Tesla, Inc.
Service Bulletin

SB-22-33-005
April 30, 2022

Retrofit Hydraulic Control Unit Wake-Up Wire, Model Y (Lead-Acid Battery)

Classification	Section/Group	Mobile Service	Configuration
Repair Bulletin	33 - Brakes	Can Perform (where permitted)	Lead Acid Battery

Model Year	Model	Country/Region	Build Location
2019 - 2021	Model Y	All	Fremont, Giga Shanghai

The model(s) and model year(s) listed are a general approximation of the affected VIN list. Refer to the VIN/Bulletin Tracker or Customer/Vehicle profile to determine applicability of this bulletin for a particular vehicle.

Repair Bulletin: This repair bulletin provides instructions on addressing a noted condition or possible customer concern regarding the operation of Tesla vehicles. These instructions should only be performed by trained professionals.

Condition

Some Model Y vehicles were built without a hydraulic control unit (HCU) wake-up wire, and in rare circumstances, braking and stability control related alerts may appear on the instrument cluster and touchscreen during the vehicle power-on process. Such faults can typically be corrected and the affected functionality restored with a vehicle power cycle.

Correction

Upon customer complaint of braking and stability control alerts that clear after a vehicle power cycle, retrofit an HCU wake-up wire.

Correction Description	Correction	Time
SB-22-33-005 Not Applicable	S012233005	0.00
Retrofit HCU Wake-Up Wire, Model Y (Lead-Acid Battery)	S022233005	0.35

	Part Number	Description	Quantity
Parts Required	1742989-00-A	ASY,HARN,ESP WAKE,JUMPER,M3Y	1
	1061177-00-B	WIRE HARNESS REPAIR KIT	As Needed
	These part numbers were current at the time of publication. Use the revisions listed or later, unless otherwise specified in the Parts Catalog.		
Special Tools	1025812-00-A	Pin Drag Kit	
	1060908-00-A	Soldering Iron and Heat Tool Kit	
	1451046-00-A	Crimp Tool	
	1451045-00-A	Wire cutting and stripping pliers	
Shop Supplies	Electrical tape		

Procedure

1. Remove the underhood storage unit (refer to Service Manual procedure 15240702).
2. Disconnect 12V power (refer to Service Manual procedure 17010200).
3. Remove the fresh intake duct (see Service Manual procedure 18108502).
4. Release the clip that attaches the HV harness to the shock tower brace (Figure 1).

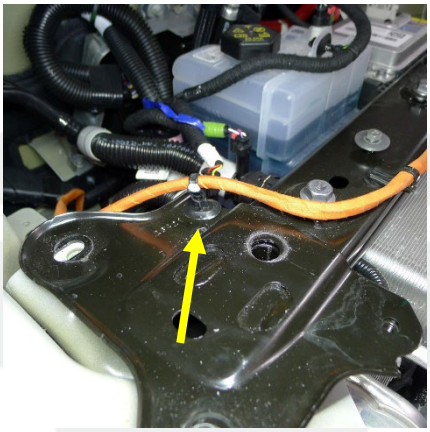

Figure 1

5. Loosen the forward RH shock tower brace bolt (Figure 2).

Figure 2

6. Remove the remaining shock tower brace bolts (x5) (Figure 3), and shift the shock tower brace forward on the LH side.

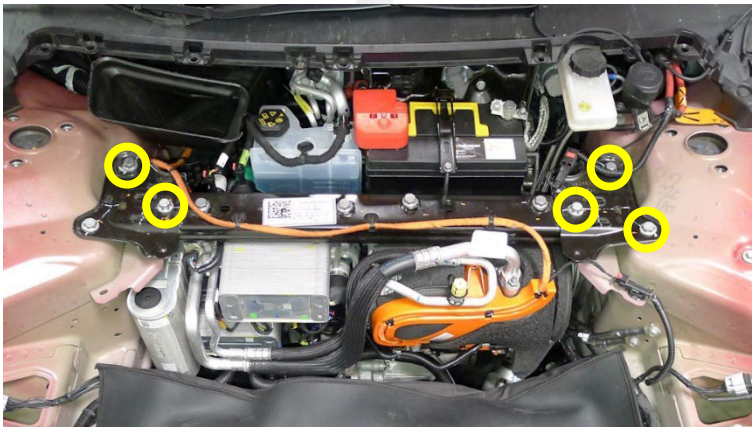

Figure 3

7. Slide the red locking tab, raise the lever (Figure 4), and then remove connector X151 from the HCU (Figure 5).

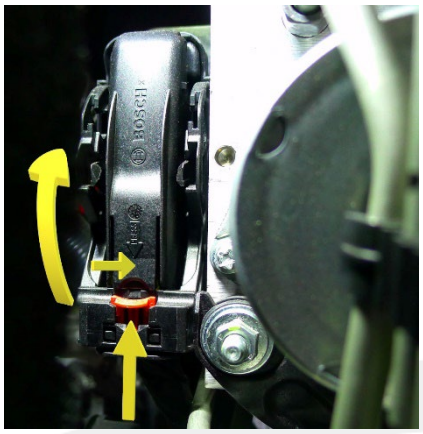

Figure 4

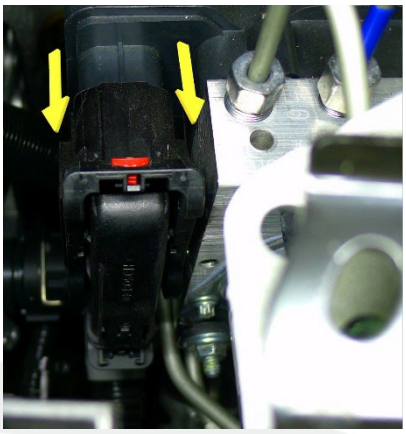

Figure 5

8. If necessary, remove cable ties or cut tape to move connector X151 to a comfortable working position.

9. Remove the cable tie from the rear of connector X151 (Figure 6).

Figure 6

10. Release the tabs (x2) that attach the rear cover to connector X151 (Figure 7), swing the rear cover out (Figure 8), and then remove the rear cover from the connector.

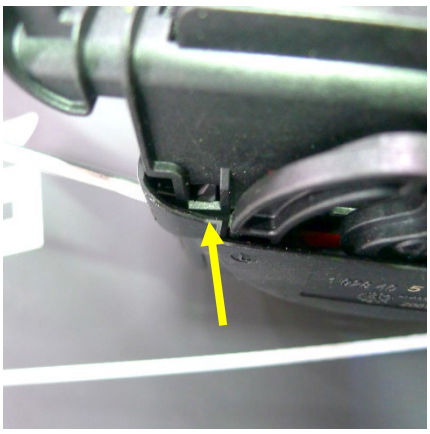

Figure 7

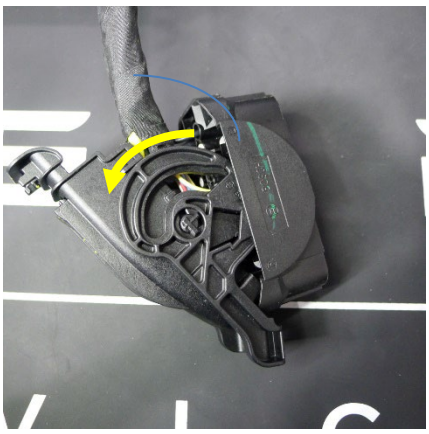

Figure 8

11. Unwrap and remove the electrical tape from the electrical harness for a distance of 150 mm from connector X151 (Figure 9).

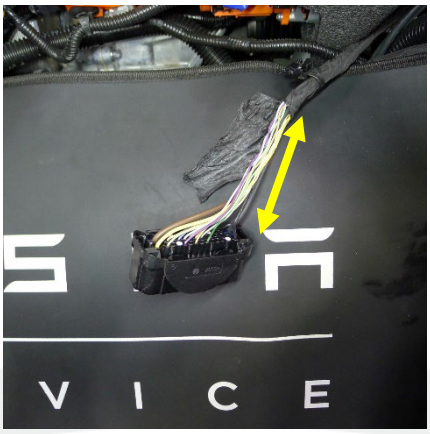

Figure 9

12. Use a pick to slide the large locking tab of connector X151 from “CLOSE” to “OPEN” (Figure 10).

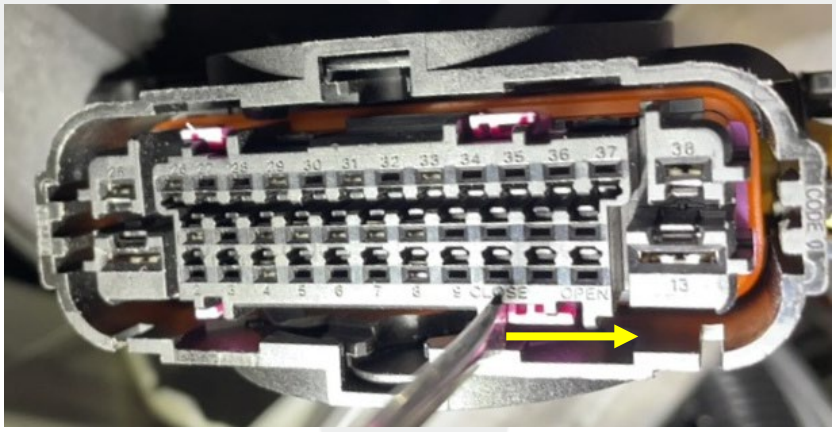

Figure 10

13. Use a pick to remove the plug from receptacle 28 of connector X151 (Figure 11).

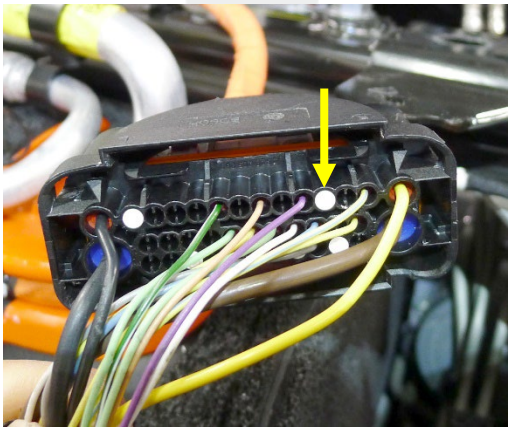

Figure 11

14. Use the tool from the pin drag kit to release the lock for terminal 25 of connector X151 (Figure 12), and at the same time, remove the yellow wire from receptacle 25 (Figure 13).

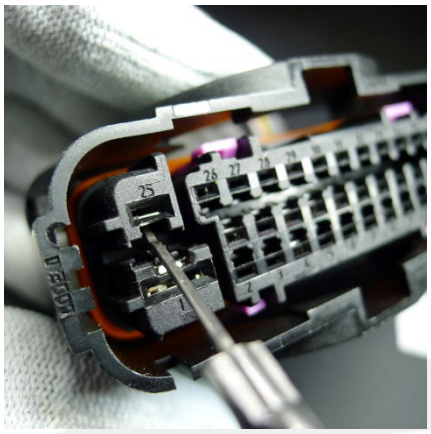

Figure 12

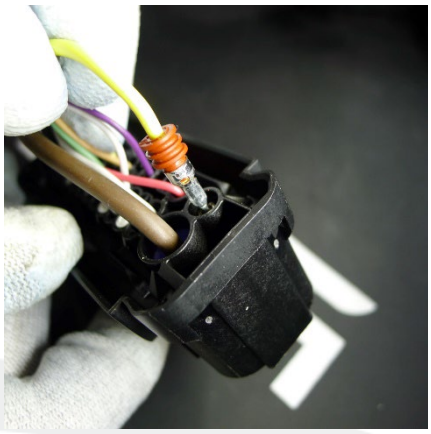

Figure 13

15. Cut the yellow power terminal wire 100 mm from the end (Figure 14), and then discard the end.

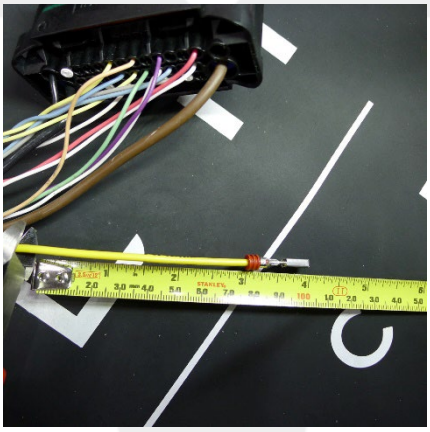

Figure 14

16. Slide the shrink tubing over both wires of the jumper, to the middle of the jumper (Figure 15).

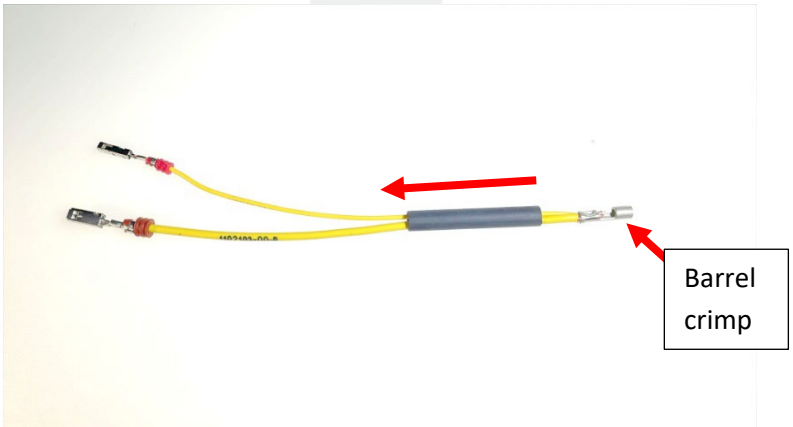

Figure 15

17. Make a butt splice repair to attach the yellow power terminal wire to the barrel crimp of the jumper (Figures 16, 17, and 18).

NOTE: Refer to SI-17-17-002,'Electrical Harness Repair' for instructions how to make this repair.

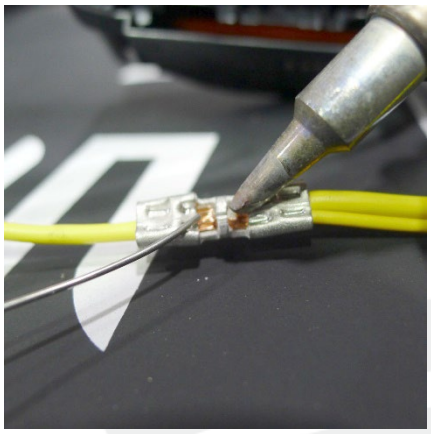

Figure 16 – Crimp wire and solder barrel crimp

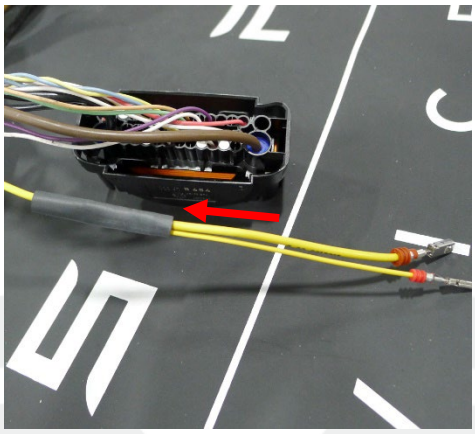

Figure 17 – Slide shrink tubing over barrel crimp and heat

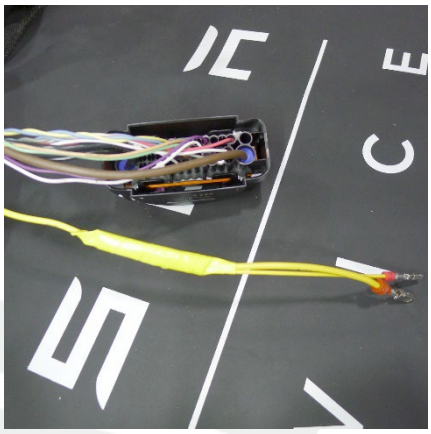

Figure 18 – Wrap with yellow tape to complete

18. Insert the smaller terminal of the jumper into receptacle 28 (Figure 19) and the larger terminal of the jumper into receptacle 25 (Figure 20).

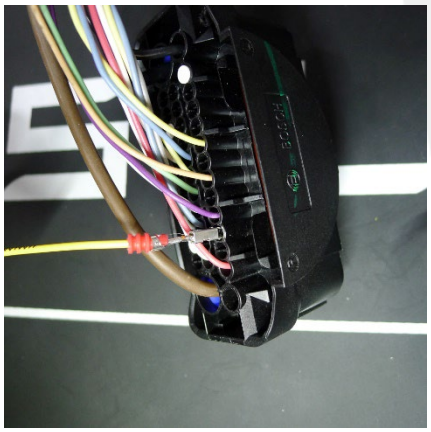

Figure 19

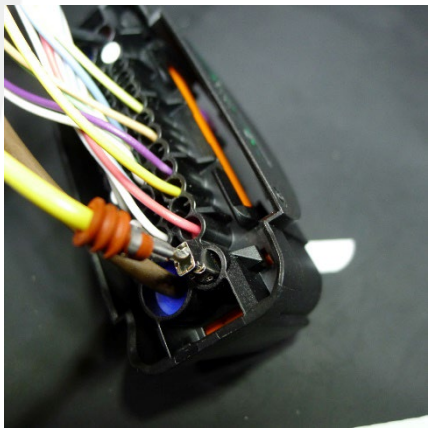

Figure 20

19. Perform a Push-Pull-Push check on each wire to make sure the wires are secure in the connector (Figure 21).

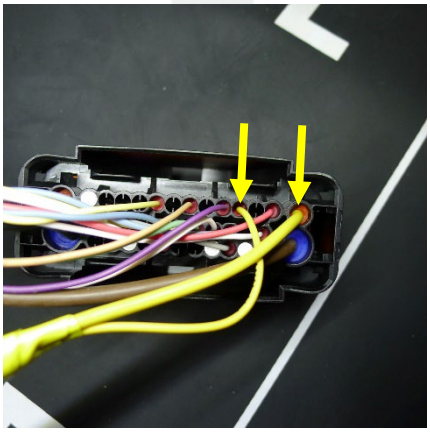

Figure 21

20. Use a pick to slide the large locking tab of connector X151 from “OPEN” to “CLOSE” (Figure 22).

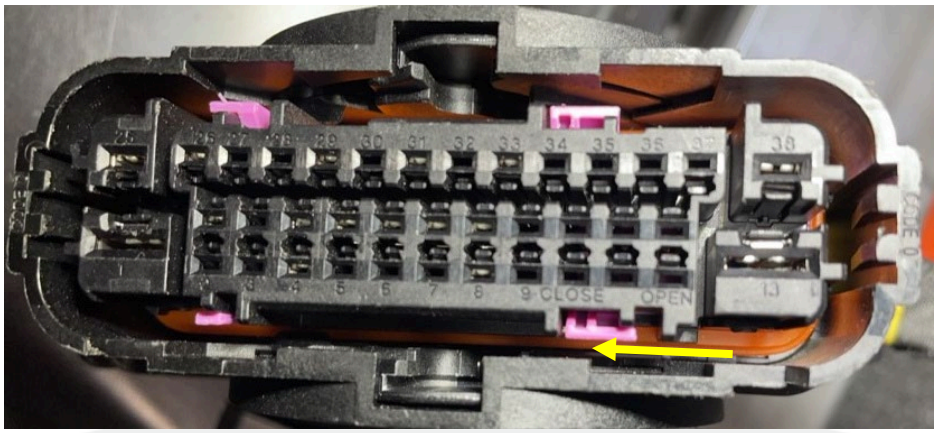

Figure 22

21. Bundle the excess jumper wire neatly into the electrical harness with yellow tape (Figure 23), and then wrap the harness with anti-abrasion tape (Figure 24).

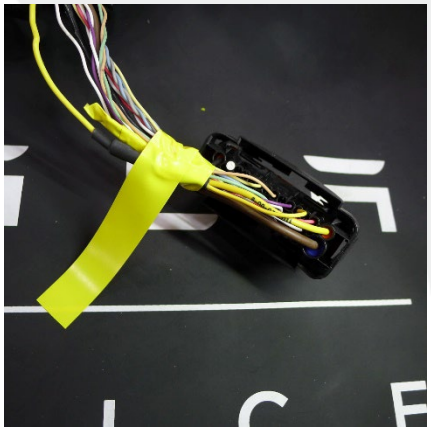

Figure 23

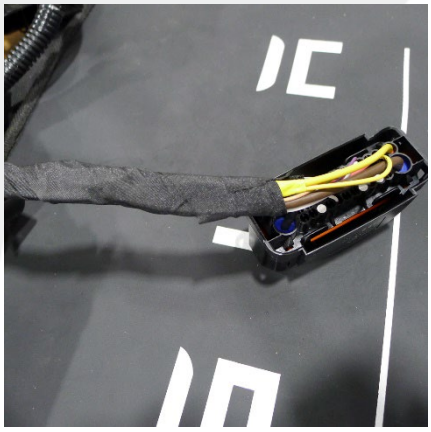

Figure 24

22. Attach the rear cover to connector X151, and then swing the rear cover close (Figure 25), engaging the tabs (x2) (Figure 26).

Figure 25

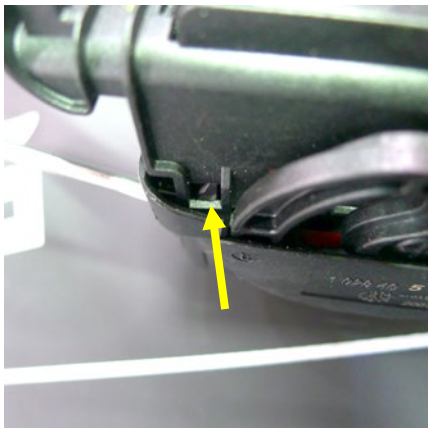

Figure 26

23. Fasten a small cable tie to the rear of connector X151 to secure the rear cover (Figure 27), and then trim the tie.

Figure 27

24. Attach connector X151 to the HCU (Figure 28), lower the lever, and then slide the red locking tab (Figure 29).

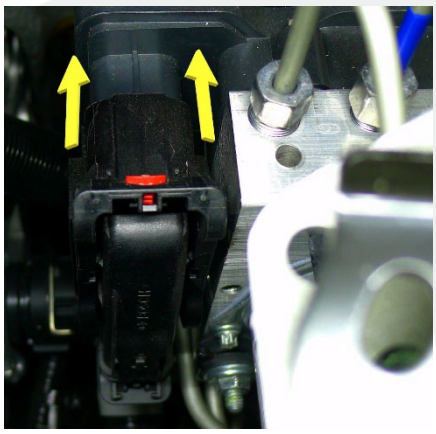

Figure 28

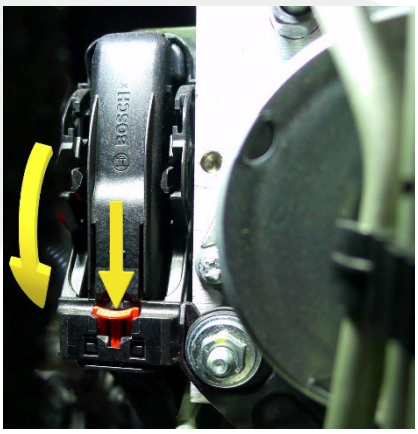

Figure 29

25. Return the shock tower brace back to position, install all bolts, and then tighten the forward bolts (x2) as shown (Figure 30) (torque 62 Nm).

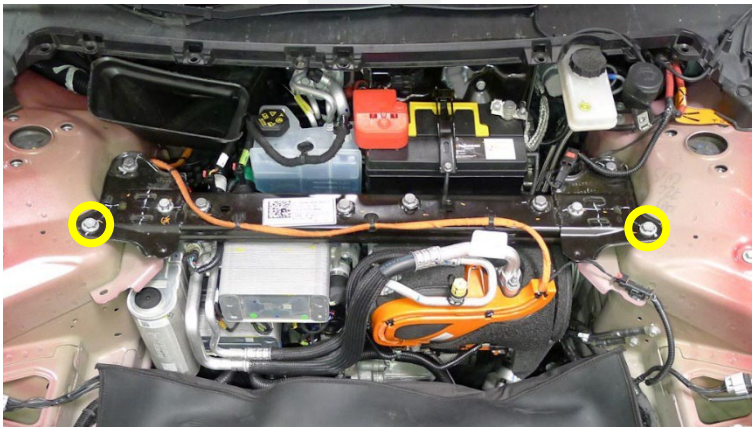

Figure 30

26. Tighten the remaining bolts (x4) as shown (Figure 31) (torque 67 Nm).

Figure 31

27. Fasten the clip that attaches the HV harness to the shock tower brace (Figure 32).

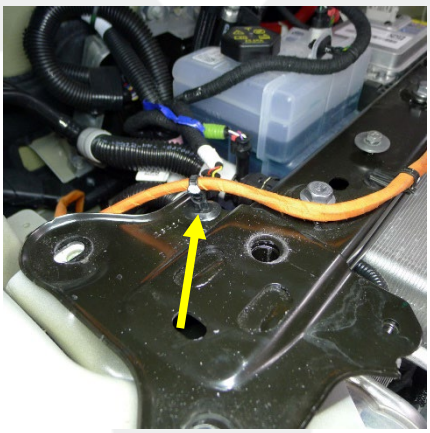

Figure 32

28. Install the fresh intake duct (see Service Manual procedure 18108502).
29. Connect 12V power (refer to Service Manual procedure 17010200).
30. Install the underhood storage unit (refer to Service Manual procedure 15240702).