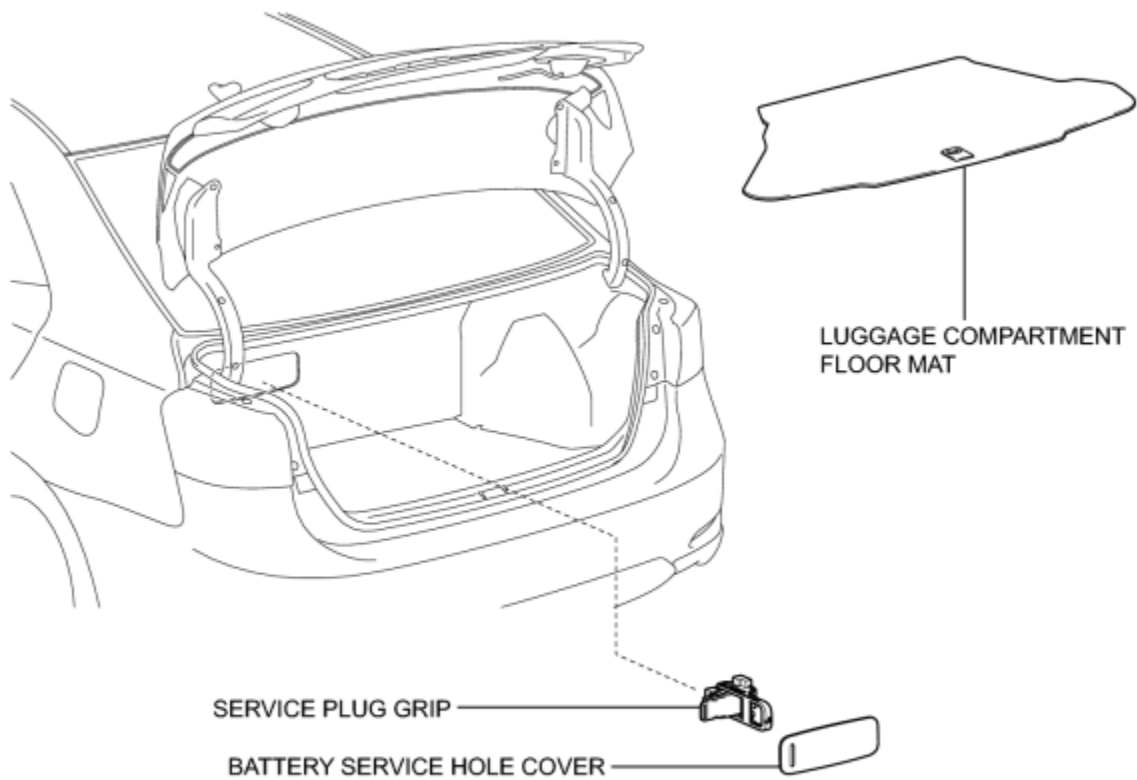


Last Modified: 10-5-2010	6.4 K	From: 200907
Model Year: 2010	Model: HS250H	Doc ID: RM0000026LH00FX
Title: HYBRID / BATTERY CONTROL: HV BATTERY: COMPONENTS (2010 HS250H)		

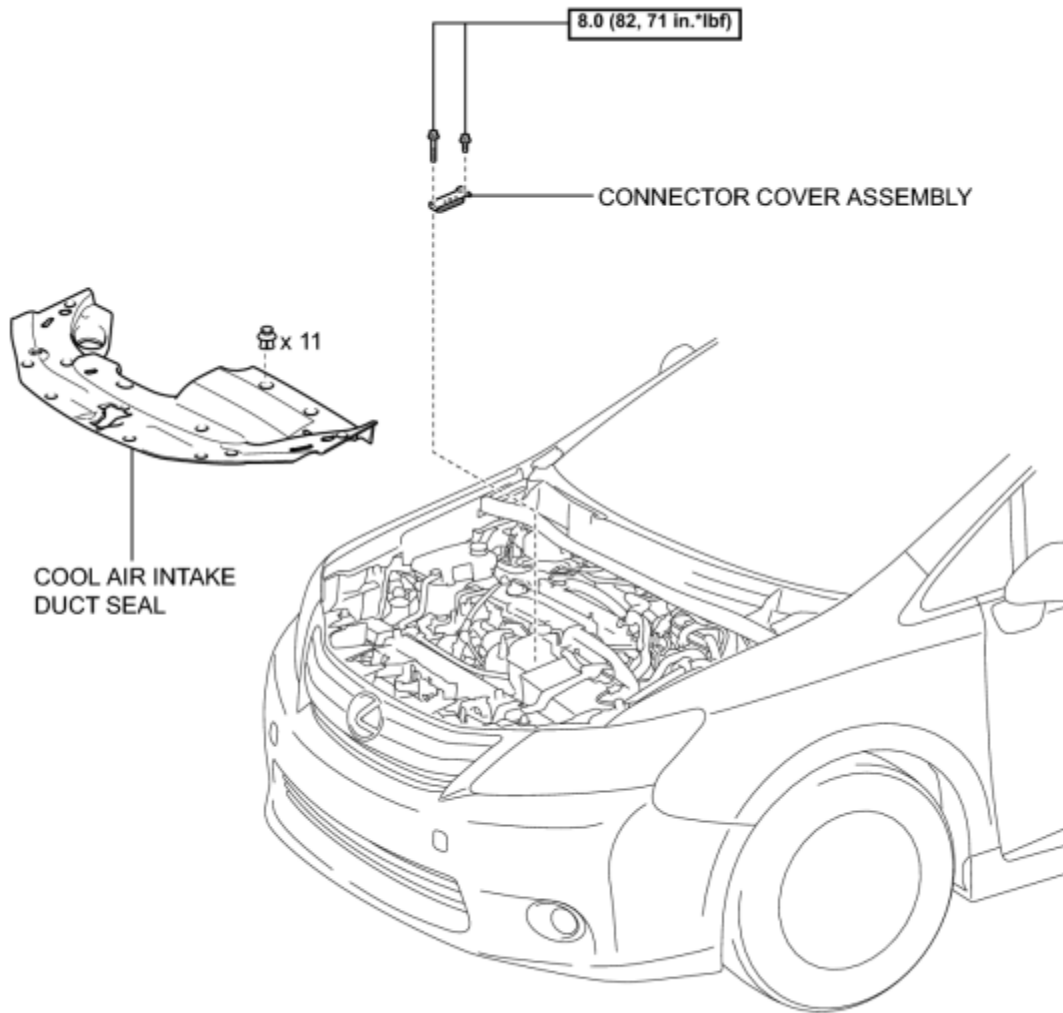
COMPONENTS

ILLUSTRATION



c

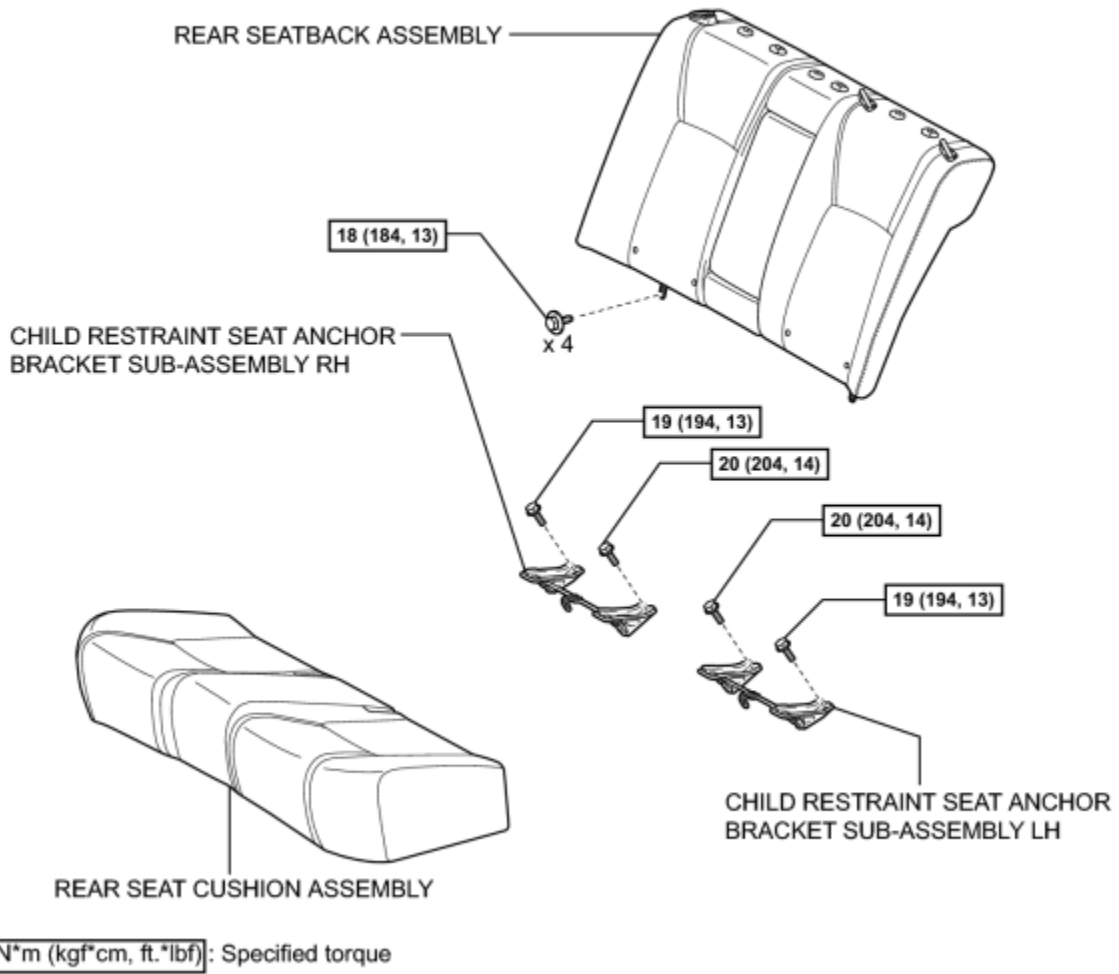
ILLUSTRATION



N*m (kgf*cm, ft.*lbf): Specified torque

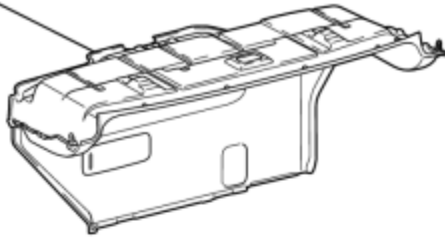
c

ILLUSTRATION



ILLUSTRATION

FRONT LUGGAGE COMPARTMENT
TRIM COVER



NO. 2 LUGGAGE COMPARTMENT TRIM HOOK

x 2



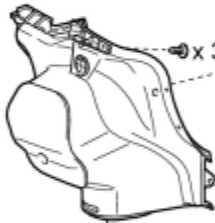
NO. 1 LUGGAGE COMPARTMENT
LIGHT ASSEMBLY

AUXILIARY BATTERY



ROPE HOOK

x 3

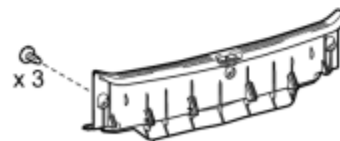


INNER LUGGAGE COMPARTMENT
TRIM COVER

TOOL WITH STAY BOX
SUB-ASSEMBLY



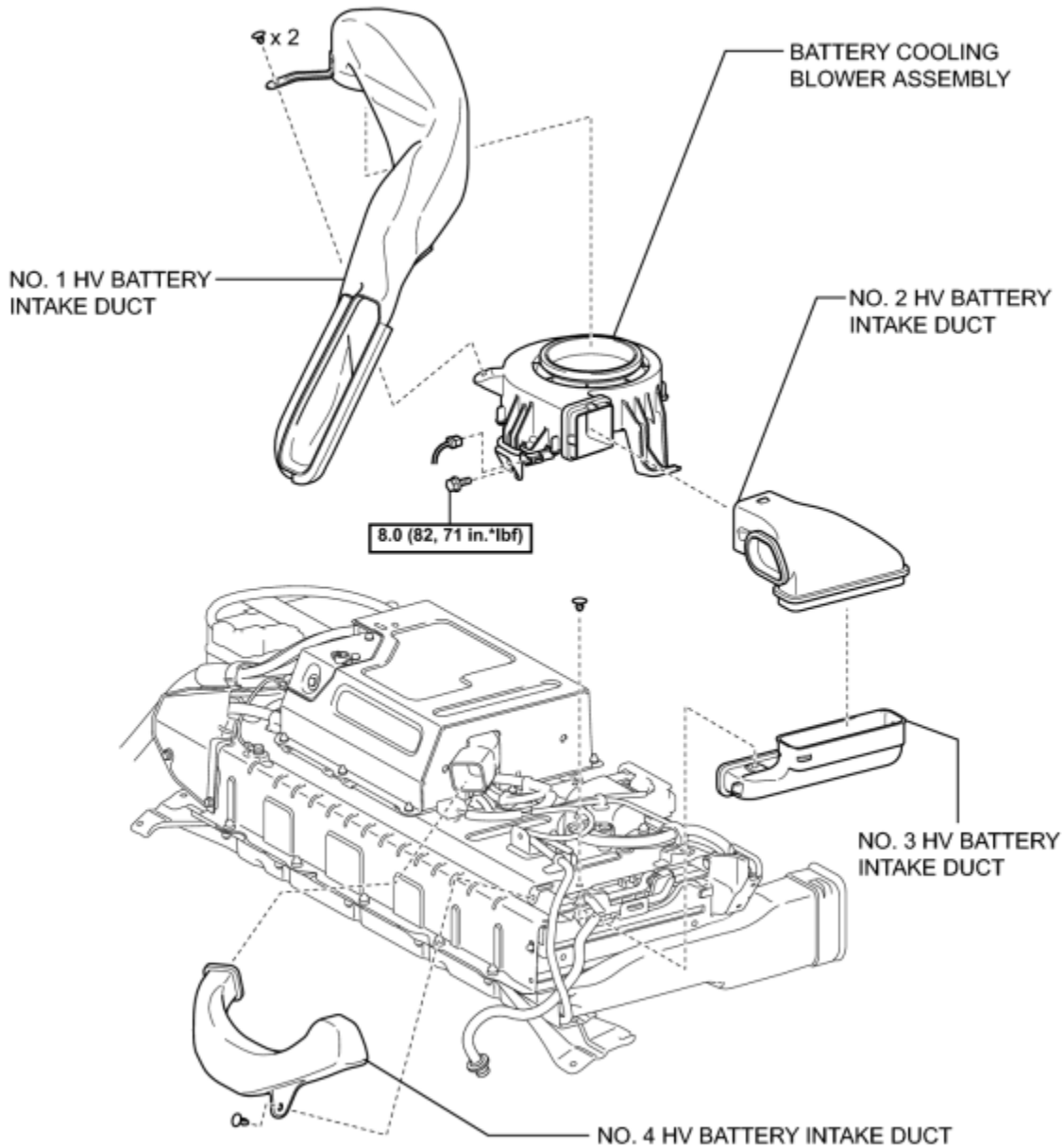
x 3



REAR FLOOR FINISH PLATE

P

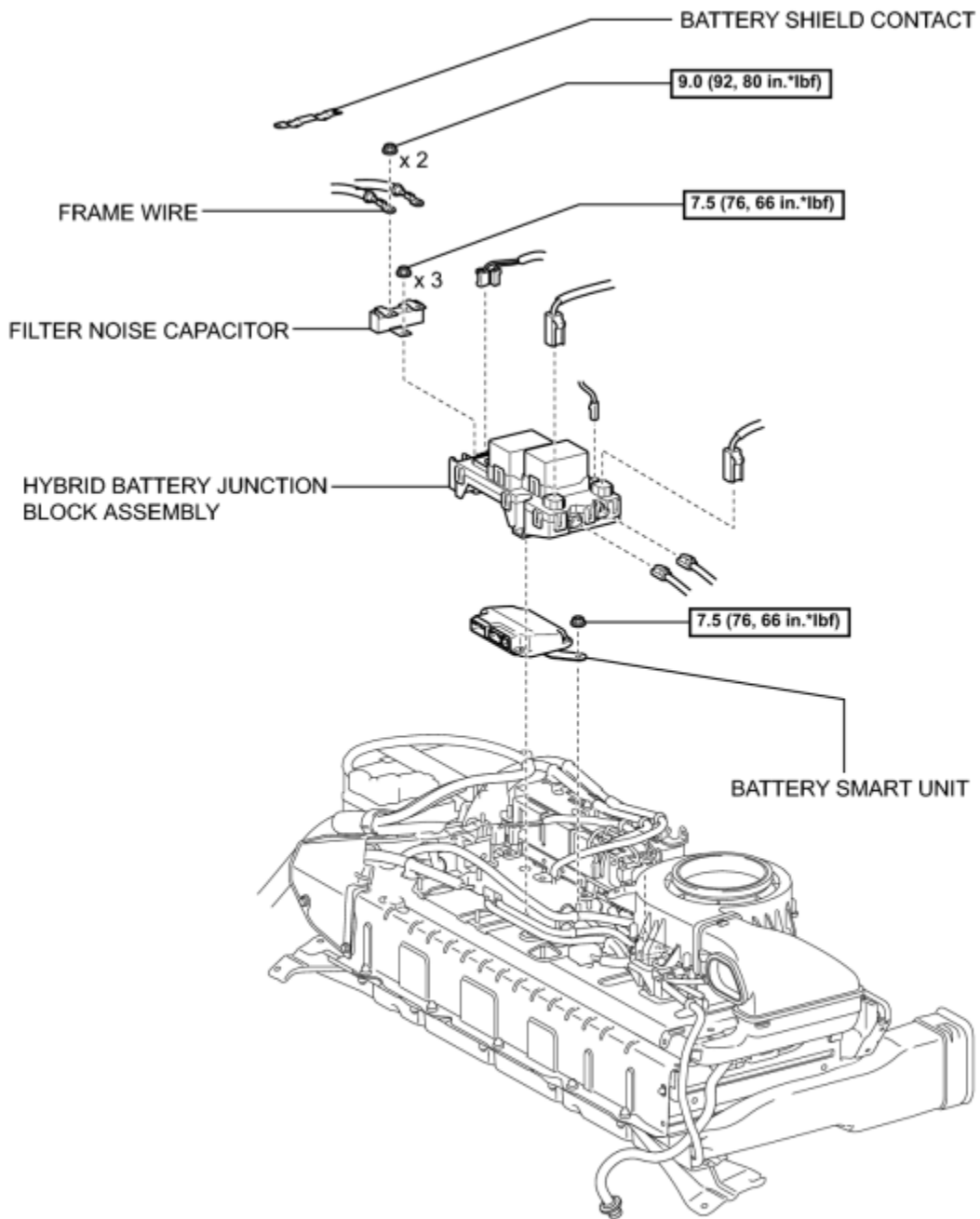
ILLUSTRATION



N*m (kgf*cm, ft.*lbf): Specified torque

c

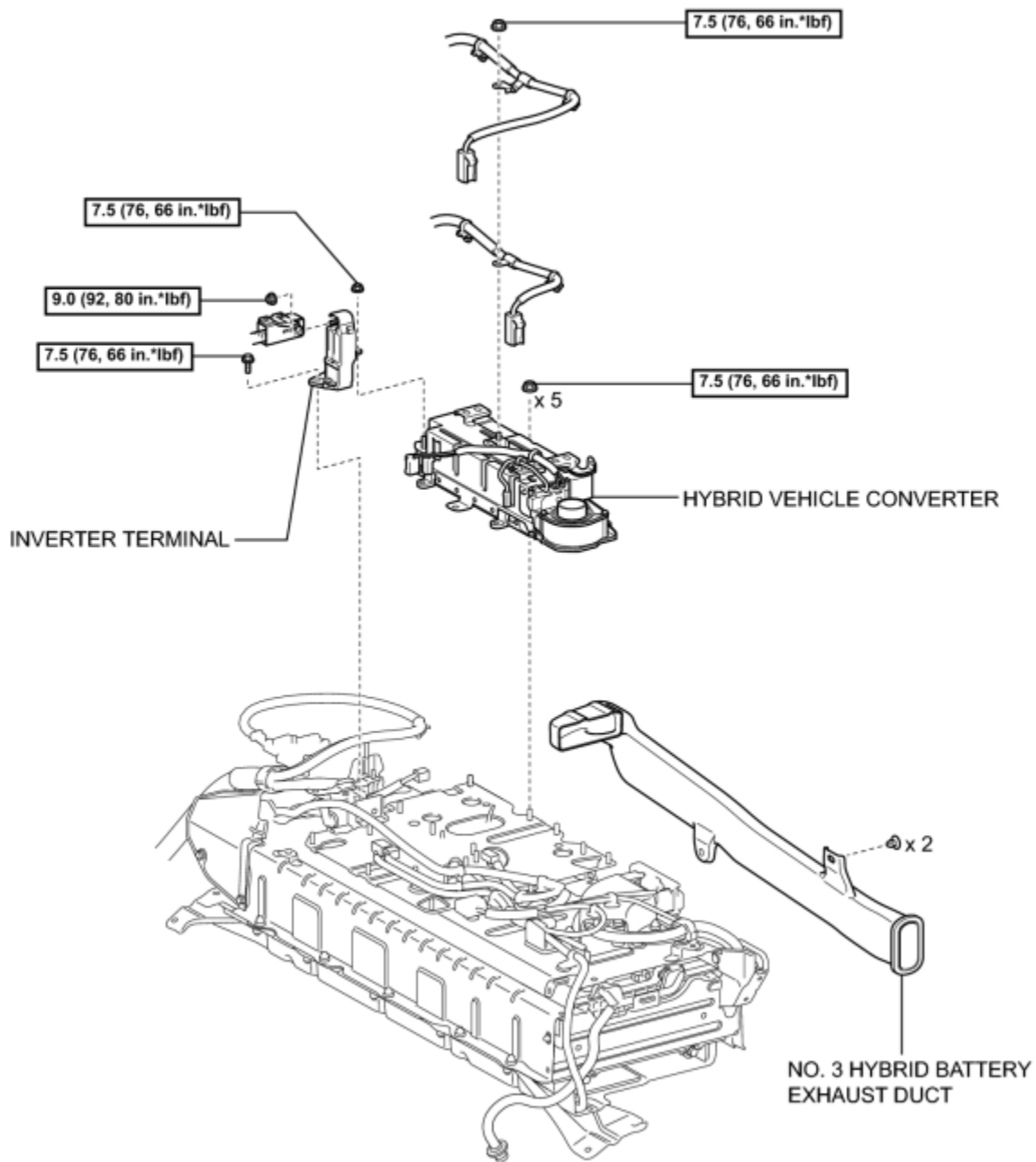
ILLUSTRATION



N*m (kgf*cm, ft.*lbf): Specified torque

c

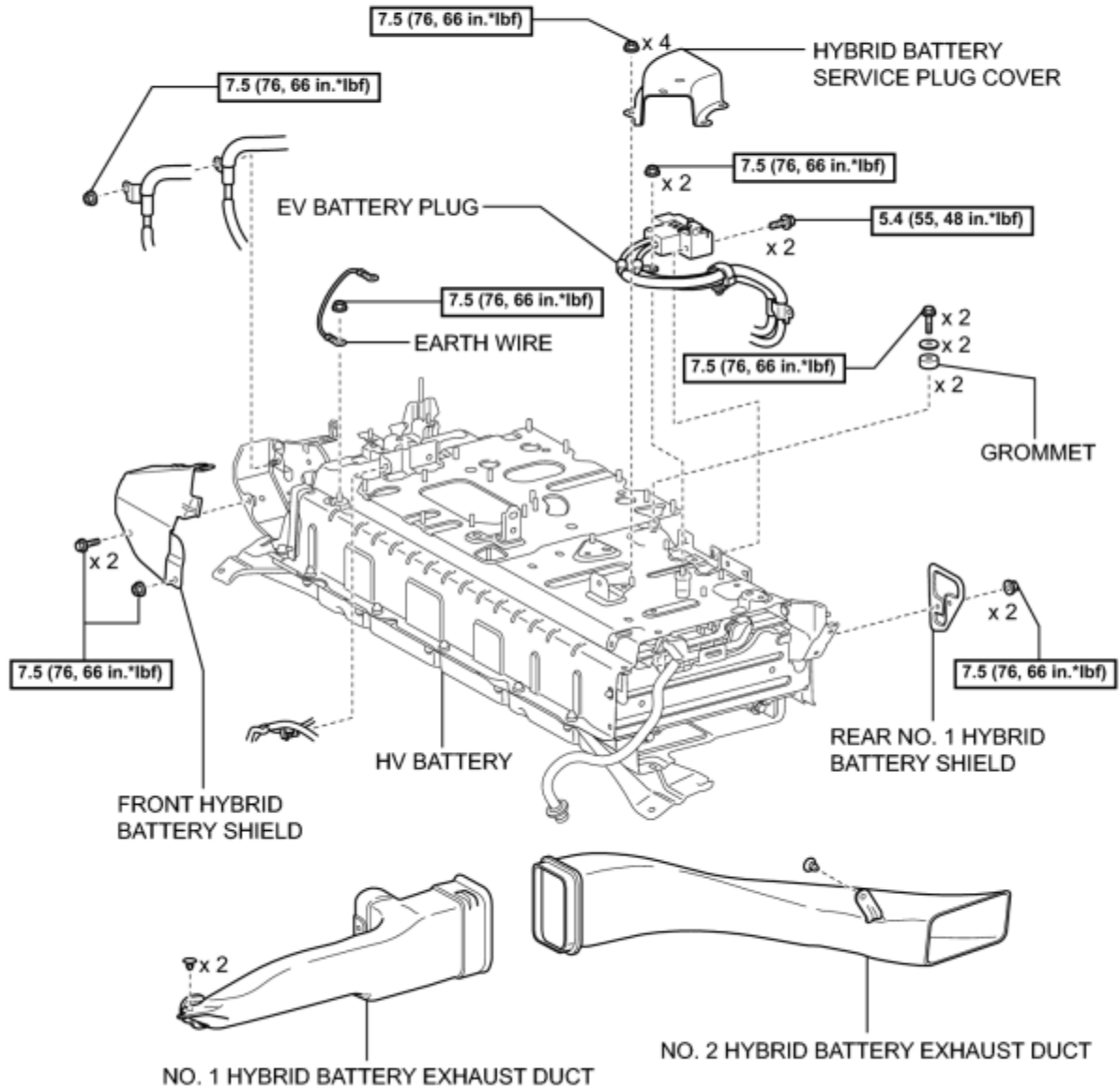
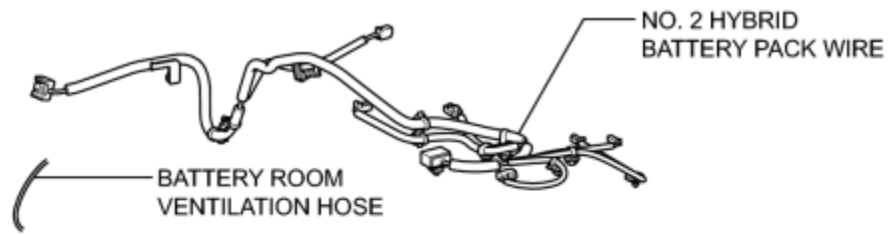
ILLUSTRATION



N*m (kgf*cm, ft.*lbf): Specified torque

c

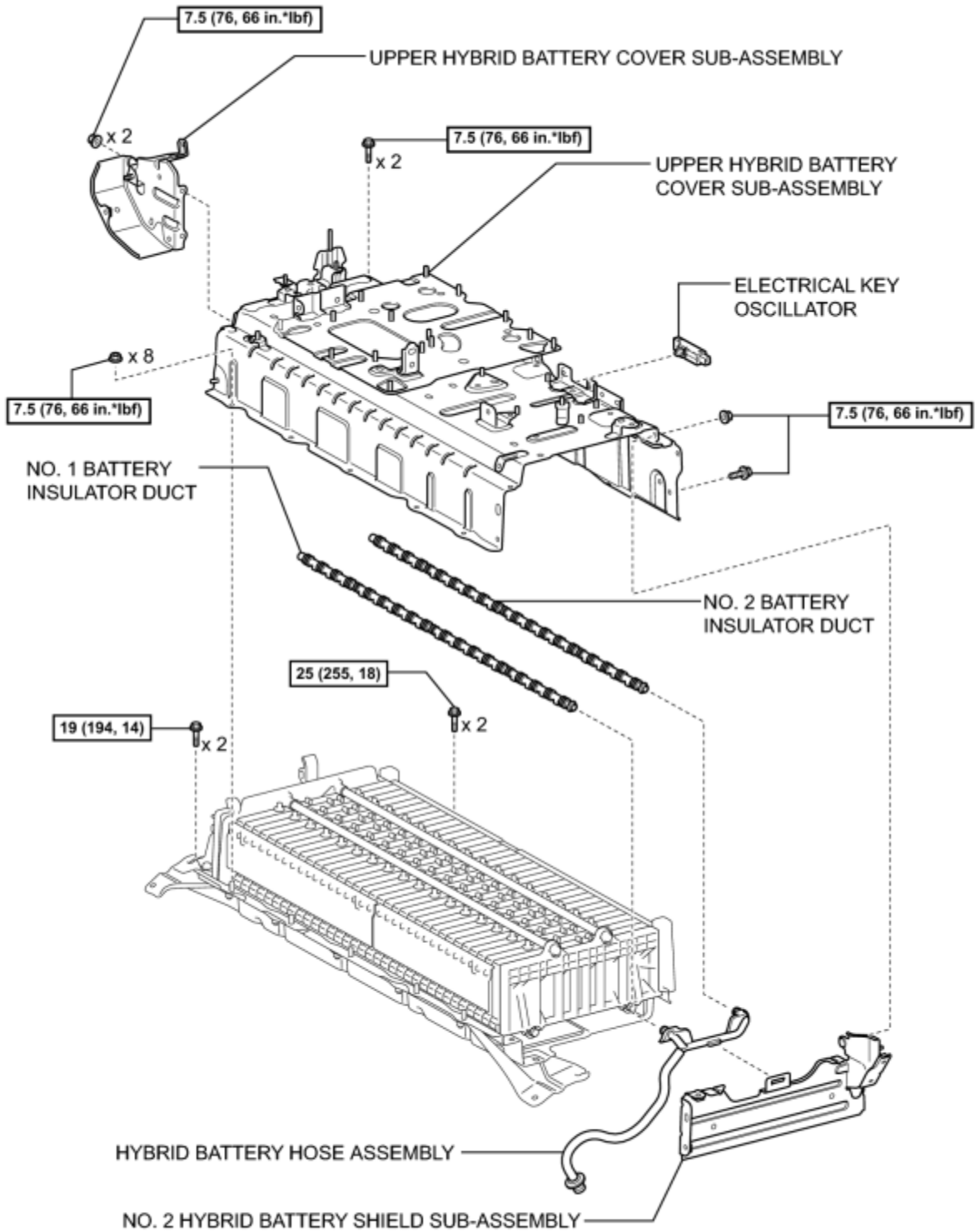
ILLUSTRATION



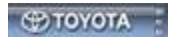
N*m (kgf*cm, ft.*lbf): Specified torque

c

ILLUSTRATION



[N*m (kgf*cm, ft.*lbf)]: Specified torque



Last Modified: 10-5-2010	6.4 A	From: 200907
Model Year: 2010	Model: HS250H	Doc ID: RM0000026LJ00JX
Title: HYBRID / BATTERY CONTROL: HV BATTERY: REMOVAL (2010 HS250H)		

REMOVAL

1. PRECAUTION

HINT: [INFO](#).

2. CHECK FOR DTCS

(a) Check for DTCS [INFO](#).

NOTICE:

Confirm that P0AA6 (Hybrid Battery Voltage System Isolation Fault) is not output before doing removal or installation work inside the battery. If this DTC is output, perform troubleshooting procedure for this DTC first.

3. REMOVE LUGGAGE COMPARTMENT FLOOR MAT [INFO](#)

4. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL [INFO](#)

5. REMOVE BATTERY SERVICE HOLE COVER [INFO](#)

6. REMOVE SERVICE PLUG GRIP [INFO](#)

7. REMOVE COOL AIR INTAKE DUCT SEAL [INFO](#)

8. REMOVE CONNECTOR COVER ASSEMBLY [INFO](#)

9. CHECK TERMINAL VOLTAGE [INFO](#)

10. INSTALL CONNECTOR COVER ASSEMBLY [INFO](#)

11. INSTALL COOL AIR INTAKE DUCT SEAL [INFO](#)

12. REMOVE REAR SEATBACK ASSEMBLY

HINT: [INFO](#).

13. REMOVE TOOL WITH STAY BOX SUB-ASSEMBLY

14. REMOVE REAR FLOOR FINISH PLATE_ INFO

15. REMOVE NO. 1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY

16. REMOVE FRONT LUGGAGE COMPARTMENT TRIM COVER_ INFO

17. REMOVE ROPE HOOK_ INFO

18. REMOVE INNER LUGGAGE COMPARTMENT TRIM COVER_ INFO

19. REMOVE AUXILIARY BATTERY_ INFO

20. REMOVE BATTERY COOLING BLOWER ASSEMBLY

HINT: INFO .

21. REMOVE BATTERY SMART UNIT

HINT: INFO .

22. REMOVE NO. 3 HYBRID BATTERY EXHAUST DUCT_ INFO

23. REMOVE INVERTER TERMINAL

CAUTION:

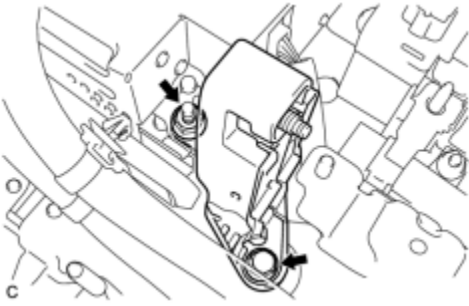
Wear insulated gloves.

NOTICE:

Insulate the removed terminals with insulating tape.



(a) Remove the nut and disconnect the frame wire from the inverter terminal.



(b) Remove the bolt, nut and inverter terminal.

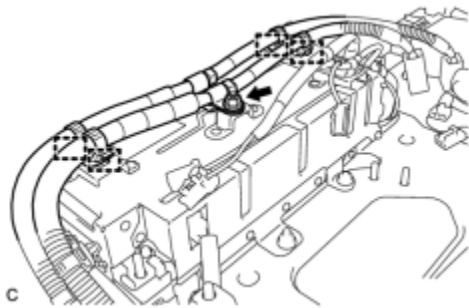
24. REMOVE HYBRID VEHICLE CONVERTER

CAUTION:

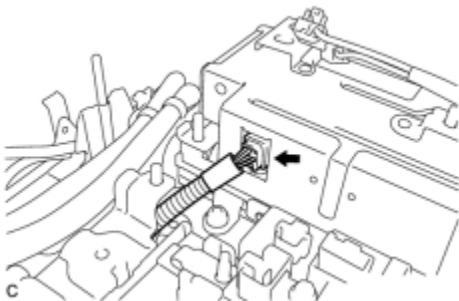
Wear insulated gloves.

NOTICE:

Insulate the removed terminals with insulating tape.

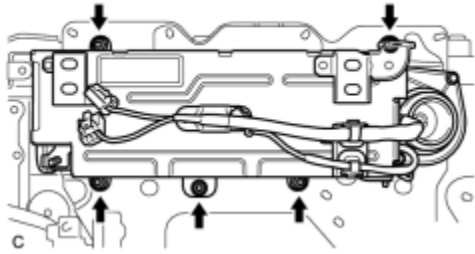


(a) Remove the nut, disengage the 4 clamps and disconnect the wire harness from the hybrid vehicle converter.



(b) Disconnect the connector from the hybrid vehicle converter.

(c) Remove the 5 nuts and hybrid vehicle converter.

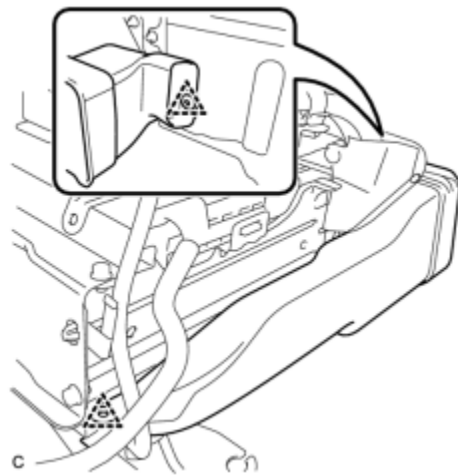


25. REMOVE NO. 2 HYBRID BATTERY EXHAUST DUCT



(a) Remove the clip and No. 2 hybrid battery exhaust duct.

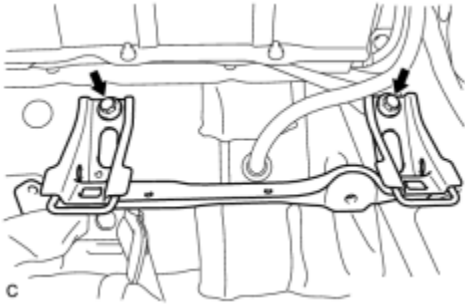
26. REMOVE NO. 1 HYBRID BATTERY EXHAUST DUCT



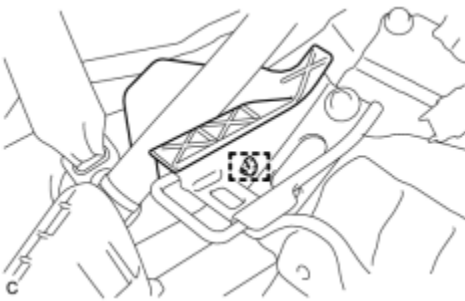
(a) Remove the 2 clips and No. 1 hybrid battery exhaust duct.

27. REMOVE CHILD RESTRAINT SEAT ANCHOR BRACKET SUB-ASSEMBLY LH

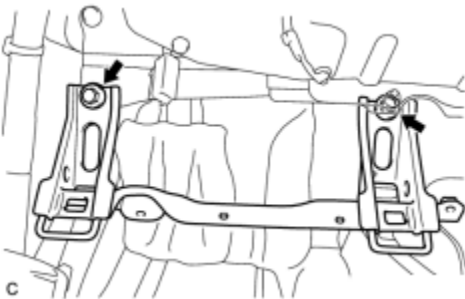
(a) Remove the 2 bolts and child restraint seat anchor bracket sub-assembly LH.



28. REMOVE CHILD RESTRAINT SEAT ANCHOR BRACKET SUB-ASSEMBLY RH



(a) Disconnect the wire harness protector clamp.



(b) Remove the 2 bolts and child restraint seat anchor bracket sub-assembly RH.

29. REMOVE HV BATTERY

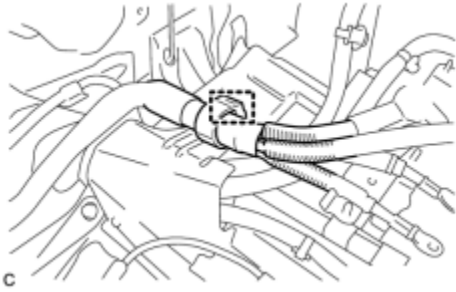
CAUTION:

Wear insulated gloves.

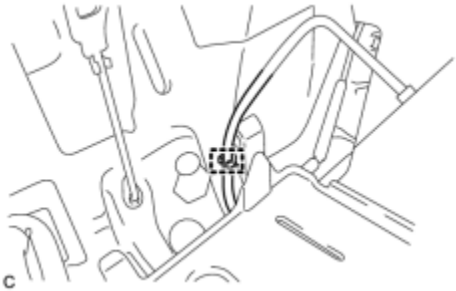
NOTICE:

Insulate the removed terminals with insulating tape.

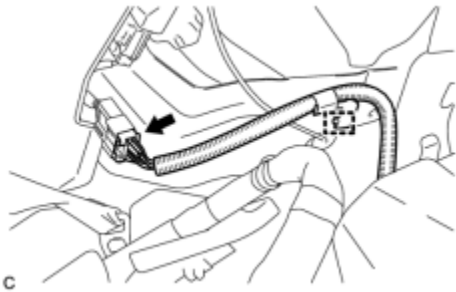
(a) Disconnect the frame wire clamp.



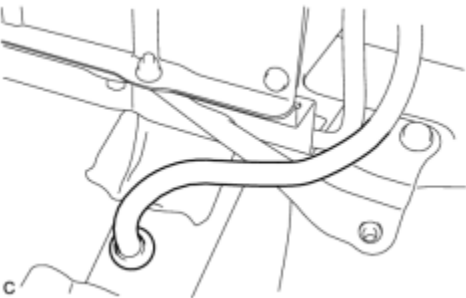
(b) Disconnect the battery room ventilation hose.



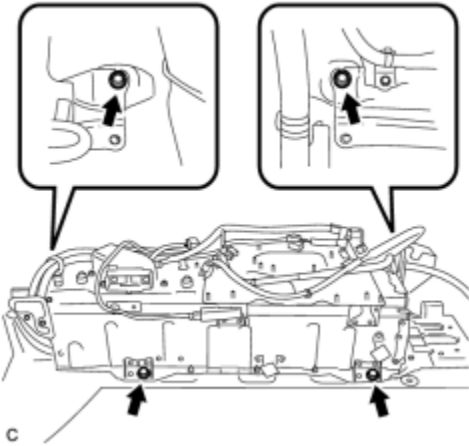
(c) Disconnect the battery pack wire connector and clamp.



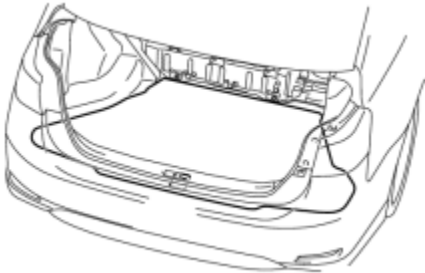
(d) Remove the grommet and hybrid battery hose assembly.



(e) Remove the 4 bolts from the HV battery.

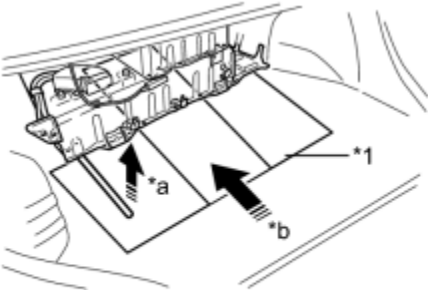


c

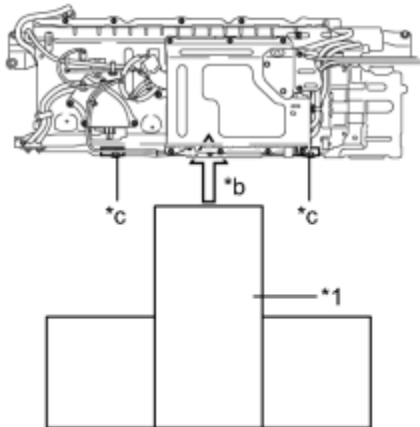


c

(f) Turn the luggage compartment floor mat over.



(g) Cut and shape a piece of cardboard so that it fits the area between the HV battery bolt attachment positions, and then insert it as shown in the illustration.



c

Text in Illustration	Cardboard
*1	
*a	Hold up
*b	Insert
*c	HV battery bolt attachment position

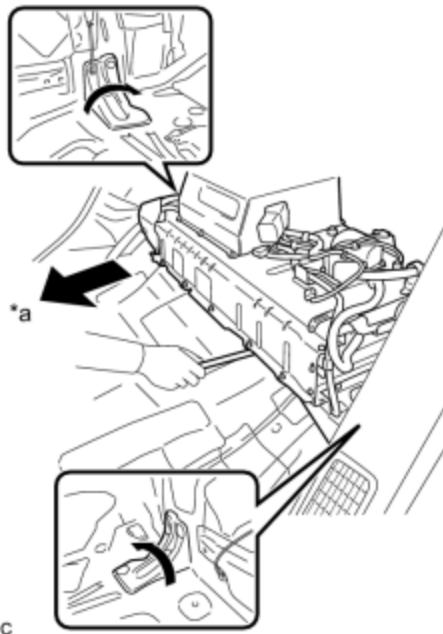
(h) Using a tire lever to hold up the HV battery, insert the cardboard until it cannot be inserted any further.

NOTICE:

Bind the frame wire with electrical tape to prevent it from getting caught when moving the battery or other parts.

HINT:

Attach tape to the feet and edges of the battery to protect tools and the vehicle body.

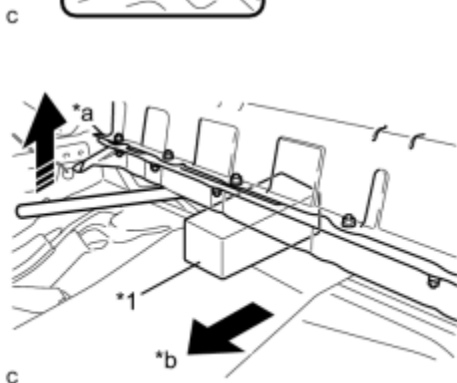


(i) Use a tire lever from the cabin side to lift the HV battery up over the tabs on the body.

Text in Illustration	Front Side
*a	

HINT:

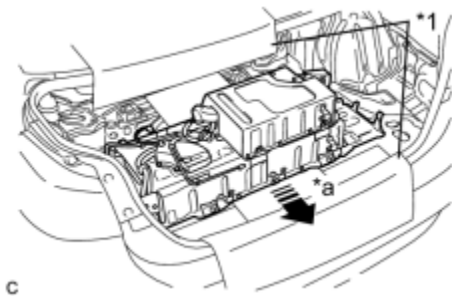
Attach tape to the tire lever to prevent damage to the body of the vehicle.



(j) Using a tire lever to hold up the HV battery, insert a wooden block or equivalent as shown in the illustration.

Text in Illustration	Wooden Block
*1	
*a	Hold Up
*b	Front Side

(k) Pull the HV battery together with the cardboard toward the rear of the vehicle.



Text in Illustration

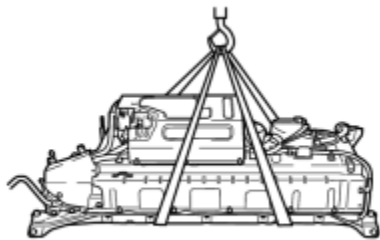
*1	Cardboard
*a	Pull

NOTICE:

Use cardboard or other similar material to protect the HV battery and vehicle body from damage.



(l) Disconnect the clamp as shown in the illustration.



(m) Using a suitable adaptor such as a rope, remove the HV battery while tilting the HV battery.

NOTICE:

While lowering the HV battery from the vehicle, do not allow it to contact the vehicle.

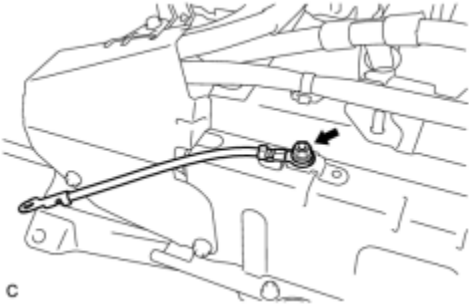
30. REMOVE ELECTRICAL KEY OSCILLATOR INFO

31. REMOVE EARTH WIRE

CAUTION:

Wear insulated gloves.

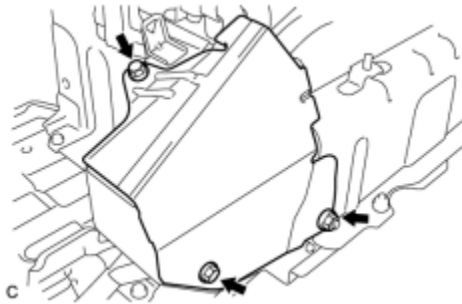
(a) Remove the nut and earth wire.



32. REMOVE FRONT HYBRID BATTERY SHIELD

CAUTION:

Wear insulated gloves.

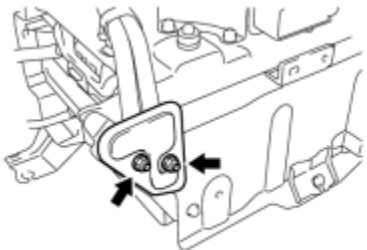


(a) Remove the 2 bolts, nut and front hybrid battery shield.

33. REMOVE REAR NO. 1 HYBRID BATTERY SHIELD

CAUTION:

Wear insulated gloves.

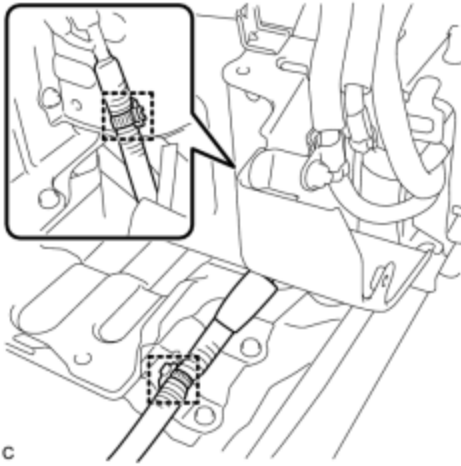


(a) Remove the 2 nuts and rear No. 1 hybrid battery shield.

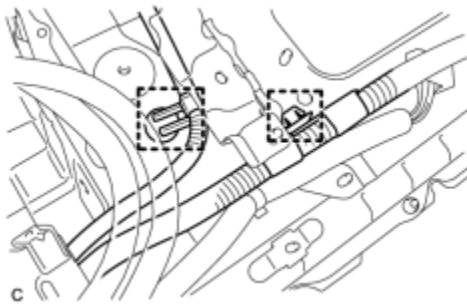
34. REMOVE NO. 2 HYBRID BATTERY PACK WIRE

CAUTION:

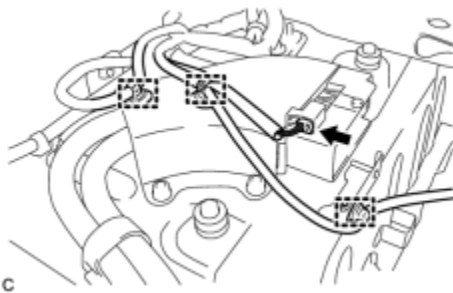
Wear insulated gloves.



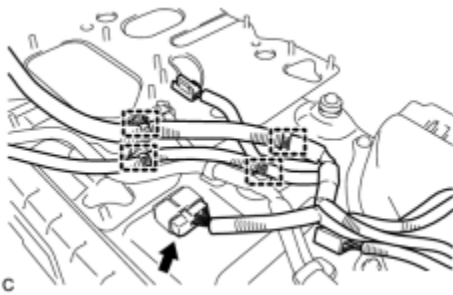
(a) Disconnect the 2 clamps from the HV battery shown in the illustration.



(b) Disconnect the 2 clamps from the HV battery shown in the illustration.



(c) Disconnect the connector and 3 clamps from the HV battery shown in the illustration.

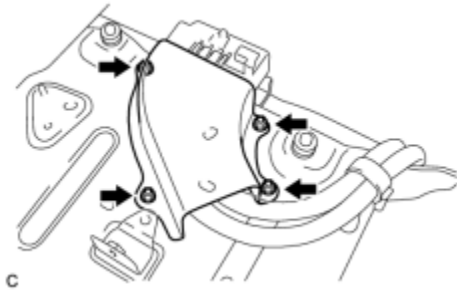


(d) Disconnect the connector and 4 clamps and remove the No. 2 hybrid battery pack wire.

35. REMOVE HYBRID BATTERY SERVICE PLUG COVER

CAUTION:

Wear insulated gloves.

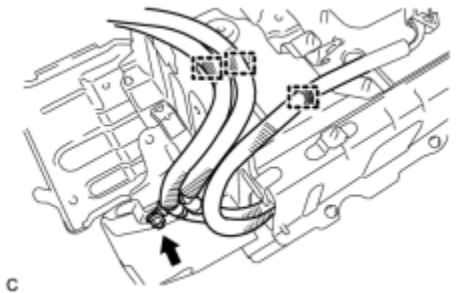


(a) Remove the 4 nuts and hybrid battery service plug cover.

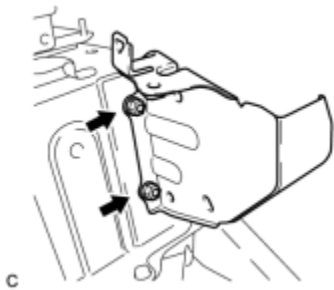
36. REMOVE UPPER HYBRID BATTERY COVER SUB-ASSEMBLY

CAUTION:

Wear insulated gloves.



(a) Remove the nut, disengage the 3 clamps and disconnect the wire harness from the HV battery.

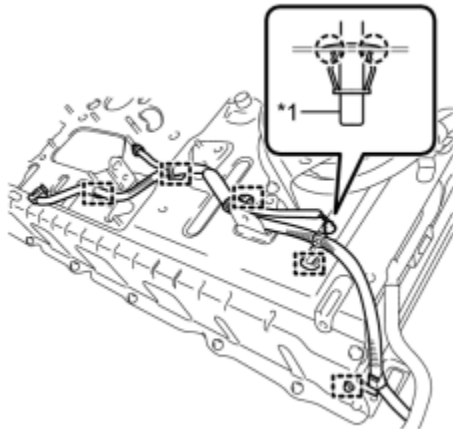


(b) Remove the 2 nuts and upper hybrid battery cover sub-assembly.

37. SEPARATE WIRE HARNESS

CAUTION:

Wear insulated gloves.



(a) Disengage the 2 claws and remove the HV battery thermistor.

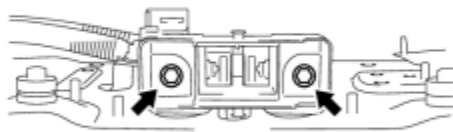
Text in Illustration

HV Battery Thermistor

*1

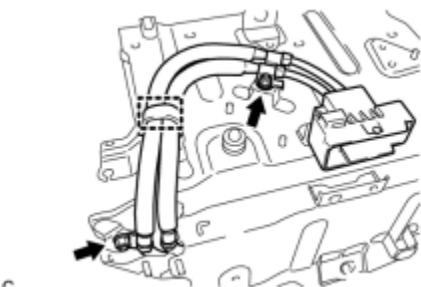
c

(b) Disengage the 5 clamps and separate the wire harness from the HV battery.



(c) Remove the 2 bolts and EV battery plug.

c



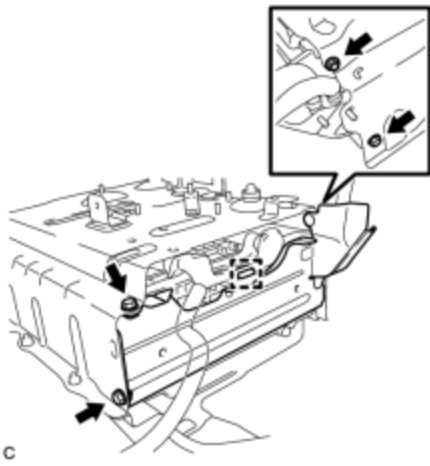
(d) Remove the 2 nuts, disengage the clamp and separate the wire harness from the HV battery.

c

38. REMOVE NO. 2 HYBRID BATTERY SHIELD SUB-ASSEMBLY

CAUTION:

Be sure to wear insulated gloves and protective goggles.



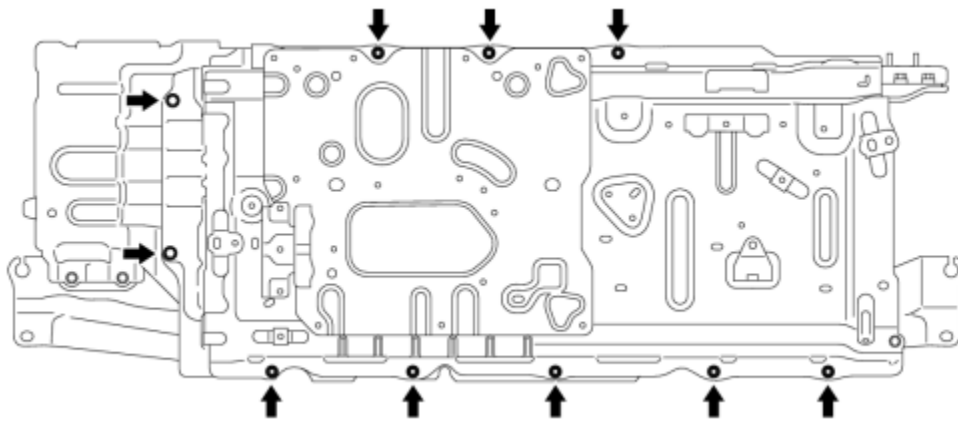
(a) Remove the 3 bolts, nut, guide and No. 2 hybrid battery shield sub-assembly.

39. REMOVE UPPER HYBRID BATTERY COVER SUB-ASSEMBLY

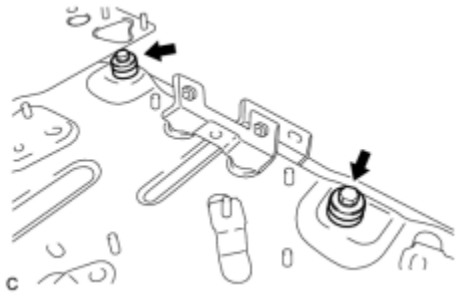
CAUTION:

Be sure to wear insulated gloves and protective goggles.

(a) Remove the 2 bolts, 8 nuts and upper hybrid battery cover sub-assembly.



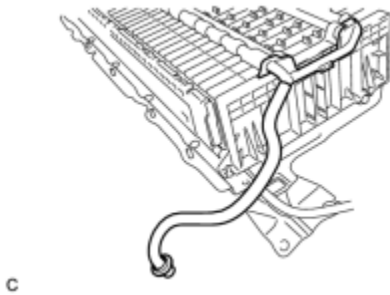
(b) Remove the 2 bolts and 2 bushings with the 2 washers.



40. REMOVE HYBRID BATTERY HOSE ASSEMBLY

CAUTION:

Be sure to wear insulated gloves and protective goggles.

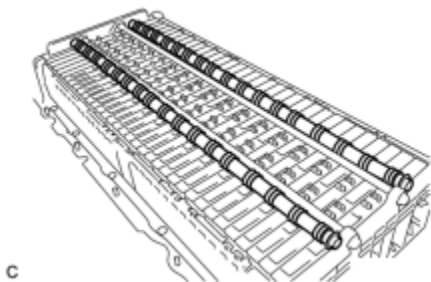


(a) Remove the hybrid battery hose assembly from the HV battery.

41. REMOVE NO. 1 BATTERY INSULATOR DUCT

CAUTION:

Be sure to wear insulated gloves and protective goggles.



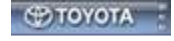
(a) Remove the No. 1 battery insulator duct from the HV battery.

42. REMOVE NO. 2 BATTERY INSULATOR DUCT

CAUTION:

Be sure to wear insulated gloves and protective goggles.

(a) Remove the No. 2 battery insulator duct from the HV battery.



Last Modified: 10-5-2010	6.4 A	From: 200907
Model Year: 2010	Model: HS250H	Doc ID: RM0000026LG00JX
Title: HYBRID / BATTERY CONTROL: HV BATTERY: INSTALLATION (2010 HS250H)		

INSTALLATION

1. INSTALL NO. 1 BATTERY INSULATOR DUCT

CAUTION:

Be sure to wear insulated gloves and protective goggles.

- (a) Install the No. 1 battery insulator duct to the HV battery.

2. INSTALL NO. 2 BATTERY INSULATOR DUCT

CAUTION:

Be sure to wear insulated gloves and protective goggles.

- (a) Install the No. 2 battery insulator duct to the HV battery.

3. INSTALL HYBRID BATTERY HOSE ASSEMBLY

CAUTION:

Be sure to wear insulated gloves and protective goggles.

- (a) Install the hybrid battery hose assembly to the HV battery.

4. INSTALL UPPER HYBRID BATTERY COVER SUB-ASSEMBLY

CAUTION:

Be sure to wear insulated gloves and protective goggles.

- (a) Install the 2 bushings and 2 washers with the 2 bolts.

Torque: **7.5 N·m (76 kgf·cm, 66in·lbf)**

- (b) Install the upper hybrid battery cover sub-assembly with the 2 bolts and 8 nuts.

Torque: **7.5 N·m (76 kgf·cm, 66in·lbf)**

5. INSTALL NO. 2 HYBRID BATTERY SHIELD SUB-ASSEMBLY

CAUTION:

Be sure to wear insulated gloves and protective goggles.

(a) Install the No. 2 hybrid battery shield sub-assembly with the 3 bolts, nut and guide.

Torque: **7.5 N·m (76 kgf·cm, 66in·lbf)**

6. INSTALL WIRE HARNESS

CAUTION:

Wear insulated gloves.

(a) Connect the wire harness with the 2 nuts and clamp to the HV battery.

Torque: **7.5 N·m (76 kgf·cm, 66in·lbf)**

(b) Install the EV battery plug with the 2 bolts.

Torque: **5.4 N·m (55 kgf·cm, 48in·lbf)**

(c) Connect the 5 wire harness clamps to the HV battery.

(d) Install the HV battery thermistor to the HV battery.

7. INSTALL UPPER HYBRID BATTERY COVER SUB-ASSEMBLY

CAUTION:

Wear insulated gloves.

(a) Install the upper hybrid battery cover sub-assembly with the 2 nuts.

Torque: **7.5 N·m (76 kgf·cm, 66in·lbf)**

(b) Connect the wire harness with the nut and 3 clamps to the HV battery.

Torque: **7.5 N·m (76 kgf·cm, 66in·lbf)**

8. INSTALL HYBRID BATTERY SERVICE PLUG COVER

CAUTION:

Wear insulated gloves.

- (a) Install the hybrid battery service plug cover with the 4 nuts.

Torque: **7.5 N·m (76 kgf·cm, 66in·lbf)**

9. INSTALL NO. 2 HYBRID BATTERY PACK WIRE

CAUTION:

Wear insulated gloves.

- (a) Connect the connector and 4 clamps and install the No. 2 hybrid battery pack wire.
- (b) Connect the connector and 3 clamps to the HV battery.
- (c) Connect the 2 clamps to the HV battery.
- (d) Connect the 2 clamps to the HV battery.

10. INSTALL REAR NO. 1 HYBRID BATTERY SHIELD

CAUTION:

Wear insulated gloves.

- (a) Install the rear No. 1 hybrid battery shield with the 2 nuts.

Torque: **7.5 N·m (76 kgf·cm, 66in·lbf)**

11. INSTALL FRONT HYBRID BATTERY SHIELD

CAUTION:

Wear insulated gloves.

- (a) Install the front hybrid battery shield with the 2 bolts and nut.

Torque: **7.5 N·m (76 kgf·cm, 66in·lbf)**

12. INSTALL EARTH WIRE

CAUTION:

Wear insulated gloves.

(a) Install the earth wire with the nut.

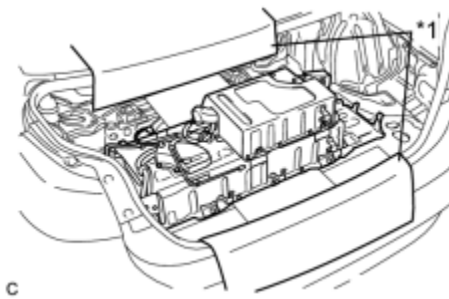
Torque: **7.5 N·m (76 kgf·cm, 66in·lbf)**

13. INSTALL ELECTRICAL KEY OSCILLATOR_ INFO

14. INSTALL HV BATTERY

CAUTION:

Wear insulated gloves.



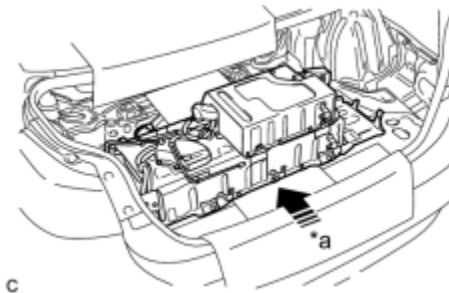
(a) Place a piece of cardboard in the luggage compartment.

Text in Illustration	Cardboard
*1	

(b) Using a suitable adaptor such as a rope, install the HV battery while tilting the HV battery.

NOTICE:

Use cardboard or other similar material to protect the HV battery and vehicle body from damage.



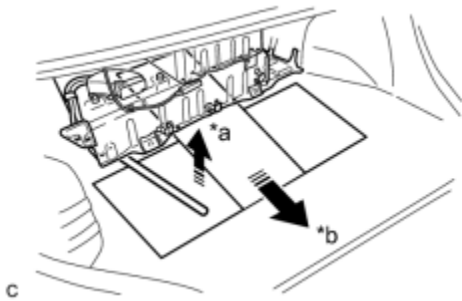
(c) Push the HV battery together with the cardboard toward the front of the vehicle.

Text in Illustration	Push
*a	

NOTICE:

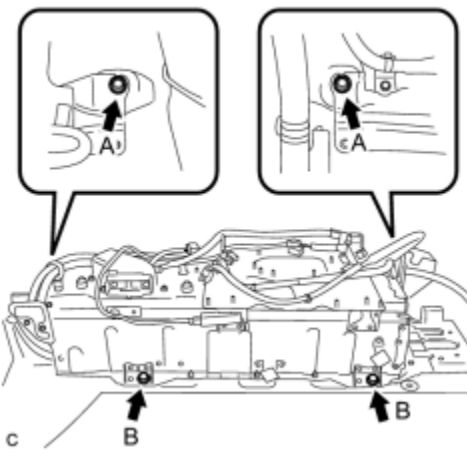
Align the holes for HV battery holding bolts.

(d) Use a tire lever to hold up the HV battery and pull out the cardboard.



Text in Illustration	
*a	Hold Up
*b	Pull Out

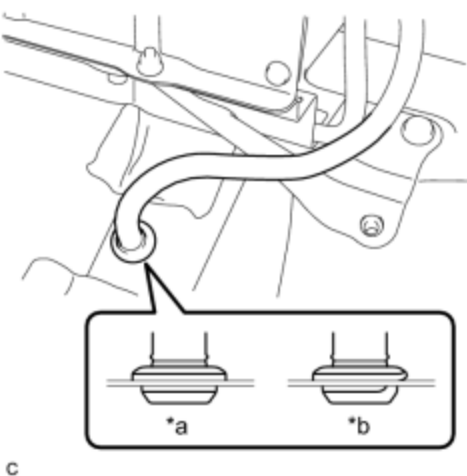
(e) Remove the luggage compartment floor mat.



(f) Install the 4 bolts to the HV battery.

Bolt A - Torque: **19 N·m (194 kgf·cm, 14ft·lbf)**

Bolt B - Torque: **25 N·m (255 kgf·cm, 18ft·lbf)**



(g) Connect the battery room ventilation hose with the grommet.

Text in Illustration	
*a	Correct
*b	Incorrect

NOTICE:

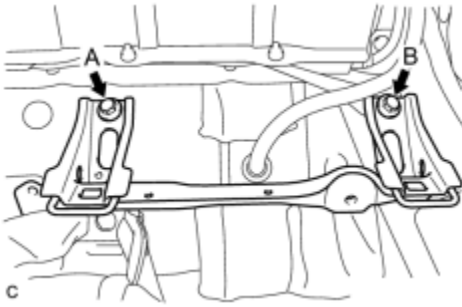
After installing the grommet, make sure that there is no clearance between the grommet and body.

(h) Connect the battery pack wire connector and clamp.

(i) Connect the battery room ventilation hose.

(j) Connect the frame wire clamp.

15. INSTALL CHILD RESTRAINT SEAT ANCHOR BRACKET SUB-ASSEMBLY LH

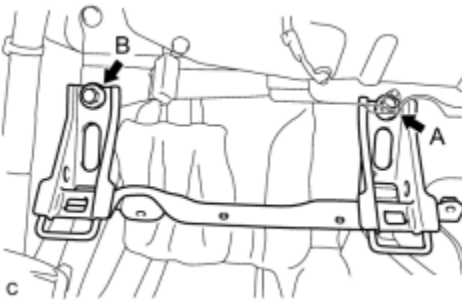


(a) Install the child restraint seat anchor bracket sub-assembly LH with the 2 bolts.

Bolt A - Torque: **20 N·m (204 kgf·cm, 14ft·lbf)**

Bolt B - Torque: **19 N·m (194 kgf·cm, 13ft·lbf)**

16. INSTALL CHILD RESTRAINT SEAT ANCHOR BRACKET SUB-ASSEMBLY RH



(a) Install the child restraint seat anchor bracket sub-assembly RH with the 2 bolts.

Bolt A - Torque: **20 N·m (204 kgf·cm, 14ft·lbf)**

Bolt B - Torque: **19 N·m (194 kgf·cm, 13ft·lbf)**

(b) Connect the wire harness protector clamp.

17. INSTALL NO. 1 HYBRID BATTERY EXHAUST DUCT

(a) Insert the No. 1 hybrid battery exhaust duct with the 2 clips.

NOTICE:

Ensure that the duct is installed securely.

18. INSTALL NO. 2 HYBRID BATTERY EXHAUST DUCT

(a) Insert the No. 2 hybrid battery exhaust duct with the clip.

NOTICE:

Ensure that the duct is installed securely.

19. INSTALL HYBRID VEHICLE CONVERTER

CAUTION:

Wear insulated gloves.

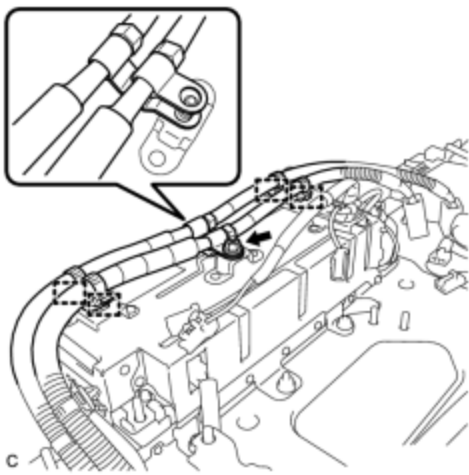
(a) Install the hybrid vehicle converter with the 5 nuts.

Torque: **7.5 N·m (76 kgf·cm, 66in·lbf)**

(b) Connect the connector to the hybrid vehicle converter.

NOTICE:

Make sure that the connector is fully engaged.



(c) Connect the wire harness with the nut and 4 clamps to the hybrid vehicle converter.

Torque: **7.5 N·m (76 kgf·cm, 66in·lbf)**

NOTICE:

Be sure to connect the connector to each correct terminal as shown in the illustration.

20. INSTALL INVERTER TERMINAL

CAUTION:

Wear insulated gloves.

(a) Install the bolt, nut and inverter terminal.


Torque: **7.5 N·m (76 kgf·cm, 66in·lbf)**

(b) Connect the frame wire and install the nut.


Torque: **9.0 N·m (92 kgf·cm, 80in·lbf)**

21. INSTALL NO. 3 HYBRID BATTERY EXHAUST DUCT INFO

22. INSTALL BATTERY SMART UNIT

HINT:  .

23. INSTALL BATTERY COOLING BLOWER ASSEMBLY

HINT:  .

24. INSTALL AUXILIARY BATTERY_ 

25. INSTALL INNER LUGGAGE COMPARTMENT TRIM COVER_ 

26. INSTALL ROPE HOOK_ 


27. INSTALL FRONT LUGGAGE COMPARTMENT TRIM COVER_ 

28. INSTALL NO. 1 LUGGAGE COMPARTMENT LIGHT ASSEMBLY

29. INSTALL REAR FLOOR FINISH PLATE_ 

30. INSTALL TOOL WITH STAY BOX SUB-ASSEMBLY

31. INSTALL REAR SEATBACK ASSEMBLY

HINT:  .

32. INSTALL SERVICE PLUG GRIP_ 

33. INSTALL BATTERY SERVICE HOLE COVER_ 

34. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL_ 

35. INSTALL LUGGAGE COMPARTMENT FLOOR MAT_ 

