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Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [12/2022 -]
Title: HYBRID / BATTERY CONTROL: HYBRID BATTERY SYSTEM (for M20A-FXS): P0E2D00; Hybrid/EV Battery Energy Control Module Hybrid/EV Battery Monitor Performance; 2023 - 2024 MY Prius Prius Prime [12/2022 -]		

DTC	**P0E2D00**	**Hybrid/EV Battery Energy Control Module Hybrid/EV Battery Monitor Performance**

DESCRIPTION

The battery ECU assembly detects the voltage of each HV battery cell. The battery ECU assembly monitors its internal HV battery cell voltage detection circuits to detect malfunctions. If the battery ECU assembly detects a malfunction it will store this DTC.

HINT:

If this DTC is output, it will be necessary to replace the battery ECU assembly.

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
P0E2D00	Hybrid/EV Battery Energy Control Module Hybrid/EV Battery Monitor Performance	The battery ECU assembly detects a malfunction of its internal HV battery cell voltage detection circuits. (1 trip detection logic)	• Battery ECU assembly • HV battery	Comes on	Master Warning: Comes on	HV Battery	A	SAE Code: P0E2D

MONITOR DESCRIPTION

The battery ECU assembly monitors its internal HV battery cell voltage detection circuits to detect malfunctions. If the battery ECU assembly detects a malfunction, it will illuminate the MIL and store a DTC.

MONITOR STRATEGY

Related DTCs	P0E2D (INF P0E2D00): Internal control module hybrid/EV battery monitor performance
Required sensors/components	Battery ECU assembly
Frequency of operation	Continuous
Duration	TMC's intellectual property
MIL operation	1 driving cycle
Sequence of operation	None

TYPICAL ENABLING CONDITIONS

The monitor will run whenever the following DTCs are not stored	TMC's intellectual property
Other conditions belong to TMC's intellectual property	-

TYPICAL MALFUNCTION THRESHOLDS

TMC's intellectual property	-

COMPONENT OPERATING RANGE

Battery ECU assembly	DTC P0E2D (INF P0E2D00) is not detected

CONFIRMATION DRIVING PATTERN

HINT:

- After repair has been completed, clear the DTC and then check that the vehicle has returned to normal by performing the following All Readiness check procedure.

  Click here INFO
- When clearing the permanent DTCs, refer to the "CLEAR PERMANENT DTC" procedure.

  Click here INFO

1. Clear the DTCs (even if no DTCs are stored, perform the clear DTC procedure).
2. Turn the ignition switch off and wait for 2 minutes or more.
3. With the vehicle stopped and the shift position in P, turn the ignition switch to ON and wait for at least 70 seconds. [*1]
4. Turn the ignition switch to ON (READY) and without depressing the accelerator pedal, and while depressing the brake pedal, change the shift position to D and wait for 1 minute. (Step A)[*2]
5. Drive the vehicle 0.5 m (1.6 ft.) forward and perform step A.[*3]
6. Drive the vehicle another 0.5 m (1.6 ft.) forward and perform step A. Repeat this procedure 5 times (minimum total driving distance: 2 m (6.6 ft.)).[*4]

HINT:

[*1] to [*4]: Normal judgment procedure.

The normal judgment procedure is used to complete DTC judgment and also used when clearing permanent DTCs.

7. Enter the following menus: Powertrain / HV Battery / Utility / All Readiness.
8. Check the DTC judgment result.

HINT:

- If the judgment result shows NORMAL, the system is normal.
- If the judgment result shows ABNORMAL, the system has a malfunction.
- If the judgment result shows INCOMPLETE, perform the normal judgment procedure again.

WIRING DIAGRAM

Refer to the wiring diagram for DTC P1A001C.

Click here INFO

CAUTION / NOTICE / HINT

CAUTION:

Refer to the precautions before inspecting high voltage circuit.

Click here INFO

NOTICE:

- 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

PROCEDURE

1.	**CHECK DTC OUTPUT (HV BATTERY, HYBRID CONTROL)**

Pre-procedure1

(a) None

Procedure1

(b) Check for DTCs.

Powertrain > HV Battery > Trouble Codes
Powertrain > Hybrid Control > Trouble Codes

RESULT	PROCEED TO
"P0E2D00" only is output, or DTCs except the ones in the table below are also output.	A
"P0E2D00" and "P1C8449" are output.	B
DTCs of hybrid battery system in the table below are output.	C
DTCs of hybrid control system in the table below are output.	D

SYSTEM	RELEVANT DTC	
Hybrid battery system	P060A47	Hybrid/EV Battery Energy Control Module Monitoring Processor Watchdog / Safety MCU Failure
	P060B49	Hybrid/EV Battery Energy Control Module A/D Processing Internal Electronic Failure
	P060687	Hybrid/EV Battery Energy Control Module Processor to Monitoring Processor Missing Message
	P1A001C	Hybrid Battery Stack 2 Cell Voltage Detection Voltage Out of Range
	P301A1C	Hybrid Battery Stack 1 Cell Voltage Detection Voltage Out of Range

SYSTEM	RELEVANT DTC	
Hybrid control system	P0A1F94	Hybrid/EV Battery Energy Control Module Unexpected Operation

Post-procedure1

(c) Turn the ignition switch off.

B ▶ **REPLACE BATTERY ECU ASSEMBLY**

C ▶ **GO TO DTC CHART (HYBRID BATTERY SYSTEM)**

D ▶ **GO TO DTC CHART (HYBRID CONTROL SYSTEM)**

A

2.	CHECK CONNECTOR CONNECTION CONDITION (BATTERY ECU ASSEMBLY CONNECTOR)

CAUTION:

Be sure to wear insulated gloves and protective goggles.

Pre-procedure1

(a) Check that the service plug grip is not installed.

NOTICE:

After removing the service plug grip, do not turn the ignition switch to ON (READY), unless instructed by the repair manual because this may cause a malfunction.

Procedure1

(b) Check the connector connections and contact pressure of the relevant terminals for the battery ECU assembly.

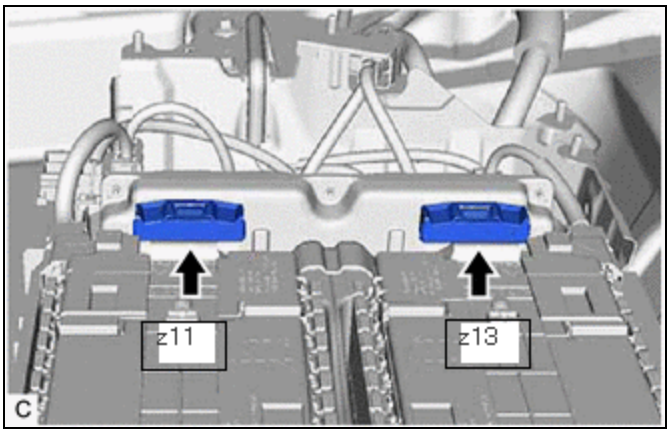
HINT:

Click here INFO

OK:

The connectors are connected securely and there are no contact problems.

Result:



RESULT	PROCEED TO
OK	A

RESULT		PROCEED TO
Not connected securely	The terminals are not damaged or corroded	B
Either connector z11 and z13 was not connected securely	The terminals are damaged or corroded	C

Post-procedure1

(c) None

B ▶ **CONNECT SECURELY**

C ▶ **REPLACE HV BATTERY**

A ▼

3.	READ VALUE USING GTS (HYBRID/EV BATTERY CELL VOLTAGE)

Pre-procedure1

(a) None

Procedure1

(b) Read the Data List.

Powertrain > HV Battery > Data List

TESTER DISPLAY
Hybrid/EV Battery Cell 1 Voltage
Hybrid/EV Battery Cell 2 Voltage
Hybrid/EV Battery Cell 3 Voltage
Hybrid/EV Battery Cell 4 Voltage
Hybrid/EV Battery Cell 5 Voltage
Hybrid/EV Battery Cell 6 Voltage

TESTER DISPLAY
Hybrid/EV Battery Cell 7 Voltage
Hybrid/EV Battery Cell 8 Voltage
Hybrid/EV Battery Cell 9 Voltage
Hybrid/EV Battery Cell 10 Voltage
Hybrid/EV Battery Cell 11 Voltage
Hybrid/EV Battery Cell 12 Voltage
Hybrid/EV Battery Cell 13 Voltage
Hybrid/EV Battery Cell 14 Voltage
Hybrid/EV Battery Cell 15 Voltage
Hybrid/EV Battery Cell 16 Voltage
Hybrid/EV Battery Cell 17 Voltage
Hybrid/EV Battery Cell 18 Voltage
Hybrid/EV Battery Cell 19 Voltage
Hybrid/EV Battery Cell 20 Voltage
Hybrid/EV Battery Cell 21 Voltage
Hybrid/EV Battery Cell 22 Voltage
Hybrid/EV Battery Cell 23 Voltage
Hybrid/EV Battery Cell 24 Voltage
Hybrid/EV Battery Cell 25 Voltage

TESTER DISPLAY
Hybrid/EV Battery Cell 26 Voltage
Hybrid/EV Battery Cell 27 Voltage
Hybrid/EV Battery Cell 28 Voltage
Hybrid/EV Battery Cell 29 Voltage
Hybrid/EV Battery Cell 30 Voltage
Hybrid/EV Battery Cell 31 Voltage
Hybrid/EV Battery Cell 32 Voltage
Hybrid/EV Battery Cell 33 Voltage
Hybrid/EV Battery Cell 34 Voltage
Hybrid/EV Battery Cell 35 Voltage
Hybrid/EV Battery Cell 36 Voltage
Hybrid/EV Battery Cell 37 Voltage
Hybrid/EV Battery Cell 38 Voltage
Hybrid/EV Battery Cell 39 Voltage
Hybrid/EV Battery Cell 40 Voltage
Hybrid/EV Battery Cell 41 Voltage
Hybrid/EV Battery Cell 42 Voltage
Hybrid/EV Battery Cell 43 Voltage
Hybrid/EV Battery Cell 44 Voltage

TESTER DISPLAY
Hybrid/EV Battery Cell 45 Voltage
Hybrid/EV Battery Cell 46 Voltage
Hybrid/EV Battery Cell 47 Voltage
Hybrid/EV Battery Cell 48 Voltage
Hybrid/EV Battery Cell 49 Voltage
Hybrid/EV Battery Cell 50 Voltage
Hybrid/EV Battery Cell 51 Voltage
Hybrid/EV Battery Cell 52 Voltage
Hybrid/EV Battery Cell 53 Voltage
Hybrid/EV Battery Cell 54 Voltage
Hybrid/EV Battery Cell 55 Voltage
Hybrid/EV Battery Cell 56 Voltage
Hybrid/EV Battery Cell 57 Voltage
Hybrid/EV Battery Cell 58 Voltage
Hybrid/EV Battery Cell 59 Voltage
Hybrid/EV Battery Cell 60 Voltage

RESULT	PROCEED TO
There are two or more HV battery cell of 1.6 V or less in the data list item "Hybrid/EV Battery Cell 1 to 60 Voltage"	A
Other than above	B

Post-procedure1

(c) Turn the ignition switch off.

B ▶ **GO TO STEP 5**

A

4.	**REPLACE BATTERY ECU ASSEMBLY**

HINT:

Click here INFO

NEXT ▶ **REPLACE HV BATTERY**

5.	**CHECK FREEZE FRAME DATA (HYBRID/EV BATTERY CELL VOLTAGE)**

Pre-procedure1

(a) None

Procedure1

(b) Read the value of freeze frame data items "Hybrid/EV Battery Cell 1 Voltage" through "Hybrid/EV Battery Cell 60 Voltage" for DTC P0E2D00 and make a note if the value of any is 1.6 V or less.

Powertrain > HV Battery > Trouble Codes

RESULT	PROCEED TO
The value of any of the freeze frame data items "Hybrid/EV Battery Cell 1 Voltage" through "Hybrid/EV Battery Cell 30 Voltage" is 1.6 V or less.	A
The value of any of the freeze frame data items "Hybrid/EV Battery Cell 31 Voltage" through "Hybrid/EV Battery Cell 60 Voltage" is 1.6 V or less.	B
Other than above	C

Post-procedure1

(c) Turn the ignition switch off.

B ▶ **GO TO STEP 9**

C ▶ **REPLACE BATTERY ECU ASSEMBLY**

A

6.	CHECK HV BATTERY (HV BATTERY CELL VOLTAGE 1 - 30)

CAUTION:

- Be sure to wear insulated gloves and protective goggles.
- Disconnect only the connector corresponding to the HV battery cell to be checked. Do not disconnect the other connectors.

NOTICE:

Make sure to use tester probes with a diameter of approximately 0.5 mm (0.0197 in.) when measuring the voltage of each HV battery cell.

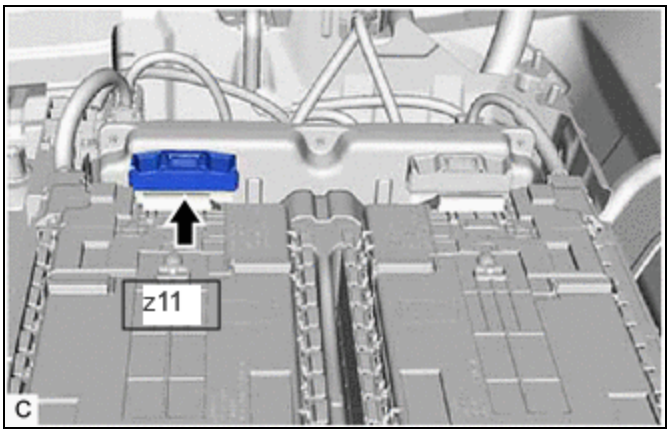
Pre-procedure1

(a) Check that the service plug grip is not installed.

NOTICE:

After removing the service plug grip, do not turn the ignition switch to ON (READY), unless instructed by the repair manual because this may cause a malfunction.

(b) Disconnect the battery ECU assembly connector.



Procedure1

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

HINT:

Measure the voltage of the HV battery cells whose value in the freeze frame data was 1.6 V or less only.

HV BATTERY CELL	TESTER CONNECTION	CONDITION
1	z11-19 (GA0) - z11-41 (VA1)	Always
2	z11-41 (VA1) - z11-18 (VA2)	Always
3	z11-18 (VA2) - z11-40 (VA3)	Always
4	z11-40 (VA3) - z11-17 (VA4)	Always
5	z11-17 (VA4) - z11-39 (VA5)	Always

HV BATTERY CELL	TESTER CONNECTION	CONDITION
6	z11-39 (VA5) - z11-16 (VA6)	Always
7	z11-16 (VA6) - z11-38 (VA7)	Always
8	z11-38 (VA7) - z11-15 (VA8)	Always
9	z11-15 (VA8) - z11-37 (VA9)	Always
10	z11-37 (VA9) - z11-14 (VA10)	Always
11	z11-14 (VA10) - z11-36 (VA11)	Always
12	z11-36 (VA11) - z11-13 (VA12)	Always
13	z11-13 (VA12) - z11-35 (VA13)	Always
14	z11-35 (VA13) - z11-12 (VA14)	Always
15	z11-12 (VA14) - z11-34 (VA15)	Always
16	z11-34 (VA15) - z11-11 (VA16)	Always
17	z11-11 (VA16) - z11-33 (VA17)	Always
18	z11-33 (VA17) - z11-10 (VA18)	Always
19	z11-10 (VA18) - z11-32 (VA19)	Always
20	z11-32 (VA19) - z11-9 (VA20)	Always
21	z11-9 (VA20) - z11-31 (VA21)	Always
22	z11-31 (VA21) - z11-7 (VA22)	Always
23	z11-29 (GA1) - z11-6 (VA23)	Always
24	z11-6 (VA23) - z11-28 (VA24)	Always
25	z11-28 (VA24) - z11-5 (VA25)	Always
26	z11-5 (VA25) - z11-27 (VA26)	Always
27	z11-27 (VA26) - z11-4 (VA27)	Always
28	z11-4 (VA27) - z11-26 (VA28)	Always
29	z11-26 (VA28) - z11-3 (VA29)	Always
30	z11-3 (VA29) - z11-23 (VA30)	Always

CAUTION:

Make sure not to cross the electrodes of an electrical tester measurement terminals.

NOTICE:

Make sure to check the polarity of each terminal (positive (+) or negative (-)) before connecting a tester.

RESULT	PROCEED TO
The voltage between the terminals is 1.6 V or less.	A
Other than above	B

Post-procedure1

(d) Reconnect the battery ECU assembly connector.

B REPLACE BATTERY ECU ASSEMBLY

A

7.	CHECK BATTERY ECU ASSEMBLY (GA0 - VA30)

NOTICE:

Make sure to use tester probes with a diameter of approximately 0.5 mm (0.0197 in.) when measuring the resistance.

Pre-procedure1

(a) Remove the battery ECU assembly.

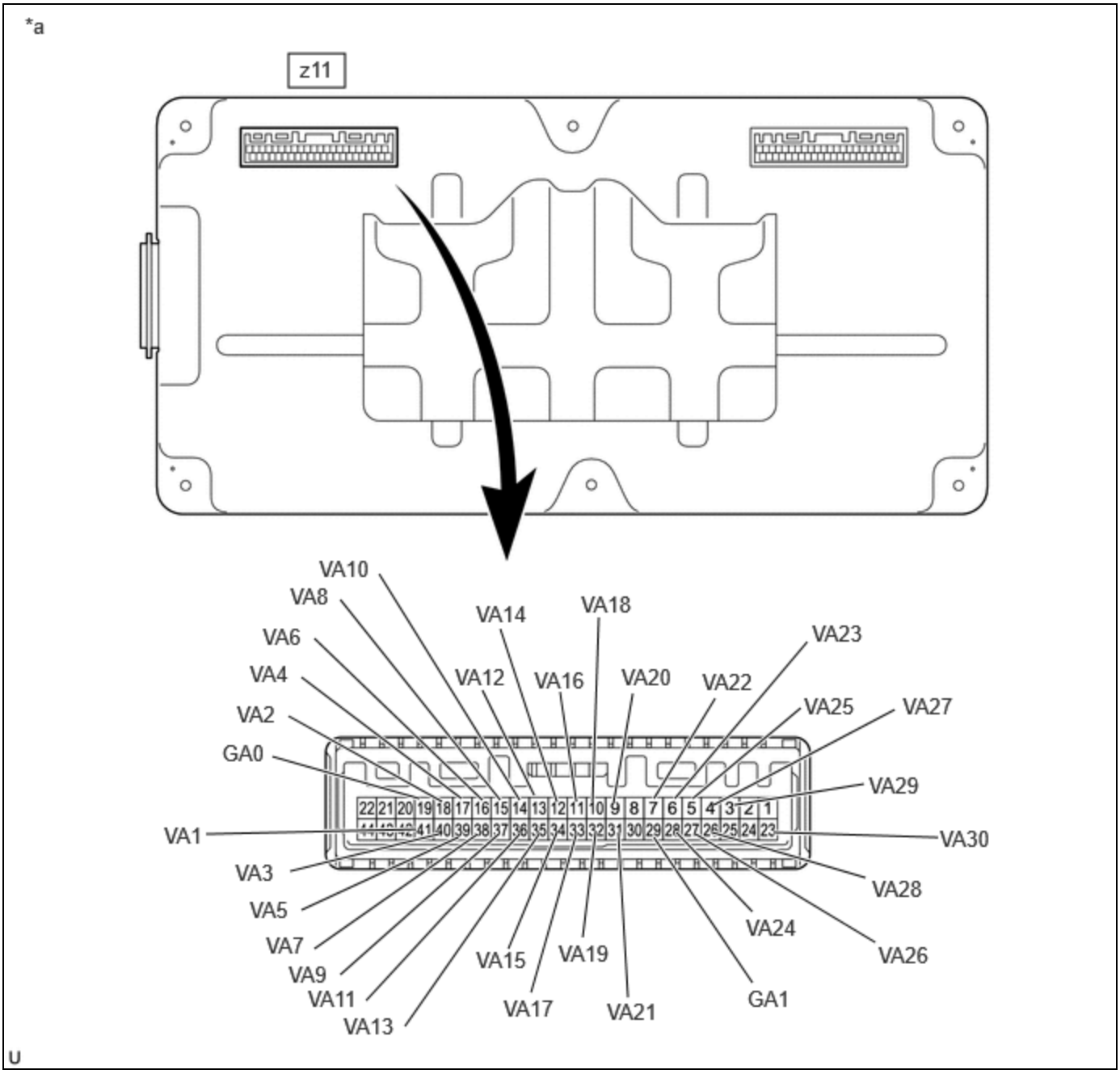
Click here INFO

Procedure1

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

HINT:

Only inspect the terminals of the battery ECU assembly which correspond to the HV battery cells which measured 1.6 V or less in the previous step.



*a	Component without harness connected (Battery ECU Assembly)	-	-

Standard Resistance:

HV BATTERY CELL	TESTER CONNECTION (TESTER PROBE POLARITY)	CONDITION	SPECIFIED CONDITION
1	z11-19 (GA0) (-) - z11-41 (VA1) (+)	Always	50 kΩ or more
2	z11-41 (VA1) (-) - z11-18 (VA2) (+)	Always	50 kΩ or more
3	z11-18 (VA2) (-) - z11-40 (VA3) (+)	Always	50 kΩ or more
4	z11-40 (VA3) (-) - z11-17 (VA4) (+)	Always	50 kΩ or more
5	z11-17 (VA4) (-) - z11-39 (VA5) (+)	Always	50 kΩ or more
6	z11-39 (VA5) (-) - z11-16 (VA6) (+)	Always	50 kΩ or more

HV BATTERY CELL	TESTER CONNECTION (TESTER PROBE POLARITY)	CONDITION	SPECIFIED CONDITION
7	z11-16 (VA6) (-) - z11-38 (VA7) (+)	Always	50 kΩ or more
8	z11-38 (VA7) (-) - z11-15 (VA8) (+)	Always	50 kΩ or more
9	z11-15 (VA8) (-) - z11-37 (VA9) (+)	Always	50 kΩ or more
10	z11-37 (VA9) (-) - z11-14 (VA10) (+)	Always	50 kΩ or more
11	z11-14 (VA10) (-) - z11-36 (VA11) (+)	Always	50 kΩ or more
12	z11-36 (VA11) (-) - z11-13 (VA12) (+)	Always	50 kΩ or more
13	z11-13 (VA12) (-) - z11-35 (VA13) (+)	Always	50 kΩ or more
14	z11-35 (VA13) (-) - z11-12 (VA14) (+)	Always	50 kΩ or more
15	z11-12 (VA14) (-) - z11-34 (VA15) (+)	Always	50 kΩ or more
16	z11-34 (VA15) (-) - z11-11 (VA16) (+)	Always	50 kΩ or more
17	z11-11 (VA16) (-) - z11-33 (VA17) (+)	Always	50 kΩ or more
18	z11-33 (VA17) (-) - z11-10 (VA18) (+)	Always	50 kΩ or more
19	z11-10 (VA18) (-) - z11-32 (VA19) (+)	Always	50 kΩ or more
20	z11-32 (VA19) (-) - z11-9 (VA20) (+)	Always	50 kΩ or more
21	z11-9 (VA20) (-) - z11-31 (VA21) (+)	Always	50 kΩ or more
22	z11-31 (VA21) (-) - z11-7 (VA22) (+)	Always	50 kΩ or more
23	z11-29 (GA1) (-) - z11-6 (VA23) (+)	Always	50 kΩ or more
24	z11-6 (VA23) (-) - z11-28 (VA24) (+)	Always	50 kΩ or more
25	z11-28 (VA24) (-) - z11-5 (VA25) (+)	Always	50 kΩ or more
26	z11-5 (VA25) (-) - z11-27 (VA26) (+)	Always	50 kΩ or more
27	z11-27 (VA26) (-) - z11-4 (VA27) (+)	Always	50 kΩ or more
28	z11-4 (VA27) (-) - z11-26 (VA28) (+)	Always	50 kΩ or more
29	z11-26 (VA28) (-) - z11-3 (VA29) (+)	Always	50 kΩ or more
30	z11-3 (VA29) (-) - z11-23 (VA30) (+)	Always	50 kΩ or more

NOTICE:

- Make sure to check the polarity of each terminal (positive (+) or negative (-)) before connecting a tester.
- Read the resistance after the value has stabilized.
- In order to avoid damaging the terminals of the battery ECU assembly, make sure to use tester probes with a diameter of approximately 0.5 mm (0.0197 in.) when measuring the resistance of the battery ECU assembly.

RESULT	PROCEED TO
The voltage between the terminals is 50 kΩ or more.	A
Other than above	B

Post-procedure1

(c) Install the battery ECU assembly.

A ▶ REPLACE HV BATTERY

B ▼

8.	REPLACE HV BATTERY

HINT:

Click here INFO

NEXT ▶ REPLACE BATTERY ECU ASSEMBLY

9.	CHECK HV BATTERY (HV BATTERY CELL VOLTAGE 31 - 60)

CAUTION:

- Be sure to wear insulated gloves and protective goggles.
- Disconnect only the connector corresponding to the HV battery cell to be checked. Do not disconnect the other connectors.

NOTICE:

Make sure to use tester probes with a diameter of approximately 0.5 mm (0.0197 in.) when measuring the voltage of each HV battery cell.

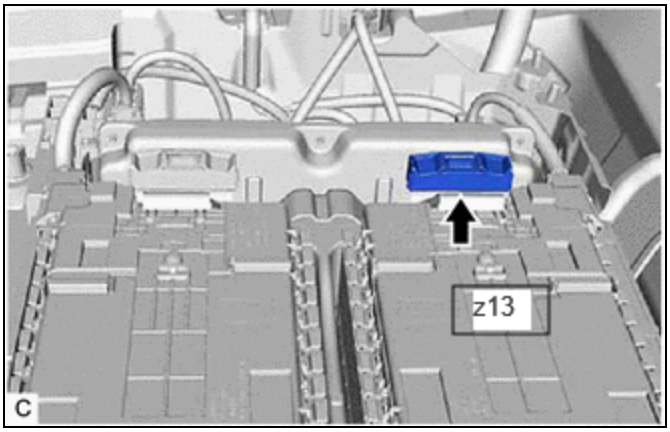
Pre-procedure1

(a) Check that the service plug grip is not installed.

NOTICE:

After removing the service plug grip, do not turn the ignition switch to ON (READY), unless instructed by the repair manual because this may cause a malfunction.

(b) Disconnect the battery ECU assembly connector.



Procedure1

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

HINT:

Measure the voltage of the HV battery cells whose value in the freeze frame data was 1.6 V or less only.

HV BATTERY CELL	TESTER CONNECTION	CONDITION
31	z13-22 (VAD) - z13-44 (VA31)	Always
32	z13-44 (VA31) - z13-21 (VA32)	Always
33	z13-21 (VA32) - z13-43 (VA33)	Always
34	z13-43 (VA33) - z13-20 (VA34)	Always
35	z13-20 (VA34) - z13-42 (VA35)	Always
36	z13-42 (VA35) - z13-19 (VA36)	Always
37	z13-19 (VA36) - z13-16 (VA37)	Always
38	z13-35 (GA2) - z13-12 (VA38)	Always
39	z13-12 (VA38) - z13-34 (VA39)	Always
40	z13-34 (VA39) - z13-11 (VA40)	Always
41	z13-11 (VA40) - z13-33 (VA41)	Always
42	z13-33 (VA41) - z13-10 (VA42)	Always
43	z13-10 (VA42) - z13-32 (VA43)	Always
44	z13-32 (VA43) - z13-9 (VA44)	Always
45	z13-9 (VA44) - z13-31 (VA45)	Always
46	z13-31 (VA45) - z13-8 (VA46)	Always
47	z13-8 (VA46) - z13-30 (VA47)	Always
48	z13-30 (VA47) - z13-7 (VA48)	Always
49	z13-7 (VA48) - z13-29 (VA49)	Always
50	z13-29 (VA49) - z13-6 (VA50)	Always
51	z13-6 (VA50) - z13-28 (VA51)	Always
52	z13-28 (VA51) - z13-5 (VA52)	Always
53	z13-5 (VA52) - z13-27 (VA53)	Always
54	z13-27 (VA53) - z13-4 (VA54)	Always
55	z13-4 (VA54) - z13-26 (VA55)	Always
56	z13-26 (VA55) - z13-3 (VA56)	Always
57	z13-3 (VA56) - z13-25 (VA57)	Always
58	z13-25 (VA57) - z13-2 (VA58)	Always
59	z13-2 (VA58) - z13-24 (VA59)	Always
60	z13-24 (VA59) - z13-23 (VA60)	Always

CAUTION:

Make sure not to cross the electrodes of an electrical tester measurement terminals.

NOTICE:

Make sure to check the polarity of each terminal (positive (+) or negative (-)) before connecting a tester.

RESULT	PROCEED TO
The voltage between the terminals is 1.6 V or less.	A
Other than above	B

Post-procedure1

(d) Reconnect the battery ECU assembly connector.

B ▶ **REPLACE BATTERY ECU ASSEMBLY**

A ▼

10.	**CHECK BATTERY ECU ASSEMBLY (VAD - VA60)**

NOTICE:

Make sure to use tester probes with a diameter of approximately 0.5 mm (0.0197 in.) when measuring the resistance.

Pre-procedure1

(a) Remove the battery ECU assembly.

HINT:

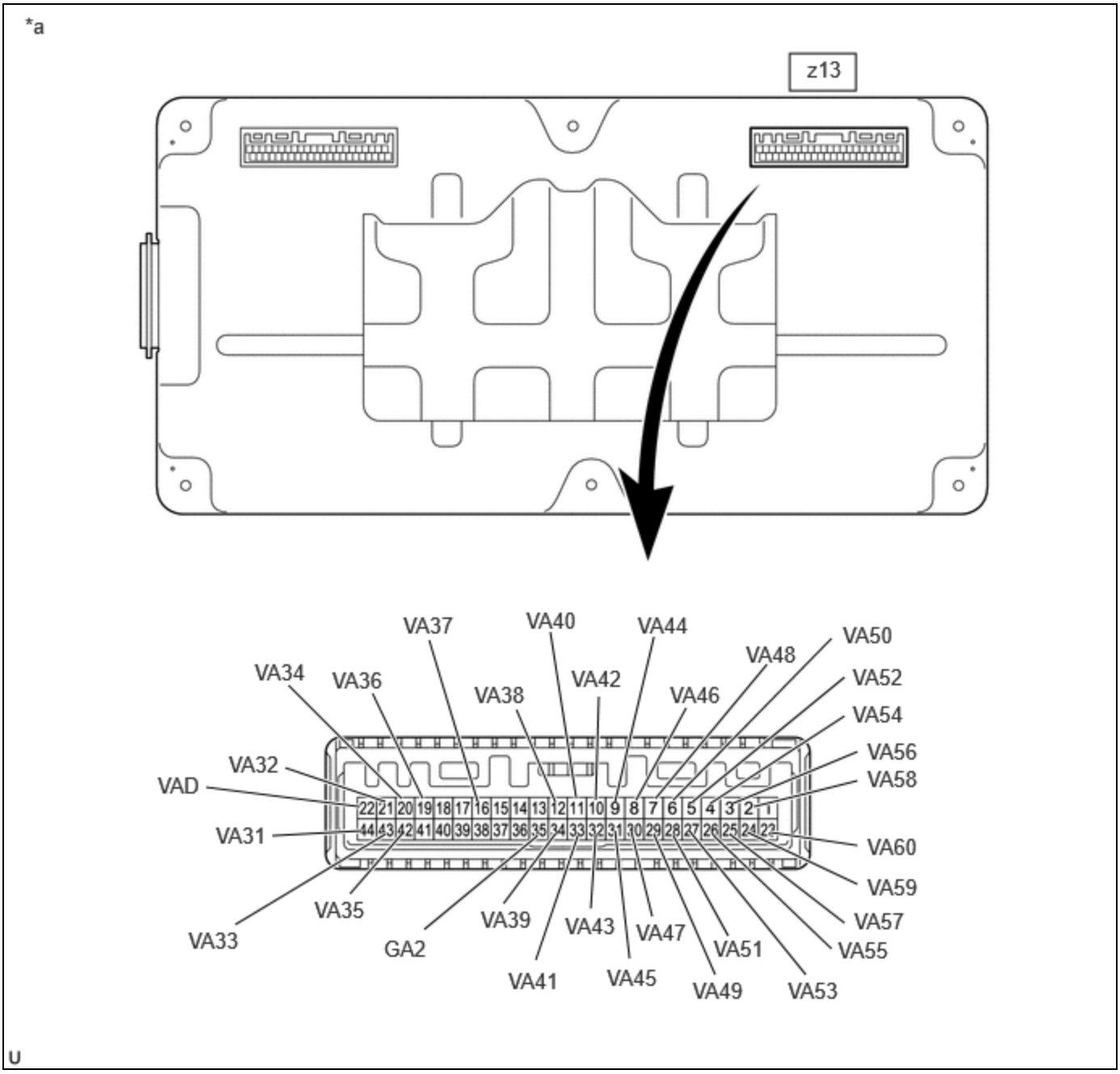
Click here INFO

Procedure1

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

HINT:

Only inspect the terminals of the battery ECU assembly which correspond to the HV battery cells which measured 1.6 V or less in the previous step.



*a	Component without harness connected (Battery ECU Assembly)	-	-

Standard Resistance:

HV BATTERY CELL	TESTER CONNECTION (TESTER PROBE POLARITY)	CONDITION	SPECIFIED CONDITION
31	z13-22 (VAD) (-) - z13-44 (VA31) (+)	Always	50 kΩ or more
32	z13-44 (VA31) (-) - z13-21 (VA32) (+)	Always	50 kΩ or more
33	z13-21 (VA32) (-) - z13-43 (VA33) (+)	Always	50 kΩ or more
34	z13-43 (VA33) (-) - z13-20 (VA34) (+)	Always	50 kΩ or more
35	z13-20 (VA34) (-) - z13-42 (VA35) (+)	Always	50 kΩ or more
36	z13-42 (VA35) (-) - z13-19 (VA36) (+)	Always	50 kΩ or more

HV BATTERY CELL	TESTER CONNECTION (TESTER PROBE POLARITY)	CONDITION	SPECIFIED CONDITION
37	z13-19 (VA36) (-) - z13-16 (VA37) (+)	Always	50 kΩ or more
38	z13-35 (GA2) (-) - z13-12 (VA38) (+)	Always	50 kΩ or more
39	z13-12 (VA38) (-) - z13-34 (VA39) (+)	Always	50 kΩ or more
40	z13-34 (VA39) (-) - z13-11 (VA40) (+)	Always	50 kΩ or more
41	z13-11 (VA40) (-) - z13-33 (VA41) (+)	Always	50 kΩ or more
42	z13-33 (VA41) (-) - z13-10 (VA42) (+)	Always	50 kΩ or more
43	z13-10 (VA42) (-) - z13-32 (VA43) (+)	Always	50 kΩ or more
44	z13-32 (VA43) (-) - z13-9 (VA44) (+)	Always	50 kΩ or more
45	z13-9 (VA44) (-) - z13-31 (VA45) (+)	Always	50 kΩ or more
46	z13-31 (VA45) (-) - z13-8 (VA46) (+)	Always	50 kΩ or more
47	z13-8 (VA46) (-) - z13-30 (VA47) (+)	Always	50 kΩ or more
48	z13-30 (VA47) (-) - z13-7 (VA48) (+)	Always	50 kΩ or more
49	z13-7 (VA48) (-) - z13-29 (VA49) (+)	Always	50 kΩ or more
50	z13-29 (VA49) (-) - z13-6 (VA50) (+)	Always	50 kΩ or more
51	z13-6 (VA50) (-) - z13-28 (VA51) (+)	Always	50 kΩ or more
52	z13-28 (VA51) (-) - z13-5 (VA52) (+)	Always	50 kΩ or more
53	z13-5 (VA52) (-) - z13-27 (VA53) (+)	Always	50 kΩ or more
54	z13-27 (VA53) (-) - z13-4 (VA54) (+)	Always	50 kΩ or more
55	z13-4 (VA54) (-) - z13-26 (VA55) (+)	Always	50 kΩ or more
56	z13-26 (VA55) (-) - z13-3 (VA56) (+)	Always	50 kΩ or more
57	z13-3 (VA56) (-) - z13-25 (VA57) (+)	Always	50 kΩ or more
58	z13-25 (VA57) (-) - z13-2 (VA58) (+)	Always	50 kΩ or more
59	z13-2 (VA58) (-) - z13-24 (VA59) (+)	Always	50 kΩ or more
60	z13-24 (VA59) (-) - z13-23 (VA60) (+)	Always	50 kΩ or more

NOTICE:

- Make sure to check the polarity of each terminal (positive (+) or negative (-)) before connecting a tester.
- Read the resistance after the value has stabilized.
- In order to avoid damaging the terminals of the battery ECU assembly, make sure to use tester probes with a diameter of approximately 0.5 mm (0.0197 in.) when measuring the resistance of the battery ECU assembly.

RESULT	PROCEED TO
The voltage between the terminals is 50 kΩ or more.	A
Other than above	B

Post-procedure1

(c) Install the battery ECU assembly.

A REPLACE HV BATTERY

B

11.	REPLACE HV BATTERY

HINT:

Click here INFO

NEXT REPLACE BATTERY ECU ASSEMBLY