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Model Year Start: 2023	Model: Prius	Prod Date Range: [12/2022 -]
Title: HYBRID / BATTERY CONTROL: BATTERY ECU (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 battery ECU assembly removal/installation are shown below.

Necessary Procedures After Parts Removed/Installed/Replaced

REPLACED PART OR PERFORMED PROCEDURE	NECESSARY PROCEDURES	EFFECT/INOPERATIVE FUNCTION WHEN NECESSARY PROCEDURE NOT PERFORMED	LINK
Replacement of battery ECU assembly	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.

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



voltage system.

NOTICE:

- The type of battery ECU assembly to be used varies depending on the vehicle model.
- If the wrong type of battery ECU assembly is installed, the ignition switch cannot be turned on (READY).
- After installing the battery ECU assembly, perform the following to check that the ignition switch can be turned on (READY).
 - Turn the ignition switch to ON (READY).
 - Turn the ignition switch off and wait for 30 seconds or more.
 - Turn the ignition switch on (READY) again.
- This procedure includes the removal of small-head bolts. Refer to Small-Head Bolts of Basic Repair Hint to identify the small-head bolts.

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

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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

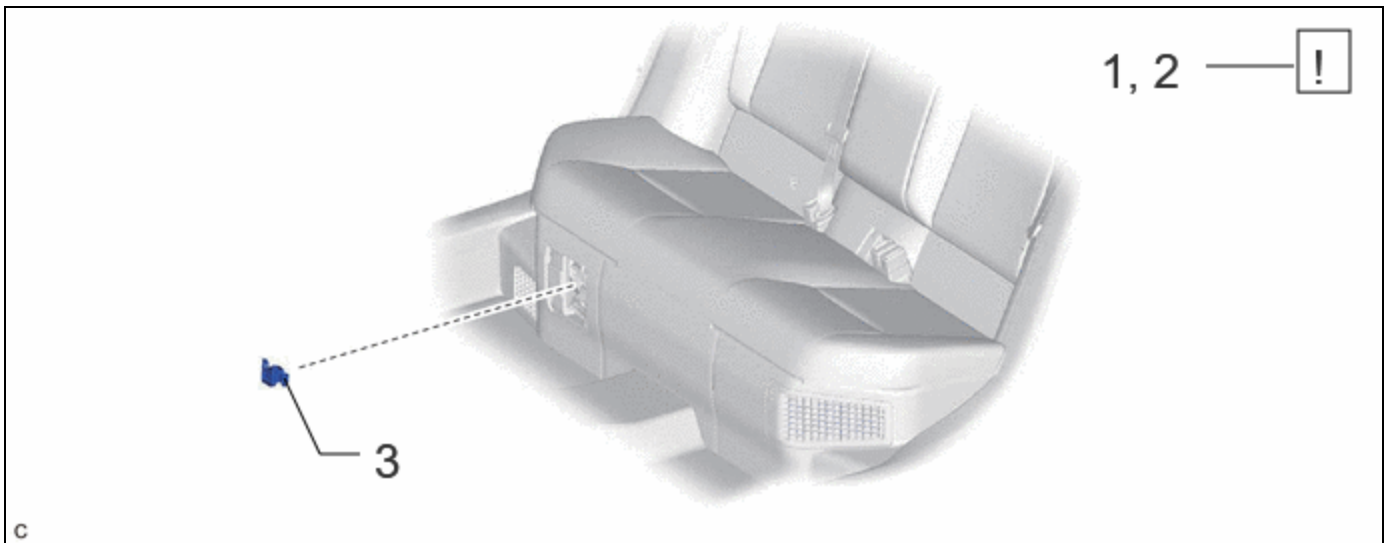
*1: w/o Power Back Door System

*2: w/ Power Back Door System

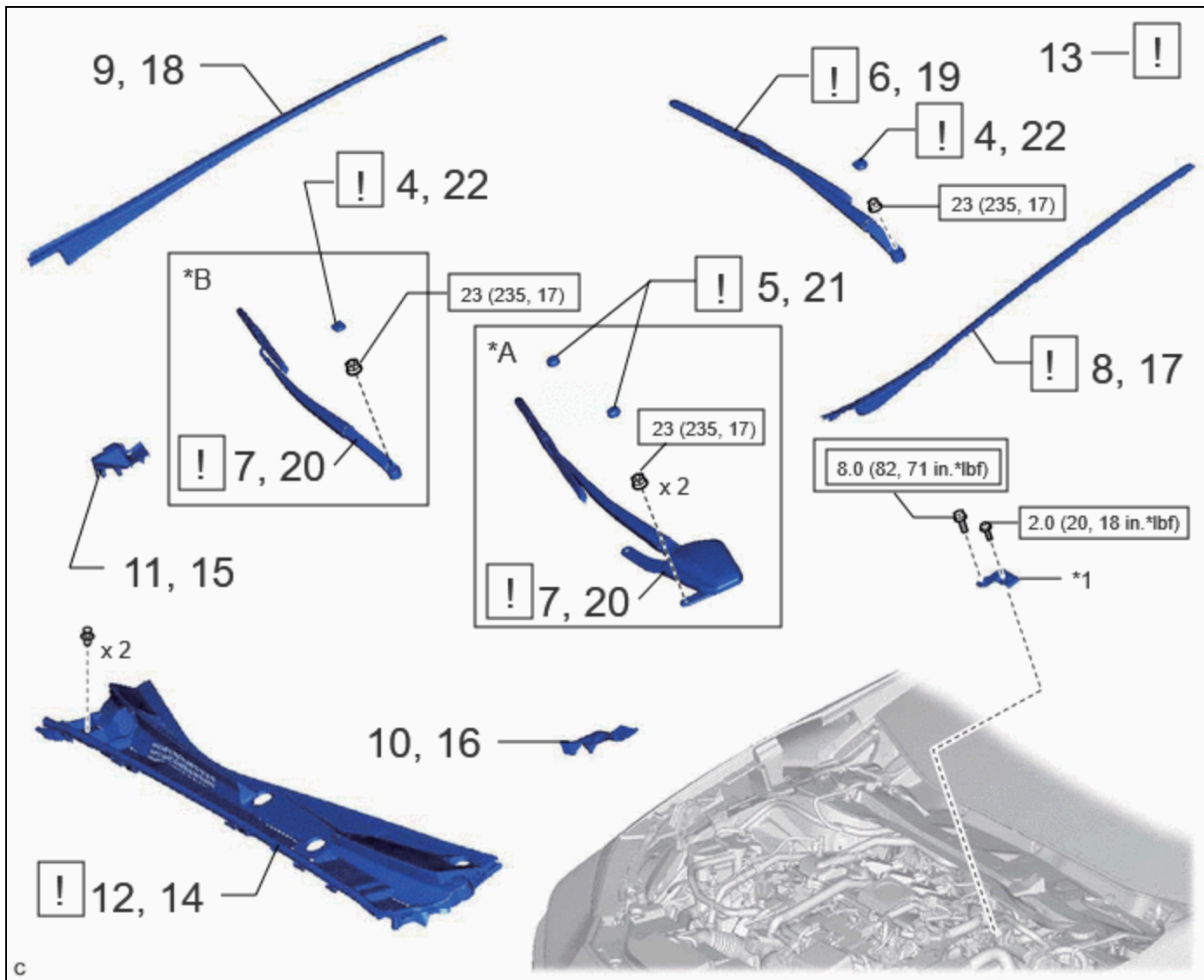
EFFECT/INOPERATIVE FUNCTION WHEN NECESSARY PROCEDURES ARE NOT PERFORMED	NECESSARY PROCEDURES	LINK
Air Conditioning System	After the ignition switch is turned to ON, the servo motor standard position is recognized.	-
*1: w/o Power Back Door System *2: w/ Power Back Door System		

CAUTION / NOTICE / HINT






COMPONENTS (REMOVAL)





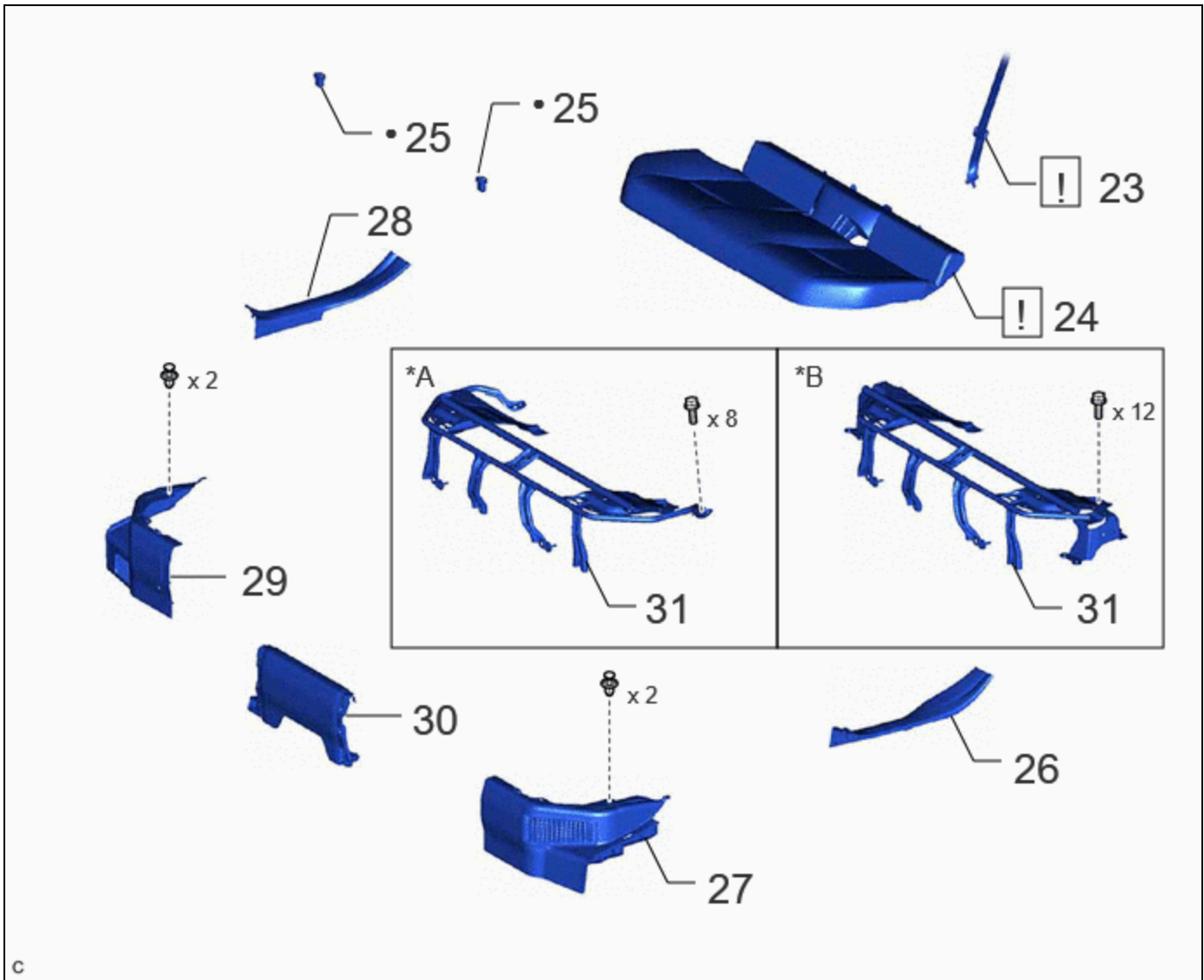
	PROCEDURE	PART NAME CODE	!	📄	⚙️
1	PRECAUTION	-	INFO	-	-
2	WHEN REPLACING BATTERY ECU ASSEMBLY	-	INFO	-	-
3	SERVICE PLUG GRIP	G3834	-	-	-



	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	-	-	-

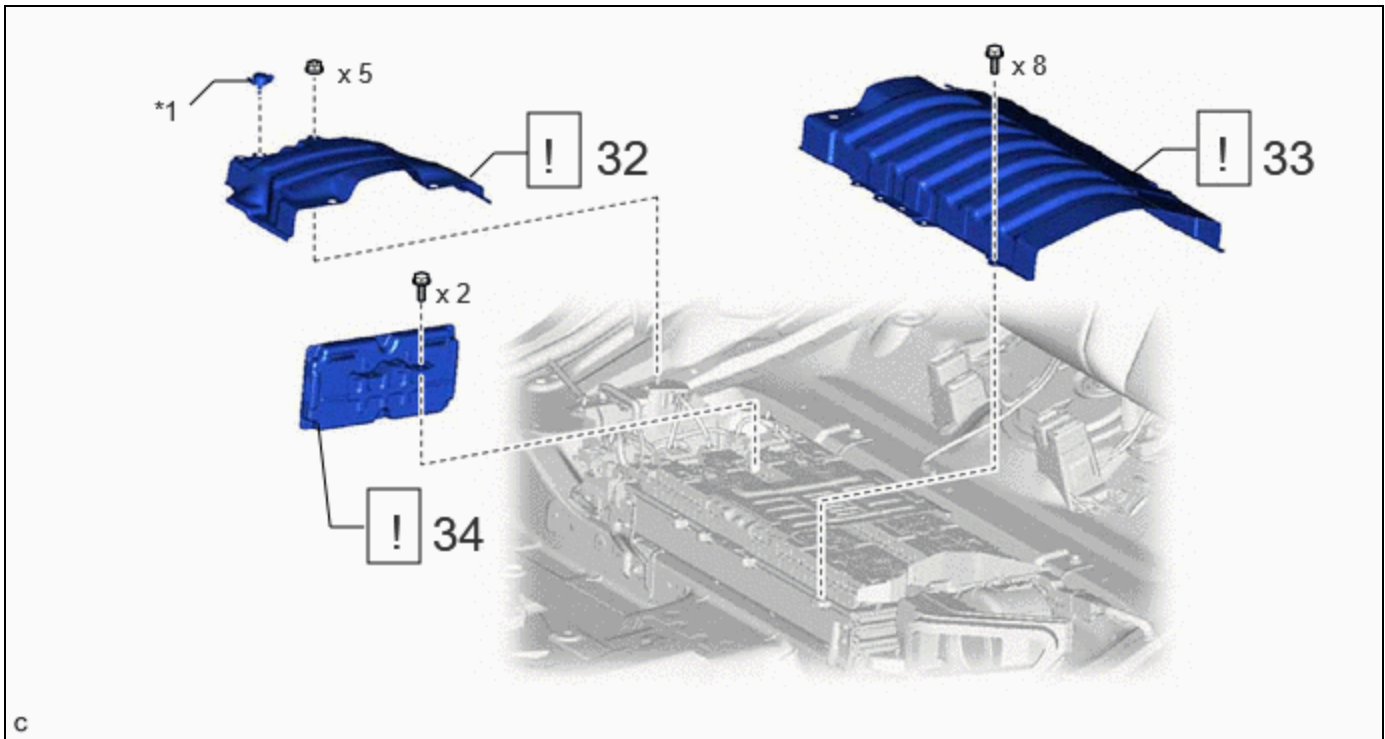
*A	for M20A-FXS	*B	for 2ZR-FXE
*1	Connector Cover Assembly	-	-
	Tightening torque for "Major areas involving basic vehicle performance such as moving/turning/stopping" : N*m (kgf*cm, ft.*lbf)		N*m (kgf*cm, ft.*lbf): Specified torque



PROCEDURE		PART NAME CODE			
23	REAR CENTER SEAT OUTER BELT ASSEMBLY	73350C	INFO	-	-
24	REAR SEAT CUSHION ASSEMBLY	-	INFO	-	-
25	REAR SEAT CUSHION LOCK HOOK	72693	-	-	-
26	REAR DOOR SCUFF PLATE INSIDE LH	67918F	-	-	-
27	REAR UNDER SIDE COVER LH	76974E	-	-	-
28	REAR DOOR SCUFF PLATE INSIDE RH	67917F	-	-	-
29	REAR UNDER SIDE COVER RH	76973E	-	-	-
30	REAR UNDER COVER	76917F	-	-	-
31	REAR SEAT CUSHION LEG SUB-ASSEMBLY	71033	-	-	-

*A	for Type A	*B	for Type B
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•	Non-reusable part	-	-
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PROCEDURE		PART NAME CODE			
32	NO. 1 HV BATTERY COVER PANEL RH	G92N4A	INFO	-	-
33	UPPER HV BATTERY COVER SUB-ASSEMBLY	-	INFO	-	-
34	BATTERY ECU ASSEMBLY	89890A	INFO	-	-

*1	Battery Cover Lock Striker	-	-
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PROCEDURE

1. PRECAUTION

	Click here INFO
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2. WHEN REPLACING BATTERY ECU ASSEMBLY

HV battery learning values are stored in the battery ECU assembly and ECM and are used to detect malfunctions and illuminate the hybrid battery indicator light in the combination meter assembly. When either of these ECUs is replaced, the new ECU receives the HV battery learning values from the other ECU and stores them.

**NOTICE:**

- Do not replace the battery ECU assembly and ECM at the same time as the HV battery learning values will be lost. However, if it is necessary to replace both ECUs at the same time, replace them by following the procedure below.
- Do not replace the battery ECU assembly or ECM with a used one from another vehicle.

(a) Procedure when replacing both battery ECU assembly and ECM:

- (1) Disconnect the cable from the negative (-) auxiliary battery terminal.
- (2) Replace either ECU.
- (3) Connect the cable to the negative (-) auxiliary battery terminal.
- (4) Turn the ignition switch on (READY) and wait for 5 minutes or more.
- (5) Turn the ignition switch off and disconnect the cable from the negative (-) auxiliary battery terminal.
- (6) Replace the other ECU.
- (7) Connect the cable to the negative (-) auxiliary battery terminal.
- (8) Check that the ignition switch can be turned on (READY).

HINT:

If the battery ECU assembly and ECM are replaced at the same time without following the above procedure, replace either of the ECUs with its original one and then replace it again by following the above procedure. If the correct procedure is not followed, perform the procedure again from the beginning.

3. REMOVE SERVICE PLUG GRIP

Click here [INFO](#)

4. REMOVE FRONT WIPER ARM HEAD CAP

Click here [INFO](#)

5. REMOVE SHIELD CAP (for M20A-FXS)

Click here [INFO](#)

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](#)

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](#)

14. INSTALL COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY



Click here [INFO](#)

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](#)

20. INSTALL FRONT WIPER ARM AND BLADE ASSEMBLY RH



Click here [INFO](#)

21. INSTALL SHIELD CAP (for M20A-FXS)

22. INSTALL FRONT WIPER ARM HEAD CAP

23. DISCONNECT REAR CENTER SEAT OUTER BELT ASSEMBLY



Click here [INFO](#)

24. REMOVE REAR SEAT CUSHION ASSEMBLY



Click here [INFO](#)

25. REMOVE REAR SEAT CUSHION LOCK HOOK

Click here [INFO](#)

26. REMOVE REAR DOOR SCUFF PLATE INSIDE LH

Click here [INFO](#)

27. REMOVE REAR UNDER SIDE COVER LH

Click here [INFO](#)

28. REMOVE REAR DOOR SCUFF PLATE INSIDE RH

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

29. REMOVE REAR UNDER SIDE COVER RH

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

30. REMOVE REAR UNDER COVER

Click here [INFO](#)

31. REMOVE REAR SEAT CUSHION LEG SUB-ASSEMBLY

Click here [INFO](#)

32. REMOVE NO. 1 HV BATTERY COVER PANEL RH

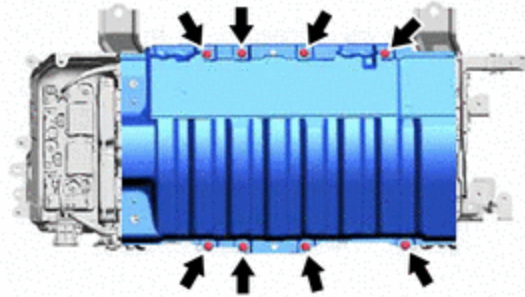


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33. REMOVE UPPER HV BATTERY COVER SUB-ASSEMBLY

**CAUTION:**

Be sure to wear insulated gloves and protective goggles.



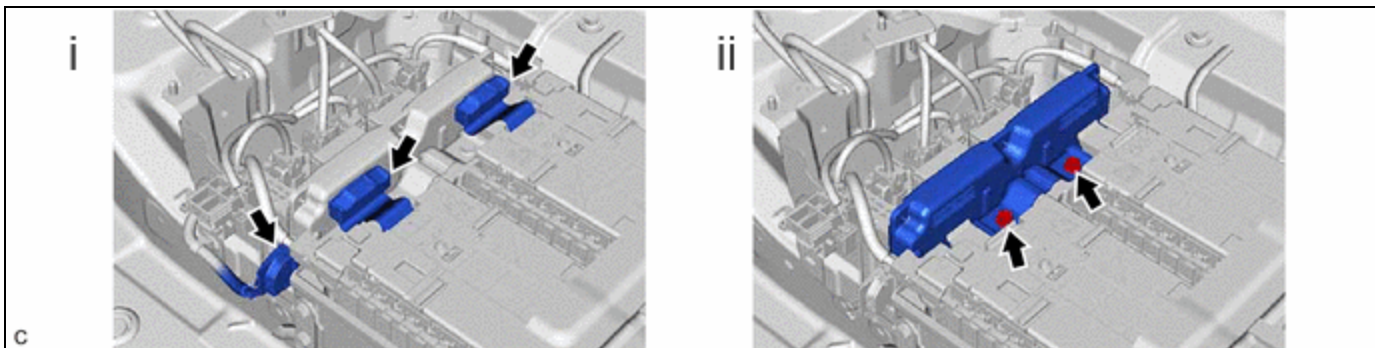
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34. REMOVE BATTERY ECU ASSEMBLY**CAUTION:**

Be sure to wear insulated gloves and protective goggles.

NOTICE:

- Insulate each disconnected high-voltage connector with insulating tape. Wrap the connector from the wire harness side to the end of the connector.
- If the battery ECU assembly has been struck or dropped, replace it.



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(1) Disconnect the 3 battery ECU assembly connectors.

(2) Using an 8 mm socket wrench, remove the 2 bolts and battery ECU assembly from the HV battery.

