Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM100000002BI15
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [03/2023 -]
Title: HYBRID / BATTERY CONTROL: HYBRID CONTROL SYSTEM (for PHEV Model): P1C8349; High Voltage Power Resource Circuit Voltage Sensor after Boosting Malfunction; 2023 - 2024 MY Prius Prime [03/2023 -]		

DTC	**P1C8349**	**High Voltage Power Resource Circuit Voltage Sensor after Boosting Malfunction**

DTC SUMMARY

MALFUNCTION DESCRIPTION

The hybrid vehicle control ECU monitors the high-voltage wiring between the HV battery and inverter with converter assembly and detects a power supply malfunction.

The cause of this malfunction may be one of the following:

Inverter voltage sensor (VL) internal circuit malfunction

- Voltage sensor (VL) malfunction
- Motor generator control ECU (MG ECU) malfunction
- Communication (wire harness) malfunction

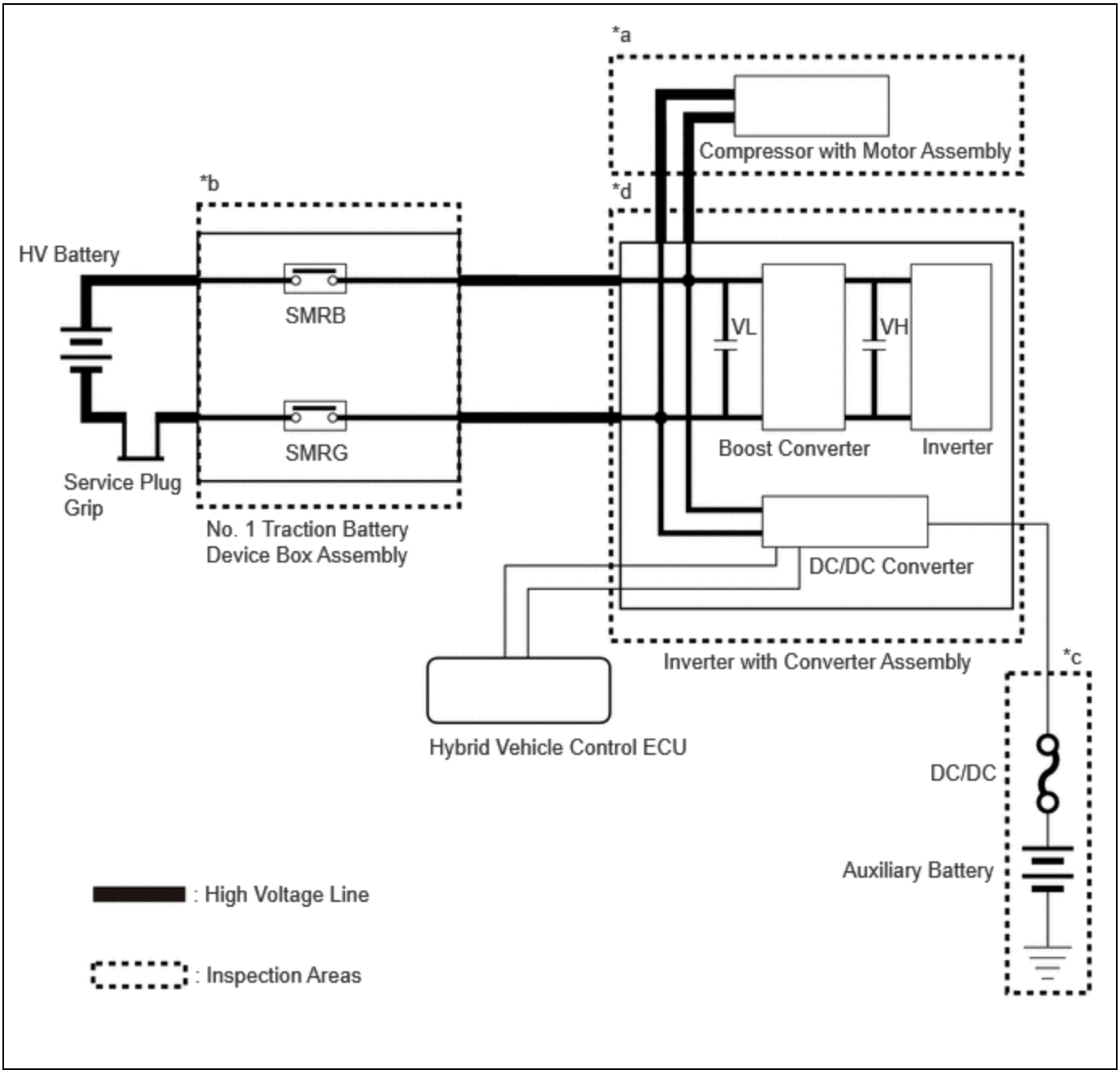
High voltage system malfunction

- HV battery malfunction
- No. 1 traction battery device box assembly malfunction
- Inverter with converter assembly malfunction
- Air conditioner system malfunction
- High-voltage wire harness malfunction
- High-voltage connector or connection malfunction

Low-voltage circuit (12 V) malfunction

- Hybrid vehicle control ECU malfunction
- No. 1 traction battery device box assembly malfunction
- Low voltage wire harness malfunction
- Low voltage connector malfunction

INSPECTION DESCRIPTION



SYSTEM DIAGRAM RANGE	INSPECTION CONTENT	REASON
*a	Check high-voltage wiring connection condition of the air conditioner compressor with motor assembly	Check for short circuit
*b	Check the high voltage cables between the No. 1 traction battery device box assembly	Check for open circuit and defective connection (arc marks) due to looseness
*c	Check connection condition and wire harness continuity between DC/DC converter and auxiliary Battery	Check for open circuit and defective connection (arc marks) due to looseness

SYSTEM DIAGRAM RANGE	INSPECTION CONTENT	REASON
*d	Check connection condition and wire harness continuity between DC/DC converter and hybrid vehicle control ECU	Check for open circuit and defective connection (arc marks) due to looseness

DESCRIPTION

Refer to the description for DTC P0AD911.

Click here INFO

DTC NO.	DETECTION ITEM	DTC DETECTION CONDITION	TROUBLE AREA	MIL	WARNING INDICATE	DTC OUTPUT FROM	PRIORITY	NOTE
P1C8349	High Voltage Power Resource Circuit Voltage Sensor after Boosting Malfunction	Although an SMR on request was sent when the ignition switch is operated, the voltage did not increase after boosting. High-voltage circuit malfunctions between the HV battery and inverter with converter assembly, or high-voltage cable has an open circuit. (2 trip detection logic)	• No. 1 traction battery device box assembly • HV floor under wire • Inverter with converter assembly • Compressor with motor assembly • HV battery • Wire harness or connector	Does not come on	Master Warning: Comes on	Hybrid Control	A	SAE Code: P3004

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

1. Clear the DTCs (even if no DTCs are stored, perform the clear DTC procedure).
2. Turn the ignition switch off and wait for 30 seconds or more.
3. Turn the ignition switch to ON (READY) and wait for 30 seconds or more.
4. Turn the ignition switch off and wait for 30 seconds or more.
5. Enter the following menus: Powertrain / Hybrid Control / Utility / All Readiness.
6. 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 driving pattern again.

WIRING DIAGRAM

Refer to the wiring diagram for DTC P0AA649.

Click here INFO

Refer to the wiring diagram for DTC P19E100.

Click here INFO

Refer to the wiring diagram for the HV Battery High-voltage Line Circuit.

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

HINT:

- P1C8349 may be output as a result of the malfunction indicated by the DTCs in table below.

  a. The chart above is listed in inspection order of priority.
  b. Check DTCs that are output at the same time by following the listed order. (The main cause of the malfunction can be determined without performing unnecessary inspections.)

MALFUNCTION CONTENT	SYSTEM	RELEVANT DTC	
Microcomputer malfunction	Hybrid control system	P0A1B49	Drive Motor "A" Control Module Internal Electronic Failure
		P060647	Hybrid/EV Powertrain Control Module Processor Watchdog / Safety MCU Failure
		P060687	Hybrid/EV Powertrain Control Module Processor to Monitoring Processor Missing Message
		P060A47	Hybrid/EV Powertrain Control Module Monitoring Processor Watchdog / Safety MCU Failure
		P060A87	Hybrid/EV Powertrain Control Module Processor from Monitoring Processor Missing Message

MALFUNCTION CONTENT	SYSTEM	RELEVANT DTC	
		P1C9E9F	Hybrid/EV System Reset Stuck Off
		P060B49	Hybrid/EV Powertrain Control Module A/D Processing Internal Electronic Failure
	Motor generator control system	P0A1B1F	Generator Control Module Circuit Intermittent
		P0A1A47	Generator Control Module Watchdog / Safety µC Failure
		P0A1A49	Generator Control Module Internal Electronic Failure
		P1C2A1C	Generator A/D Converter Circuit Circuit Voltage Out of Range
		P1C2A49	Generator A/D Converter Circuit Internal Electronic Failure
		P313383	Communication Error from Generator to Drive Motor "A" Value of Signal Protection Calculation Incorrect
		P313386	Communication Error from Generator to Drive Motor "A" Signal Invalid
	Hybrid battery system	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
		P060A47	Hybrid/EV Battery Energy Control Module Monitoring Processor Watchdog / Safety MCU Failure
		P060A87	Hybrid/EV Battery Energy Control Module Processor from Monitoring Processor Missing Message
		P0E2D00	Hybrid/EV Battery Energy Control Module Hybrid/EV Battery Monitor Performance
Power source circuit malfunction	Motor generator control system	P06D61C	Generator Control Module Offset Power Circuit Voltage Out of Range
Communication system malfunction	Hybrid control system	U011187	Lost Communication with Hybrid/EV Battery Energy Control Module "A" Missing Message
		U01BD87	Lost Communication with DC/DC Converter Control Module "C"
	Motor generator control system	P313387	Communication Error from Generator to Drive Motor "A" Missing Message
Sensor and actuator circuit malfunction	Hybrid control system	P0AD915	Hybrid/EV Battery Positive Contactor Circuit Short to Auxiliary Battery or Open
		P0AD911	Hybrid/EV Battery Positive Contactor Circuit Short to Ground
		P0ADD15	Hybrid/EV Battery Negative Contactor Circuit Short to Auxiliary Battery or Open
		P0ADD11	Hybrid/EV Battery Negative Contactor Circuit Short to Ground

MALFUNCTION CONTENT	SYSTEM	RELEVANT DTC	
		P0B231C	Hybrid/EV Battery "A" Voltage Sensor Voltage Out of Range
		P0ABF00	Hybrid/EV Battery Current Sensor "A" Circuit Range/Performance
		P0D2D1C	Drive Motor "A" Inverter Voltage Sensor Voltage Out of Range
	Hybrid battery system	P0ABF11	Hybrid/EV Battery Current Sensor "A" Circuit Short to Ground
		P0B0E11	Hybrid/EV Battery Current Sensor "B" Circuit Short to Ground
		P0B0E15	Hybrid/EV Battery Current Sensor "B" Circuit Short to Auxiliary Battery or Open
		P0ABF15	Hybrid/EV Battery Current Sensor "A" Circuit Short to Auxiliary Battery or Open
		P301A1C	Hybrid Battery Stack 1 Cell Voltage Detection Voltage Out of Range
		P1A001C	Hybrid Battery Stack 2 Cell Voltage Detection Voltage Out of Range
		P1AFD1C	Flying Capacitor/Internal Control Module Hybrid/EV Battery Monitor Voltage Out of Range
		P0ABF28	Hybrid/EV Battery Current Sensor "A" Signal Bias Level Out of Range / Zero Adjustment Failure
		P0ABF2A	Hybrid/EV Battery Current Sensor "A" Signal Stuck In Range
		P1CBB12	Hybrid/EV Battery Current Sensor Power Supply Circuit Short to Auxiliary Battery
		P1CBB14	Hybrid/EV Battery Current Sensor Power Supply Circuit Short to Ground or Open
		P0B1362	Hybrid/EV Battery Current Sensor "A"/"B" Signal Compare Failure
	Motor generator control system	P0D2D16	Drive Motor "A" Inverter Voltage Sensor(VH) Circuit Voltage Below Threshold
		P0D2D17	Drive Motor "A" Inverter Voltage Sensor(VH) Circuit Voltage Above Threshold
System malfunction	Hybrid control system	P0C7600	Hybrid/EV Battery System Discharge Time Too Long
		P0D2D1C	Drive Motor "A" Inverter Voltage Sensor Voltage Out of Range
		P0A1F94	Hybrid/EV Battery Energy Control Module Unexpected Operation
		P1C8349	High Voltage Power Resource Circuit Voltage Sensor after Boosting Malfunction
		P1CCC49	DC/DC Converter Internal Electronic Failure

MALFUNCTION CONTENT	SYSTEM	RELEVANT DTC	
	Motor generator control system	P0D2D16	Drive Motor "A" Inverter Voltage Sensor(VH) Circuit Voltage Below Threshold
		P0D2D17	Drive Motor "A" Inverter Voltage Sensor(VH) Circuit Voltage Above Threshold
		P1CB69E	Drive Motor "A" Inverter Voltage Sensor(VH) Stuck On
		P0CA300	DC/DC Converter Step Up Voltage Performance

PROCEDURE

1.	**CHECK FREEZE FRAME DATA (HYBRID CONTROL)**

Pre-procedure1

(a) None.

Procedure1

(b) Read the Freeze Frame Data of DTC P1C8349.

Powertrain > Hybrid Control > Trouble Codes

RESULT	PROCEED TO
All of the following conditions are met: • Difference between "Hybrid/EV Battery Voltage" and "VH-Voltage after Boosting" is 39 V or less. • Difference between "Hybrid/EV Battery Voltage" and "VL-Voltage before Boosting" is more than 60 V. • Difference between "VL-Voltage before Boosting" and "VH-Voltage after Boosting" is more than 76 V.	A
Freeze Frame Data item "DC/DC Converter Unavailable Status" is ON.	A
Except above	B

Post-procedure1

(c) Turn the ignition switch off.

A ▶ **REPLACE INVERTER WITH CONVERTER ASSEMBLY**

B ▼

2.	CHECK COMPRESSOR WITH MOTOR ASSEMBLY

CAUTION:

Be sure to wear insulated gloves.

Pre-procedure1

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

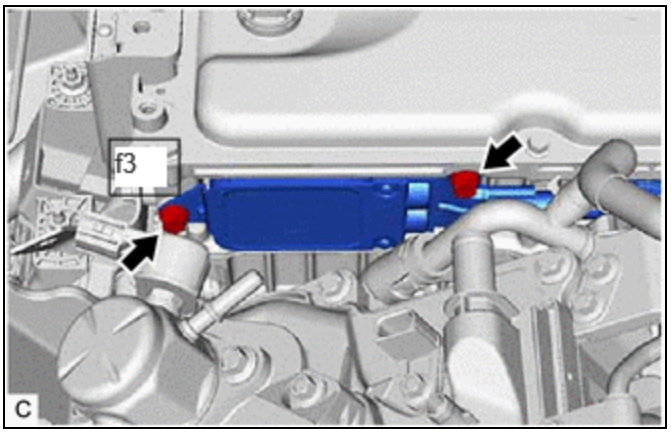
NOTICE:

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 HV air conditioning wire from the inverter with converter assembly.

HINT:

Make sure that no foreign matter has entered or contaminated the HV air conditioning wire.



Procedure1

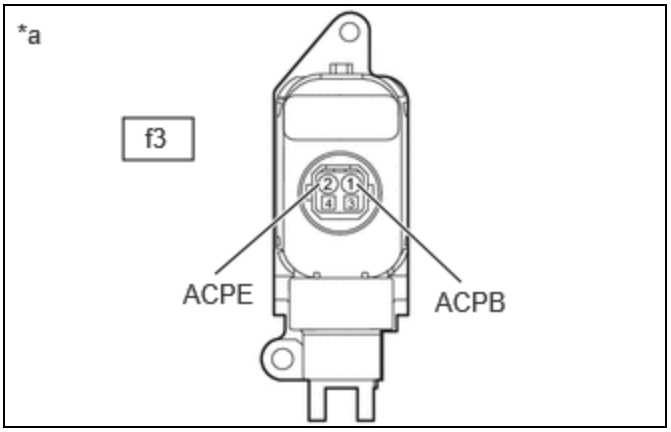
(c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

EWD INFO

Click Location & Routing(f3)
Click Connector(f3)

TESTER CONNECTION (TESTER PROBE POLARITY)	CONDITION	SPECIFIED CONDITION	RESULT
f3-2 (ACPE) (Negative (-) probe) - f3-1 (ACPB) (Positive (+) probe)	Ignition switch off	100 kΩ or higher	kΩ



*a	HV Air Conditioning Wire (Inverter with Converter Assembly Side)

NOTICE:

- Do not use a megohmmeter.
- Read the resistance after the value has stabilized.

- Be sure to inspect with connecting the tester probes to the tips of the terminal.

Result:

PROCEED TO
OK
NG

Post-procedure1

(d) Reconnect the HV air conditioning wire.

NG ▶ **GO TO STEP 15**

OK ▼

3.	**CHECK INVERTER WITH CONVERTER ASSEMBLY (HV FLOOR UNDER WIRE CONNECTION CONDITION)**

CAUTION:

Be sure to wear insulated gloves.

Pre-procedure1

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

NOTICE:

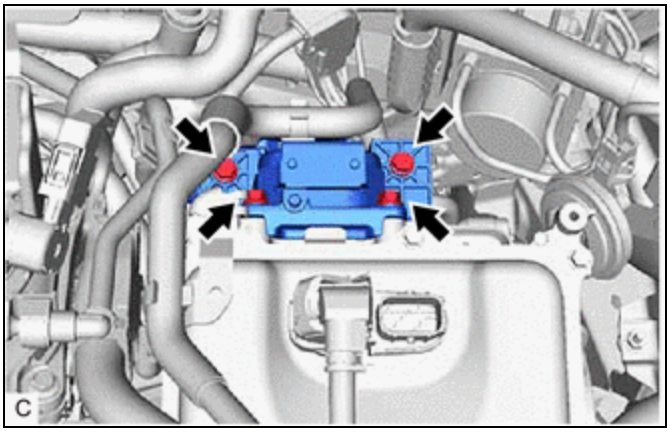
After removing the service plug grip, do not turn the ignition switch to ON (READY), unless instructed by the repair manual because this may cause a malfunction.

Procedure1

(b) Check that the bolts for the HV floor under wire are tightened to the specified torque, the HV floor under wire is connected securely, and there are no contact problems.

Specified Condition:

T = 8.0 N*m (82 kgf*cm, 71 in.*lbf)



(c) Disconnect the HV floor under wire from the inverter with converter assembly.

(d) Check for arc marks on the terminals for the HV floor under wire and inverter with converter assembly.

RESULT		PROCEED TO
The terminals are connected securely and there are no contact problems.	There are no arc marks.	A
The terminals are not connected securely and there is a contact problem.	There are arc marks.	B
The terminals are not connected securely and there is a contact problem.	There are no arc marks.	C
The terminals are connected securely and there are no contact problems.	There are arc marks.	B

Post-procedure1

(e) Reconnect the HV floor under wire.

B ▶ **REPLACE MALFUNCTIONING PARTS**

C ▶ **CONNECT SECURELY**

A ▼

4.	CHECK HV SUPPLY BATTERY ASSEMBLY (FLOOR UNDER WIRE CONNECTION CONDITON)

CAUTION:

Be sure to wear insulated gloves.

Pre-procedure1

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

NOTICE:

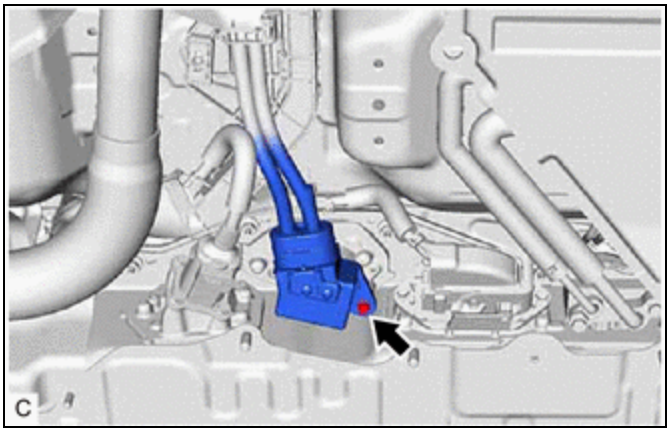
After removing the service plug grip, do not turn the ignition switch to ON (READY), unless instructed by the repair manual because this may cause a malfunction.

Procedure1

(b) Check that the bolts for the floor under wire are tightened to the specified torque, the floor under wire is connected securely, and there are no contact problems.

Specified Condition:

T = 8.0 N*m (82 kgf*cm, 71 in.*lbf)



(c) Disconnect the floor under wire from the HV supply battery assembly.

(d) Check for arc marks on the terminals for the floor under wire and HV supply battery assembly.

RESULT		PROCEED TO
The terminals are connected securely and there are no contact problems.	There are no arc marks.	A
The terminals are not connected securely and there is a contact problem.	There are arc marks.	B
The terminals are not connected securely and there is a contact problem.	There are no arc marks.	C
The terminals are connected securely and there are no contact problems.	There are arc marks.	B

Post-procedure1

(e) Reconnect the floor under wire.

B ▶ **REPLACE MALFUNCTIONING PARTS**

C ▶ **CONNECT SECURELY**

A ▼

5.	**CHECK NO. 1 TRACTION BATTERY DEVICE BOX ASSEMBLY**

CAUTION:

Be sure to wear insulated gloves.

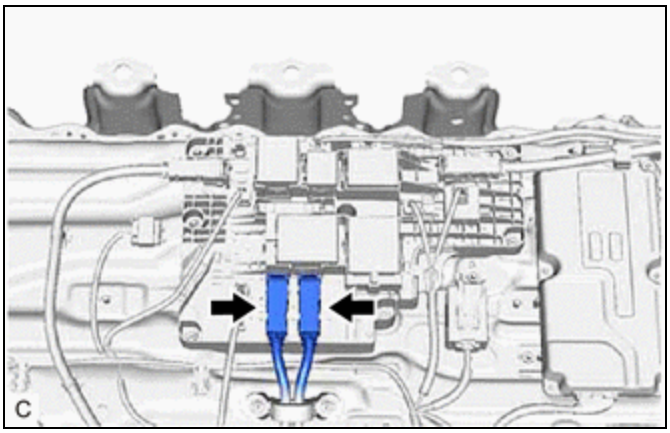
Pre-procedure1

(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) Check that the No. 6 traction battery cable is connected securely, and there are no contact problems.



(c) Disconnect the No. 6 traction battery cable connectors from the No. 1 traction battery device box assembly.

Procedure1

(d) Check for arc marks on the terminals of the No. 6 traction battery cable wire and the No. 1 traction battery device box assembly.

RESULT		PROCEED TO
The terminals are connected securely and there are no contact problems.	There are no arc marks.	A
The terminals are not connected securely and there is a contact problem.	There are arc marks.	B
The terminals are not connected securely and there is a contact problem.	There are no arc marks.	C
The terminals are connected securely and there are no contact problems.	There are arc marks.	B

Post-procedure1

(e) Reconnect the No. 6 traction battery cable connectors.

B ▶ **REPLACE MALFUNCTIONING PARTS**

C ▶ **CONNECT SECURELY**

A ▼

6.	**CHECK FLOOR UNDER WIRE**

CAUTION:

Be sure to wear insulated gloves.

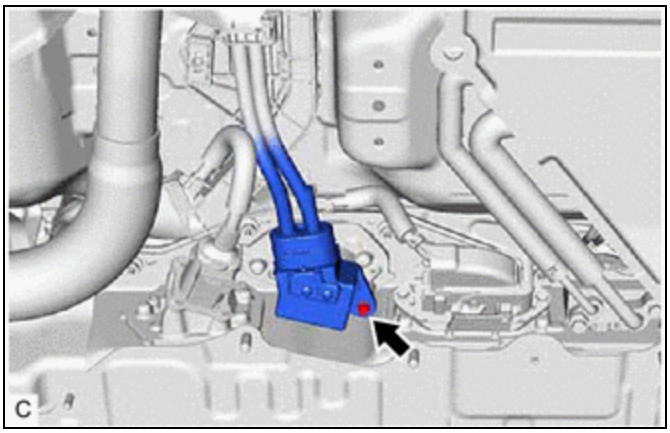
Pre-procedure1

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

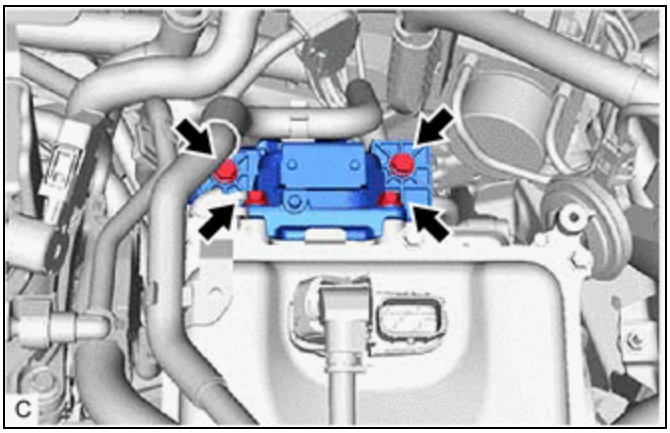
NOTICE:

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 floor under wire connectors from the HV supply battery assembly.

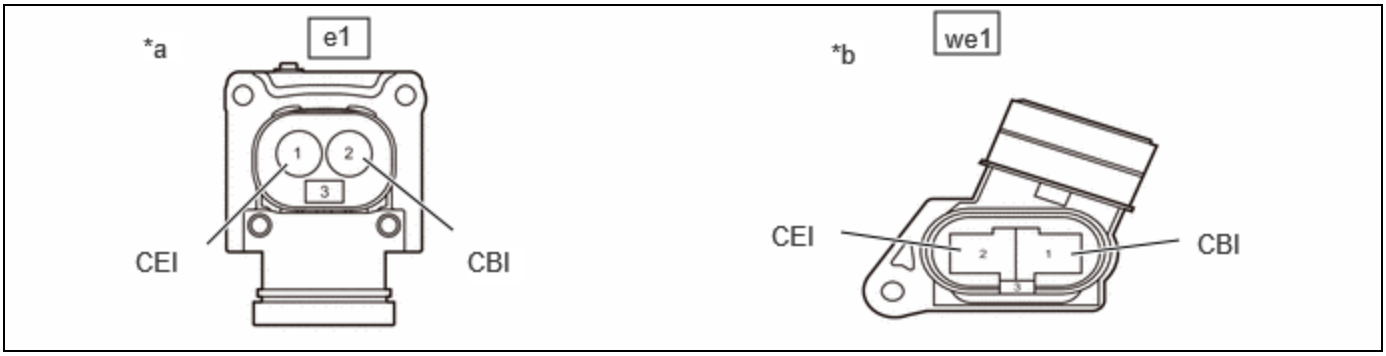


(c) Disconnect the floor under wire from the inverter with converter assembly.



Procedure1

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



*a	Floor Under Wire (Inverter with Converter Assembly Side)	*b	Floor Under Wire (HV Supply Battery Assembly Side)

Standard Resistance:

EWD INFO

Click Location & Routing(e1,we1)
Click Connector(e1)
Click Connector(we1)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
e1-2 (CBI) - we1-1 (CBI)	Ignition switch off	Below 1 Ω	Ω
e1-2 (CEI) - we1-1 (CEI)	Ignition switch off	Below 1 Ω	Ω

NOTICE:

Be sure not to damage or deform the terminal being inspected.

Post-procedure1

(e) Reconnect the floor under wire to the inverter with converter assembly.

(f) Reconnect the floor under wire connectors to the HV supply battery assembly.

NG ▶ **REPLACE FLOOR UNDER WIRE**

OK
▼

7.	**CHECK CONNECTOR CONNECTION CONDITION (INVERTER WITH CONVERTER ASSEMBLY CONNECTOR)**

CAUTION:

Be sure to wear insulated gloves.

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 connection condition of the low voltage connectors of the inverter with converter assembly and the contact pressure of each terminal. Check the terminals for deformation, and the connector for water and foreign matter.

HINT:

Click here INFO

NOTICE:

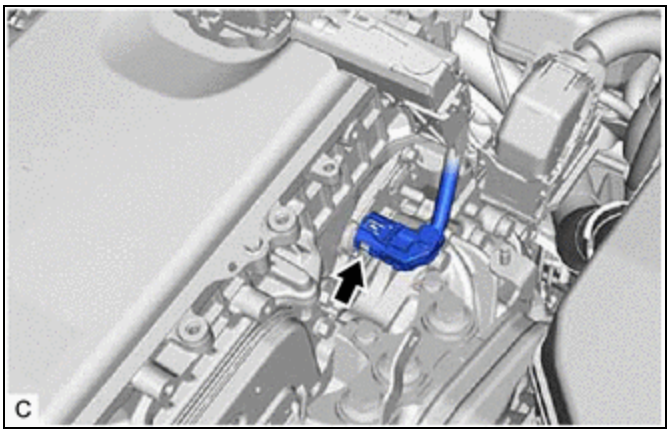
Before disconnecting the connector, confirm that it is properly connected by checking that the claws of the lock levers are engaged and that the connector cannot be pulled off.

OK:

- The connector is connected securely.
- The terminals are not deformed and are connected securely.
- No water or foreign matter in the connector.

Result:

RESULT	PROCEED TO
OK	A
NG (The connector is not connected securely.)	B
NG (The terminals are not making secure contact or are deformed, or water or foreign matter exists in the connector.)	C



HINT:

When connecting the connector, connect it with the lock levers raised. Rotate each lock lever downward and make sure that the connector is securely connected. When a lock lever is fully lowered, a click will be heard as its claw engages. After the click is heard, pull up on the connector to confirm that it is securely connected.

Post-procedure1

(c) None.

B ▶ CONNECT SECURELY

C ▶ REPAIR OR REPLACE HARNESS OR CONNECTOR

A

8.	**CHECK CONNECTOR CONNECTION CONDITION (HYBRID VEHICLE CONTROL ECU CONNECTOR)**

(a) Check the connection condition of the hybrid vehicle control ECU and the contact pressure of each terminal. Check the terminals for deformation, and the connector for water and foreign matter.

HINT:

Click here INFO

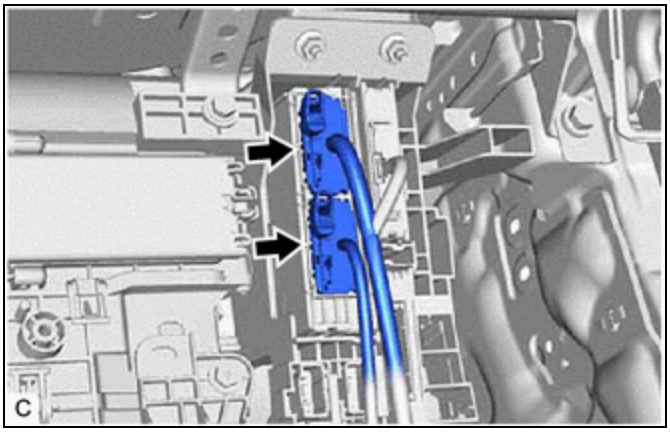
NOTICE:

Before disconnecting the connector, confirm that it is properly connected by checking that the claws of the lock levers are engaged and that the connector cannot be pulled off.

OK:

- The connector is connected securely.
- The terminals are not deformed and are connected securely.
- No water or foreign matter in the connector.

Result:



RESULT	PROCEED TO
OK	A
NG (The connector is not connected securely.)	B
NG (The terminals are not making secure contact or are deformed, or water or foreign matter exists in the connector.)	C

HINT:

When connecting the connector, connect it with the lock levers raised. Rotate each lock lever downward and make sure that the connector is securely connected. When a lock lever is fully lowered, a click will be heard as its claw engages. After the click is heard, pull up on the connector to confirm that it is securely connected.

B **CONNECT SECURELY**

C ▶ **REPAIR OR REPLACE HARNESS OR CONNECTOR**

A ▼

9.	**CHECK FUSE (DC/DC)**

Pre-procedure1

(a) Disconnect the cable from the negative (-) auxiliary battery terminal.

(b) Remove the DC/DC fuse from the No. 1 engine room relay block and No. 1 junction block assembly.

Procedure1

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
DC/DC fuse	Always	Below 1 Ω	Ω

Post-procedure1

(d) Install the DC/DC fuse.

(e) Connect the cable to the negative (-) auxiliary battery terminal.

NG ▶ **REPLACE FUSE (DC/DC)**

OK ▼

10.	**CHECK AMD TERMINAL VOLTAGE**

CAUTION:

Be sure to wear insulated gloves.

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) Connect the cable to the negative (-) auxiliary battery terminal.

Procedure1

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

Standard Voltage:

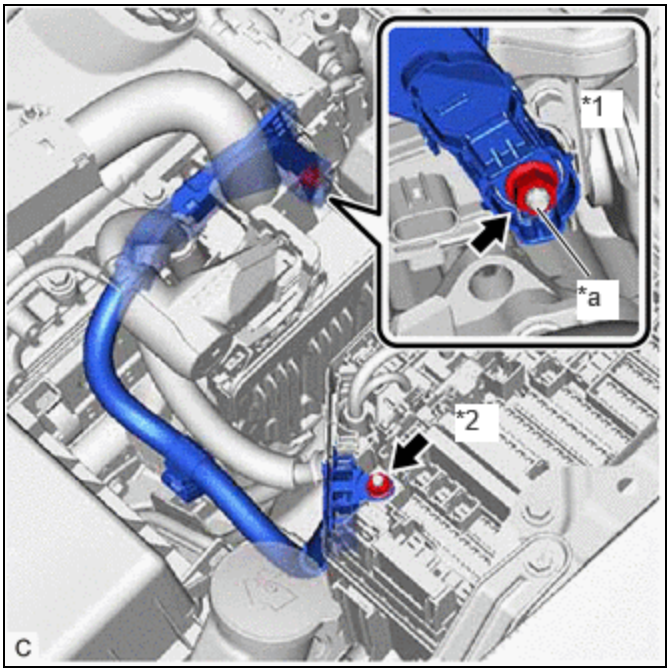
EWD INFO

Click Location & Routing(I1)
Click Connector(I1)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
I1-1 (AMD) - Body ground	Ignition switch off	Same as auxiliary battery voltage

Result:

PROCEED TO
OK
NG



*1	AMD Terminal (Inverter with Converter Assembly Side)
*2	AMD Terminal (No. 1 Engine Room Relay Block and No. 1 Junction Block Assembly Side)
*a	I1-1 (AMD)

Post-procedure1

(d) Disconnect the cable from the negative (-) auxiliary battery terminal.

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

OK ▼

11.	**CHECK AMD TERMINAL CONNECTION CONDITION**

CAUTION:

Be sure to wear insulated gloves.

Pre-procedure1

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

NOTICE:

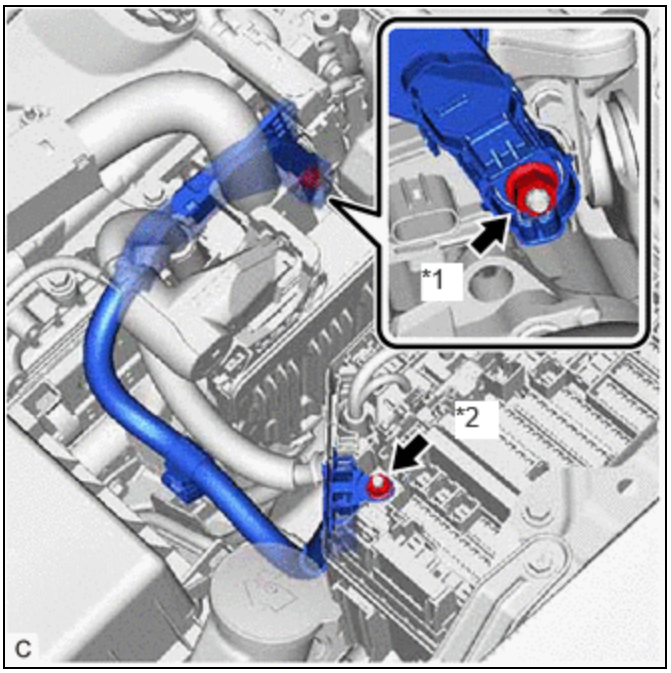
After removing the service plug grip, do not turn the ignition switch to ON (READY), unless instructed by the repair manual because this may cause a malfunction.

Procedure1

(b) Check that the nuts for the AMD terminal are tightened to the specified torque, the AMD terminal is connected securely, and there are no contact problems.

Result:

RESULT		PROCEED TO
There are no arc marks.	The terminal is connected securely and there are no contact problems.	A
There are no arc marks.	The terminal is not connected securely and there is a contact problem.	B
There are arc marks.	-	C



*1	AMD Terminal (Inverter with Converter Assembly Side)
*2	AMD Terminal (No. 1 Engine Room Relay Block and No. 1 Junction Block Assembly Side)

Post-procedure1

(c) None.

B ▶ **CONNECT SECURELY**

C ▶ **REPLACE MALFUNCTIONING PARTS**

A

12.	**CHECK GROUND WIRE CONNECTION CONDITION (INVERTER WITH CONVERTER ASSEMBLY)**

HINT:

Click here INFO

OK:

The ground wire is securely installed.

NG ▶ **CONNECT SECURELY**

OK ▼

13.	**CHECK HARNESS AND CONNECTOR (HYBRID VEHICLE CONTROL ECU - INVERTER WITH CONVERTER ASSEMBLY)**

CAUTION:

Be sure to wear insulated gloves.

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 inverter with converter assembly connector.

(c) Disconnect the hybrid vehicle control ECU connector.

Procedure1

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

Standard Resistance (Check for Open):

EWD INFO

Click Location & Routing(A89,K11)
Click Connector(A89)
Click Connector(K11)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
A89-5 (CNH) - K11-9 (CA4H)	Ignition switch off	Below 1 Ω	Ω
A89-4 (CNL) - K11-22 (CA4L)	Ignition switch off	Below 1 Ω	Ω

Standard Resistance (Check for Short):

EWD INFO

Click Location & Routing(A89,K11)
Click Connector(A89)
Click Connector(K11)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
A89-5 (CNH) or K11-9 (CA4H) - Body ground and other terminals	Ignition switch off	10 kΩ or higher	kΩ

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
A89-4 (CNL) or K11-22 (CA4L) - Body ground and other terminals	Ignition switch off	10 kΩ or higher	kΩ

Post-procedure1

(e) Reconnect the hybrid vehicle control ECU connector.

(f) Reconnect the inverter with converter assembly connector.

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

OK ▼

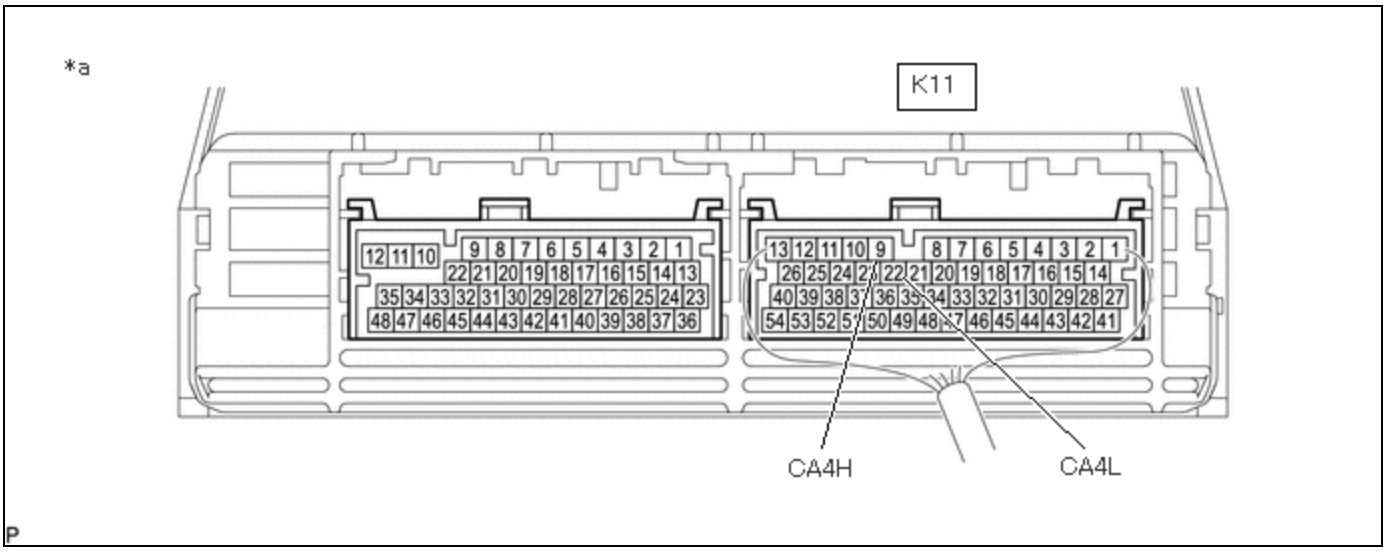
14.	INSPECT HYBRID VEHICLE CONTROL ECU

Pre-procedure1

(a) Disconnect the hybrid vehicle control ECU connector.

Procedure1

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



*a	Component without harness connected (Hybrid Vehicle Control ECU)	-	-

Standard Resistance:

EWD INFO

Click Location & Routing(K11)
Click Connector(K11)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
K11-9 (CA4H) - K11-22 (CA4L)	Ignition switch off	80 to 170 Ω	Ω

Post-procedure1

(c) Reconnect the hybrid vehicle control ECU connector.

OK ▶ **REPLACE INVERTER WITH CONVERTER ASSEMBLY**

NG ▶ **REPLACE HYBRID VEHICLE CONTROL ECU**

15.	CHECK HV AIR CONDITIONING WIRE

CAUTION:

Be sure to wear insulated gloves.

Pre-procedure1

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

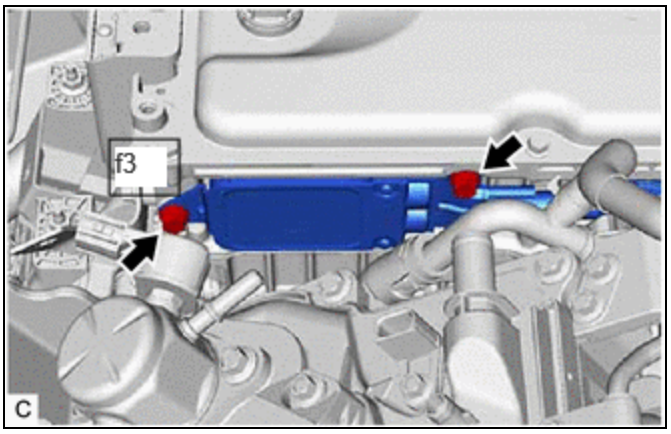
NOTICE:

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 HV air conditioning wire from the inverter with converter assembly.

HINT:

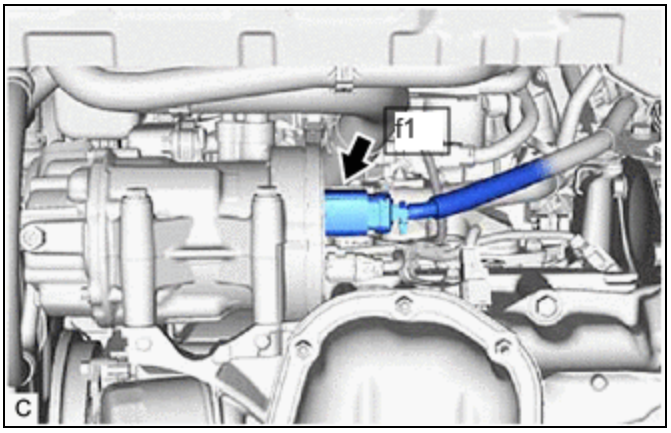
Make sure that no foreign matter has entered or contaminated the HV air conditioning wire.



(c) Disconnect the HV air conditioning wire connector from the compressor with motor assembly.

HINT:

Make sure that no foreign matter has entered or contaminated the HV air conditioning wire.



Procedure1

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

Standard Resistance:

EWD INFO

Click Location & Routing(f3)
Click Connector(f3)

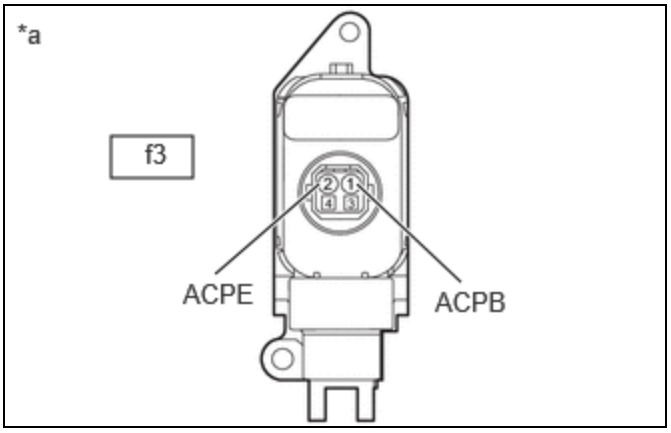
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION	RESULT
f3-2 (ACPE) - f3-1 (ACPB)	Ignition switch off	10 kΩ or higher	kΩ

NOTICE:

Be sure to inspect with connecting the tester probes to the tips of the terminal.

Result:

PROCEED TO
OK
NG



*a	HV Air Conditioning Wire (Inverter with Converter Assembly Side)

Post-procedure1

(e) Reconnect the HV air conditioning wire to the inverter with converter assembly.

(f) Reconnect the HV air conditioning wire connector to the compressor with motor assembly.

OK ▶ REPLACE COMPRESSOR WITH MOTOR ASSEMBLY

NG ▶ **REPLACE HV AIR CONDITIONING WIRE**