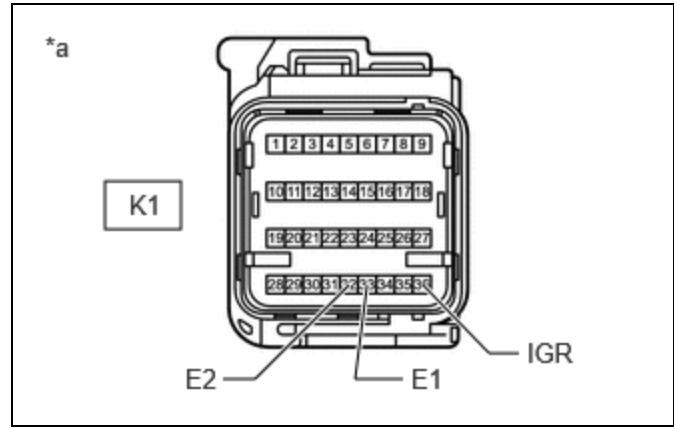
The terminals are not deformed or damaged.

NG ► REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

11.**CHECK HARNESS AND CONNECTOR (AIRBAG ECU ASSEMBLY - AUXILIARY BATTERY AND BODY GROUND)**

(a) Connect the cable to the negative (-) auxiliary battery terminal, and wait for at least 2 seconds.



*a Front view of wire harness connector (to Airbag ECU Assembly)

- (b) Turn the ignition switch to ON.
- (c) Operate all components of the electrical systems (defogger, wipers, headlights, heater blower, etc.).
- (d) Measure the voltage according to the value(s) in the table below.

Standard Voltage:



[Click Location & Routing\(K1\)](#)
[Click Connector\(K1\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K1-36 (IGR) - Body ground	Ignition switch ON	8 to 16 V

- (e) Turn the ignition switch off.
- (f) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(K1\)](#)
[Click Connector\(K1\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K1-33 (E1) - Body ground	Always	Below 1 Ω
K1-32 (E2) - Body ground	Always	Below 1 Ω

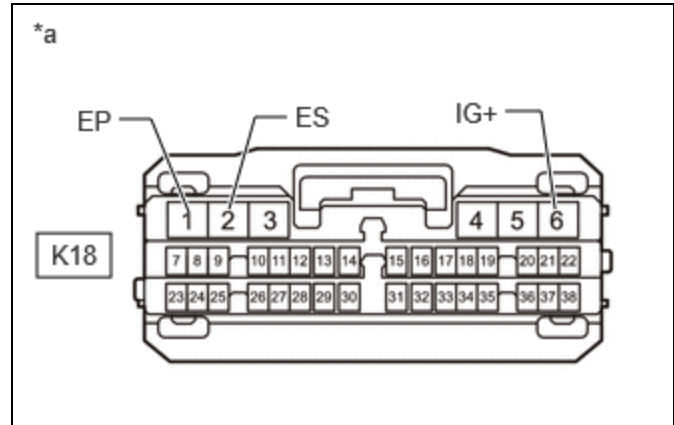
NG ► REPAIR OR REPLACE HARNESS OR CONNECTOR

OK



12.	CHECK HARNESS AND CONNECTOR (COMBINATION METER ASSEMBLY - AUXILIARY BATTERY AND BODY GROUND)
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(a) Turn the ignition switch to ON.



*a	Front view of wire harness connector (to Combination Meter Assembly)
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(b) Measure the voltage according to the value(s) in the table below.

Standard Voltage:



[Click Location & Routing\(K18\)](#)

[Click Connector\(K18\)](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K18-6 (IG+) - Body ground	Ignition switch ON	11 to 14 V

(c) Turn the ignition switch off.

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

Standard Resistance:



[Click Location & Routing\(K18\)](#)

[Click Connector\(K18\)](#)

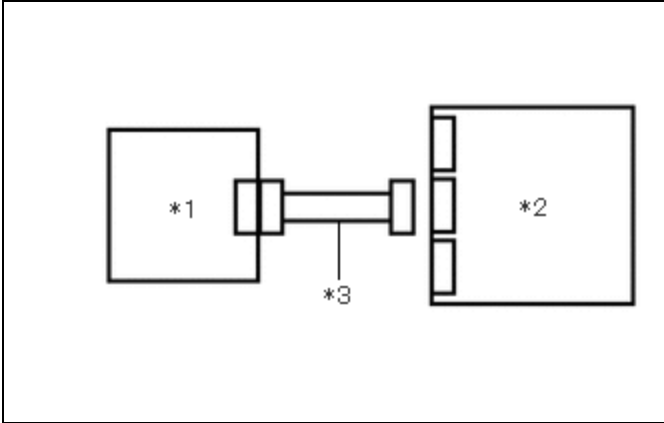
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K18-1 (EP) - Body ground	Always	Below 1 Ω
K18-2 (ES) - Body ground	Always	Below 1 Ω

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

OK
▼

13. CHECK SRS WARNING LIGHT

(a) Disconnect the cable from the negative (-) auxiliary battery terminal, and wait for at least 60 seconds.



*1	Combination Meter Assembly
*2	Airbag ECU Assembly
*3	Wire Harness

- (b) Connect the combination meter assembly connector.
- (c) Connect the cable to the negative (-) auxiliary battery terminal, and wait for at least 2 seconds.
- (d) Turn the ignition switch to ON.
- (e) Approximately 6 seconds after the ignition switch is turned to ON, check the condition of the SRS warning light.

RESULT	PROCEED TO
Turns off for 10 seconds, and then illuminates	A
Turns off for 10 seconds, and then remains off	B

A ▶ **REPLACE AIRBAG ECU ASSEMBLY**

B ▶ **REPLACE COMBINATION METER ASSEMBLY**

