

Last Modified: 12-04-2024	6.11:8.1.0	Doc ID: RM1000000029QWV
Model Year Start: 2023	Model: Prius	Prod Date Range: [12/2022 -]
Title: HYBRID / BATTERY CONTROL: HV BATTERY (for HEV Model): REMOVAL; 2023 - 2024 MY Prius [12/2022 -]		

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 battery 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 battery	<ol style="list-style-type: none"> Battery status info update Prediagnostics battery charge Battery diagnosis 	HV battery status information cannot be updated	M20A-FXS: INFO 2ZR-FXE: INFO
Replacement of battery ECU assembly	Current sensor offset learning	DTCs are stored	INFO
Replacement of No. 1 traction battery device box assembly	High voltage fuse accumulated load history reset	DTCs are stored	M20A-FXS: INFO 2ZR-FXE: INFO
	Current sensor offset learning	DTCs are stored	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



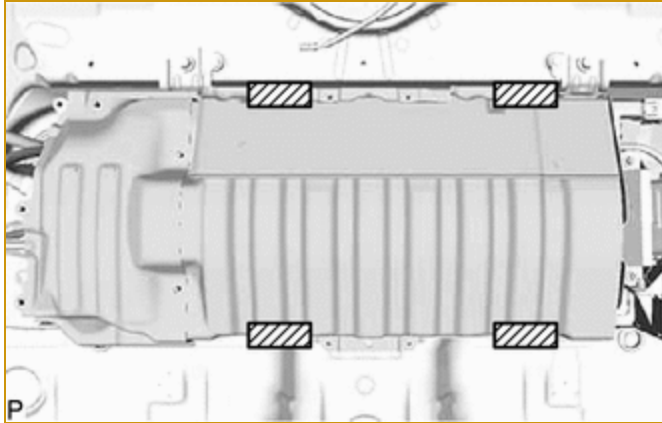
voltage system.

NOTICE:

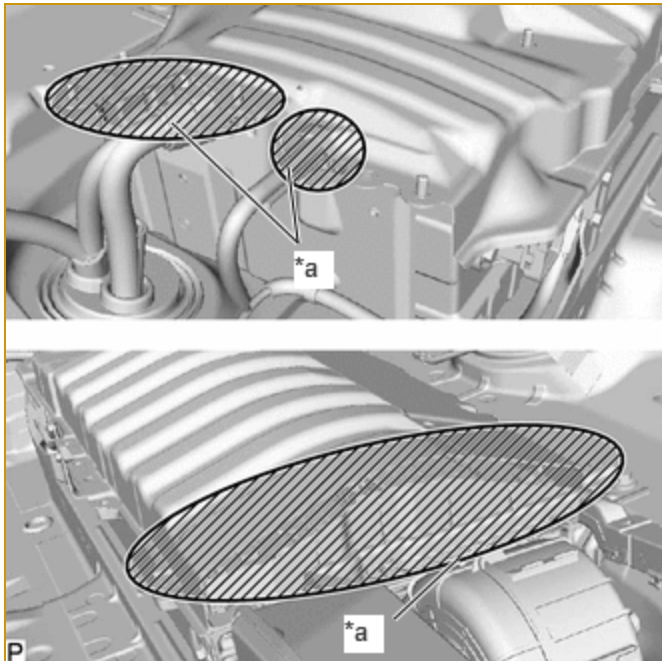
- If the HV battery has been struck or dropped, replace it.
- When connecting a connector to the HV battery, confirm that the connector is securely connected through the following:
 - Push the connector until a click sound is heard.
 - Visually check and confirm that the connector is securely connected by pulling on it.
- Make sure to insulate the high-voltage connectors and terminals of the HV battery with insulating tape after removing it.

If the HV battery stored without insulating the connectors and terminals, electric shock or fire may result.

- When performing repairs around the HV battery, such as using a tap, do not allow metal shavings to enter the HV battery.
- Do not touch any high voltage wire harnesses, connectors or parts with bare hands.
- Hold the areas shown in the illustration and lift the HV battery.



- Do not allow foreign matter, such as grease or oil, to adhere to the bolts or nuts of the HV battery.
- Do not put your hands into the openings of the HV battery.



*a	Opening
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- When removing/installing/moving the HV battery, make sure not to tilt it more than 80°.
- Do not climb on top of or stand on the HV battery.
- Do not allow any foreign matter or water to enter the HV battery.
- If any bolts, nuts or clips are dropped into the HV battery, make sure to remove them.
- This procedure includes the removal of small-head bolts. Refer to Small-Head Bolts of Basic Repair Hint to identify the small-head bolts.

[Click here](#) INFO

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

[Click here](#) INFO

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

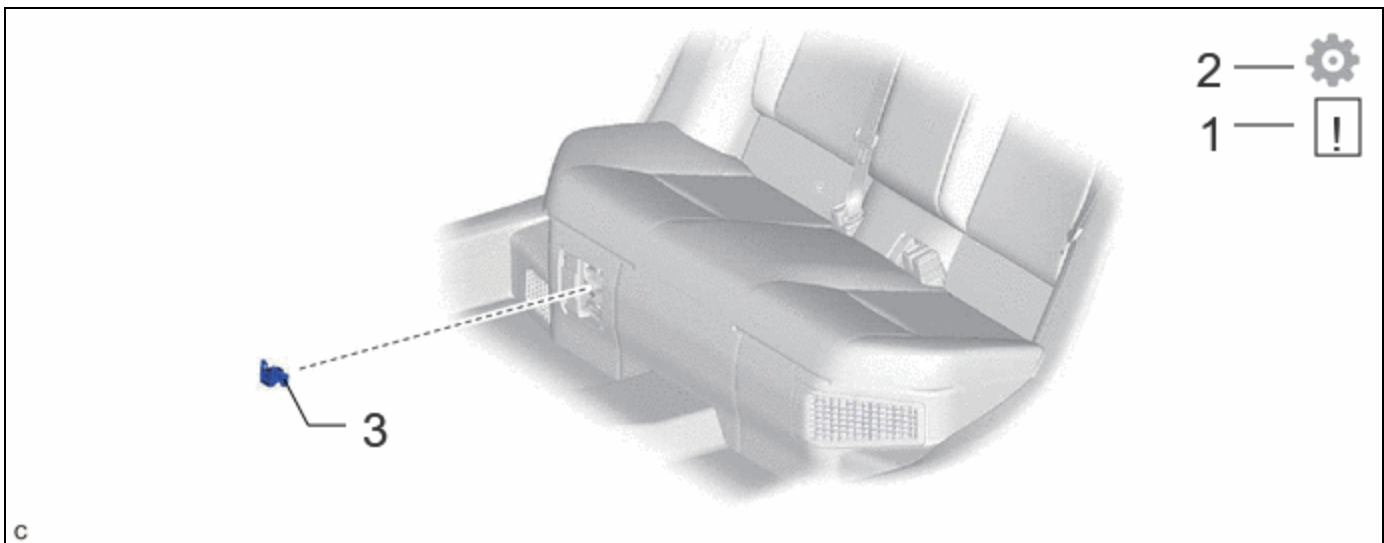
EFFECT/INOPERATIVE FUNCTION WHEN NECESSARY PROCEDURES ARE NOT PERFORMED	NECESSARY PROCEDURES	LINK
Front Camera System	Drive the vehicle straight ahead at 35 km/h (22 mph) or more for 5 seconds or more.	INFO

Items for which learning is completed by operating the vehicle normally

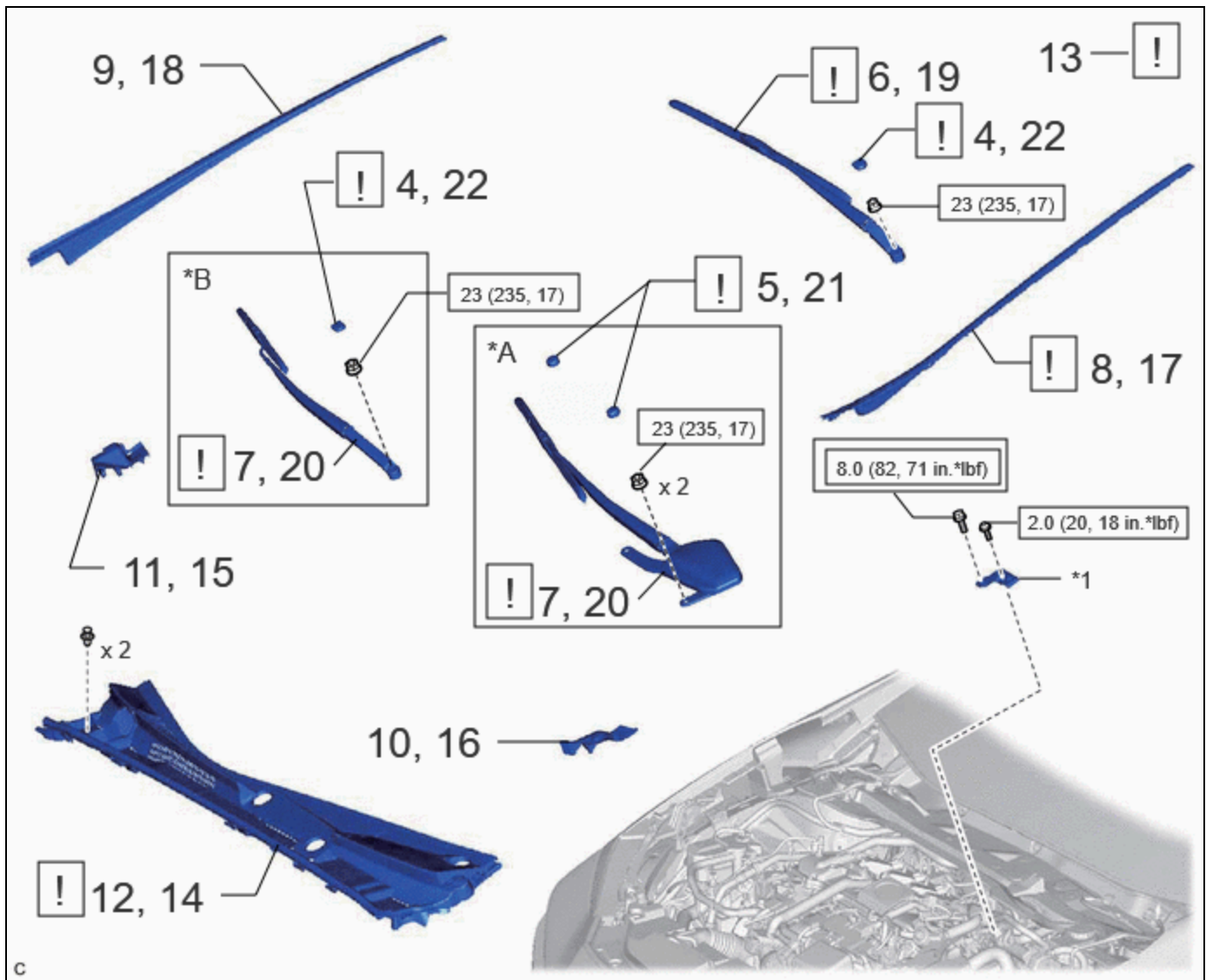
EFFECT/INOPERATIVE FUNCTION WHEN NECESSARY PROCEDURES ARE NOT PERFORMED	NECESSARY PROCEDURES	LINK
Power Door Lock Control System*1 <ul style="list-style-type: none"> Back door opener 	Perform door unlock operation with door control switch or electrical key transmitter sub-assembly switch.	INFO
Power Back Door System*2	Reset back door close position	INFO
Air Conditioning System	After the ignition switch is turned to ON, the servo motor standard position is recognized.	-
*1: w/o Power Back Door System *2: w/ Power Back Door System		

CAUTION / NOTICE / HINT






COMPONENTS (REMOVAL)





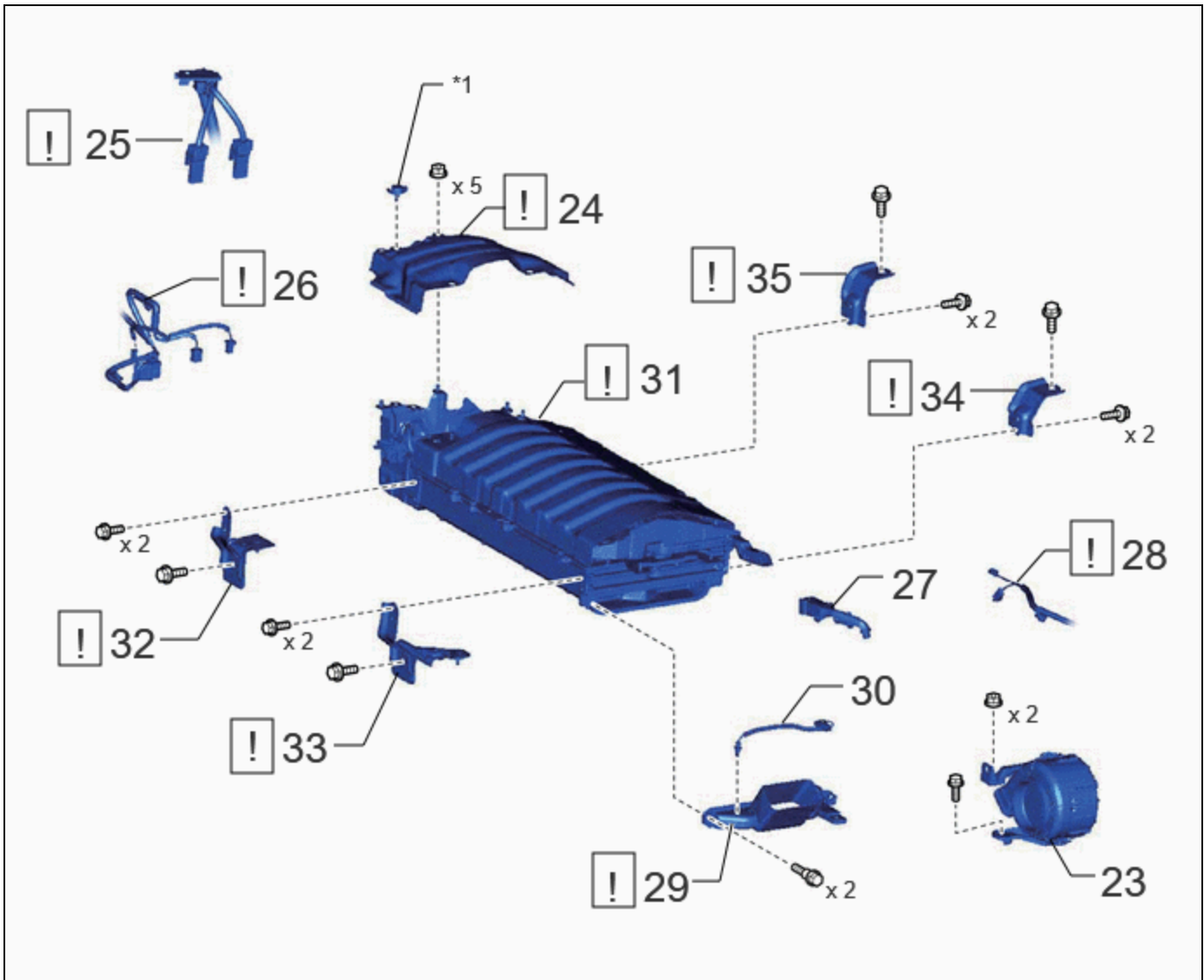
	PROCEDURE	PART NAME CODE			
1	WHEN REPLACING BATTERY ECU ASSEMBLY	-	INFO	-	-
2	READ VALUE USING GTS	-	-	-	INFO
3	SERVICE PLUG GRIP	G3834	-	-	-






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

PROCEDURE		PART NAME CODE			
15	COWL WATER EXTRACT SHIELD RH	55753D	-	-	-
16	COWL WATER EXTRACT SHIELD LH	55754F	-	-	-
17	WINDSHIELD LOWER OUTSIDE MOULDING LH	75536D	-	-	-
18	WINDSHIELD LOWER OUTSIDE MOULDING RH	75535F	-	-	-
19	FRONT WIPER ARM AND BLADE ASSEMBLY LH	-		-	-
20	FRONT WIPER ARM AND BLADE ASSEMBLY RH	-		-	-
21	SHIELD CAP	85247	-	-	-
22	FRONT WIPER ARM HEAD CAP	85292B	-	-	-

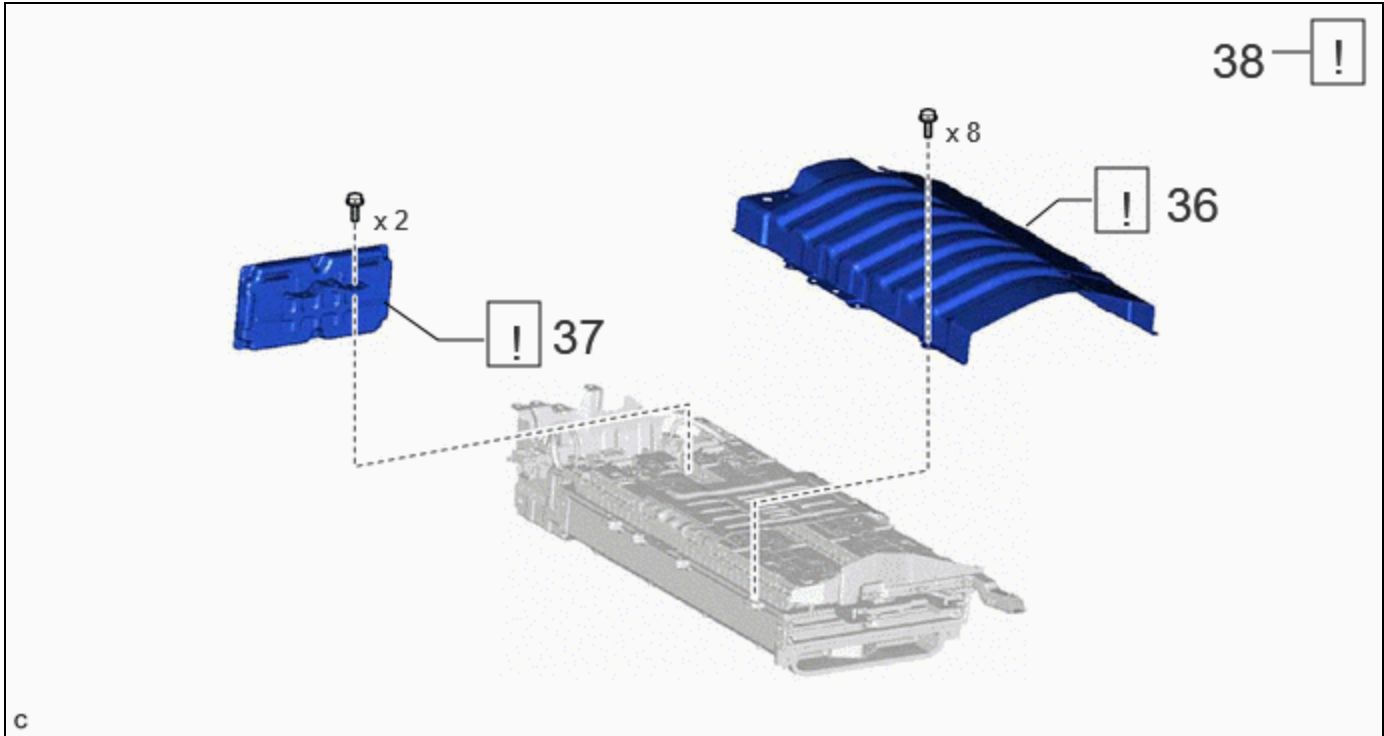
*A	for M20A-FXS	*B	for 2ZR-FXE
*1	Connector Cover Assembly	-	-
	Tightening torque for "Major areas involving basic vehicle performance such as moving/turning/stopping" : N*m (kgf*cm, ft.*lbf)		N*m (kgf*cm, ft.*lbf): Specified torque






PROCEDURE		PART NAME CODE			
23	BATTERY COOLING BLOWER ASSEMBLY	G9230	-	-	-
24	NO. 1 HV BATTERY COVER PANEL RH	G92N4A	INFO	-	-
25	FLOOR UNDER WIRE	821H1	INFO	-	-
26	FLOOR WIRE	82161	INFO	-	-
27	HYBRID BATTERY HOSE ASSEMBLY	G9290A	-	-	-
28	FLOOR WIRE	82161	INFO	-	-
29	NO. 2 HV BATTERY INTAKE DUCT	G92D2	INFO	-	-
30	NO. 3 HV BATTERY PACK WIRE	G92X3	-	-	-
31	HV SUPPLY BATTERY ASSEMBLY	G9510	INFO	-	-
32	NO. 1 HV BATTERY CARRIER BRACKET SUB-ASSEMBLY	G920B	INFO	-	-
33	NO. 2 HV BATTERY CARRIER BRACKET SUB-ASSEMBLY	G920C	INFO	-	-

PROCEDURE		PART NAME CODE			
34	NO. 3 HV BATTERY CARRIER BRACKET	G92K5	INFO	-	-
35	NO. 4 HV BATTERY CARRIER BRACKET	G92K6	INFO	-	-


*1	Battery Cover Lock Striker	-	-
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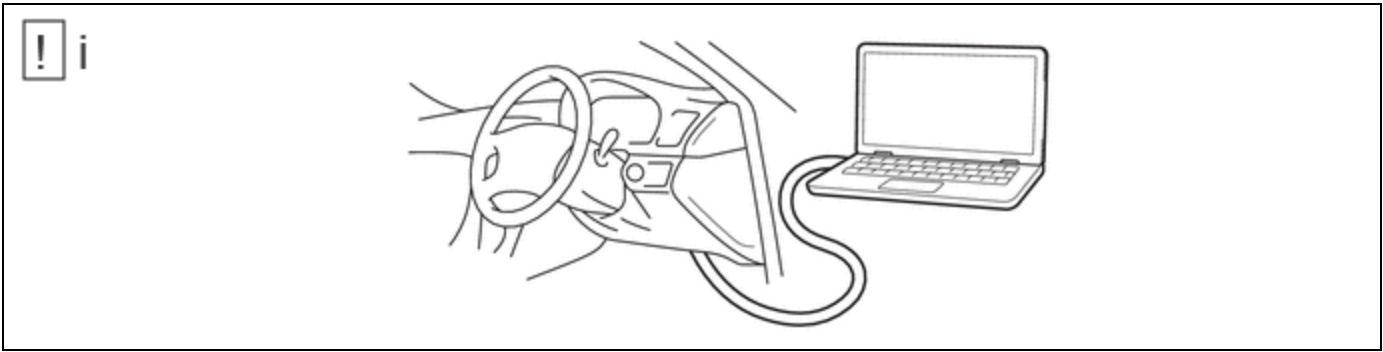
PROCEDURE		PART NAME CODE			
36	UPPER HV BATTERY COVER SUB-ASSEMBLY	-	INFO	-	-
37	BATTERY ECU ASSEMBLY	89890A	INFO	-	-
38	RECOVERY INSPECTION	-	-	-	-

PROCEDURE

1. WHEN REPLACING BATTERY ECU ASSEMBLY

	<p>NOTICE:</p> <p>When replacing the HV battery and battery ECU assembly at the same time, refer to the following precautions.</p> <p>INFO</p>
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2. READ VALUE USING GTS



(1) Read the Data List.

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

NOTICE:

If any of the temperatures listed in "Hybrid/EV Battery Temperature 1 to 6" are 50°C or more, leave the vehicle until the temperature drops to less than 50°C.

3. REMOVE SERVICE PLUG GRIP

Click here [INFO](#)

4. REMOVE FRONT WIPER ARM HEAD CAP

	Click here INFO
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5. REMOVE SHIELD CAP (for M20A-FXS)

	Click here INFO
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6. REMOVE FRONT WIPER ARM AND BLADE ASSEMBLY LH

Click here [INFO](#)

7. REMOVE FRONT WIPER ARM AND BLADE ASSEMBLY RH

Click here [INFO](#)

8. REMOVE WINDSHIELD LOWER OUTSIDE MOULDING LH

	Click here INFO
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9. REMOVE WINDSHIELD LOWER OUTSIDE MOULDING RH

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

10. REMOVE COWL WATER EXTRACT SHIELD LH

Click here [INFO](#)

11. REMOVE COWL WATER EXTRACT SHIELD RH

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

12. REMOVE COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY

Click here [INFO](#)

13. CHECK TERMINAL VOLTAGE

	Click here INFO
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14. INSTALL COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY

	Click here INFO
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15. INSTALL COWL WATER EXTRACT SHIELD RH

16. INSTALL COWL WATER EXTRACT SHIELD LH


17. INSTALL WINDSHIELD LOWER OUTSIDE MOULDING LH

Click here [INFO](#)

18. INSTALL WINDSHIELD LOWER OUTSIDE MOULDING RH

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

19. INSTALL FRONT WIPER ARM AND BLADE ASSEMBLY LH

	Click here INFO
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20. INSTALL FRONT WIPER ARM AND BLADE ASSEMBLY RH

	Click here INFO
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21. INSTALL SHIELD CAP (for M20A-FXS)

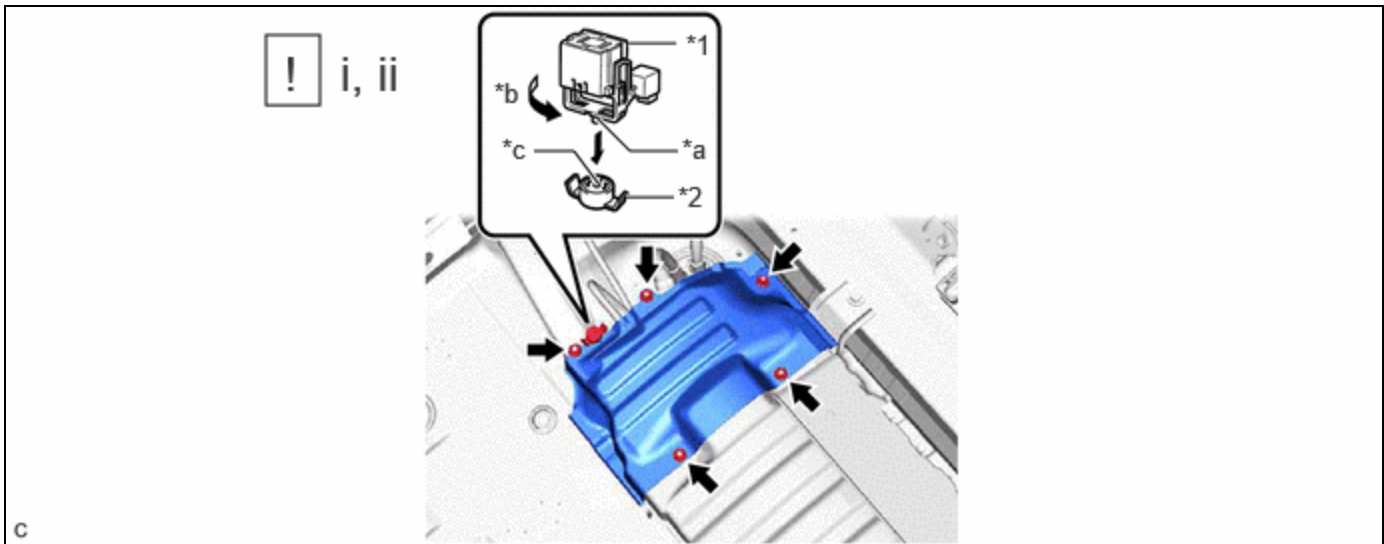
22. INSTALL FRONT WIPER ARM HEAD CAP

23. REMOVE BATTERY COOLING BLOWER ASSEMBLY

Click here [INFO](#)

24. REMOVE NO. 1 HV BATTERY COVER PANEL RH

	<p>CAUTION: Be sure to wear insulated gloves.</p>
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*1	Service Plug Grip	*2	Battery Cover Lock Striker
*a	Projection	*b	Turn
*c	Button	-	-


(1) Using the service plug grip, remove the battery cover lock striker.

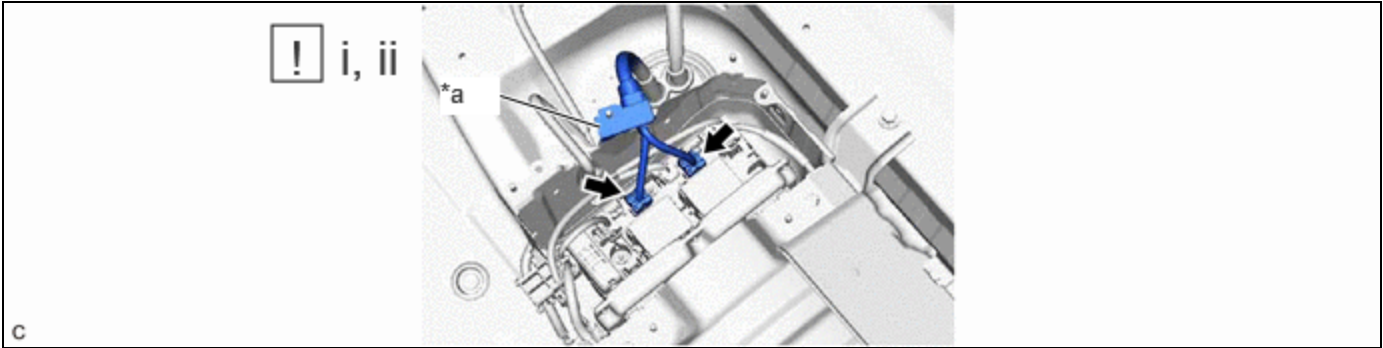
HINT:

Insert the projection of the service plug grip and turn the button of the battery cover lock striker counterclockwise to release the lock.

(2) Remove the 5 nuts and No. 1 HV battery cover panel RH from the HV battery.

25. DISCONNECT FLOOR UNDER WIRE

	<p>CAUTION: Be sure to wear insulated gloves.</p> <p>NOTICE: Insulate each disconnected high-voltage connector with insulating tape. Wrap the connector from the wire harness side to the end of the connector.</p>
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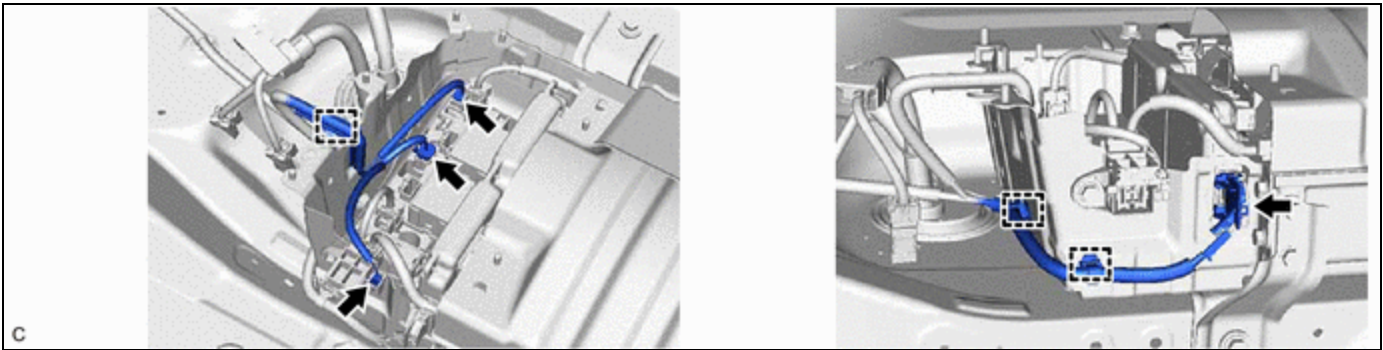


*a	Shield Ground	-	-
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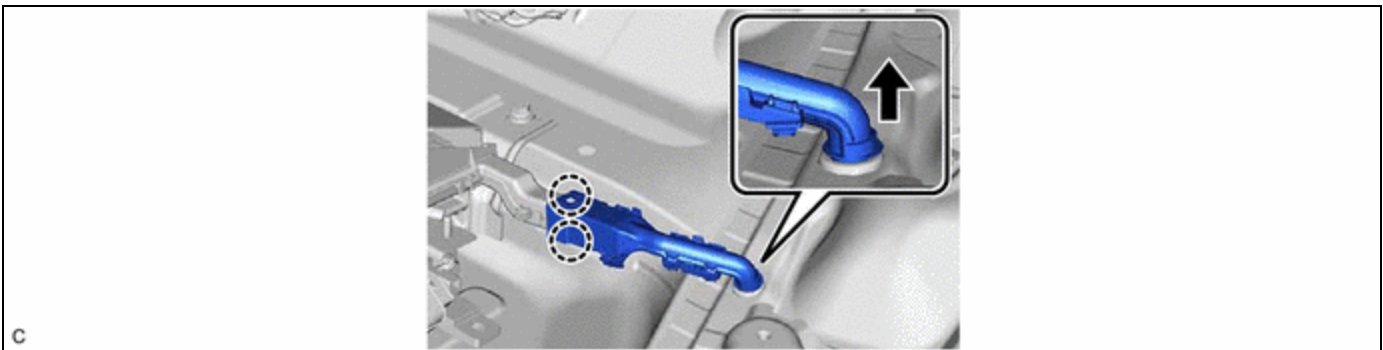
- (1) Disconnect the 2 No. 1 traction battery device box connectors.
- (2) Disconnect the shield ground from the HV battery.

26. DISCONNECT FLOOR WIRE

	<p>CAUTION: Be sure to wear insulated gloves.</p>
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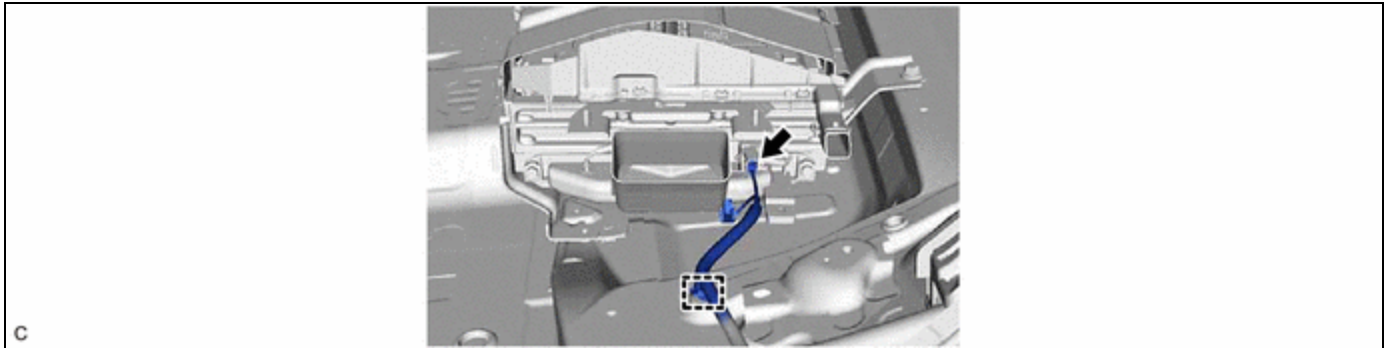
27. REMOVE HYBRID BATTERY HOSE ASSEMBLY



28. DISCONNECT FLOOR WIRE



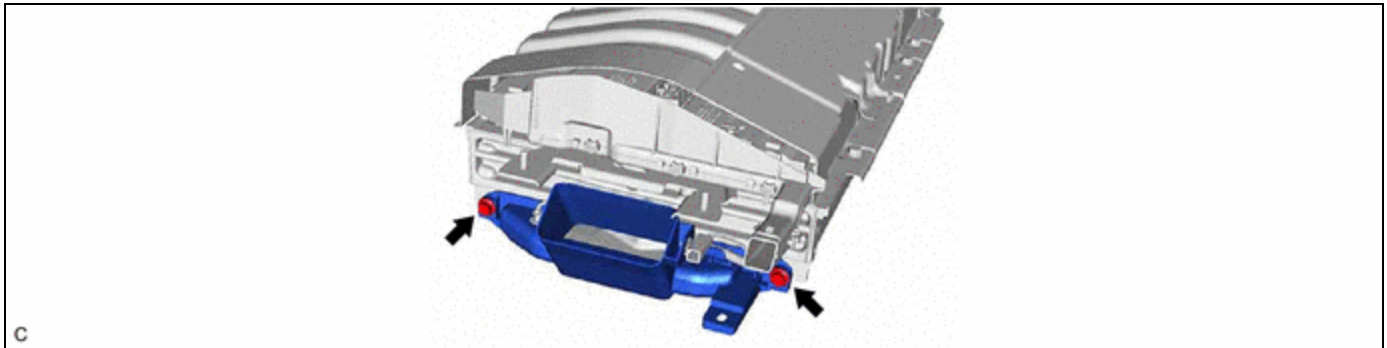
CAUTION:
Be sure to wear insulated gloves.



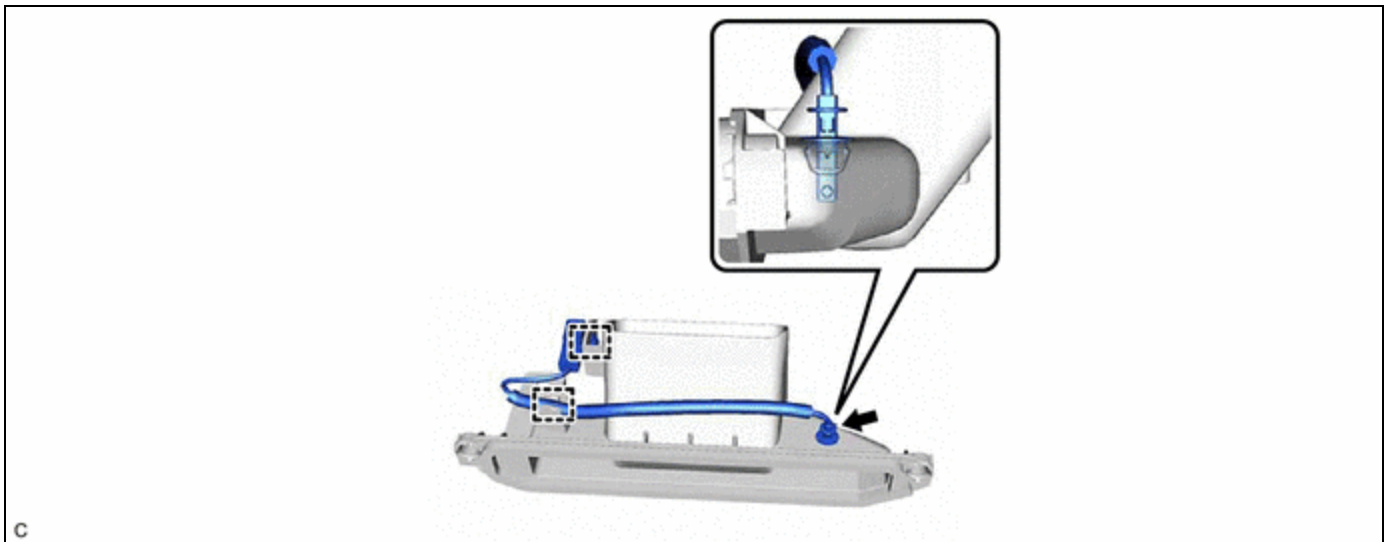
29. REMOVE NO. 2 HV BATTERY INTAKE DUCT




CAUTION:
Be sure to wear insulated gloves.

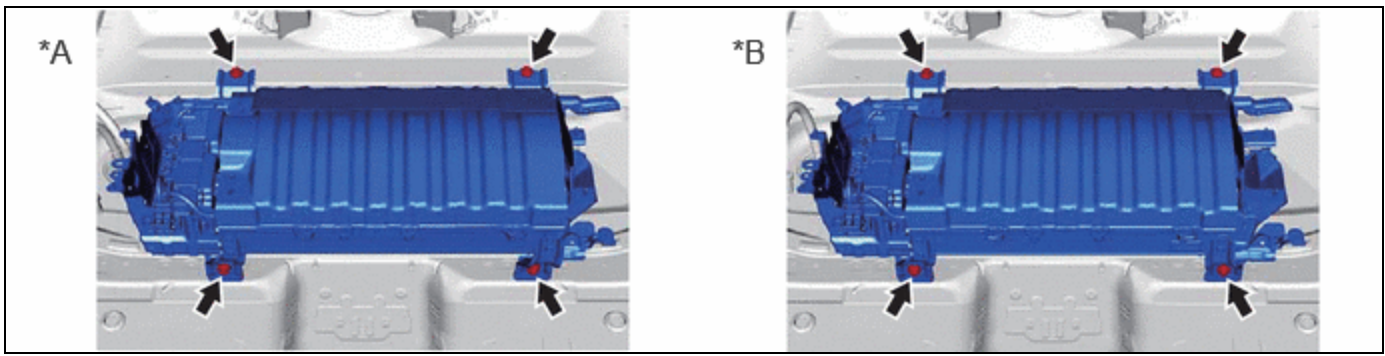


30. REMOVE NO. 3 HV BATTERY PACK WIRE



31. REMOVE HV SUPPLY BATTERY ASSEMBLY

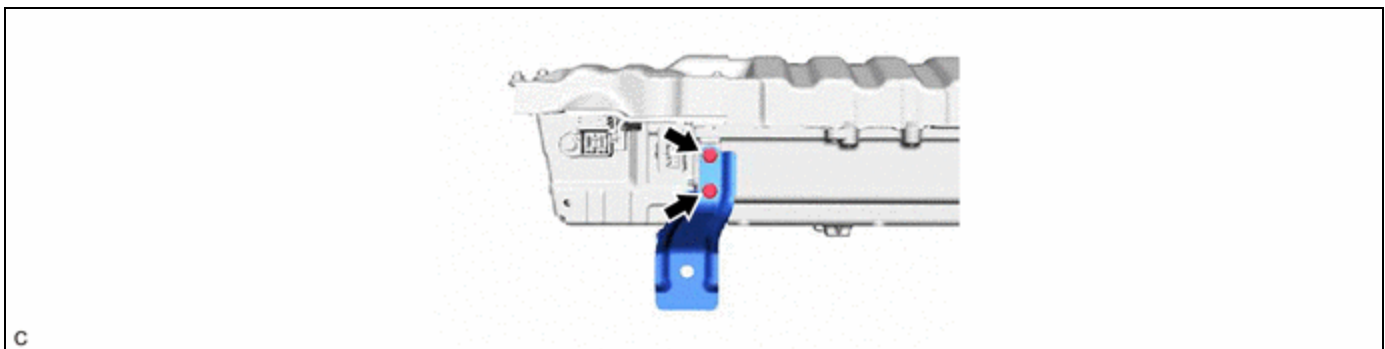
	<p>CAUTION: Be sure to wear insulated gloves.</p> <p>NOTICE:</p> <ul style="list-style-type: none"> • Do not allow foreign matter, such as grease or oil, to adhere to the bolts of the HV battery. • To prevent the wire harness from being caught, make sure to bundle the wire harness using insulating tape or equivalent. • Use cardboard or another similar material to protect the HV battery and vehicle body from damage. • Since the HV battery is very heavy, 2 people are needed to remove it. When removing the HV battery, be careful not to damage the parts around it. • When removing the HV battery from the vehicle, do not allow it to contact the vehicle. • When removing/installing/moving the HV battery, make sure not to tilt it more than 80°. • Insulate the disconnected terminals or connectors with insulating tape. • If the HV battery has been struck or dropped, replace it.
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*A	for Type A	*B	for Type B
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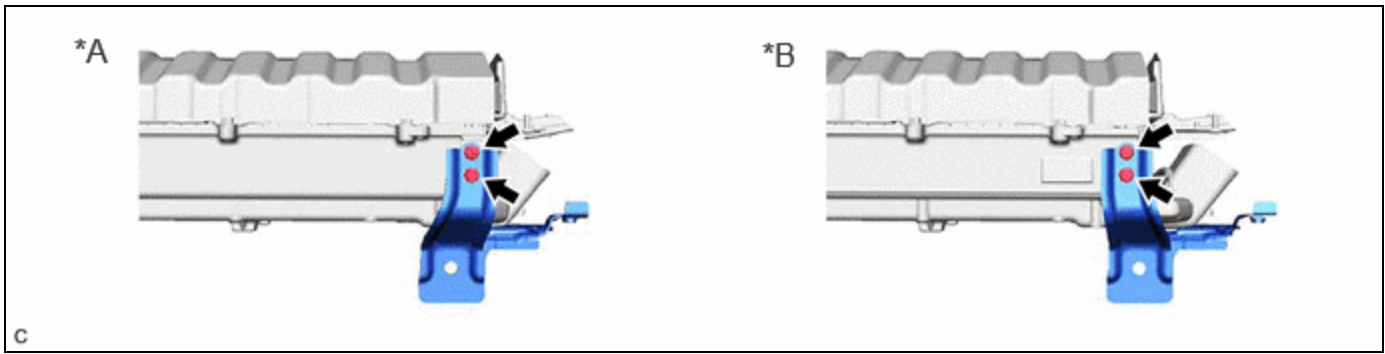
32. REMOVE NO. 1 HV BATTERY CARRIER BRACKET SUB-ASSEMBLY

	<p>CAUTION: Be sure to wear insulated gloves.</p>
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33. REMOVE NO. 2 HV BATTERY CARRIER BRACKET SUB-ASSEMBLY

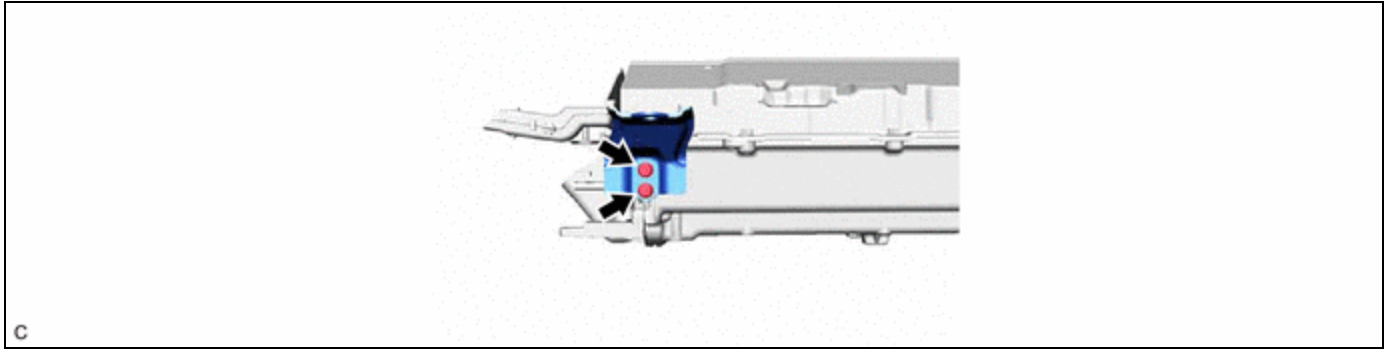
	<p>CAUTION: Be sure to wear insulated gloves.</p>
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*A	Type A	*B	Type B
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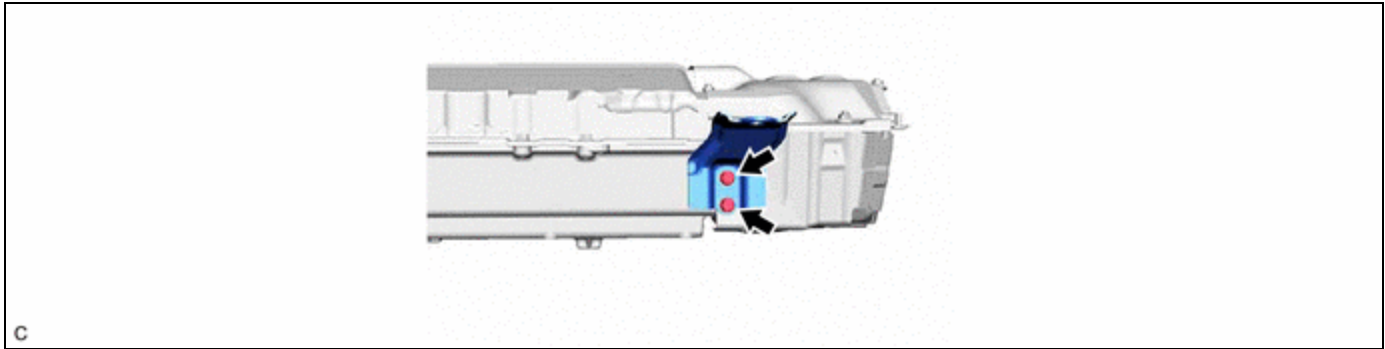
34. REMOVE NO. 3 HV BATTERY CARRIER BRACKET

	<p>CAUTION: Be sure to wear insulated gloves.</p>
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35. REMOVE NO. 4 HV BATTERY CARRIER BRACKET

	<p>CAUTION: Be sure to wear insulated gloves.</p>
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36. REMOVE UPPER HV BATTERY COVER SUB-ASSEMBLY



Click here [INFO](#)

37. REMOVE BATTERY ECU ASSEMBLY



Click here [INFO](#)

38. PERFORM RECOVERY INSPECTION

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

Click here [INFO](#)

