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|  Tesla, Inc. Service Bulletin | | <h2>Retrofit Hydraulic Control Unit Wake-Up Wire</h2> | |
| SB-22-33-001 February 01, 2022 | | | |
| Classification | | Section/Group | Mobile Service |
| Campaign Bulletin | | 33 - Brakes | Can Perform (where permitted) |
| Model Year | Model | Country/Region | Version |
| 2021 | Model S Palladium Model X Palladium | United States | All |
| <small>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.</small> | | | |

Campaign Bulletin: This campaign bulletin addresses a known non-safety-related condition and provides recommended technical diagnosis and repair procedures. Apply this procedure to all vehicles in the affected VIN list.

Condition

Some Model S Palladium and Model X Palladium vehicles were built without a hydraulic control unit (HCU) wake-up line, 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


Retrofit an HCU wake-up wire.

| Correction Description | Correction | Time | |
|-----------------------------|------------|---------|---------|
| | | Model S | Model X |
| SB-22-33-001 Not Applicable | S012233001 | 0.0 | 0.0 |
| Retrofit HCU Wake-Up Wire | S022233001 | 0.8 | 0.7 |

| | Part Number | Description | Quantity |
|-----------------------|---|--------------------------------------|----------|
| Parts Required | 1731861-00-A | ASY,HARN,FRUNK SWITCH GND,OVERLAY,MS | 1 |
| | This part number was 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 | |
| | 1058696-00-A | Wiper Arm Removal Tool | |
| Shop Supplies | Cable Ties Harness Tape | | |

Procedure

 **NOTE:** The figures of this procedure are applicable to either Model S Palladium or Model X Palladium, except where specifically noted.

 **NOTE:** Throughout this procedure, Model S Palladium and Model X Palladium might be contracted to “Model S” and “Model X” respectively.

1. Disconnect LV power (refer to Service Manual procedure 17010200, [Model S](#), [Model X](#)).
2. Remove the cowl screen panel (refer to Service Manual procedure 12250902, [Model S](#), [Model X](#)).
3. **Model S Palladium only:** Remove the battery controller module (refer to Service Manual procedure [17150012](#)).

4. **Model X Palladium only:**

- a. Remove the wiper module (refer to Service Manual procedure [17502502](#)).
- b. Remove the nut that attaches the battery controller module ground strap to the body, and then remove the strap from the body (Figure 1).

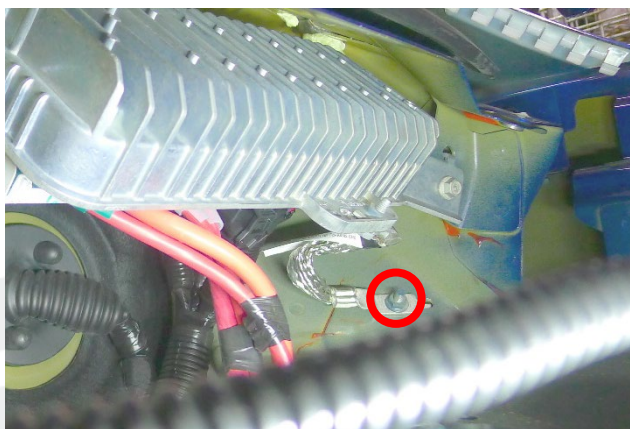


Figure 1

- c. Remove the bolts (x2) that attach the battery controller module to the bulkhead, and then remove the module from the bulkhead (Figure 2).

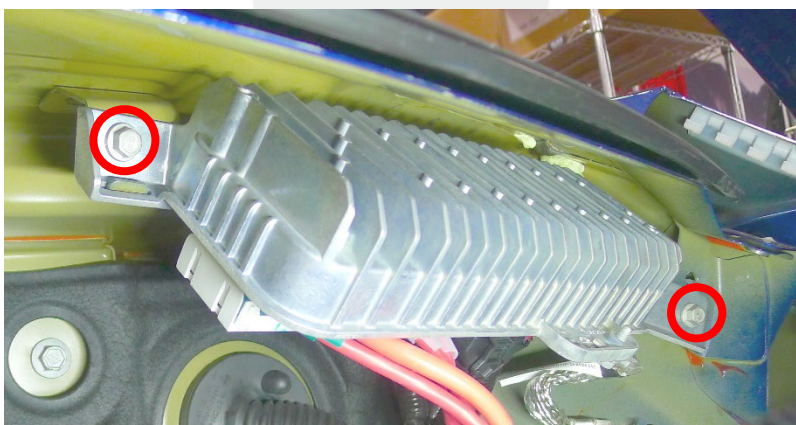


Figure 2

- d. Release the locking tab, raise the lever, and then disconnect connector X025 from the battery controller module (Figure 3).



Figure 3

5. Remove the cable tie from the rear of connector X025 (Figure 4)



Figure 4

6. Release the tabs (x2) that attach the rear cover to connector X025 (Figure 5), and then slide off the rear cover (Figure 6).



Figure 5

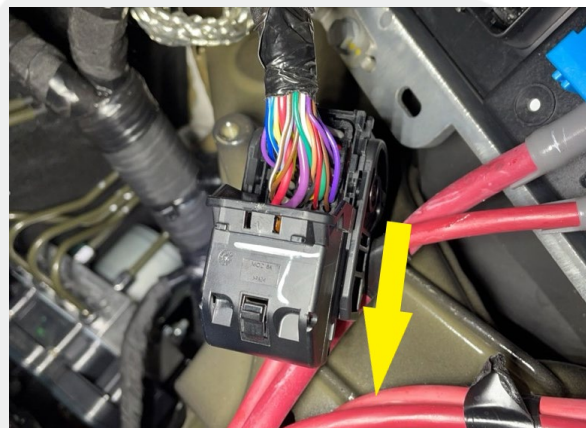


Figure 6

7. Release the tabs (x2) that attach the front cover to connector X025 (Figures 7 and 8), and then remove the front cover.

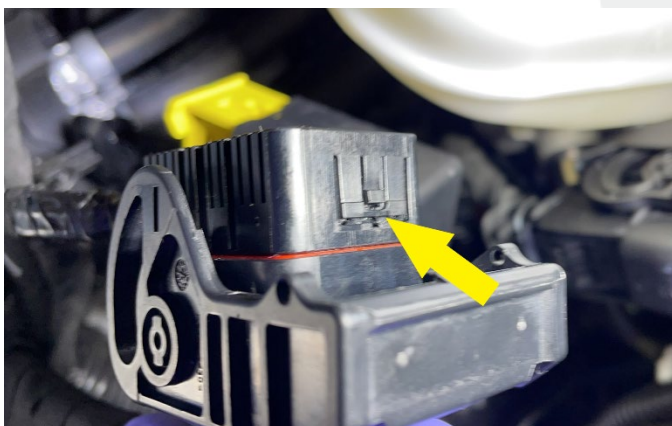


Figure 7



Figure 8

8. Slide the red locking tab, raise the lever, and then disconnect the connector from the HCU (Figure 9)



Figure 9

9. Remove the cable tie from the rear of the HCU connector (Figure 10).



Figure 10

10. Release the tabs (x2) that attach the rear cover to the HCU connector (Figure 11), and then swing off the rear cover (Figure 12).



Figure 11



Figure 12

11. Use a pick to slide the large locking tab of the HCU connector from “CLOSE” to “OPEN” (Figure 13).

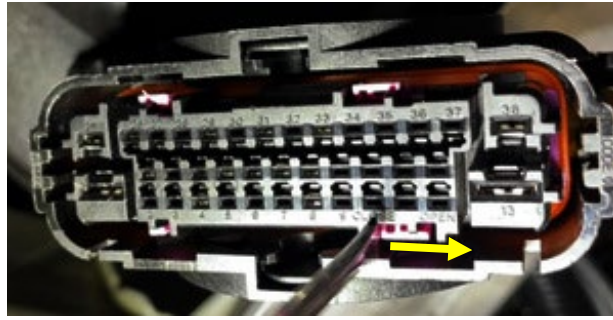


Figure 13

12. Wrap the overlay wire with harness tape, leaving approximately 50 mm from the ends unwrapped (Figure 14).

NOTE: Unroll approximately 100 mm of tape, press the centerline of the tape to the wire, fold the tape over the wire to wrap the wire, unroll approximately 100 mm of tape, press the centerline of the tape to the wire, and so on.

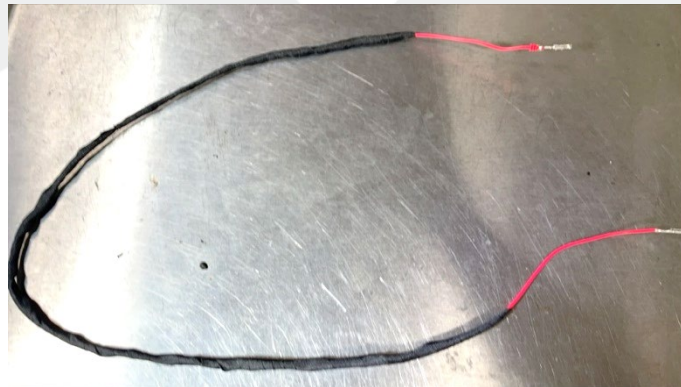


Figure 14

13. Prepare the vehicle electrical harness by unwrapping and removing the electrical tape, and releasing the clip, at the locations indicated (Figures 15 and 16).

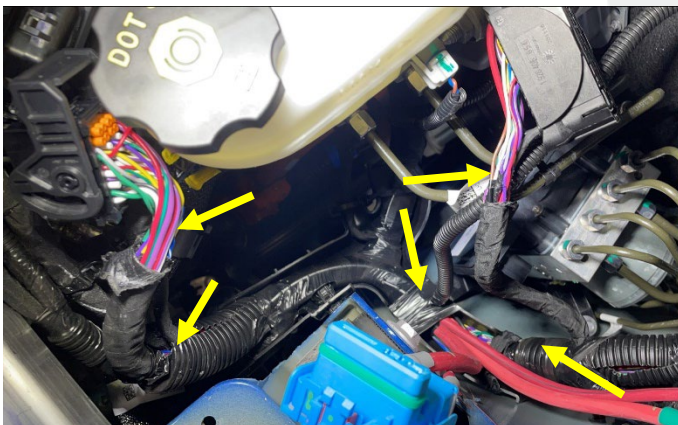



Figure 15 – Model S



Figure 16 – Model X

14. Install the smaller terminal of the overlay wire into connector X025.

- **Model S Palladium:** Remove the plug from receptacle E4 (Figure 17) and insert the terminal into receptacle E4 (Figure 18)

 **NOTE:** Perform a Push-Pull-Push check to make sure the wire is secure in the connector.

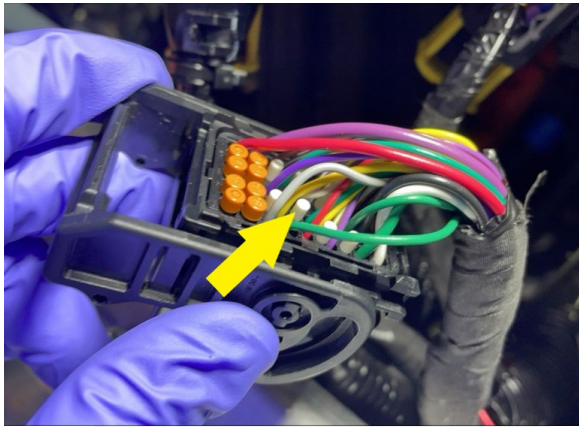


Figure 17

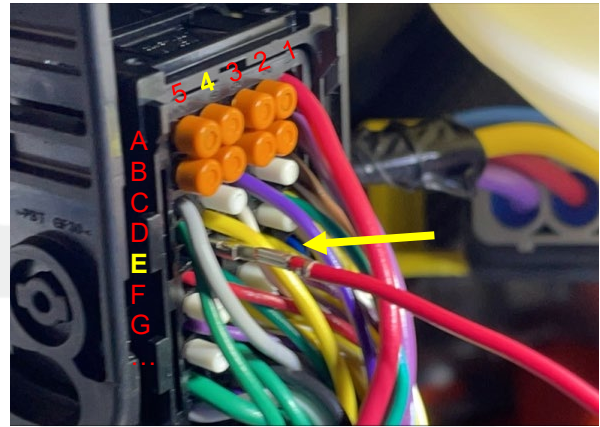



Figure 18

- **Model X Palladium:** Remove the plug from receptacle E5 (Figure 19), and insert the terminal into receptacle E5 (Figure 20)

 **NOTE:** Perform a Push-Pull-Push check to make sure the wire is secure in the connector.

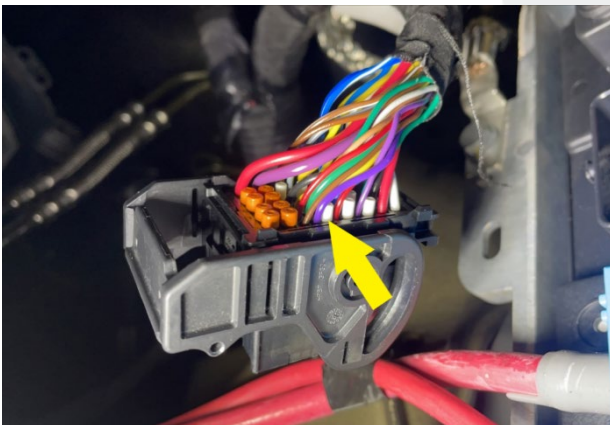


Figure 19

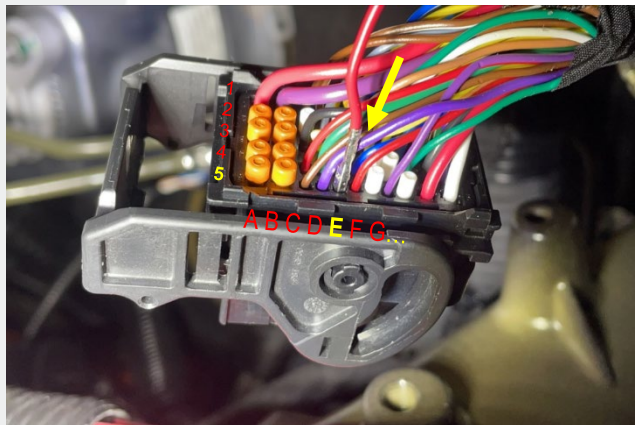


Figure 20

15. Temporarily route the overlay wire along the harness to the HCU connector (Figures 21 and 22)



Figure 21 – Model S



Figure 22 – Model X

16. Remove the plug from receptacle 28 of the HCU connector (Figure 23), and insert the larger terminal of the overlay wire into the receptacle (Figure 24).

NOTE: Perform a Push-Pull-Push check to make sure the wire is secure in the connector.

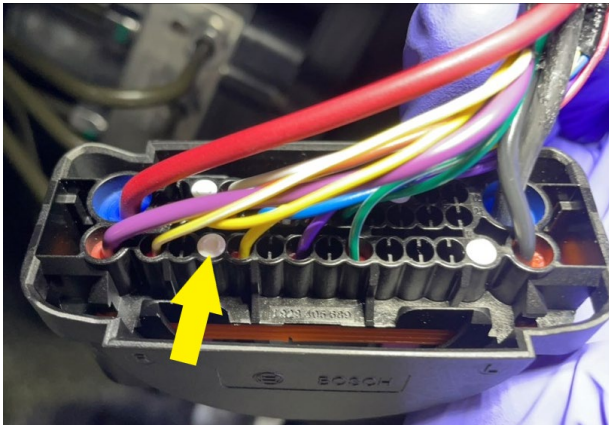


Figure 23

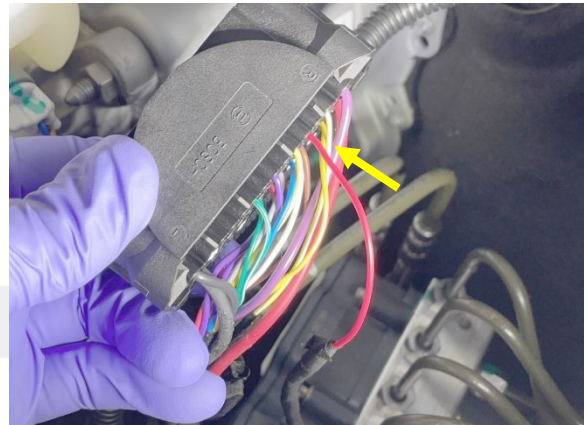


Figure 24

17. Secure the overlay wire to the electrical harness using electrical tape and cable ties at the locations identified (Figures 25 and 26).

NOTE: Fasten clips and trim cable ties.

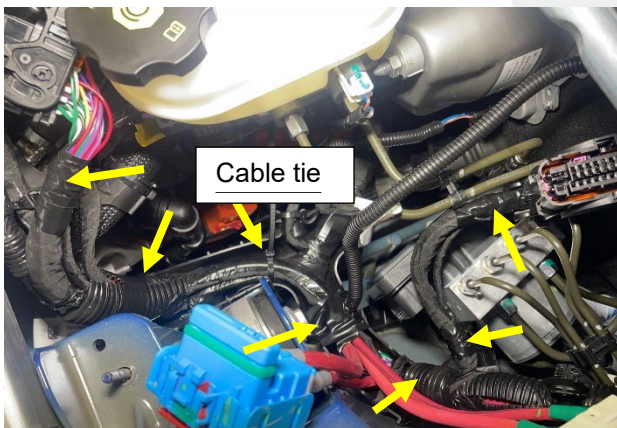


Figure 25 – Model S

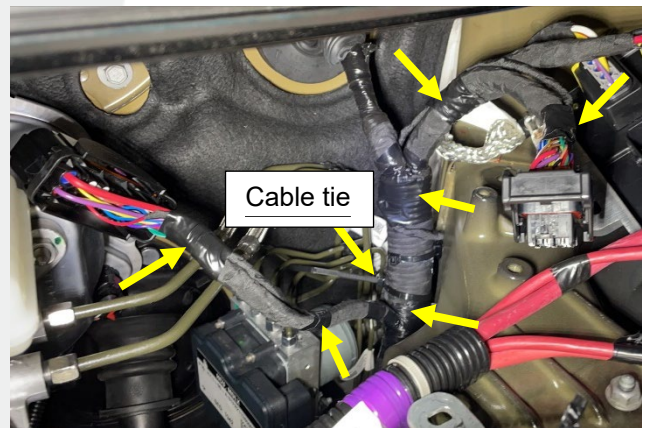


Figure 26 – Model X

18. Use a pick to slide the large locking tab of the HCU connector from “OPEN” to “CLOSE” (Figure 27).

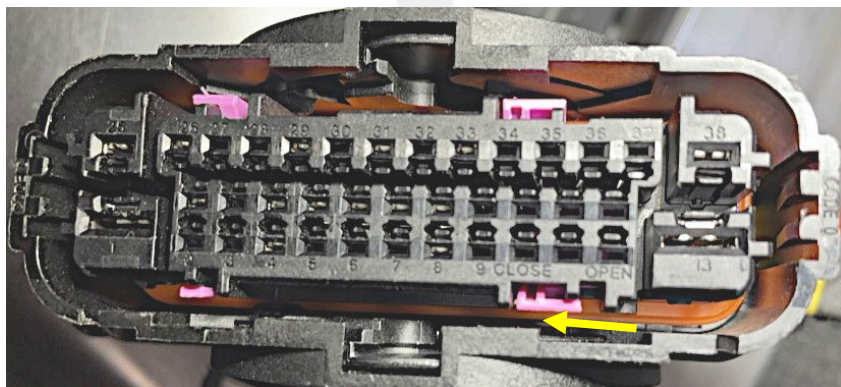


Figure 27

19. Attach the rear cover to the HCU connector, and then swing the rear cover close (Figure 28), engaging the tabs.

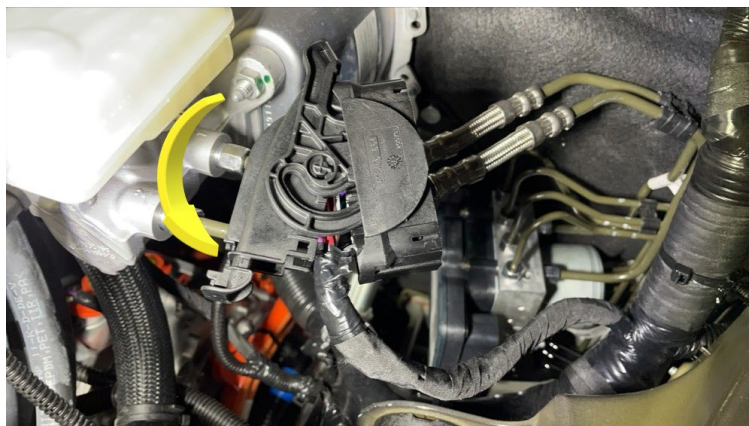


Figure 28

20. Fasten a small cable tie to the rear of the HCU connector to secure the rear cover (Figure 29), and then trim the tie.



Figure 29

21. Connect the HCU connector to the HCU module, lower the lever, and then slide the red locking tab (Figure 30).

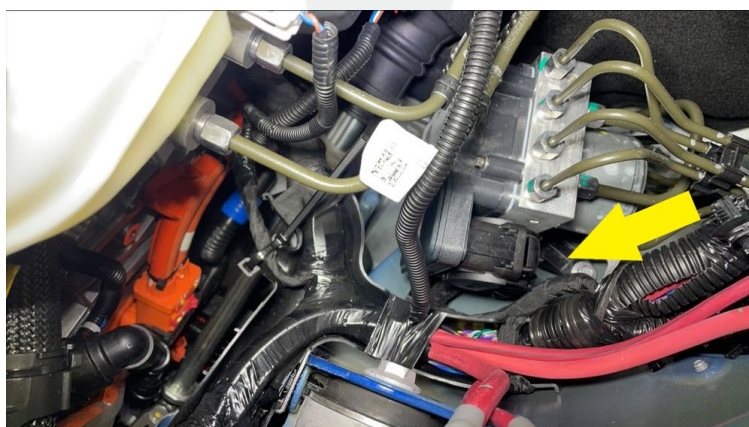


Figure 30

22. Install the front cover to connector X025, engaging the tabs.

23. Slide the rear cover onto connector X025, engaging the tabs (Figure 31).

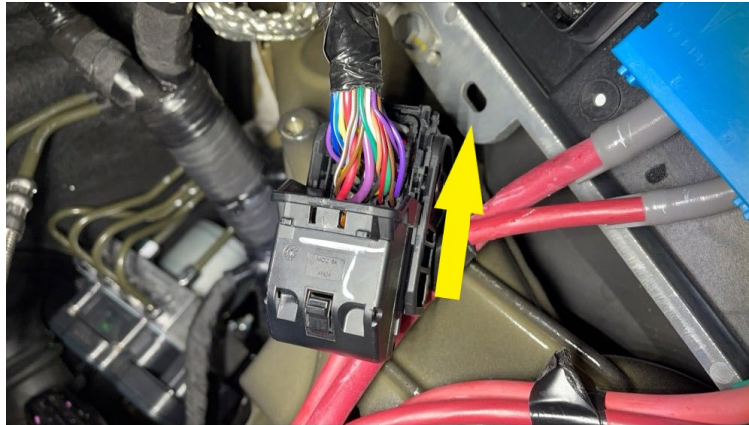


Figure 31

24. Fasten a small cable tie to the rear of connector X025 to secure the front and rear covers (Figure 32), and then trim the tie.



Figure 32

25. **Model X Palladium only:**

- a. Connect connector X025 to the battery controller module, lower the lever, and then fasten the locking tab (Figure 33).



Figure 33

- b. Position the battery controller module to the bulkhead, and then install the bolts (x2) that attach the module to the bulkhead (torque 10 Nm) (Figure 34).

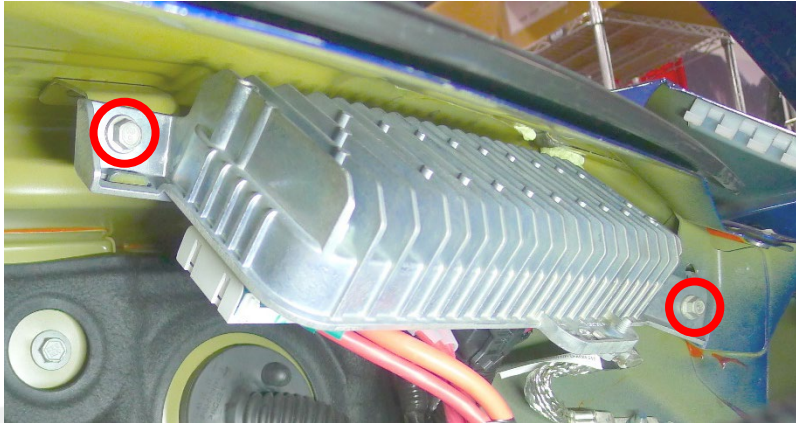


Figure 34

- c. Install the battery controller module ground strap to the stud on the body, and then install the nut that attaches the strap to the body (torque 10 Nm) (Figure 35).

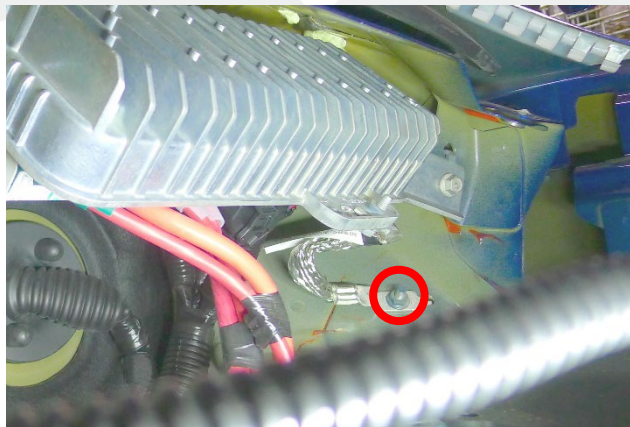


Figure 35

- d. Install the wiper module (refer to Service Manual procedure [17502502](#)).
26. **Model S Palladium only:** Install the battery controller module (refer to Service Manual procedure [17150012](#)).
27. Install the cowl screen panel (refer to Service Manual procedure 12250902, [Model S](#), [Model X](#)).
28. Connect LV power (refer to Service Manual procedure 17010200, [Model S](#), [Model X](#)).