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Model Year Start: 2013	Model: RAV4 EV	Prod Date Range: [12/2012 -]
Title: HYBRID TRANSMISSION / TRANSAXLE: DRIVE UNIT: REMOVAL; 2013 MY RAV4 EV [12/2012 -]		

REMOVAL

1. PRECAUTION

CAUTION:

- Be sure to read Precaution thoroughly before servicing [INFO](#).
- The electric vehicle traction motor assembly is very heavy. Be sure to follow the procedure described in the repair manual, or the powertrain lift table or equivalent may suddenly drop.

NOTICE:

After turning the power switch off, waiting time may be required before disconnecting the cable from the auxiliary battery terminal. Therefore, make sure to read the disconnecting the cable from the auxiliary battery terminal notice before proceeding with work [INFO](#).

2. DISCONNECT CABLE FROM NEGATIVE AUXILIARY BATTERY TERMINAL

NOTICE:

When disconnecting the cable, some systems need to be initialized after the cable is reconnected [INFO](#).

3. REMOVE SERVICE PLUG GRIP

[INFO](#)

4. REMOVE NO. 1 MOTOR UNDER COVER ASSEMBLY [INFO](#)

5. DRAIN COOLANT (for Drive Unit) [INFO](#)

6. DRAIN ELECTRIC VEHICLE TRANSAXLE FLUID [INFO](#)

7. REMOVE FRONT DRIVE SHAFT ASSEMBLY

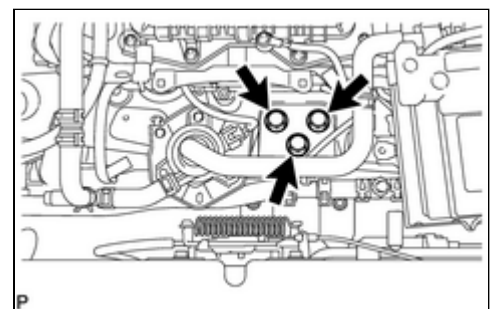
[INFO](#)

8. REMOVE MOTOR CABLE

[INFO](#)

9. DISCONNECT FRONT MOTOR MOUNTING BRACKET

- (a) Remove the 3 bolts and disconnect the front motor mounting bracket.

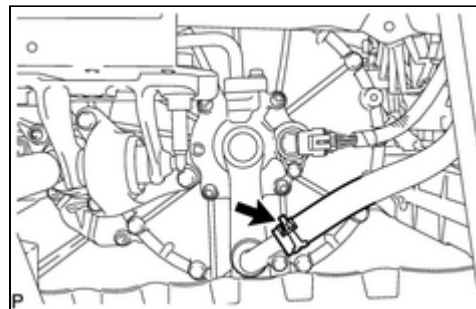


10. DISCONNECT NO. 2 INVERTER COOLING HOSE

- (a) Disconnect the No. 2 inverter cooling hose from the electric vehicle traction motor assembly.

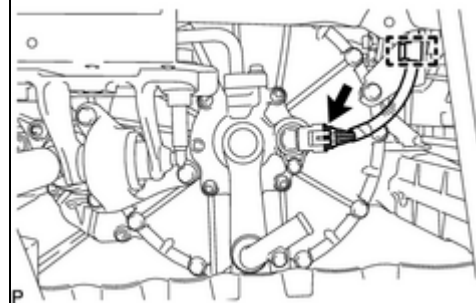
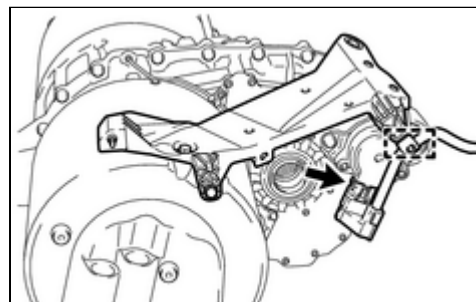
NOTICE:

Use a container to catch any coolant which flows out of the No. 2 inverter cooling hose.



11. DISCONNECT WIRE HARNESS

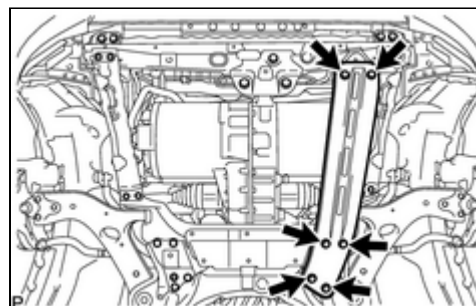
(a) Disconnect the 2 wire harness clamps from the electric vehicle traction motor assembly.



(b) Disconnect the shift control actuator connector and speed sensor connector.

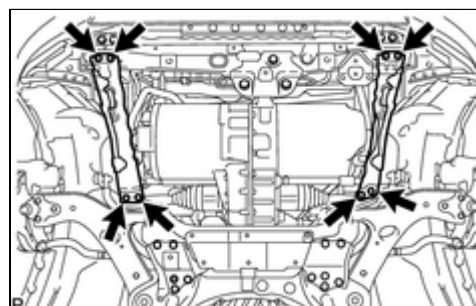
12. REMOVE MOTOR UNDER BRACE SUB-ASSEMBLY

(a) Remove the 6 bolts and motor under brace sub-assembly.



13. REMOVE FRONT SUSPENSION MEMBER REINFORCEMENT LH AND RH

(a) Remove the 8 bolts and front suspension member reinforcement LH and RH from the vehicle.



14. SUPPORT ELECTRIC VEHICLE TRACTION MOTOR ASSEMBLY

- (a) Support the electric vehicle traction motor assembly with a powertrain lift table or equivalent so that it is stable.

Text in Illustration

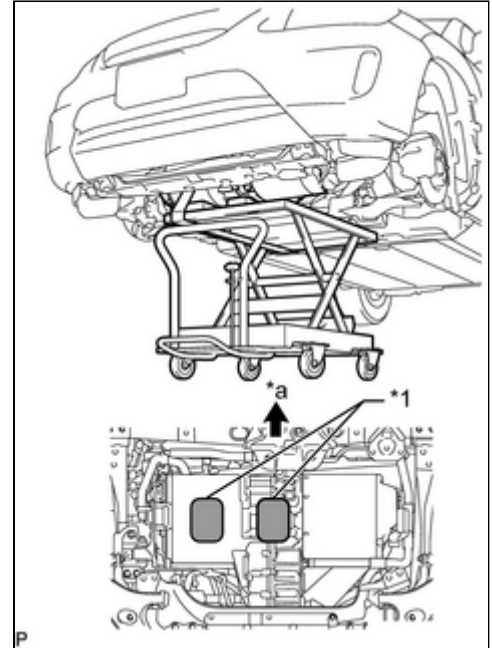
*1	Wooden Block
*a	Front

CAUTION:

- Place wooden blocks or plate lift attachments so that the electric vehicle traction motor assembly is level.
- Secure the electric vehicle traction motor assembly to the powertrain lift table or equivalent with a belt, etc., to prevent the motor from falling.

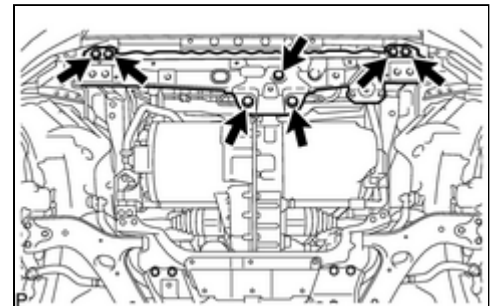
NOTICE:

Make sure that the inverter of the electric vehicle traction motor assembly is not damaged by surrounding objects, etc.



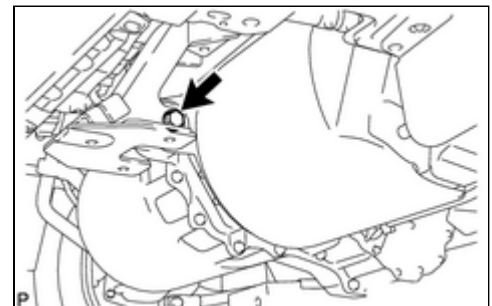
15. REMOVE FRONT CROSSMEMBER SUB-ASSEMBLY

- (a) Remove the 7 bolts and front crossmember sub-assembly from the vehicle.



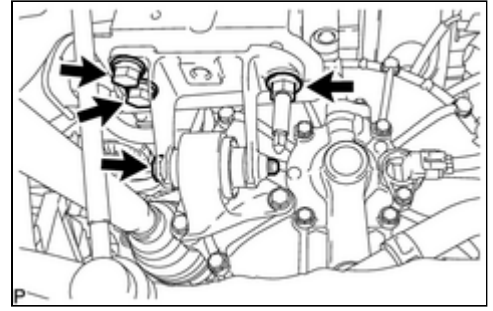
16. REMOVE FRONT MOTOR MOUNTING BRACKET

- (a) Remove the bolt and front motor mounting bracket from the electric vehicle traction motor assembly.



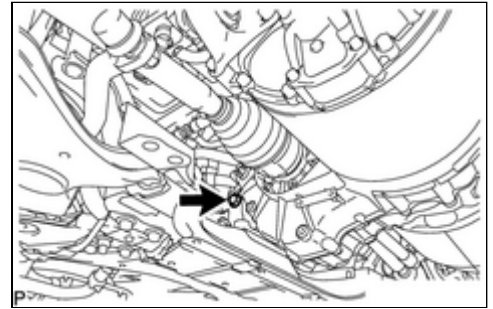
17. REMOVE MOTOR MOUNTING BRACKET RH

- (a) Remove the 3 bolts, nut and motor mounting bracket RH from the vehicle.



18. REMOVE ELECTRIC VEHICLE TRACTION MOTOR ASSEMBLY

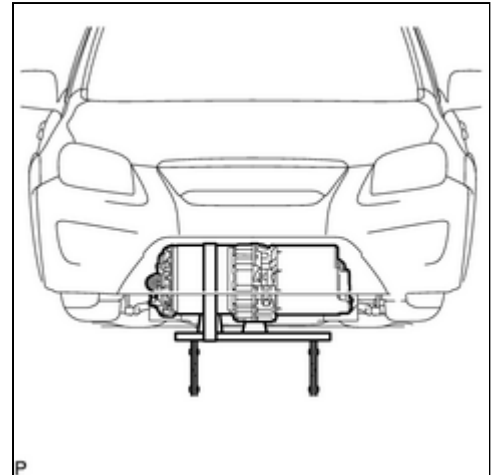
- (a) Remove the bolt and electric vehicle traction motor assembly from the vehicle.



- (b) Operate the powertrain lift table or equivalent and slowly remove the electric vehicle traction motor assembly from the vehicle.

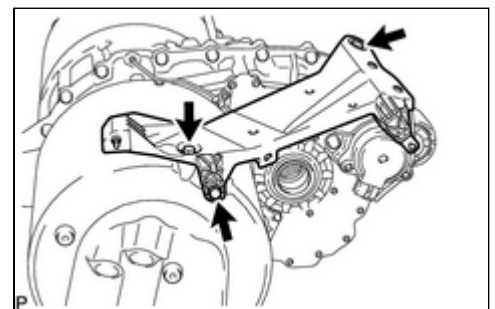
NOTICE:

While lowering the electric vehicle traction motor assembly from the vehicle, do not allow it to contact the vehicle.



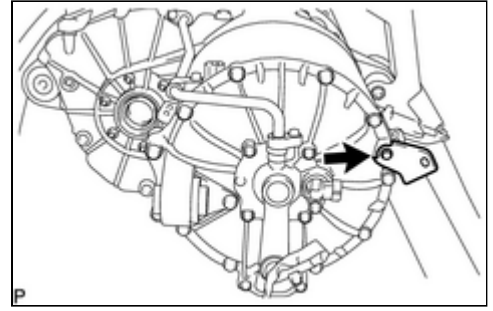
19. REMOVE WIRE HARNESS PROTECTOR

- (a) Remove the 3 bolts and wire harness protector from the electric vehicle traction motor assembly.



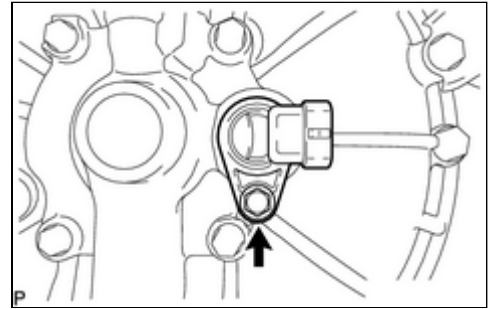
20. REMOVE WIRE HARNESS CLAMP BRACKET

- (a) Remove the bolt and wire harness clamp bracket from the electric vehicle traction motor assembly.



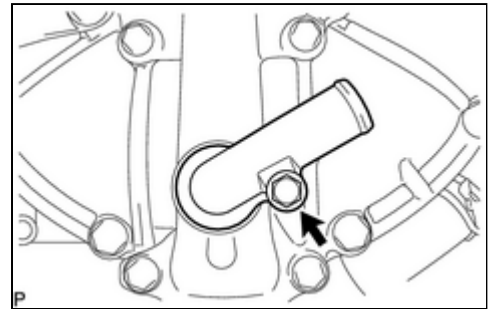
21. REMOVE SWITCH CIRCUIT ASSEMBLY

(a) Remove the bolt and circuit switch assembly.

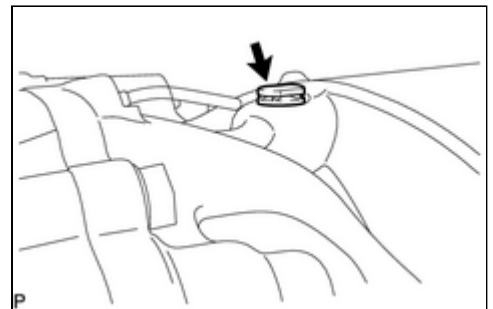


22. REMOVE MANIFOLD SUB-ASSEMBLY

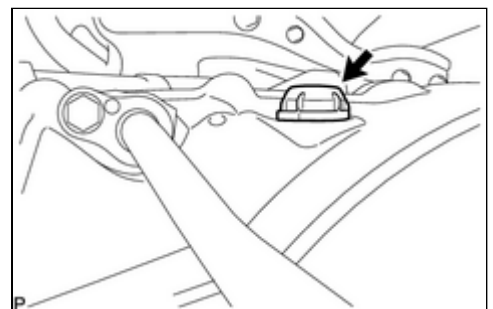
(a) Remove the bolt and manifold sub-assembly.



23. REMOVE NO. 1 TRANSMISSION BREATHER



24. REMOVE NO. 2 TRANSMISSION BREATHER



25. REMOVE MOTOR MOUNTING DAMPER

(a) Remove the 3 bolts and motor mounting damper.

