Last Modified: 12-04-2024	6.11:8.1.0	**Doc ID:** RM100000002B7B7
Model Year Start: 2023	**Model:** Prius Prime	**Prod Date Range:** [03/2023 -]
Title: HYBRID / BATTERY CONTROL: HV BATTERY (for PHEV Model): REMOVAL; 2023 - 2024 MY Prius Prime [03/2023 -]		

REMOVAL

CAUTION / NOTICE / HINT

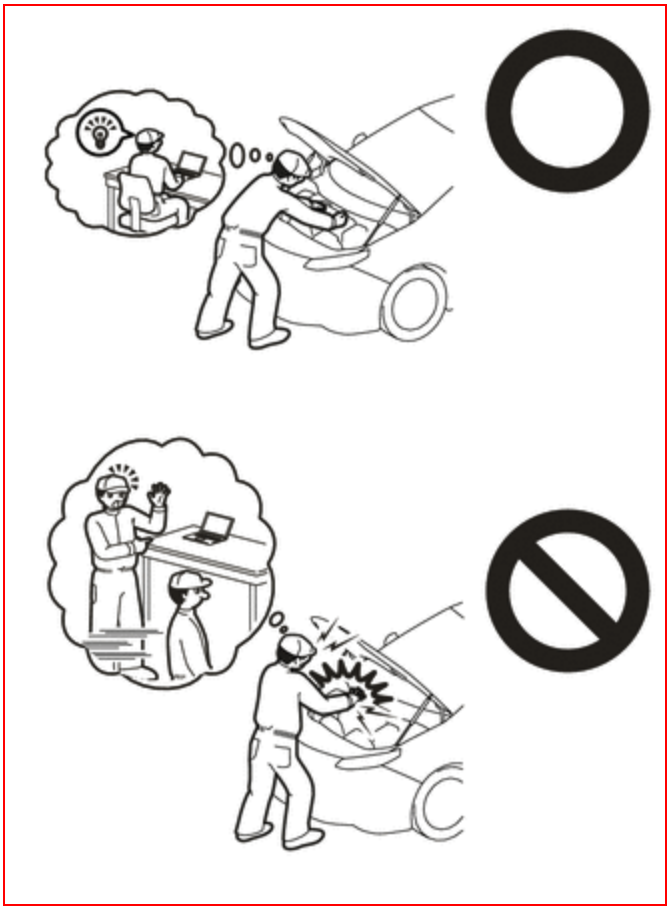
The necessary procedures (adjustment, calibration, initialization or registration) that must be performed after parts are removed and installed, or replaced during HV supply battery assembly removal/installation are shown below.

Necessary Procedures After Parts Removed/Installed/Replaced

REPLACED PART OR PERFORMED PROCEDURE	NECESSARY PROCEDURE	EFFECT/INOPERATIVE FUNCTION WHEN NECESSARY PROCEDURE NOT PERFORMED	LINK
Replacement of HV supply battery assembly	1. Battery status info update 2. Battery diagnosis	HV battery status information cannot be updated	INFO

CAUTION:

- Orange wire harnesses and connectors indicate high-voltage circuits. To prevent electric shock, always follow the procedure described in the repair manual.



Click here INFO

- To prevent electric shock, wear insulated gloves when working on wire harnesses and components of the high voltage system.

NOTICE:

- After turning the ignition switch off, waiting time may be required before disconnecting the cable from the negative (-) auxiliary battery terminal.

  Click here INFO
- If the HV supply battery assembly has been struck or dropped, replace it.
- When connecting a connector to the HV supply battery assembly., confirm that the connector is securely connected through the following:

  - Push the connector until a click sound is heard.

  - Visually check and confirm that the connector is securely connected by pulling on it.
- Make sure to insulate the high-voltage connectors and terminals of the HV supply battery assembly with insulating tape after removing it.

  If the HV supply battery assembly stored without insulating the connectors and terminals, electric shock or fire may result.
- When performing repairs around the HV supply battery assembly, such as using a tap, do not allow metal shavings to enter the HV supply battery assembly.
- Do not touch any high voltage wire harnesses, connectors or parts with bare hands.
- Do not allow foreign matter, such as grease or oil, to adhere to the bolts or nuts of the HV supply battery assembly.
- Do not climb on top of or stand on the HV supply battery assembly.
- Do not allow any foreign matter or water to enter the HV supply battery assembly.
- If any bolts, nuts or clips are dropped into the HV supply battery assembly, make sure to remove them.
- After the ignition switch is turned off, there may be a waiting time before disconnecting the negative (-) auxiliary battery terminal.

HINT:

When the cable is disconnected / reconnected to the auxiliary battery terminal, systems temporarily stop operating. However, each system has a function that completes learning the first time the system is used.

Items for which learning is completed by driving the vehicle

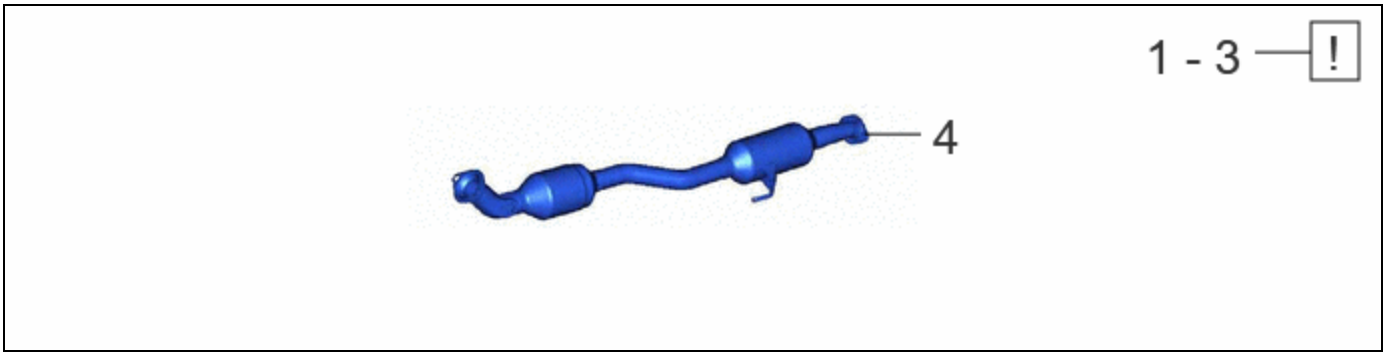
EFFECT/INOPERATIVE FUNCTION WHEN NECESSARY PROCEDURE NOT PERFORMED	NECESSARY PROCEDURE	LINK
Front Camera System	Drive the vehicle straight ahead at 35 km/h (22 mph) or more for 5 seconds or more.	INFO

Items for which learning is completed by operating the vehicle normally

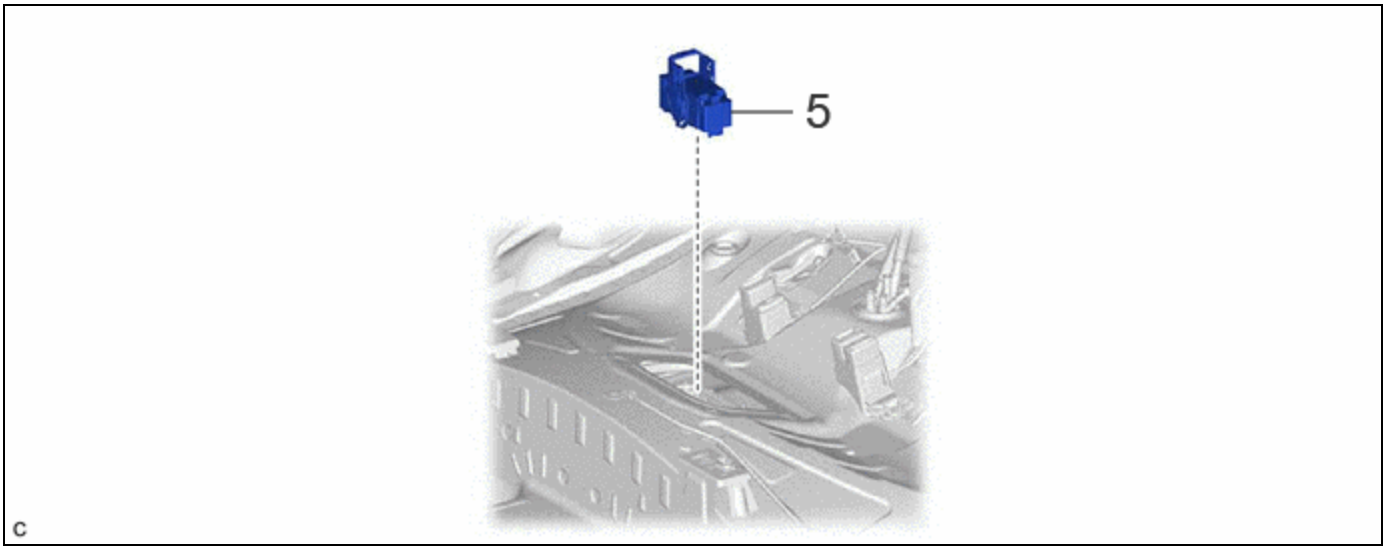
EFFECT/INOPERATIVE FUNCTION WHEN NECESSARY PROCEDURE NOT PERFORMED	NECESSARY PROCEDURE	LINK
Power Door Lock Control System*1 • Back door opener	Perform door unlock operation with door control switch or electrical key transmitter sub-assembly switch.	INFO
Power Back Door System*2	Reset back door close position	INFO
Air Conditioning System	After the ignition switch is turned to ON, the servo motor and expansion valve standard position is recognized.	-
*1: w/o Power Back Door System *2: w/ Power Back Door System		

CAUTION / NOTICE / HINT

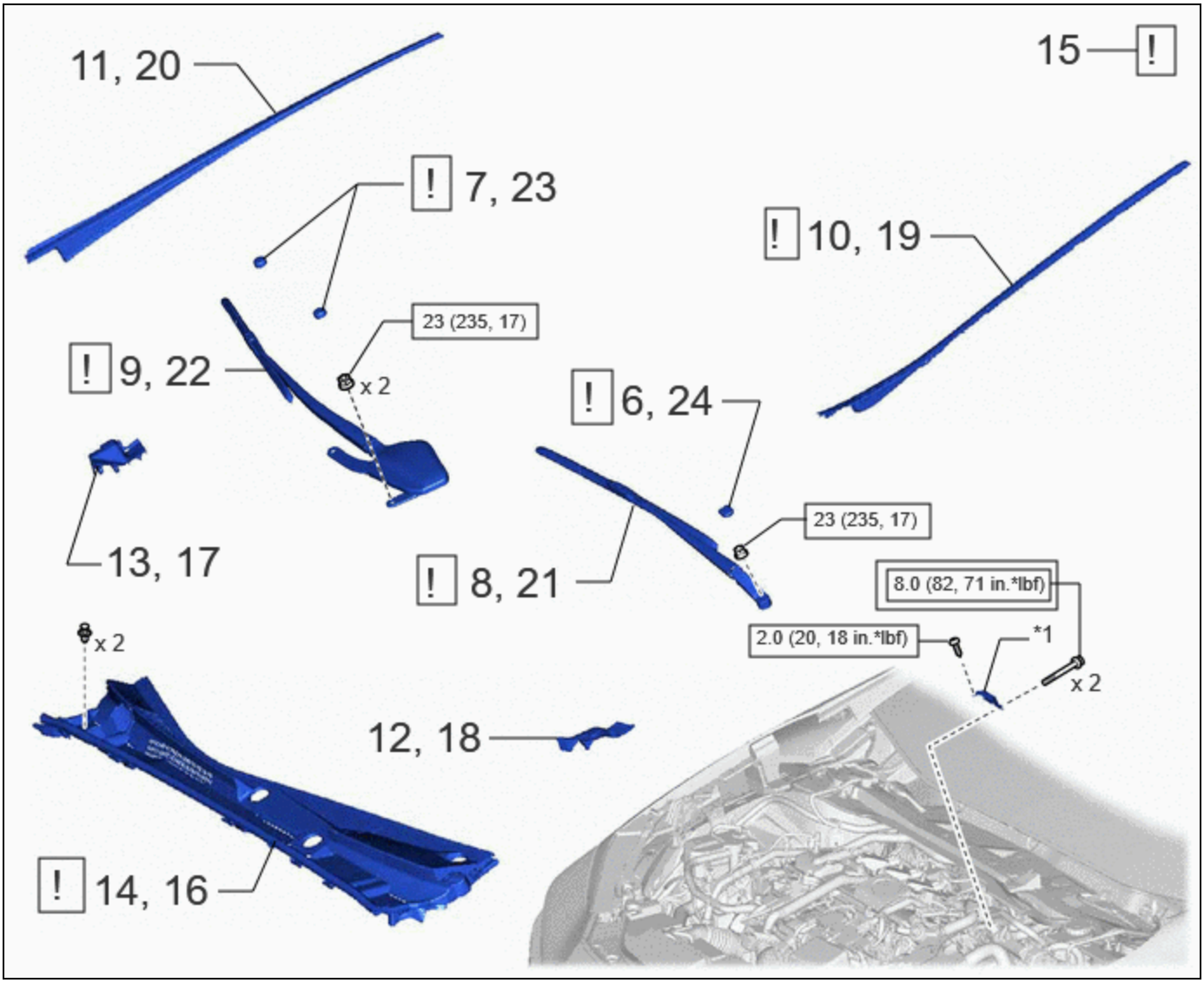
COMPONENTS (REMOVAL)



	PROCEDURE	PART NAME CODE	!		⚙
1	PRECAUTION	-	INFO	-	-
2	READ VALUE USING GTS	-	INFO	-	-
3	REFRIGERANT FROM REFRIGERATION SYSTEM	-	INFO	-	-
4	FRONT EXHAUST PIPE ASSEMBLY	17410	-	-	-



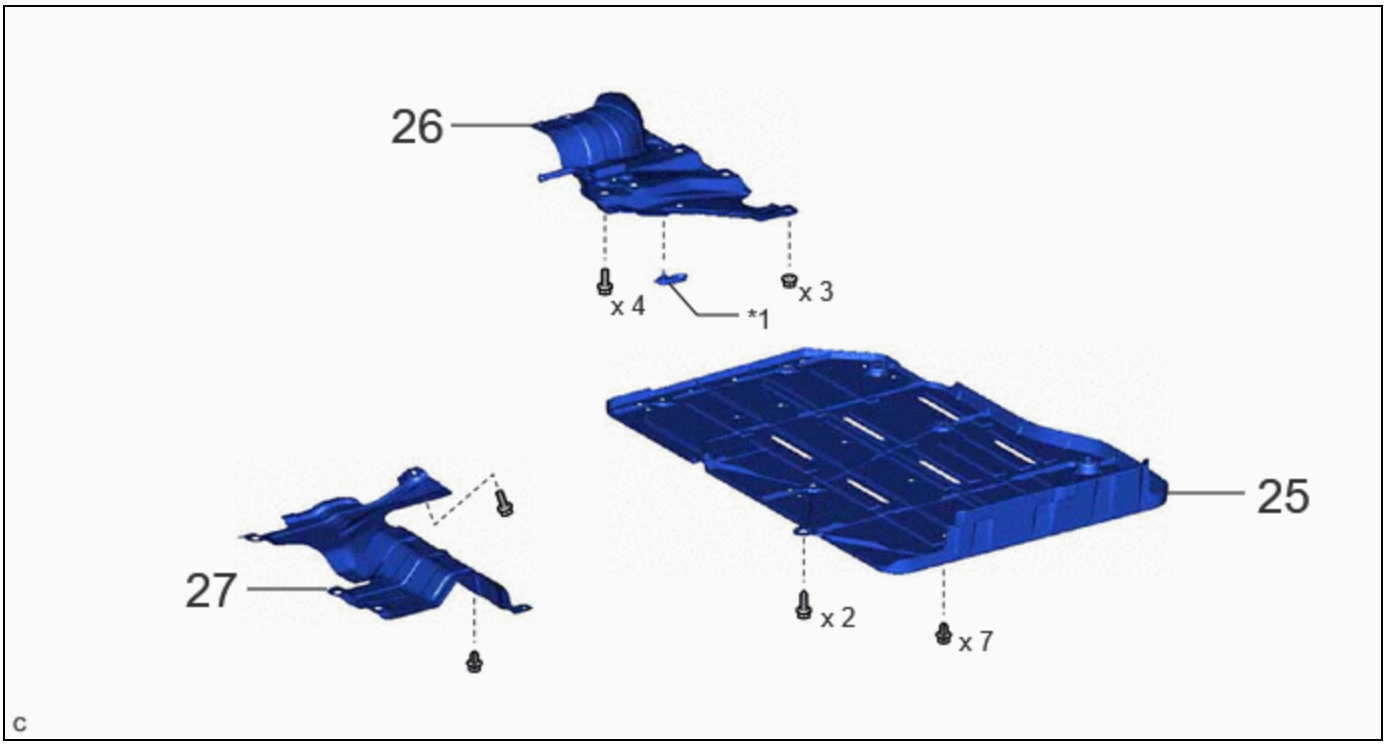
PROCEDURE		PART NAME CODE			
5	SERVICE PLUG GRIP	G3834	-	-	-



	PROCEDURE	PART NAME CODE	!		
6	FRONT WIPER ARM HEAD CAP	85292B	INFO	-	-
7	SHIELD CAP	85247	INFO	-	-
8	FRONT WIPER ARM AND BLADE ASSEMBLY LH	-	-	-	-
9	FRONT WIPER ARM AND BLADE ASSEMBLY RH	-	-	-	-
10	WINDSHIELD LOWER OUTSIDE MOULDING LH	75536D	INFO	-	-
11	WINDSHIELD LOWER OUTSIDE MOULDING RH	75535F	-	-	-
12	COWL WATER EXTRACT SHIELD LH	55754F	-	-	-
13	COWL WATER EXTRACT SHIELD RH	55753D	-	-	-
14	COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY	55708	-	-	-
15	CHECK TERMINAL VOLTAGE	-	INFO	-	-
16	COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY	55708	INFO	-	-

	PROCEDURE	PART NAME CODE			
17	COWL WATER EXTRACT SHIELD RH	55753D	-	-	-
18	COWL WATER EXTRACT SHIELD LH	55754F	-	-	-
19	WINDSHIELD LOWER OUTSIDE MOULDING LH	75536D	-	-	-
20	WINDSHIELD LOWER OUTSIDE MOULDING RH	77535F	-	-	-
21	FRONT WIPER ARM AND BLADE ASSEMBLY LH	-	INFO	-	-
22	FRONT WIPER ARM AND BLADE ASSEMBLY RH	-	INFO	-	-
23	SHIELD CAP	85247	-	-	-
24	FRONT WIPER ARM HEAD CAP	85292B	-	-	-

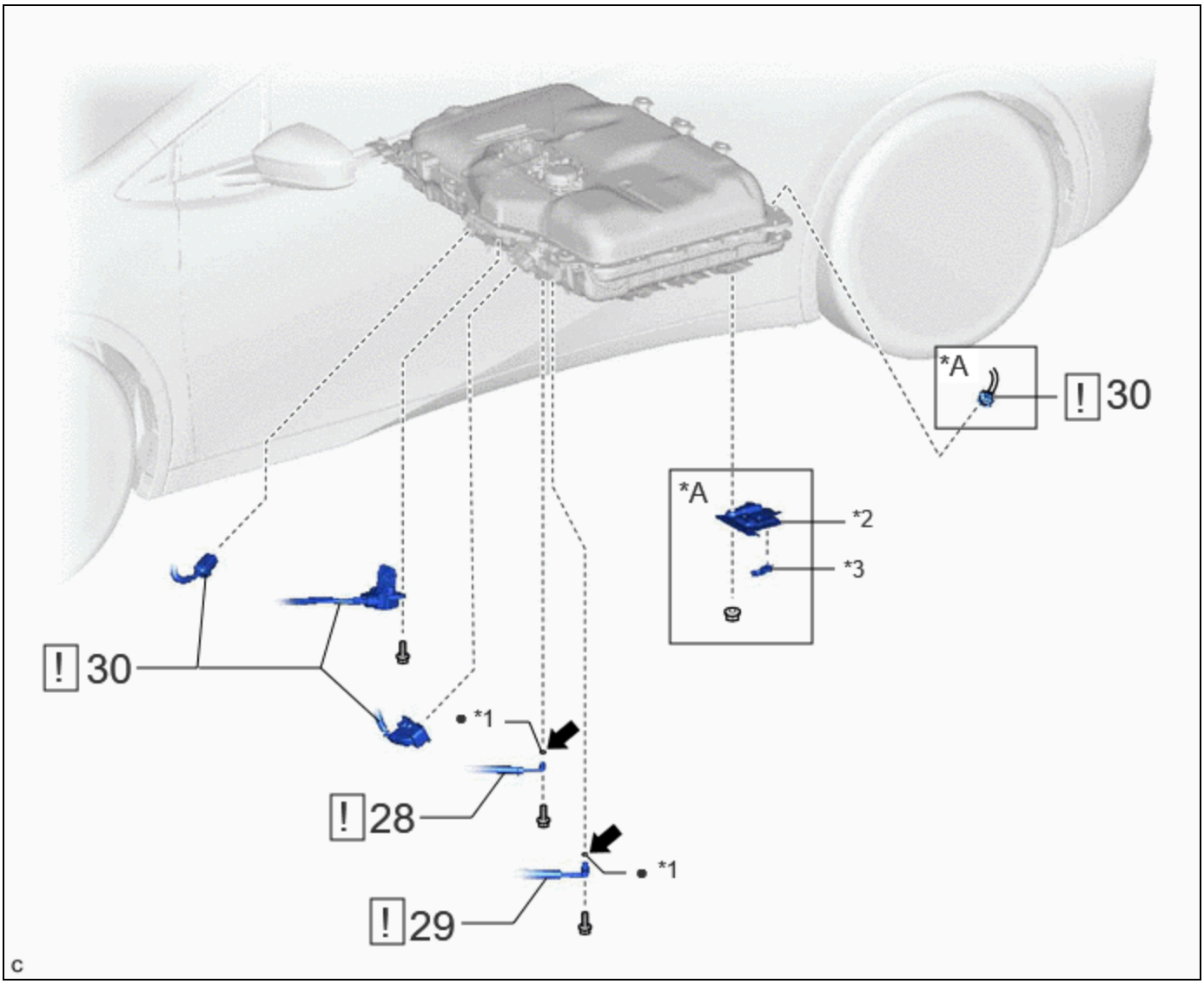
*1	Connector Cover Assembly	-	-
	Tightening torque for "Major areas involving basic vehicle performance such as moving/turning/stopping": N*m (kgf*cm, ft.*lbf)		N*m (kgf*cm, ft.*lbf): Specified torque



	PROCEDURE	PART NAME CODE			
25	BATTERY BOX COVER	58219K	-	-	-
26	BATTERY BOX PANEL SUB-ASSEMBLY	57302A	-	-	-

	PROCEDURE	PART NAME CODE			
27	NO. 1 CENTER FLOOR HEAT INSULATOR SUB-ASSEMBLY	58043B	-	-	-

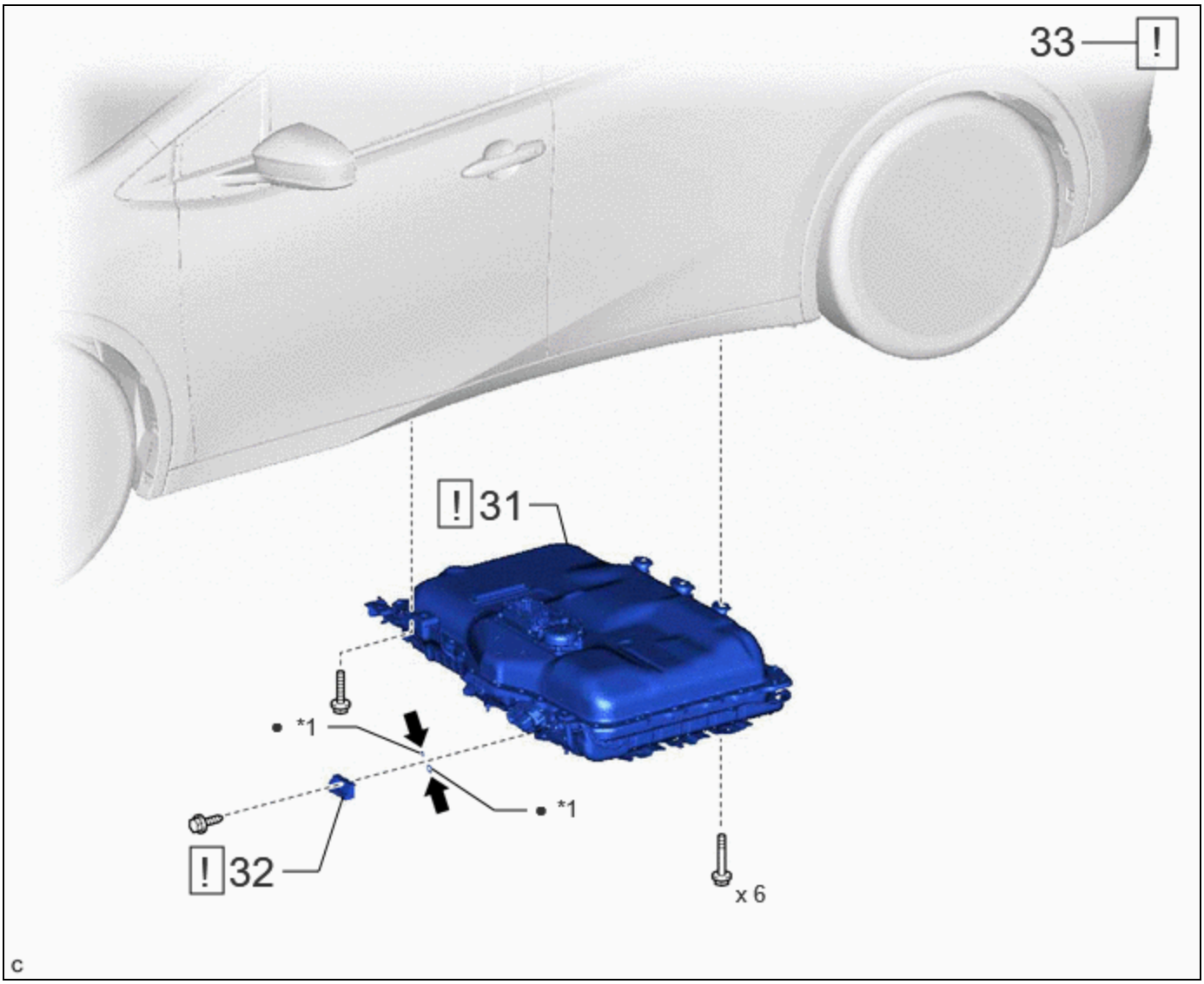
*1	NO. 23 TRACTION BATTERY BRACKET	-	-



	PROCEDURE	PART NAME CODE			
28	LIQUID TUBE SUB-ASSEMBLY C	88706C	INFO	-	-
29	NO. 8 DISCHARGE TUBE	88G15J	INFO	-	-
30	FLOOR UNDER WIRE	821H1	INFO	-	-

*A	w/ Solar Charging System	-	-

*1	O-RING	*2	NO. 20 TRACTION BATTERY BRACKET
*3	NO. 23 TRACTION BATTERY BRACKET	-	-
•	Non-reusable part	➡	Compressor oil ND-OIL 11 or equivalent



PROCEDURE		PART NAME CODE	!		
31	HV SUPPLY BATTERY ASSEMBLY	G9510	INFO	-	-
32	VALVE TO CONNECTOR TUBE	88295A	INFO	-	-
33	PERFORM RECOVERY INSPECTION	-	INFO	-	-

*1	O-RING	-	-

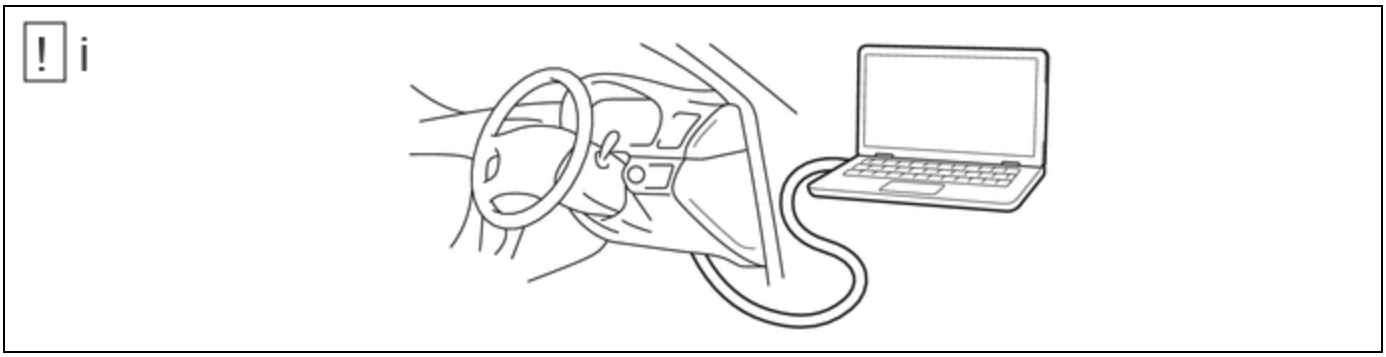
•	Non-reusable part	➡	Compressor oil ND-OIL 11 or equivalent

PROCEDURE

1. PRECAUTION

!	Click here INFO

2. READ VALUE USING GTS



(1) Read the Data List.

Enter the following menus: Powertrain / HV supply battery assembly / Data List / Hybrid/EV Battery Temperature 1 to 20.

Powertrain > HV Battery > Data List

TESTER DISPLAY
Hybrid/EV Battery Temperature 1
Hybrid/EV Battery Temperature 2
Hybrid/EV Battery Temperature 3
Hybrid/EV Battery Temperature 4
Hybrid/EV Battery Temperature 5
Hybrid/EV Battery Temperature 6
Hybrid/EV Battery Temperature 7

TESTER DISPLAY
Hybrid/EV Battery Temperature 8
Hybrid/EV Battery Temperature 9
Hybrid/EV Battery Temperature 10
Hybrid/EV Battery Temperature 11
Hybrid/EV Battery Temperature 12
Hybrid/EV Battery Temperature 13
Hybrid/EV Battery Temperature 14
Hybrid/EV Battery Temperature 15
Hybrid/EV Battery Temperature 16
Hybrid/EV Battery Temperature 17
Hybrid/EV Battery Temperature 18
Hybrid/EV Battery Temperature 19
Hybrid/EV Battery Temperature 20

NOTICE:

If any of the temperatures listed in "Hybrid/EV Battery Temperature 1 to 20" are 50°C or more, leave the vehicle until the temperature drops to less than 50°C.

3. RECOVER REFRIGERANT FROM REFRIGERATION SYSTEM

Click here INFO

4. REMOVE FRONT EXHAUST PIPE ASSEMBLY

Click here INFO

5. REMOVE SERVICE PLUG GRIP

Click here INFO

6. REMOVE FRONT WIPER ARM HEAD CAP

	Click here INFO

7. REMOVE SHIELD CAP

	Click here INFO

8. REMOVE FRONT WIPER ARM AND BLADE ASSEMBLY LH

Click here INFO

9. REMOVE FRONT WIPER ARM AND BLADE ASSEMBLY RH

Click here INFO

10. REMOVE WINDSHIELD LOWER OUTSIDE MOULDING LH

	Click here INFO

11. REMOVE WINDSHIELD LOWER OUTSIDE MOULDING RH

(a) Use the same procedure as for the LH side.

12. REMOVE COWL WATER EXTRACT SHIELD LH

Click here INFO

13. REMOVE COWL WATER EXTRACT SHIELD RH

(a) Use the same procedure as for the LH side.

14. REMOVE COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY

Click here INFO

15. CHECK TERMINAL VOLTAGE

	Click here INFO

16. INSTALL COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY

	Click here INFO

17. INSTALL COWL WATER EXTRACT SHIELD RH

18. INSTALL COWL WATER EXTRACT SHIELD LH

19. INSTALL WINDSHIELD LOWER OUTSIDE MOULDING LH

	Click here INFO

20. INSTALL WINDSHIELD LOWER OUTSIDE MOULDING RH

(a) Use the same procedure as for the LH side.

21. INSTALL FRONT WIPER ARM AND BLADE ASSEMBLY LH

	Click here INFO

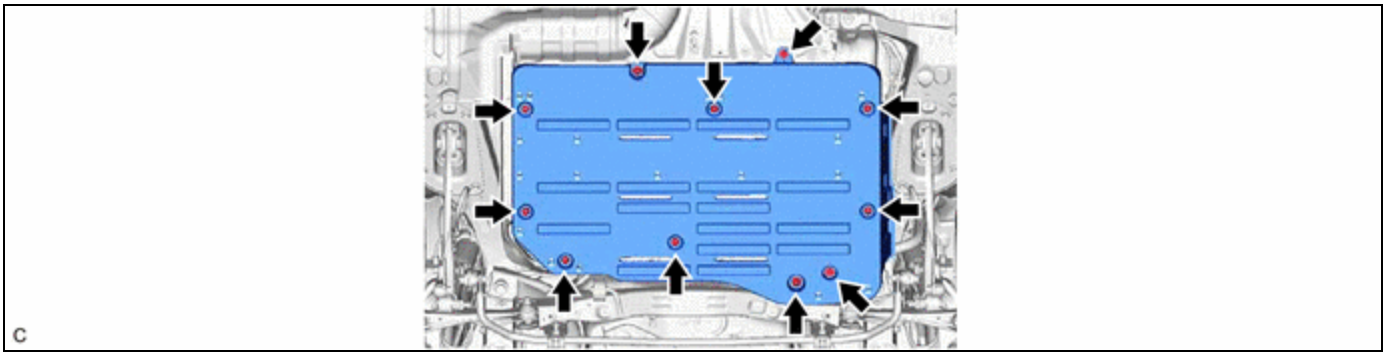
22. INSTALL FRONT WIPER ARM AND BLADE ASSEMBLY RH

	Click here INFO

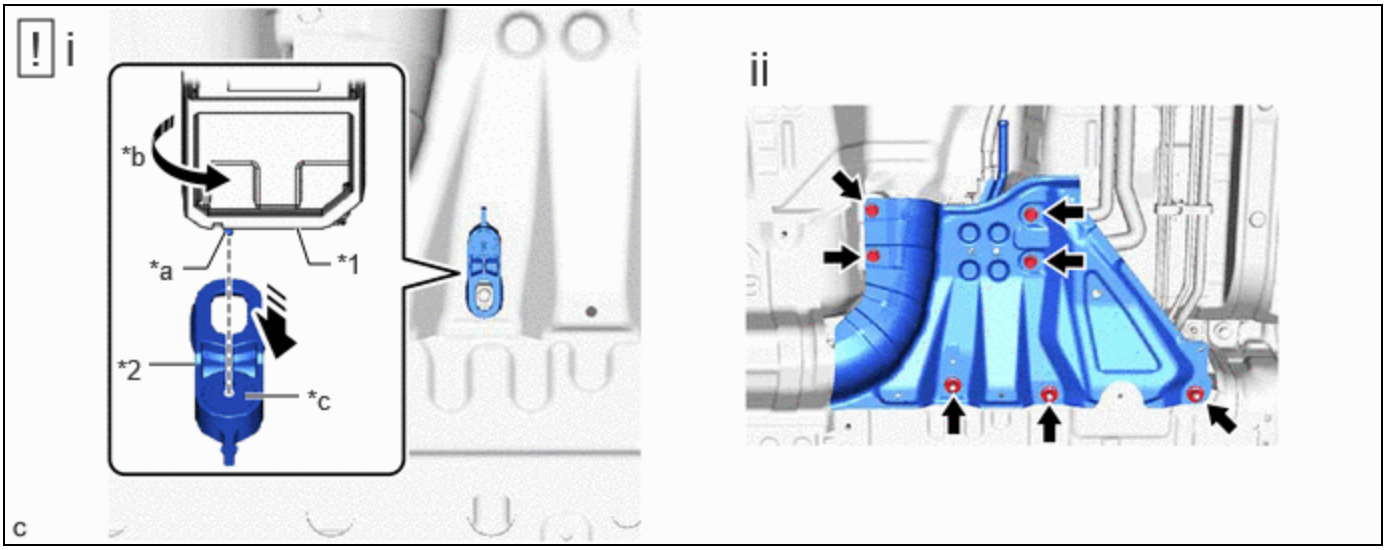
23. INSTALL SHIELD CAP

24. INSTALL FRONT WIPER ARM HEAD CAP

25. REMOVE BATTERY BOX COVER



26. REMOVE BATTERY BOX PANEL SUB-ASSEMBLY

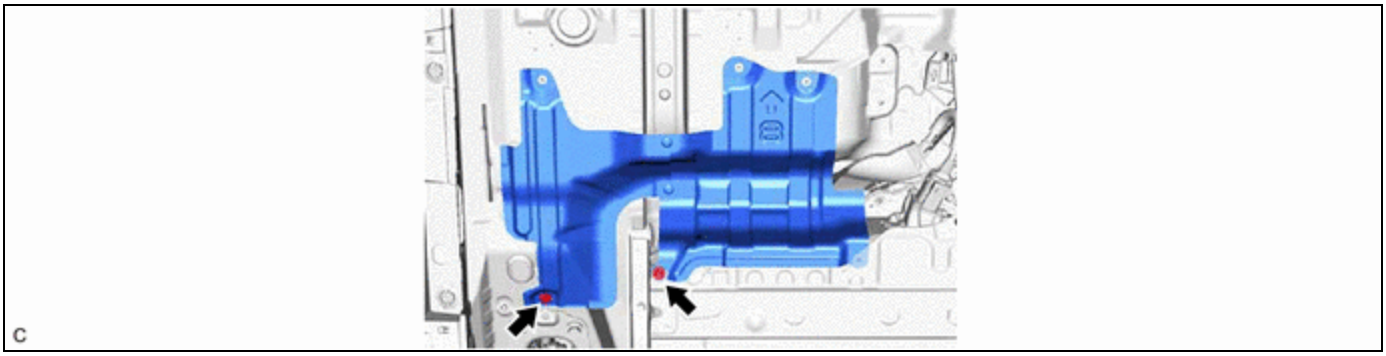


*1	Service Plug Grip	*2	No. 23 Traction Battery Bracket
*a	Projection	*b	Turn
*c	Button	-	-

(1) Insert the projection of the service plug grip and turn the button of the No. 23 traction battery bracket counterclockwise to release the lock to remove the No. 23 traction battery bracket.

(2) Remove the 4 bolts, 3 nuts and battery box panel sub-assembly.

27. REMOVE NO. 1 CENTER FLOOR HEAT INSULATOR SUB-ASSEMBLY



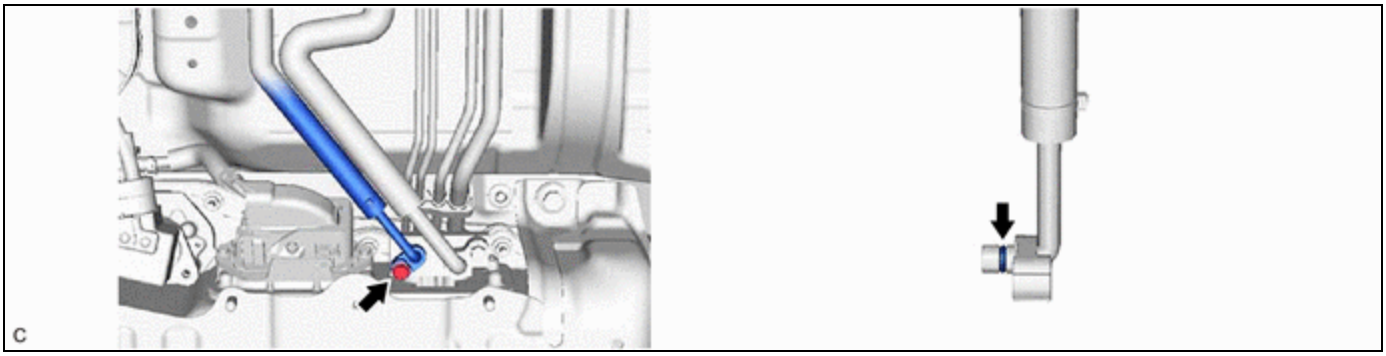
28. DISCONNECT LIQUID TUBE SUB-ASSEMBLY C

CAUTION:

Be sure to wear insulated gloves and protective goggles.

NOTICE:

Seal the openings of the disconnected parts with vinyl tape to prevent entry of moisture and foreign matter.



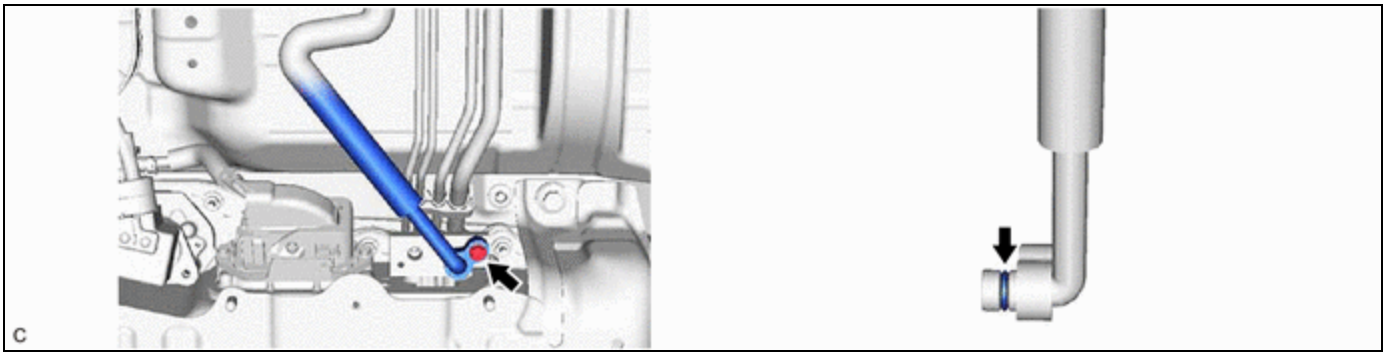
29. DISCONNECT NO. 8 DISCHARGE TUBE

CAUTION:

Be sure to wear insulated gloves and protective goggles.

NOTICE:

Seal the openings of the disconnected parts with vinyl tape to prevent entry of moisture and foreign matter.



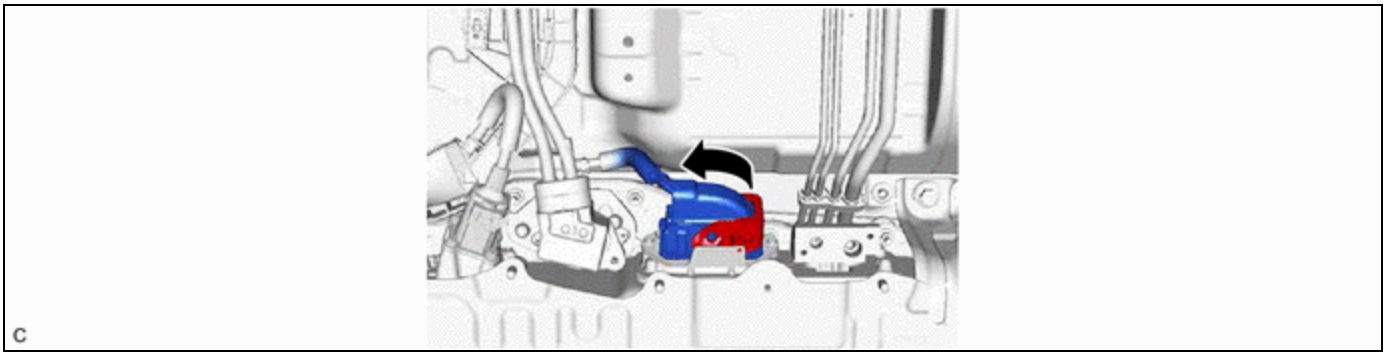
30. DISCONNECT FLOOR UNDER WIRE

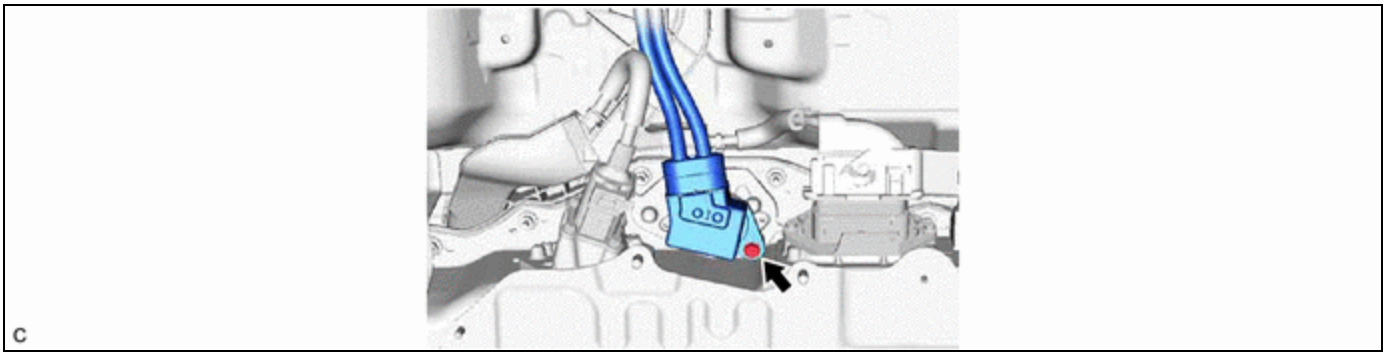
CAUTION:

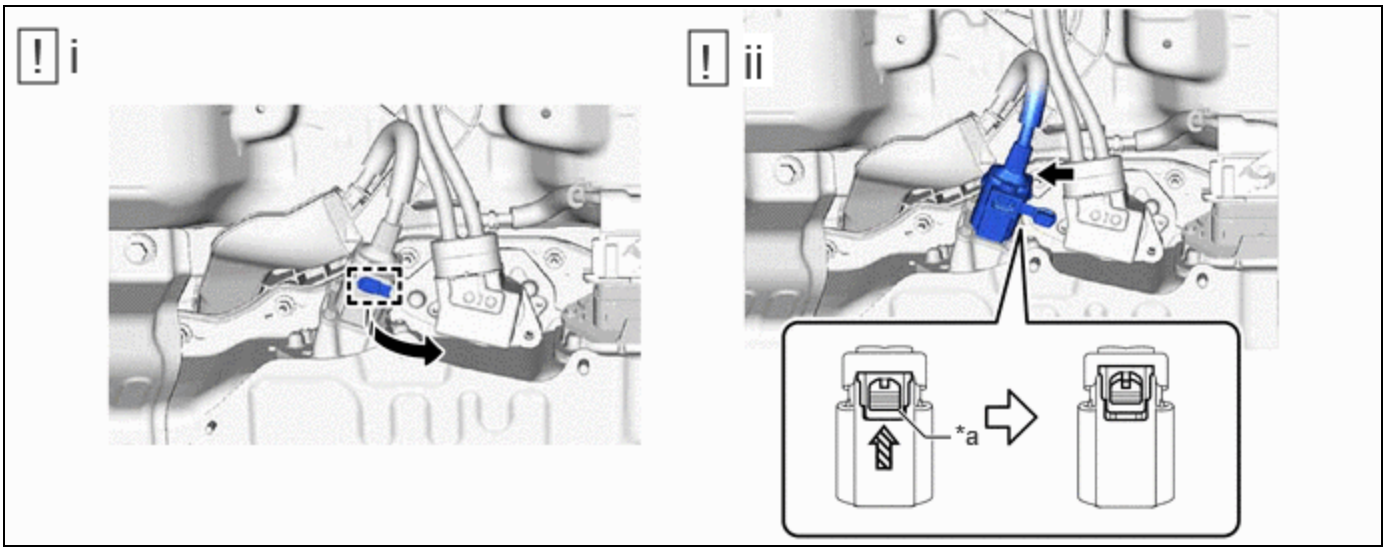
Be sure to wear insulated gloves and protective goggles.

NOTICE:

Insulate the disconnected terminals and connector with insulating tape.





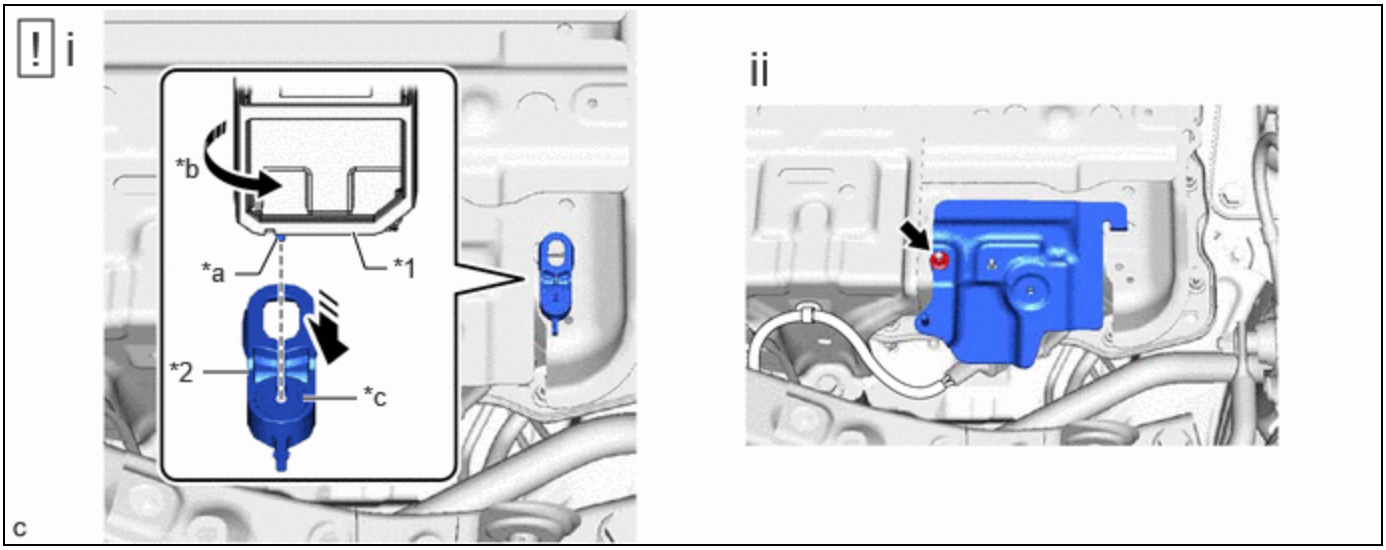


*a	Green-colored Lock	-	-
⇛	Slide	-	-

(1) Disengage the rubber cap and slide it as shown in the illustration.

(2) Using a screwdriver, slide the green-colored lock of the connector as shown in the illustration to release it and disconnect the floor under wire.

(d) w/ Solar Charging System:

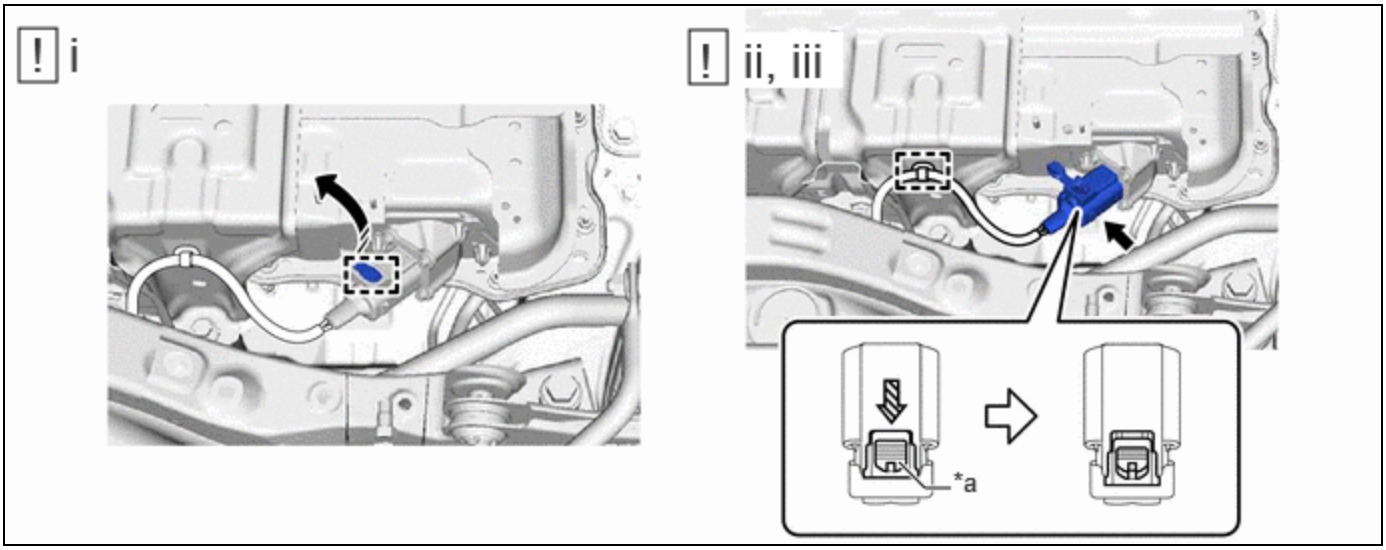


*1	Service Plug Grip	*2	No.23 Traction Battery Bracket
*a	Projection	*b	Turn
*c	Button	-	-

(1) Insert the projection of the service plug grip and turn the button of the No.23 traction battery bracket counterclockwise to release the lock to remove the No.23 traction battery bracket.

(2) Remove the nut and No.20 traction battery bracket.

(e) w/ Solar Charging System:



*a	Green-colored Lock	-	-
⇨	Slide	-	-

(1) Disengage the rubber cap and slide it as shown in the illustration.

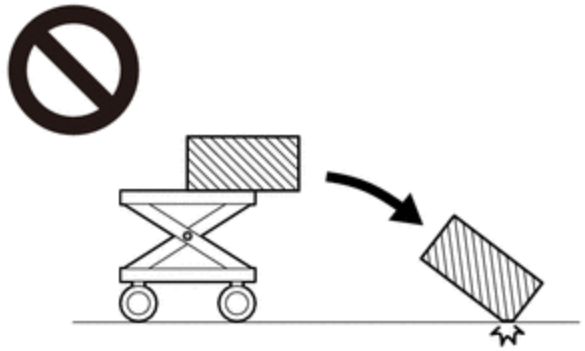
(2) Using a screwdriver, slide the green-colored lock of the connector as shown in the illustration to release it and disconnect the floor under wire.

(3) Disengage the clamp.

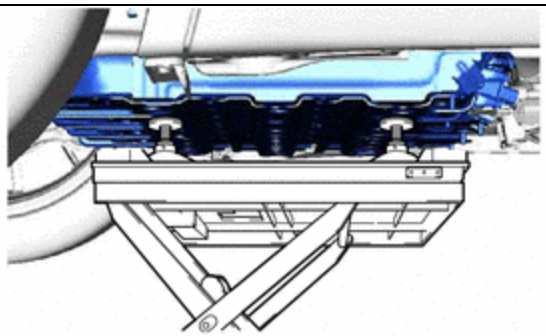
31. REMOVE HV SUPPLY BATTERY ASSEMBLY

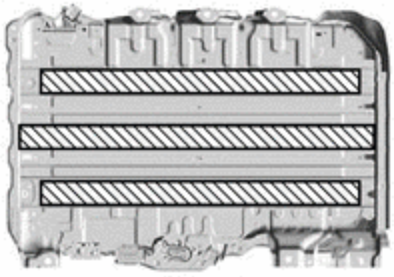
CAUTION:

- Because the weight of the HV supply battery assembly is extremely heavy, make sure to follow the work procedures described in the repair manual.
- If work is not performed according to the procedures described in the repair manual, there is a danger that the components could fall down.
- Do not damage the HV supply battery assembly with the fork etc.
- Be sure to wear insulated gloves and protective goggles.



C



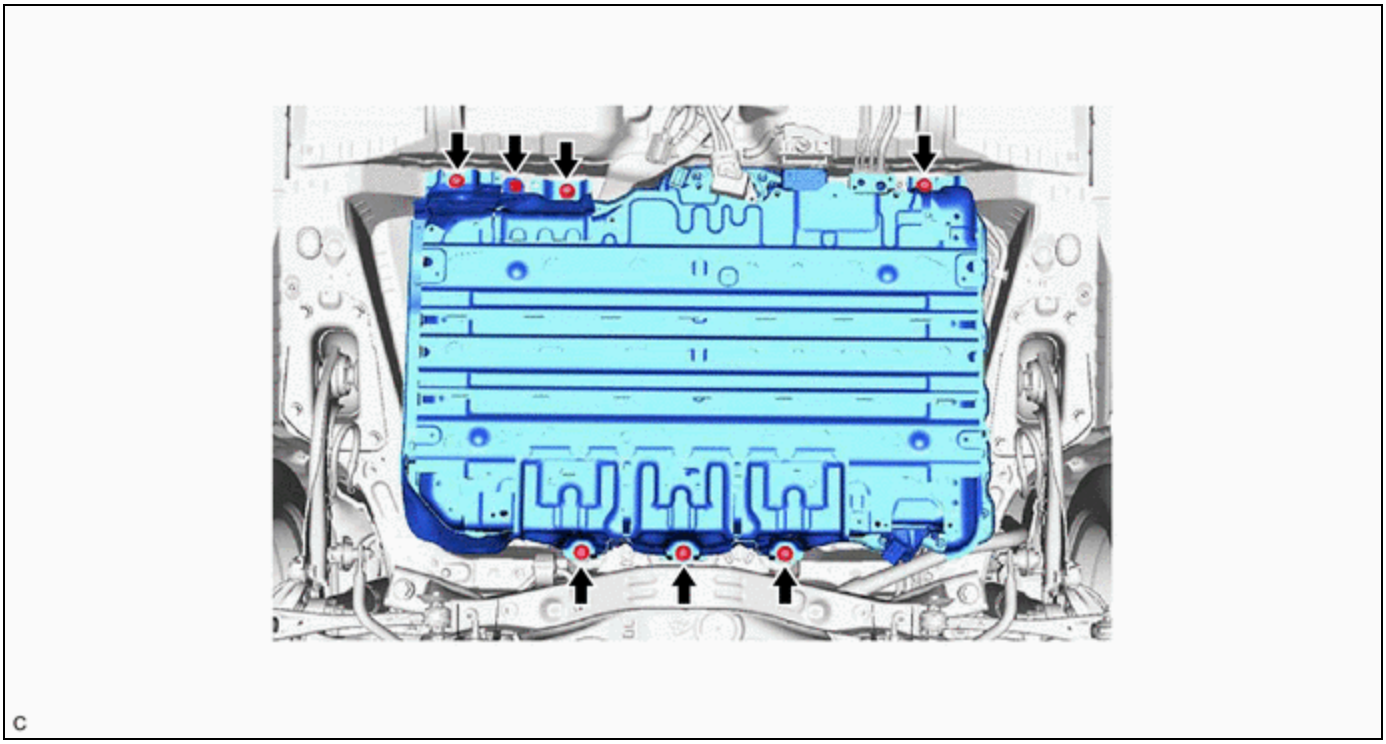


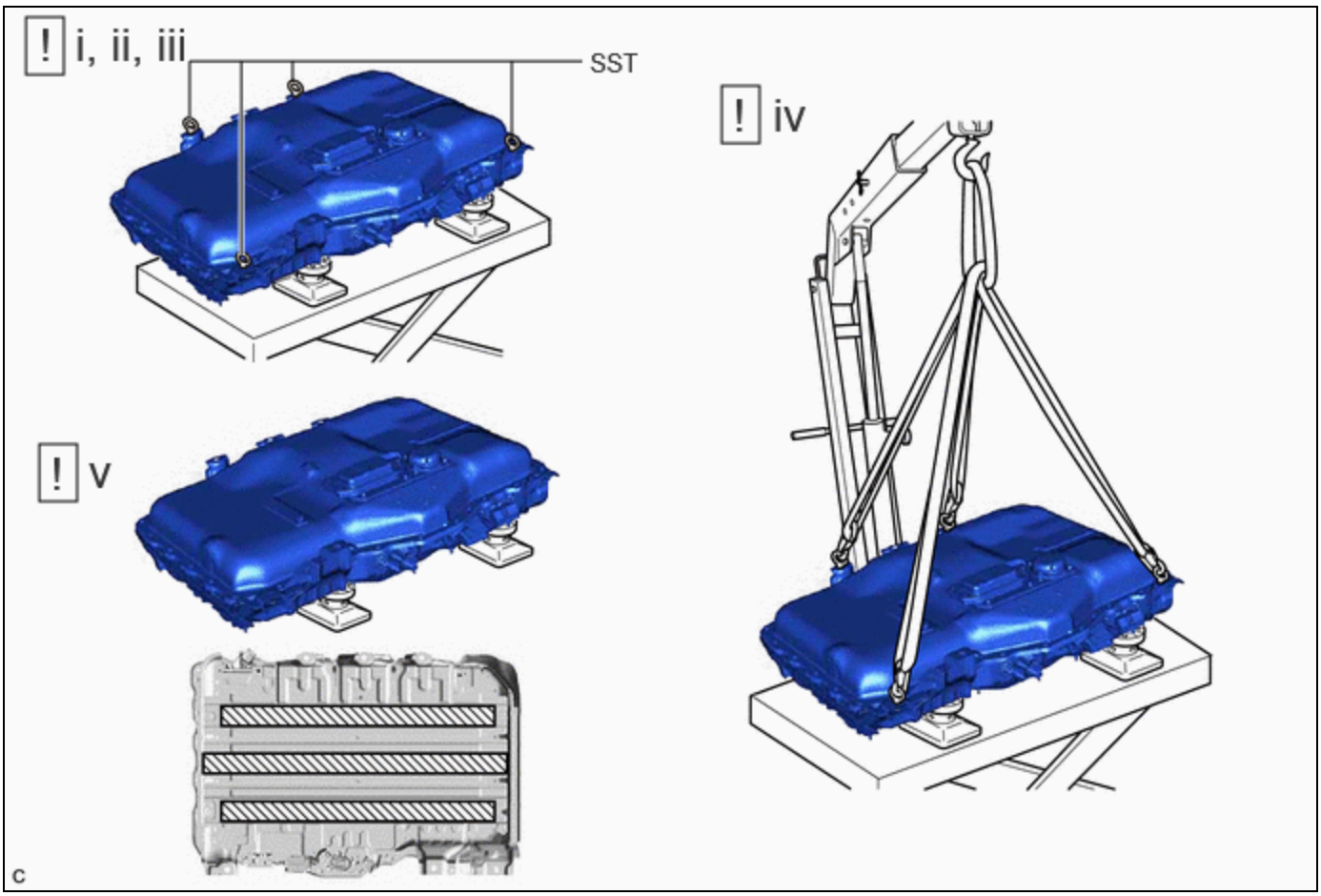
	Area That Can Touch The Ground	-	-

(1) Using an engine lifter and 4 attachments or equivalent tools, support the HV supply battery assembly as shown in the illustration.

NOTICE:

- Do not allow foreign matter, such as grease or oil, to adhere to the bolts of the HV supply battery assembly.
- To prevent the wire harness from being caught, make sure to bundle the wire harness using insulating tape or equivalent.
- Since the HV supply battery assembly is very heavy, 2 people are needed to remove it. When removing the HV supply battery assembly, be careful not to damage the parts around it.
- When removing/installing/moving the HV supply battery assembly, make sure not to tilt it more than 80°.
- If the HV supply battery assembly has been struck or dropped, replace it.
- Do not apply any load outside of the area that can touch the ground.





	Area That Can Touch The Ground	-	-

(1) Slowly lower the engine lifter to remove the HV supply battery assembly.

NOTICE:

Be careful not to drop the HV supply battery assembly.

(2) Follow the procedure below when moving the HV supply battery assembly from the engine lifter.

(3) Install the SST at the position shown in the illustration.

SST: 09893-42010

(4) Using 4 hooks, 4 belt slings and a chain block, hoist the HV supply battery assembly.

NOTICE:

When removing/installing/moving the HV supply battery assembly, make sure not to tilt it more than 80°.

(5) Using the height adjustable attachment, set so that the HV supply battery assembly is in contact with the position shown in the illustration, and place the HV supply battery assembly on the height adjustable attachment.

NOTICE:

- To prevent the wire harness from being caught, make sure to bundle the wire harness using insulating tape or equivalent.
- When removing/installing/moving the HV supply battery assembly, make sure not to tilt it more than 80°.
- If the HV supply battery assembly has been struck or dropped, replace it.
- Do not apply any load outside of the area that can touch the ground.
- Do not place the lower surface of the battery on the ground.

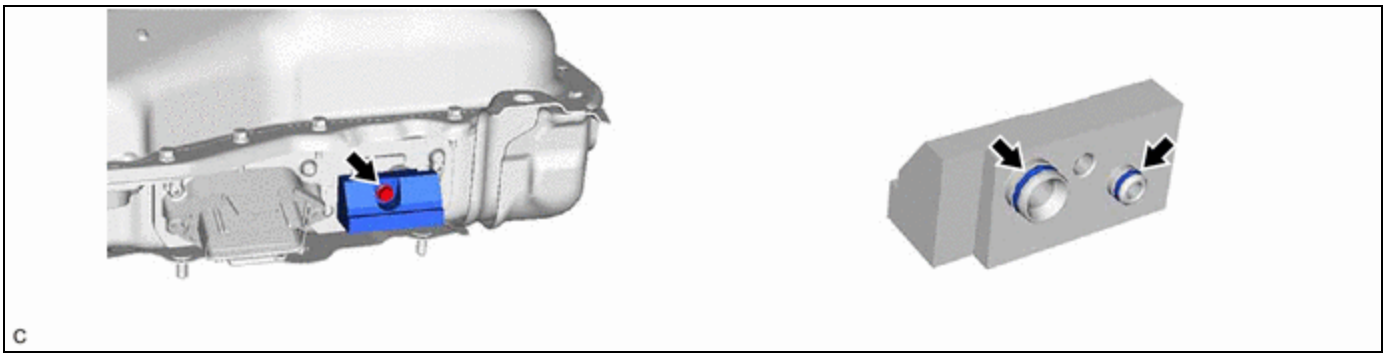
32. REMOVE VALVE TO CONNECTOR TUBE

CAUTION:

Be sure to wear insulated gloves and protective goggles.

NOTICE:

- Insulate the disconnected terminals and connector with insulating tape.
- Seal the openings of the disconnected parts with vinyl tape to prevent entry of moisture and foreign matter.



33. PERFORM RECOVERY INSPECTION

(a) Before returning the HV supply battery assembly, make sure to perform a recovery inspection.

Click here INFO