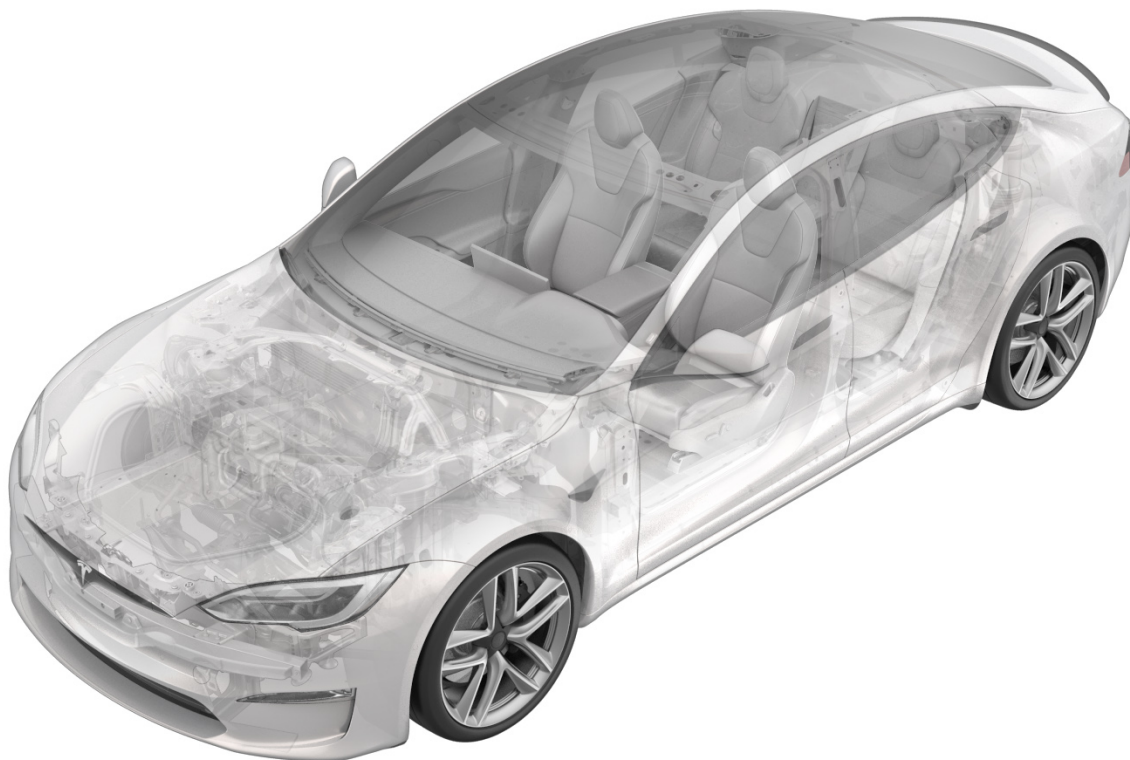


Last modified: 02/02/2022 08:01:43

Insulator - Dash (Remove and Replace)



Correction code 15308402

NOTE: Unless otherwise explicitly stated in the procedure, the above correction code and FRT reflect all of the work required to perform this procedure, including the linked procedures. **Do not stack correction codes unless explicitly told to do so.**

NOTE: See to learn more about FRTs and how they are created. To provide feedback on FRT values, email LaborTimeFeedback@tesla.com.



Warning

This procedure is a DRAFT, although it has been validated. Warnings and Cautions might be missing. Follow safety requirements and use extreme caution when working on or near high voltage systems and components. Provide corrections and feedback to ServiceDevelopment@teslamotors.com.

1. Turn Off the AC and Blower motor
-

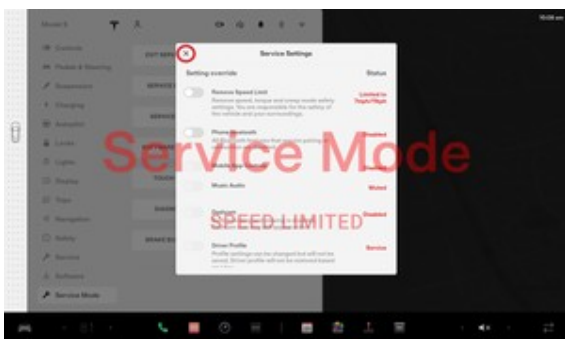
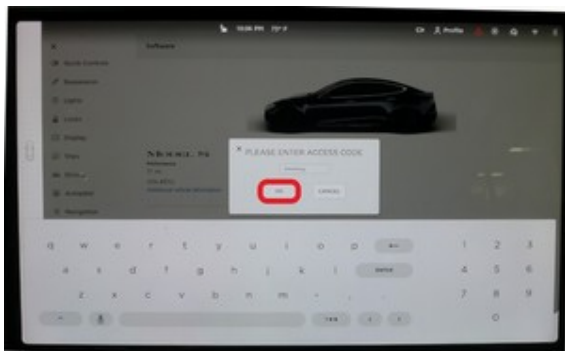
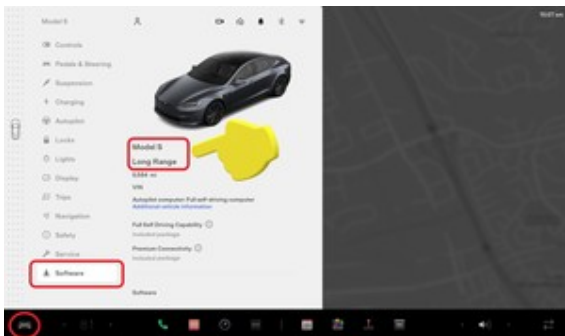


2. Place vehicle in service mode via UI



Note

Select Controls > Software , Touch and hold "Model" for 2 seconds then release, Use the screen keyboard to type "service" into dialog box and select OK button, Select "X" at upper left corner to exit 'Service Settings' dialogue box

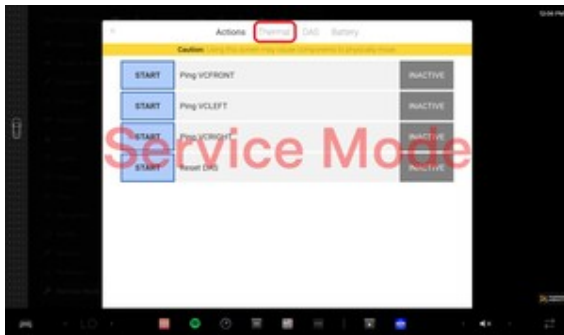
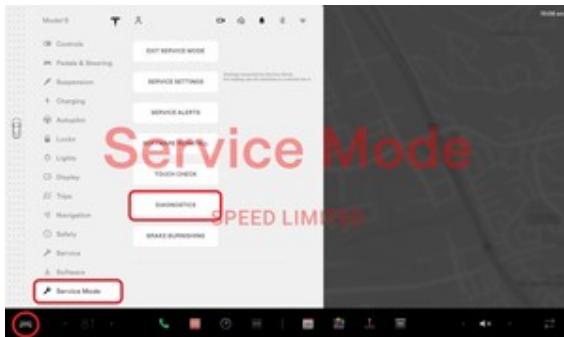


3. Access thermal system routines using the UI



Note

Select quick controls > Service mode > Diagnostics > Thermal, Authorize routines by holding right turn signal, depressing brake pedal for 10 seconds with key on phone dock

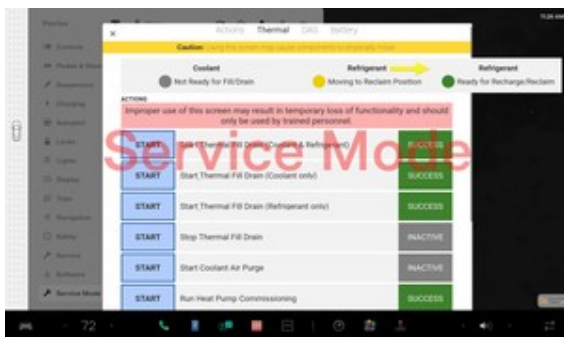
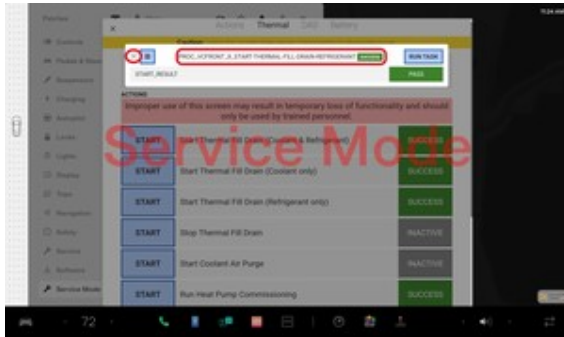
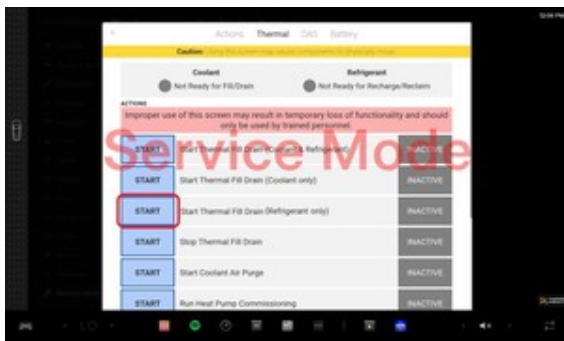


4. Select 'Start' button at 'Start Thermal Fill Drain (Refrigerant Only)' using the UI and 'PROC_VCFRONT_X_START-THERMAL-FILL-DRAIN-REFRIGERANT' window will appear



Note

Select 'X' at top left of window to close once complete, Verify refrigerant status moves from yellow 'Moving to Reclaim Position' to green 'Ready for Recharge/Reclaim' status, Thermal Fill Drain routine has a 5 hour time limit, After 5 hours EXV's will close and routine must be performed again



5. Open hood



Note

Via Center Display > Controls > Frunk Open

6. Remove rear underhood apron



Note

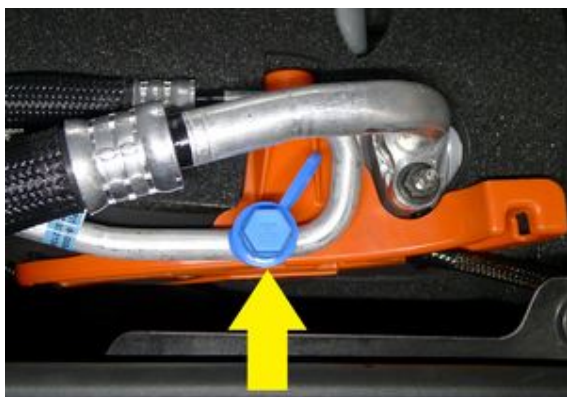
8x clips



7. Remove caps from low side and high side AC ports

Note
2x caps



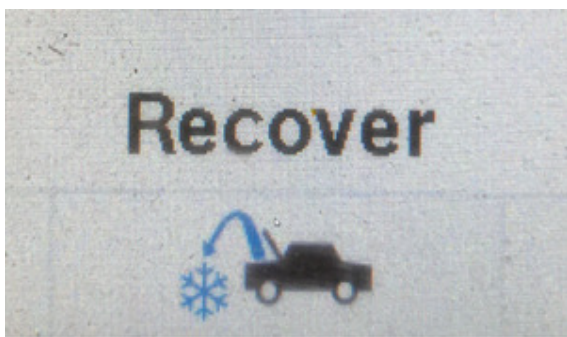


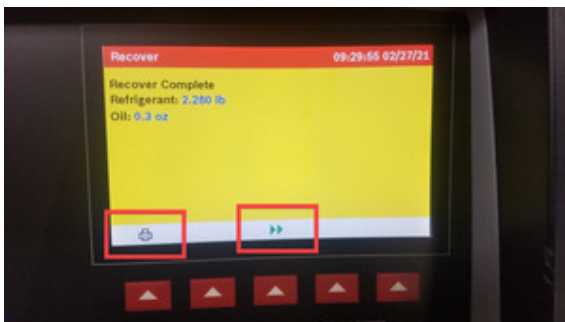
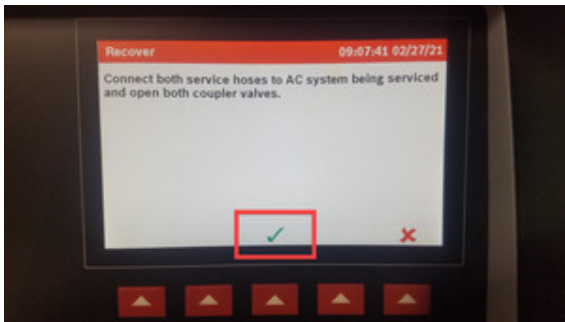
8. Connect hoses to vehicle and perform A/C recovery

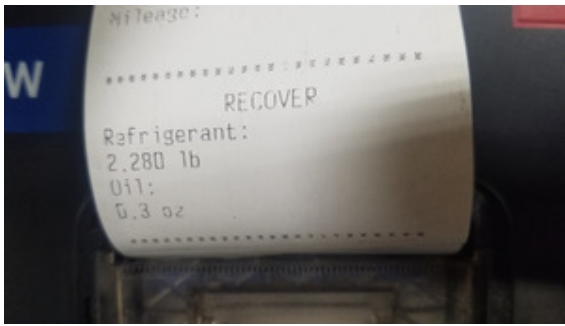
i Note

Connect couplers to vehicle, Note the amount of refrigerant and oil recovered, mark oil drain bottle oil level (use a piece of tape marking the fluid level), Open couplers by turning clockwise, Using Main Menu > Recover > Verify hose connection, Machine will chime once process is complete, Vehicle may be left unattended, Note or print the amount of refrigerant and oil recovered, Refrigerant recovered should be ~2.24 lb (1.02 kg), Oil recovered should be ~0.3 oz (8.87 mL), If drained oil level increased more than 1.01 oz (30 mL) refer to drained oil loss chart

<https://toolbox.teslamotors.com/articles/353700>







9. Remove the center console. See [Center Console Assembly \(Remove and Replace\)](#).

10. Remove AC hoses from vehicle



11. Remove LH underhood apron

Note
10x clips



12. Remove RH underhood apron

Note
10x clips



13. Release LH wiper arm hose nozzle

- i Note**
1x hose



14. Remove LH wiper arm nut cover

- i Note**
1x cover



15. Remove LH wiper arm nut and release assembly

- i Note**
1x nut, 15mm, 26 Nm



16. Release RH wiper arm hose nozzle

i Note
1x hose



17. Remove RH wiper arm nut cover

i Note
1x cover



18. Remove RH wiper arm nut and release assembly

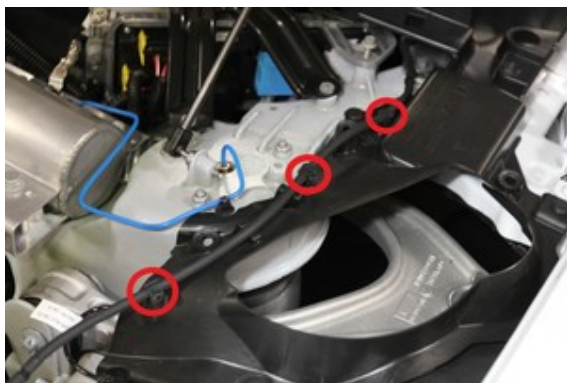
i Note
1x nut, 15mm, 26 Nm



19. Release washer hose nozzle by LH shock tower cover

i Note
1x hose, 3x clips





20. Remove LH shock tower cover



Note

3x push clips, 1x fir tree clip



21. Remove RH shock tower cover



Note

3x push clips, 1x fir tree clip



22. Remove wiper cowl screen panel

**Note**

4x push clips, 2x end tabs

**23. Remove fasteners securing LH V-brace and remove assembly****Note**

3x bolts, 10mm, 18 Nm, 1x nut, 10mm, 9 Nm

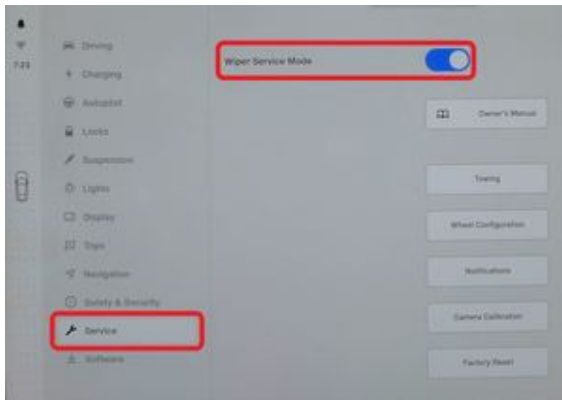


24. Using center display, place wipers into "Service Mode"



Note

via Controls > Service > Wiper Service Mode, If wiper module is not in service mode the RH pivot arm will not clear the V Brace crossmember during removal

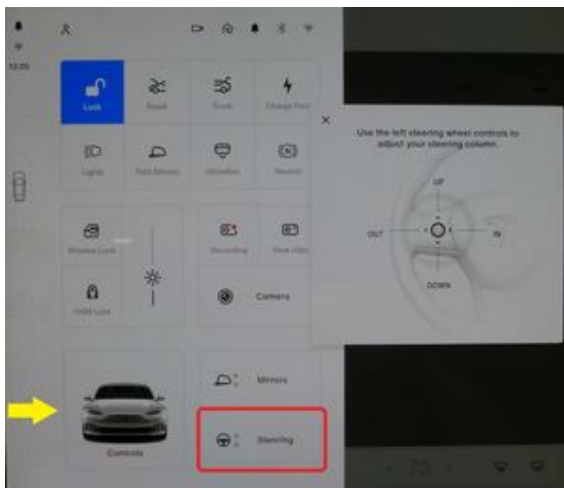


25. Adjust steering column fully rearward and fully down



Note

Via UI > Quick Controls > Steering Wheel, Use left steering wheel scroll wheel to adjust steering column

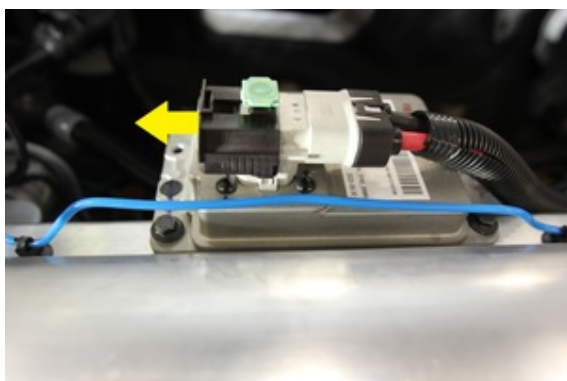
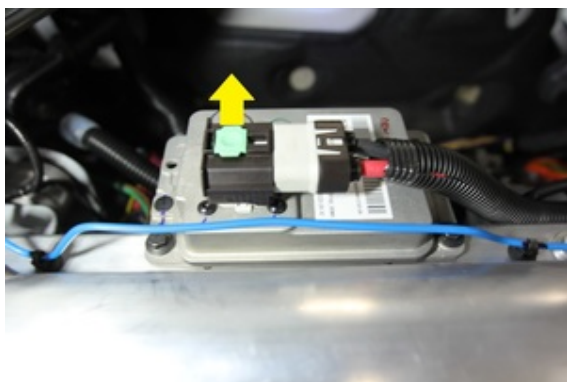
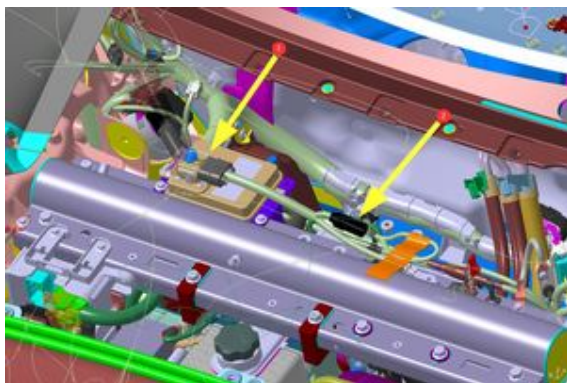


26. Power off vehicle from center display

- Note**
Via Controls > Safety & Security > Power Off

27. Disconnect LV battery connector and First Responder Loop

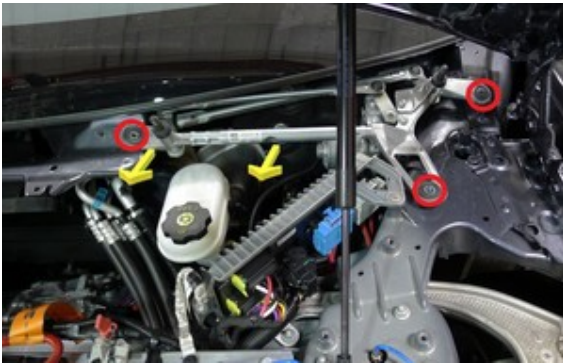
- Note**
2x connectors, Lift up and release green locking tab, Pull black connector lock outwards to release connection



28. Remove wiper module

 Note

3x bolts, 10mm, 8 Nm, 1x connector, Rotate module forward and up to access connector,
Observe LH wiper arm pivot during removal to avoid damage to windshield



29. Release upper steering column bracket IP carrier bolts at bulkhead

 Note

2x bolts, 13mm, 27Nm



30. Remove Penta HVAC line from HVAC assembly



Note

2x bolts, 13mm, 22 Nm



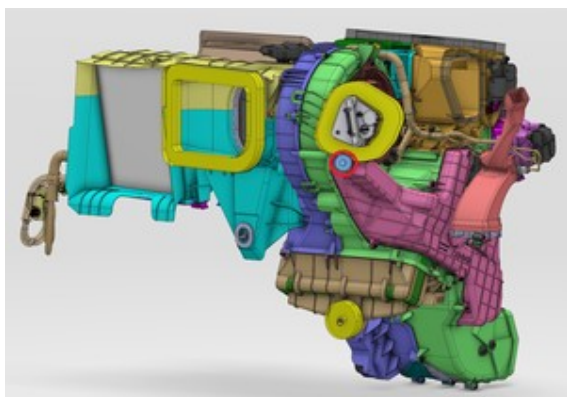


31. Release HVAC assembly bolt at bulkhead

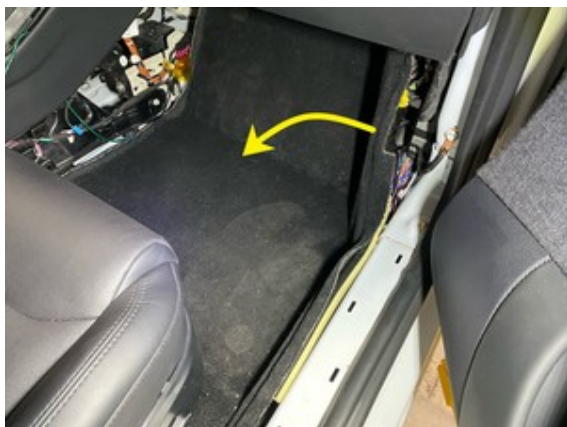


Note

1x bolt, 10mm, 8 Nm



32. Fold RH front cabin carpet aside for access



33. Release harness from RH footrest panel

i Note
1x clip



34. Remove RH footrest panel

i Note
2x bolts, 10mm, 5 Nm, 1x nut, 10mm, 5 Nm





35. Remove the IP sub-assembly. See Sub-Assembly - Instrument Panel (Remove and Install).

36. Remove driver IP air vent duct



Note

2x rivets, 1x connector, Slide outboard and up out of HVAC unit assembly



37. Release spring clip securing driver air bag assembly to steering wheel and pull driver air bag assembly away from steering wheel



Note

2x spring clips, 2x datums, Press the spring simultaneously from two access holes to release, Access holes located at 4 and 8 o'clock position, Do not insert tool too far as air bag connector could be damaged





38. Disconnect driver air bag connector and remove driver air bag assembly

Note
1x connector, 2x tabs



39. Disconnect steering wheel connector

Note
1x connector



40. Remove bolt that secures the steering wheel to the column

Note

1x patch bolt, 10mm allen, 80 Nm, Discard after removal

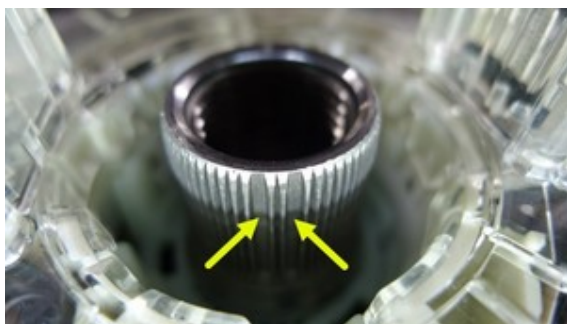
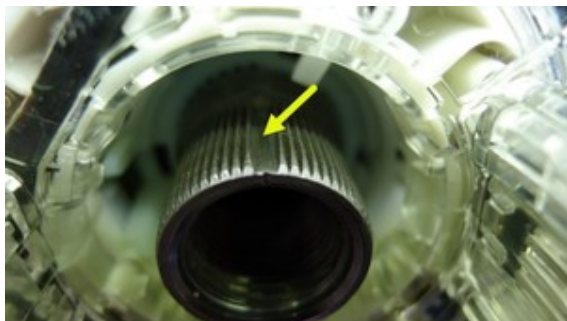


41. Remove steering wheel

Note

Note that the steering wheel is splined to the column





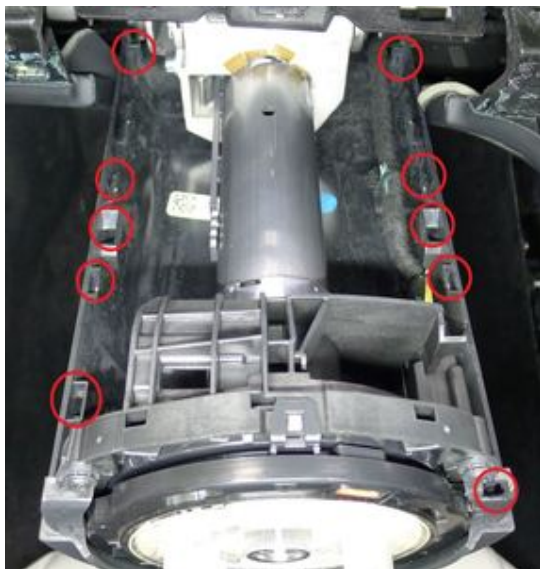
42. Pull upward to release steering column upper shroud from lower shroud



Note

6x clips, 4x datums



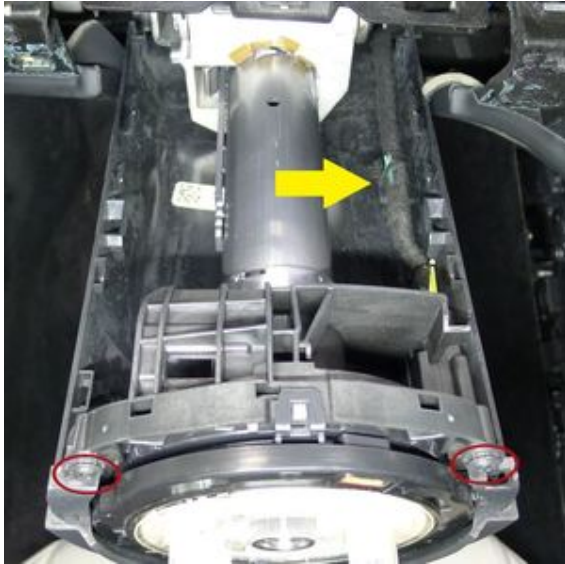


43. Remove lower shroud to steering column



Note

2x screws, T20, 1.5 Nm, 1x clip, 1x datum, Slide lower shroud rearward to release datum





44. Remove lower instrument panel assembly



Note

3x screws, T20, 3 Nm, 8x tabs, Remaining screws located at bottom of assembly, Release assembly and carefully guide over upper steering column





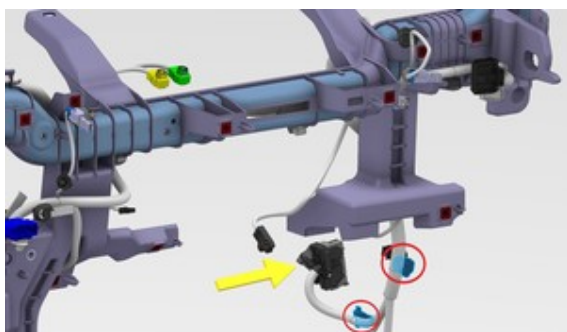
45. Release IP harness from J12 x055 Dash connector at right body controller



Note

2x clips, 1x connector, Release lock then remove



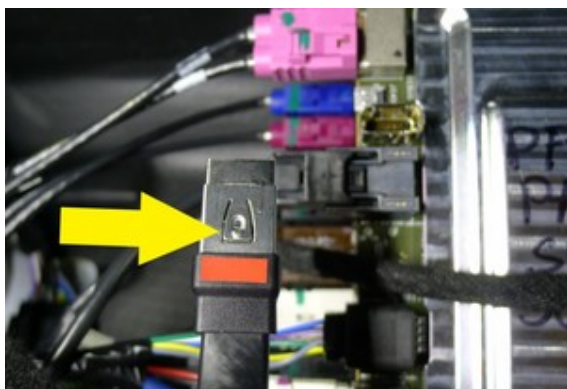


46. Release connector to gaming MCU

Note

1x connector, Depress lock on underside of connector before pulling out of socket,
Possible damage to PCBA may occur if removed without releasing lock first





47. Release IP harness connectors at LH side of car computer gaming board



Note

5x connectors, Release locks on connectors before removal





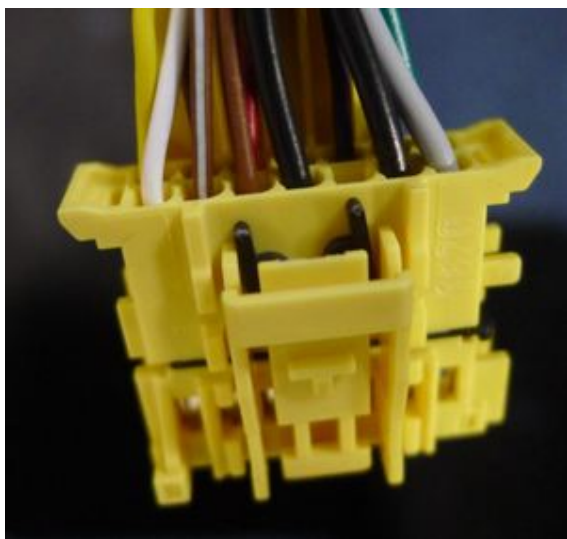
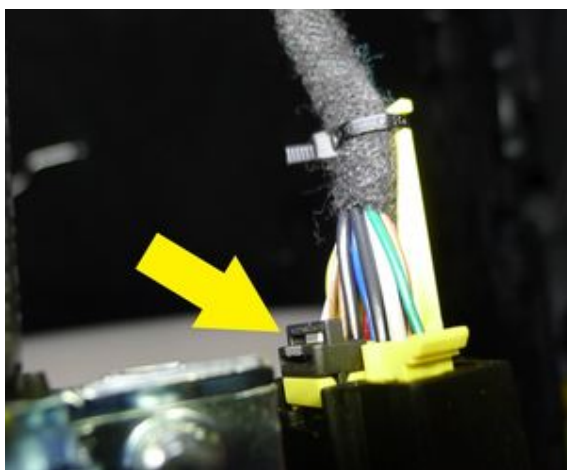
48. Release IP harness from RH toeboard bracket

Note
3x clips



49. Disconnect steering column control module assembly connector

Note
1x connector, Remove retaining clip on the connector, release connector, then remove the remaining broken clip from connector, Discard retaining clip after removal, Originally installed clip is black, Replacement clip is orange

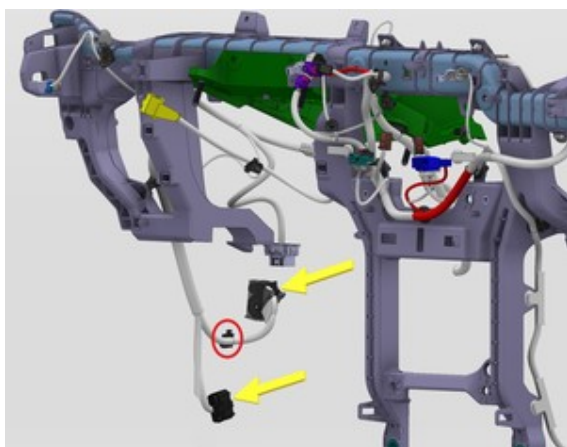


50. Release IP harness from J12 x035 Dash connector at left body controller and connector x947F



Note

1x clip, 2x connectors, Release lock then remove



51. Release steering column harness



Note

1x connector, 1x clip





52. Release upper steering column from steering column bracket

Note

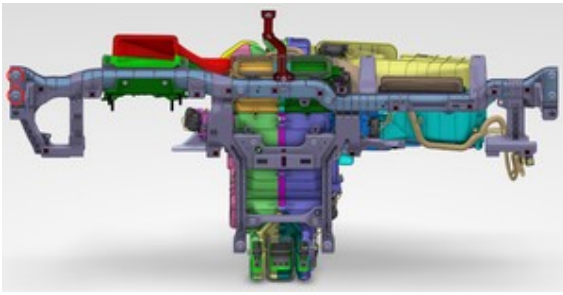
4x nuts, 13mm, 15 Nm, Rotate and set aside



53. Release LH cross car beam assembly

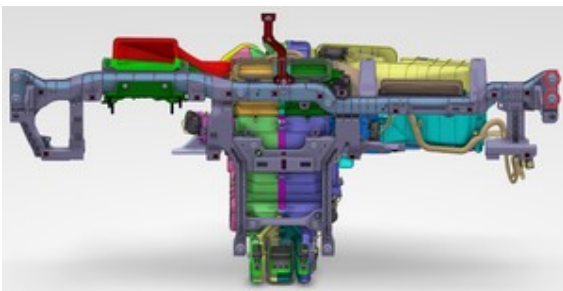
Note

2x bolts, 13mm, 27 Nm



54. Release RH cross car beam assembly

Note
2x bolts, 13mm, 27 Nm



55. Release cross car beam assembly from toeboard bracket

Note

2x bolts, 13mm, 27 Nm

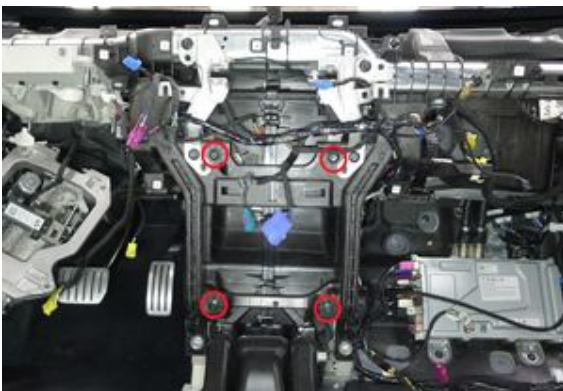
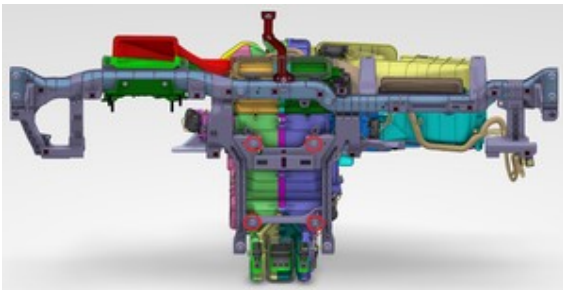


56. Release cross car beam assembly from HVAC unit



Note

4x bolts, 10mm, 8 Nm



57. Release IP cowl link

Note

2x bolts, 10mm, 6 Nm, Only remove the bolts from the IP carrier and HVAC box

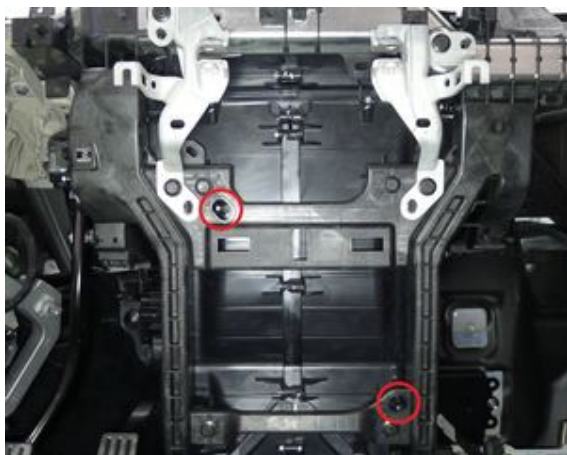
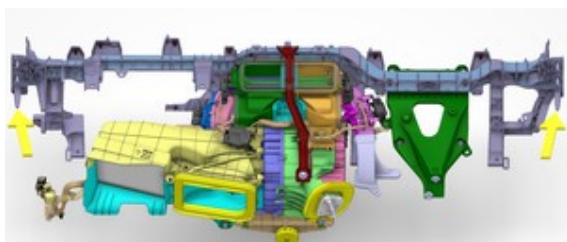


58. Release cross car beam assembly from body and HVAC unit

Note

4x datums





59. Remove cross car beam assembly with IP harness from vehicle



Note

Avoid contact with seats and inner door panel, Recommend assistance as required

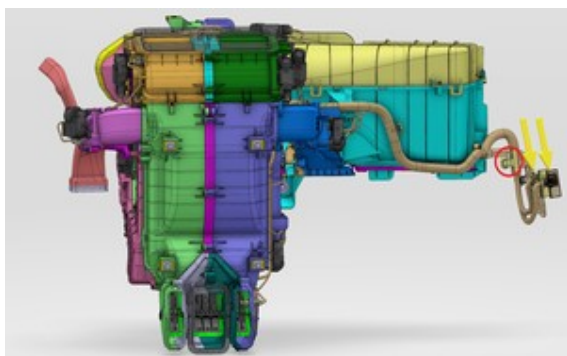


60. Release HVAC blower x059 connector and HVAC case x058 connector from right controller



Note

1x clip, 2x connectors



61. Remove center console HVAC duct

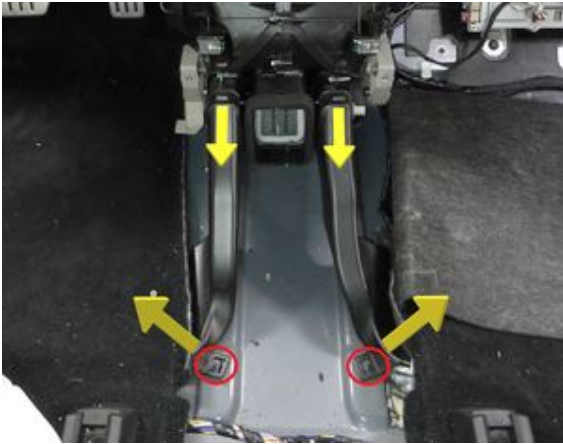
Note
1x brush clip



62. Release LH and RH rear vent ducts from HVAC assembly

Note

2x tabs, Release ducts from tabs upward and release from HVAC assembly rearward

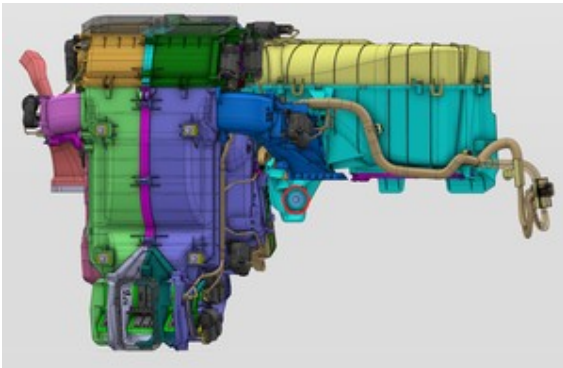


63. Release HVAC assembly from bulkhead



Note

1x bolt, 10mm, 8 Nm





64. Remove HVAC assembly from vehicle



Note

Remove HVAC assembly towards rear of vehicle, Rotate counter clockwise and remove out through passenger front door, Recommend assistance





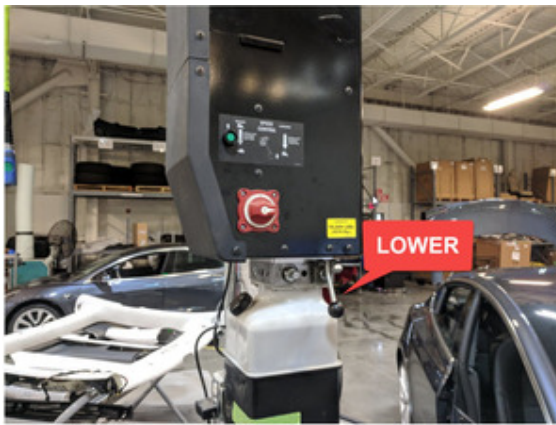
65. Raise vehicle fully and lower lift onto locks



Note

Set vehicle to comfortable working height, Make sure there's an audible click of the locks on both sides before lowering, otherwise vehicle may tilt to the side





66. Remove clips securing front aero shield

i Note
5x push clips



67. Remove bolts securing front aero shield and remove from vehicle

Note
9x bolts, 10mm, 6 Nm



68. Release clips securing wheel house liner to front skid plate

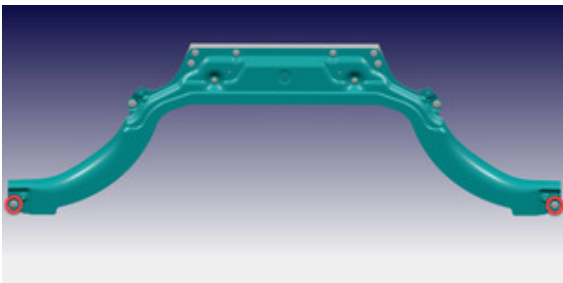
Note
4x clips



69. Remove bolts securing front skid plate to body sill

Note

2x bolts, 15mm, 30 Nm



70. Remove bolts securing front skid plate to body casting



Note

2x bolts, 15mm, 60 Nm



71. Remove bolts securing front skid plate to front subframe and remove skid plate



Note

4x bolts, 15mm, 70 Nm, 2x bolts, 10mm, 10 Nm



72. Remove bolt securing steering gear assembly to electric steering column



Note

1x bolt, 13mm, 30 Nm



73. Slide steering column upward to remove it from steering gear assembly

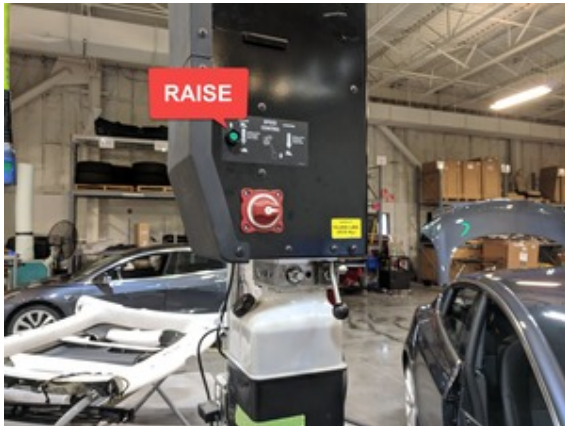


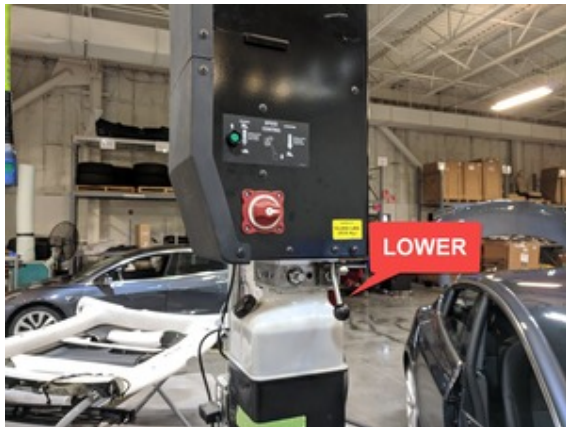
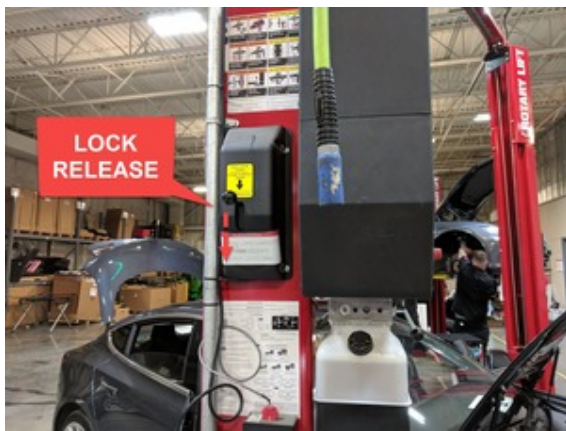
74. Lower vehicle until tires are touching the ground



Note

Raise lift off locks, then hold lock release lever to keep locks free while vehicle is lowered





75. Remove steering column



Note

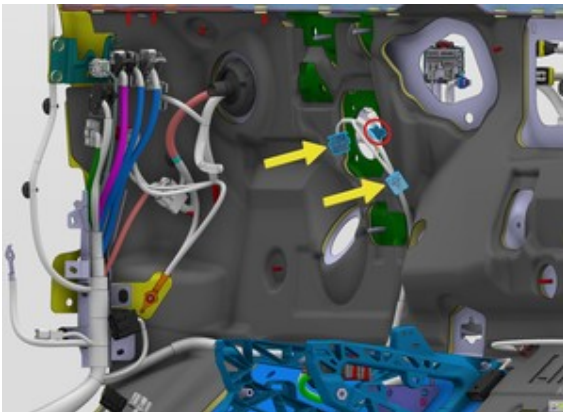
Recommend assistance, Release intermediate shaft dash boot, Guide lower steering shaft out through bulkhead while maneuvering upper steering bracket out driver's door



76. Release LH body harness from pedal assembly X252 and X107

Note

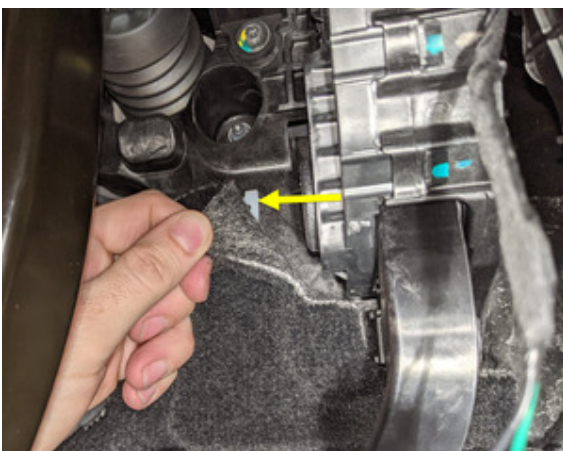
1x clip, 2x connectors, Do not push down on red tab, Pull to disengage lock, Pull again to release connector



77. Release front carpet from pedal assembly and fold down

Note

1x clip





78. Remove cotter clip from clevis pin on pedal assembly



Note

1x clip, Remove by hand



79. Remove clevis pin from brake pedal assembly



Note

1x pin, Wiggle brake pedal to assist pin removal

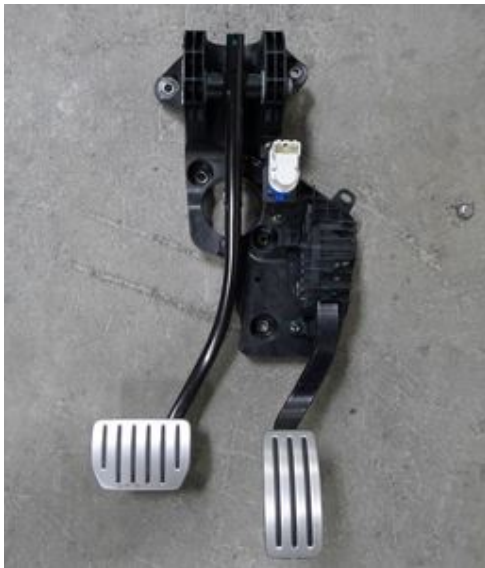


80. Remove pedal assembly from vehicle



Note

5x nyloc nuts, 13mm, 16.5 Nm, Discard after removal



81. Fold LH front cabin carpet aside for access





82. Release LH body harness from body controller

i Note

11x connectors, Release connector locks before removal



83. Release LH body harness A-Pillar wire guide

Note
3x clips



84. Remove LH body controller

Note
1x nut, 10mm, 6 Nm, Discard nylon nut after removal, Carefully release LH controller from stud then lift upwards to release from tab and remove from vehicle



85. Release RH body harness from right body controller

i Note

11x connectors, 2x clips, Release locks on connectors before removal, Release clipped connectors to VC Right



86. Release RH body harness A-Pillar wire guide

Note
3x clips



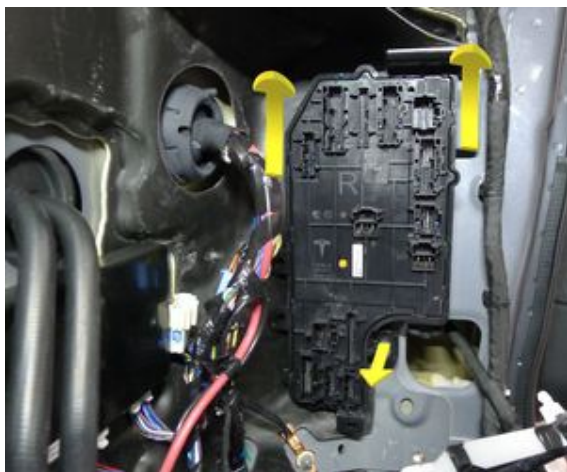
87. Remove RH body controller



Note

1x nut, 10mm, 6 Nm, Discard nylon nut after removal, Carefully release RH controller from stud then lift upwards to release from tab and remove from vehicle





88. Release connections at LH side of AP motherboard and connectivity module of car computer

Note

9x connectors, Release locks on connectors before removal



89. Release connectors at RH side of AP motherboard and entertainment motherboard

Note

7x connectors, Release locks on connectors before removal

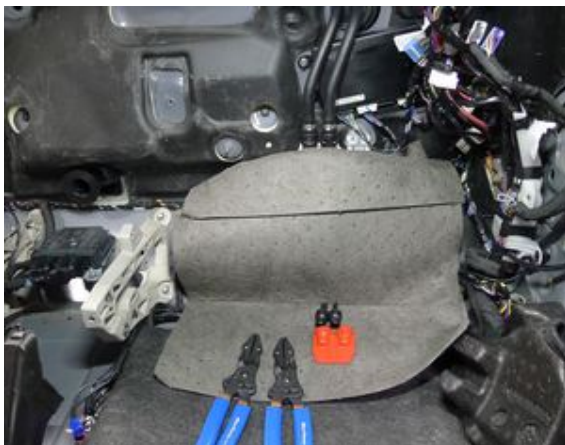


90. Install coolant hose clamps to coldplate hoses



Note

2x hoses, Place coolant absorbent material around the car computer





91. Release coolant hoses from car computer coldplate assembly



Note

2x spring locks, Install coolant plugs at both hoses and car computer



92. Remove car computer from vehicle



Note

2x bolts, 10mm, 7 Nm, 1x nut, 10mm, 8 Nm, Remove any residual coolant from vehicle



93. Release electrical connections from TASC 2.0 ECU

Note
3x connectors



94. Remove fasteners securing TASC 2.0 ECU and remove from vehicle

Note
3x nuts, 10mm, 6 Nm



95. Release RH FEM harness



Note

1x clip, 1x nut, 10mm, 9 Nm



96. Release LH FEM harness



Note

1x nut, 10mm, 9 Nm



97. Release LH side dash insulator

**Note**

2x cinch studs, Pull insulator off cinch studs, Guide LH FEM harness through opening in dash insulator, Guide lower dash insulator underneath LH body harness, Fold dash insulator inward clear of dash panel

**98. Release RH side dash insulator****Note**

2x cinch studs, Pull insulator off cinch studs, Guide RH FEM harness and car computer coolant hoses through openings in dash insulator, Fold dash insulator inward clear of dash panel





99. Release center dash insulator and remove from vehicle

i Note

1x cinch stud, 1x butyl patch, Release butyl patch from upper dash panel, Pull insulator off cinch stud, Remove dash insulator from vehicle





100. Install dash insulator into vehicle and secure center dash insulator

i Note

1x cinch stud, 1x butyl patch, Position dash insulator at center of vehicle, Secure onto cinch studs, Secure butyl patch to upper dash panel





101. Secure RH side dash insulator



Note

2x cinch studs, Unfold dash insulator, Guide RH FEM harness and car computer coolant hoses through openings in dash insulator, Secure insulator onto cinch studs





102. Secure LH side dash insulator



Note

2x cinch studs, Guide LH FEM harness through opening in dash insulator, Guide lower dash insulator underneath LH body harness, Secure insulator onto cinch studs



103. Secure LH FEM harness



Note

1x nut, 10mm, 9 Nm



104. Secure RH FEM harness

Note

1x clip, 1x nut, 10mm, 9 Nm



105. Secure TASC 2.0 ECU to vehicle

Note

3x nuts, 10mm, 6 Nm



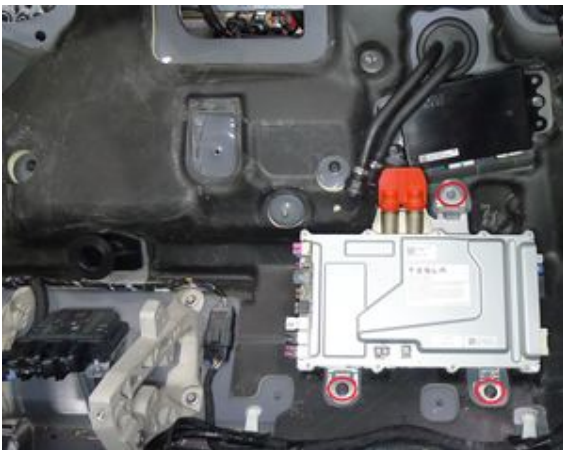
106. Secure electrical connections to TASC 2.0 ECU

- Note**
3x connectors



107. Install car computer to vehicle

- Note**
2x bolts, 10mm, 7 Nm, 1x nut, 10mm, 8 Nm, Install hose clamps after securing computer



108. Secure coolant hoses to car computer coldplate assembly

Note

2x spring locks, Place coolant absorbent mats or rags around the car computer, Remove coolant plugs, Ensure spring locks engage and perform pull-push-pull test on each hose coupling



109. Remove coolant hose clamps

Note

2x hoses, Remove absorbent material, Clean residual fluid, Inspect for leaks



110. Install connectors at RH side of AP motherboard and entertainment motherboard

- Note**
7x connectors



111. Install connections at LH side of AP motherboard and connectivity module of car computer

- Note**
9x connectors



112. Secure RH body controller

- Note**
1x nut, 10mm, 6 Nm, Position RH controller into vehicle, attach tab onto body and align into body stud, Install new nylon nut





113. Secure RH body harness A-Pillar wire guide

Note
3x clips





114. Secure FEM & RH body harness to right body controller

i Note

11x connectors, 2x clips, Secure locks on connectors, Secure clipped connectors to VC Right

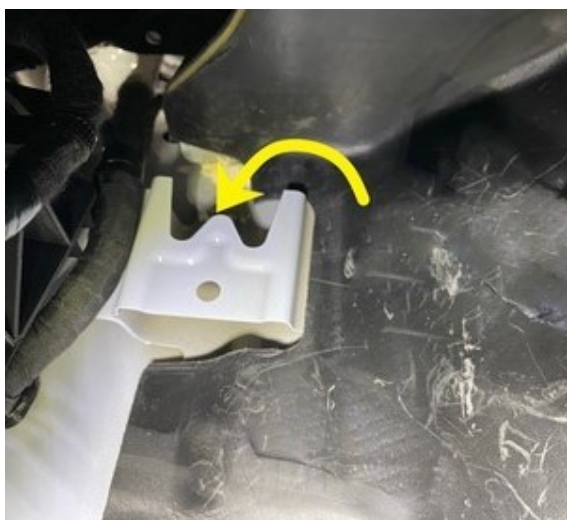




115. Secure LH body controller

Note

1x nut, 10mm, 6 Nm, Position LH controller into vehicle, attach tab onto body and align into body stud, Install new nylon nut





116. Secure LH body harness A-Pillar wire guide

Note
3x clips



117. Secure LH FEM & body harness to body controller



Note

11x connectors, Secure locks on connectors



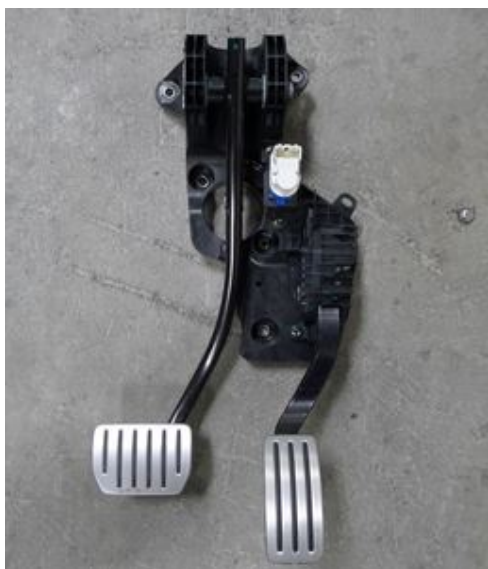


118. Secure pedal assembly to vehicle



Note

5x Nyloc nuts, 13mm, 16.5 Nm, Install new fasteners, May need to pull brake booster inward to seat studs



119. Install clevis pin to brake pedal assembly

- Note**
1x pin, Wiggle brake pedal to assist pin install



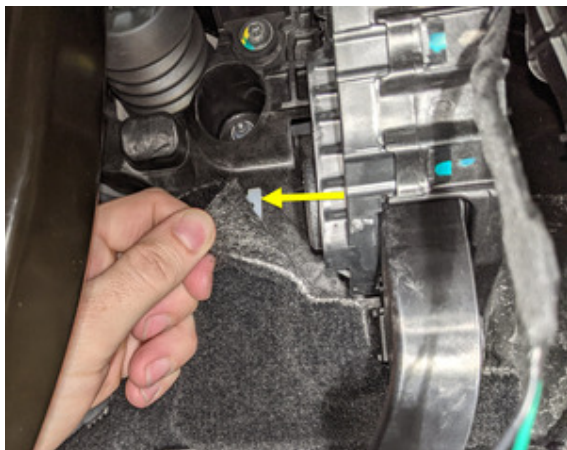
120. Secure cotter clip to clevis pin on pedal assembly

- Note**
1x clip



121. Secure front carpet from pedal assembly and fold down

- Note**
1x clip



122. Install steering column



Note

Recommend assistance, Guide lower steering shaft in through bulkhead, Secure intermediate shaft dash boot

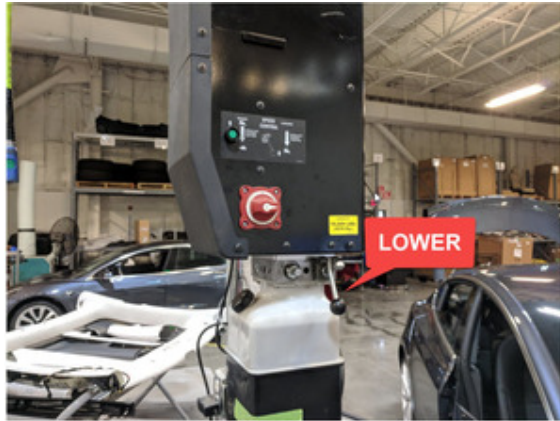




123. Raise vehicle fully and lower lift onto locks

i Note

Set vehicle to comfortable working height, Make sure there's an audible click of the locks on both sides before lowering, otherwise vehicle may tilt to the side



124. Slide lower electric steering column onto steering gear and install bolt



Note

1x bolt, 13mm, 30 Nm



125. Position front skid plate for installation and thread in all bolts

i Note

4x bolts, 15mm, 70 Nm, 2x bolts, 15mm, 60 Nm, 2x bolts, 15mm, 30 Nm, 2x bolts, 10mm, 10 Nm, Torque at later step



126. Torque bolts securing front skid plate to body casting

i Note

2x bolts, 15mm, 60 Nm

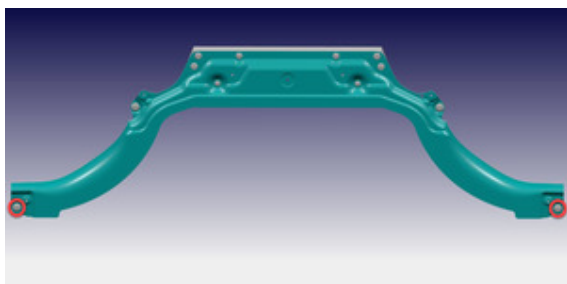


127. Torque bolts securing front skid plate to body sill



Note

2x bolts, 15mm, 30 Nm



128. Torque bolts securing front skid plate to front subframe

Note

4x bolts, 15mm, 70 Nm, 2x bolts, 10mm, 10 Nm



129. Secure clips securing wheel house liner to front skid plate

Note

4x clips



130. Apply Loctite 222 onto front aero shield bolts and install fasteners securing front aero shield to vehicle



Note

9x bolts, 10mm, 6 Nm



131. Install clips securing front aero shield



Note

5x push clips

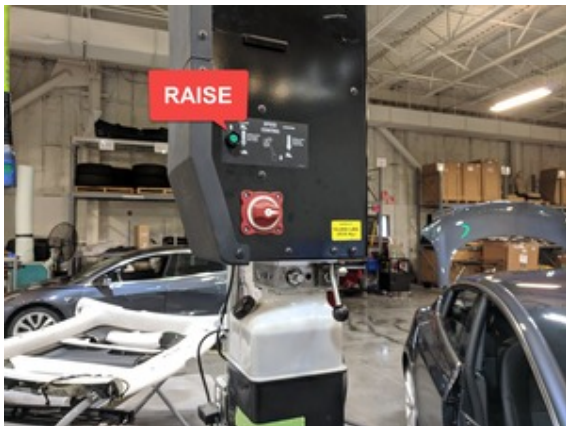


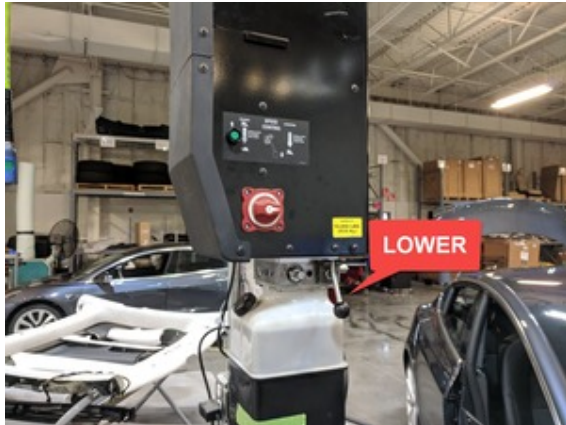
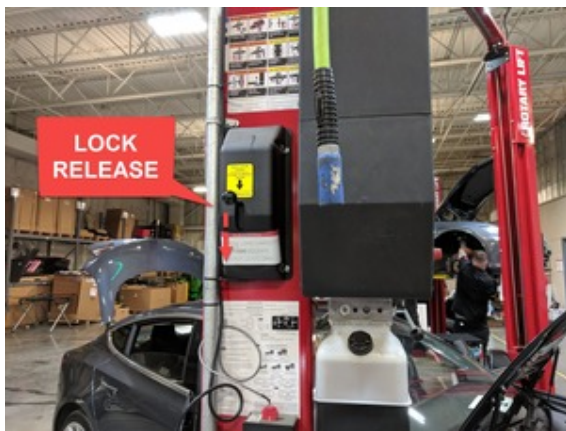


132. Lower vehicle until tires are touching the ground

i Note

Raise lift off locks, then hold lock release lever to keep locks free while vehicle is lowered





133. Install HVAC assembly to vehicle



Note

Install front of HVAC assembly through passenger front door, Rotate counter clockwise and install towards front of vehicle





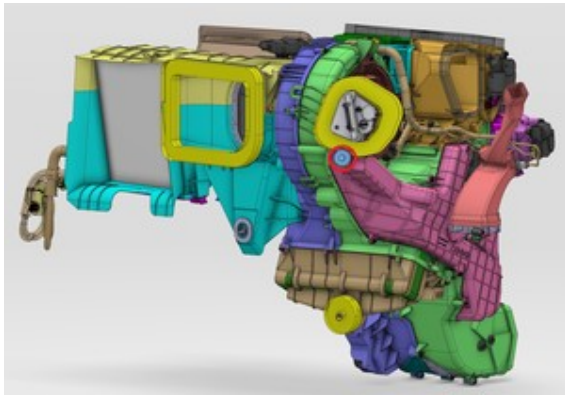
134. Secure HVAC assembly bolt at bulkhead



Note

1x bolt, 10mm, 8 Nm





135. Replace the seal washers to the Penta HVAC line on the HVAC side



Note

5x seal washers, Lube seal washers with ND-11 oil



136. Install Penta HVAC line from HVAC assembly



Note

2x bolts, 13mm, 22 Nm





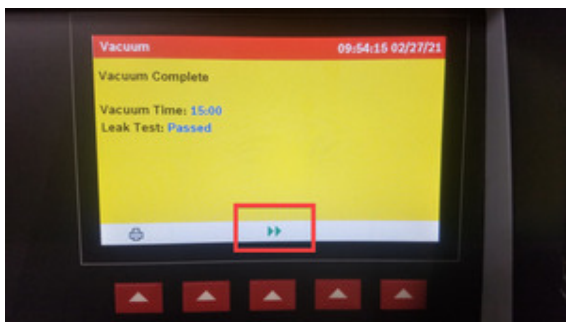
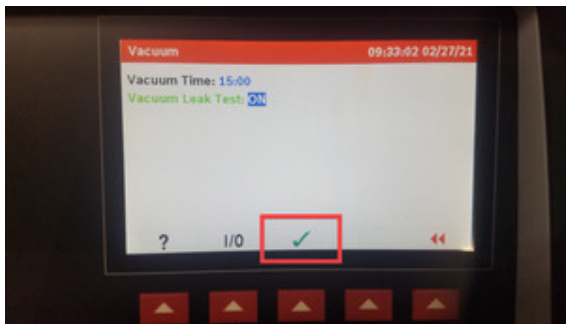
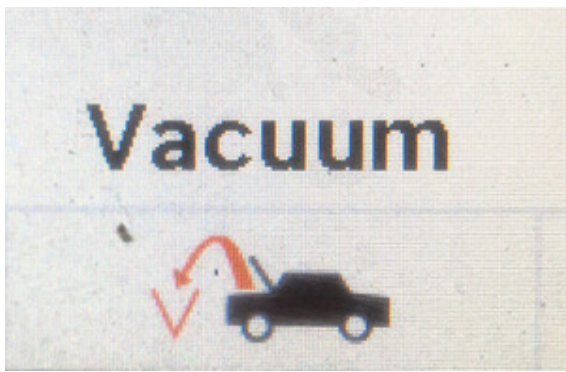
137. Reconnect AC hoses to vehicle



138. Perform AC vacuum and run leak test

i Note

Set vacuum time to 15 minutes and leak test to ON, Machine will chime once process is complete, Vehicle may be left unattended, Verify leak test passed before continuing

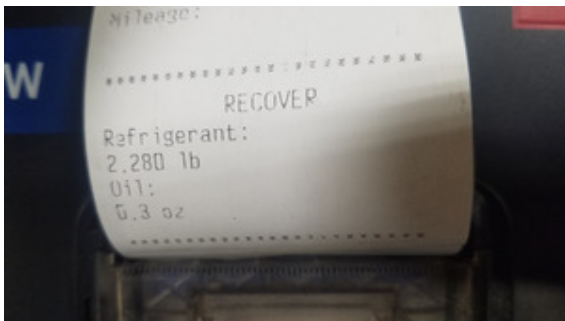
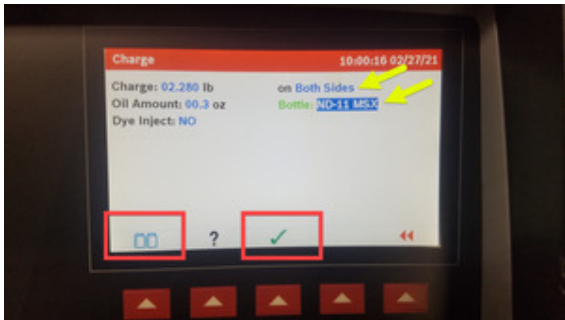
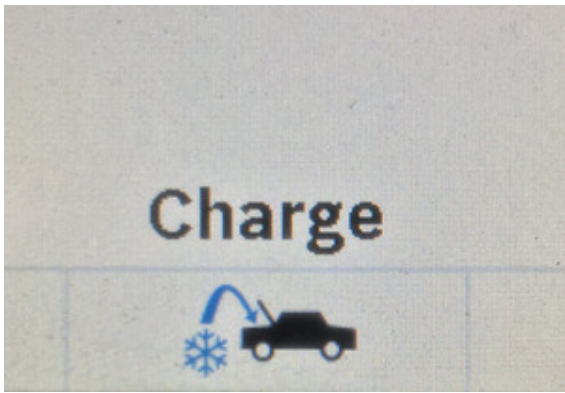


139. Perform AC recharge



Note

Enter refrigerant and oil amount noted at AC recovery, Settings should match notes, Select Both Sides for charge, Select ND-11 MSX using bottle icon, Machine will chime once process is complete, Vehicle may be left unattended, If desired use the Dye Inject option to inject leak detection dye

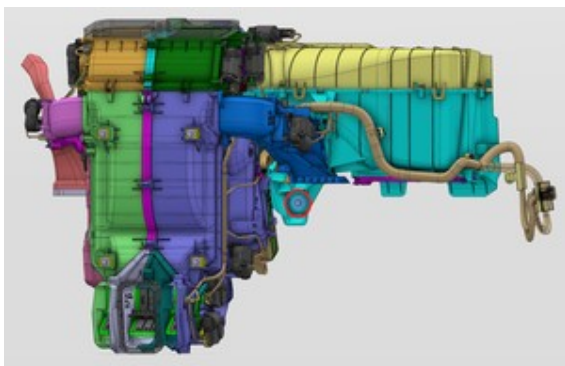


140. Secure HVAC assembly to bulkhead



Note

1x bolt, 10mm, 8 Nm





141. Secure LH and RH rear vent ducts to HVAC assembly



Note

2x tabs, Align ducts into HVAC assembly then secure tabs to retaining studs



142. Install center console HVAC duct



Note

1x brush clip, Slide duct into HVAC assembly and ensure fully seated

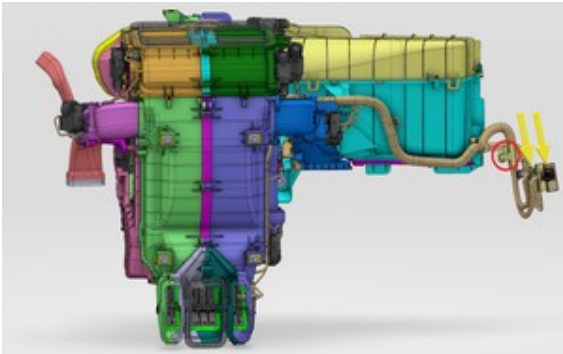


143. Secure HVAC blower x059 connector and HVAC case x058 connector to right controller



Note

1x clip, 2x connectors



144. Install cross car beam assembly into vehicle



Note

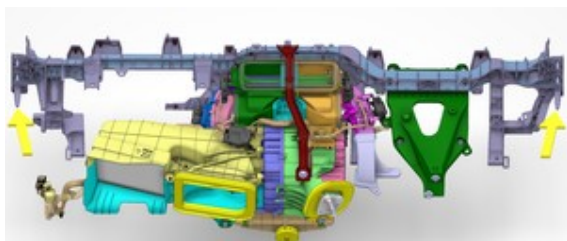
Avoid contact with seats and inner door panel, Recommend assistance as required

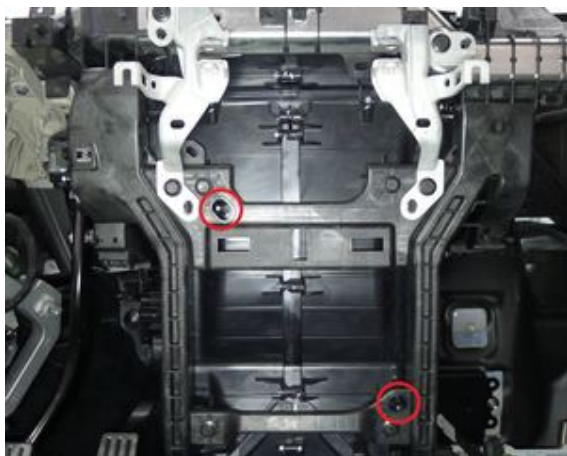




145. Align cross car beam assembly to body and HVAC unit

Note
4x datums





146. Secure upper steering column bracket IP carrier bolts at bulkhead



Note

2x bolts, 13mm, 27 Nm

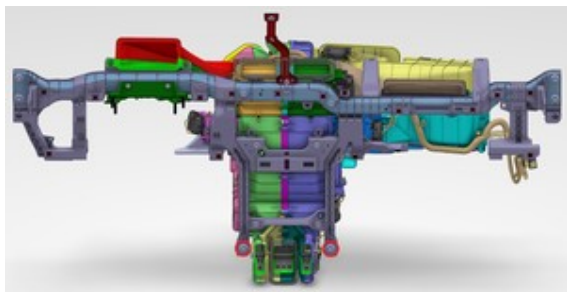


147. Secure cross car beam assembly to toeboard bracket



Note

2x bolts, 13mm, 27 Nm

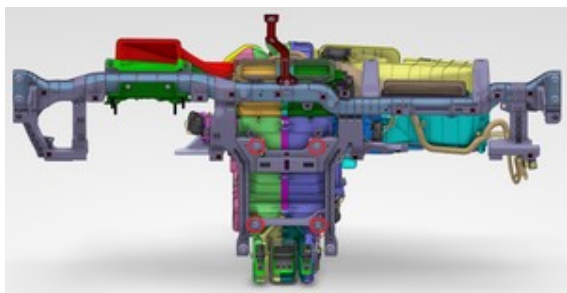


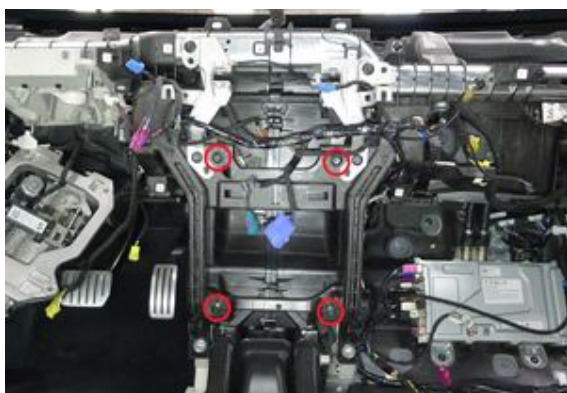
148. Secure cross car beam assembly to HVAC unit



Note

4x bolts, 10mm, 8 Nm



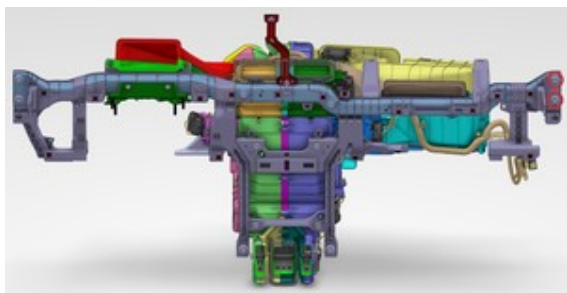


149. Secure RH cross car beam assembly



Note

2x bolts, 13mm, 27 Nm

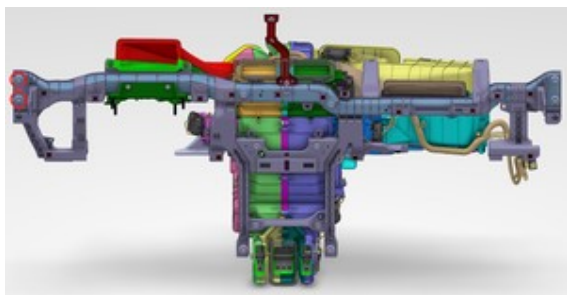


150. Secure LH cross car beam assembly



Note

2x bolts, 13mm, 27 Nm



151. Secure IP cowl link



Note

2x bolts, 10mm, 6 Nm, 2x datums



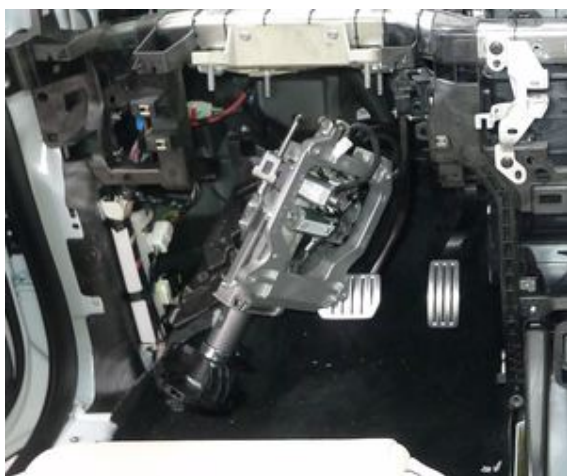


152. Secure upper steering column to steering column bracket



Note

4x nuts, 13mm, 15 Nm

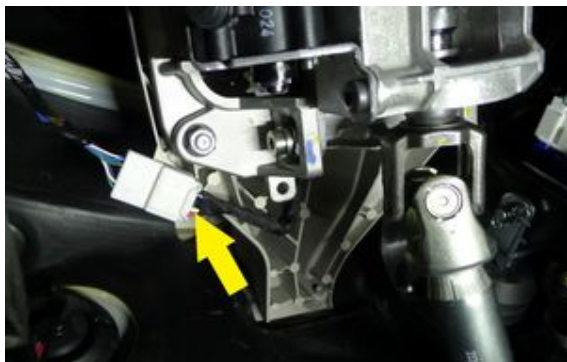


153. Secure steering column harness



Note

1x connector, 1x clip



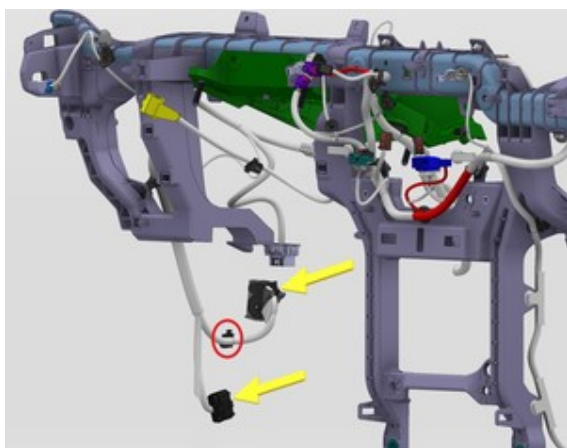
154. Secure IP harness to J12 x035 Dash connector at left body controller and connector x947F



Note

1x clip, 2x connectors





155. Connect steering column control module assembly connector



Note

1x connector, Install new orange retaining clip to connector then install SCCM connector,
Perform push-pull-push to make sure connector is seated properly





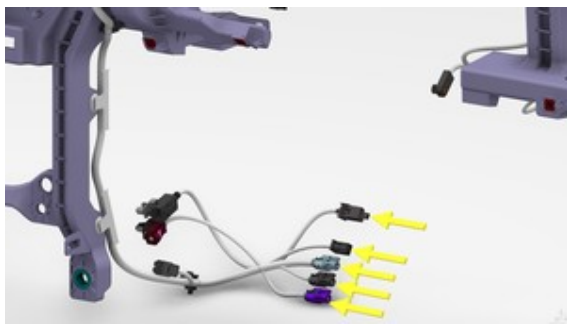
156. Secure IP harness to RH toeboard bracket

Note
3x clips



157. Secure IP harness connectors at LH side of car computer gaming board

Note
5x connectors

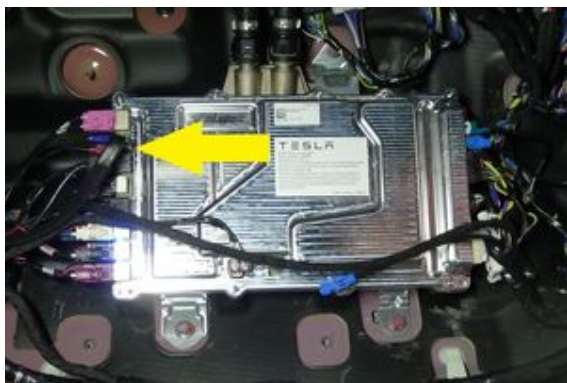


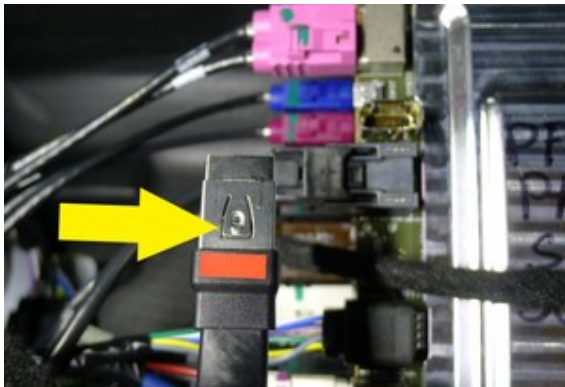
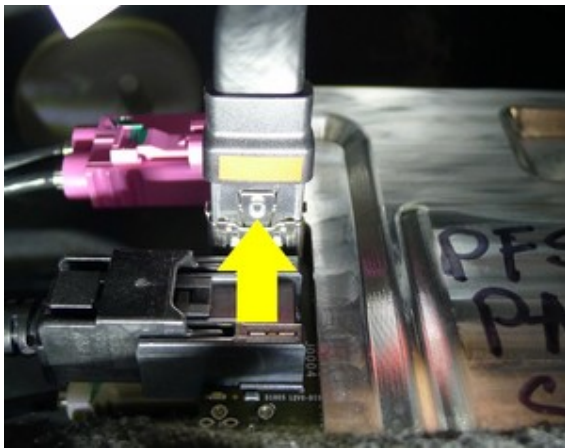
158. Install connector to gaming MCU



Note

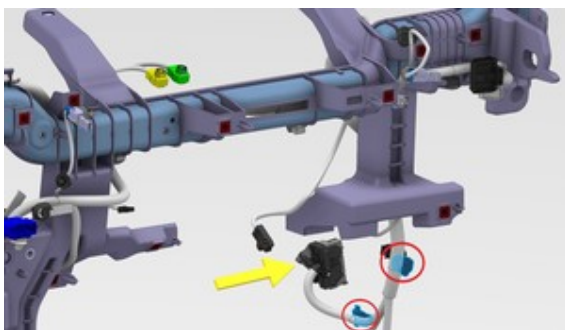
1x connector, Confirm connector locked into socket





159. Secure IP harness to J12 x055 Dash connector at right body controller

Note
2x clips, 1x connector





160. Secure lower instrument panel assembly



Note

3x screws, T20, 3 Nm, 8x tabs, Secure only the screws located at bottom of assembly, Remainder of screws are secured at a later step





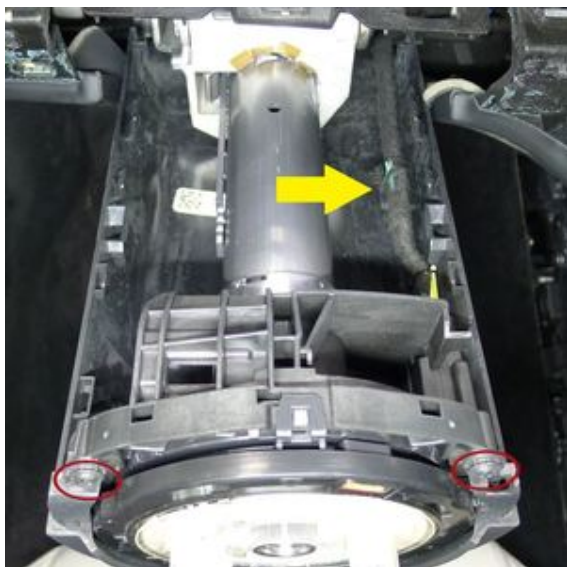
161. Install lower shroud to steering column



Note

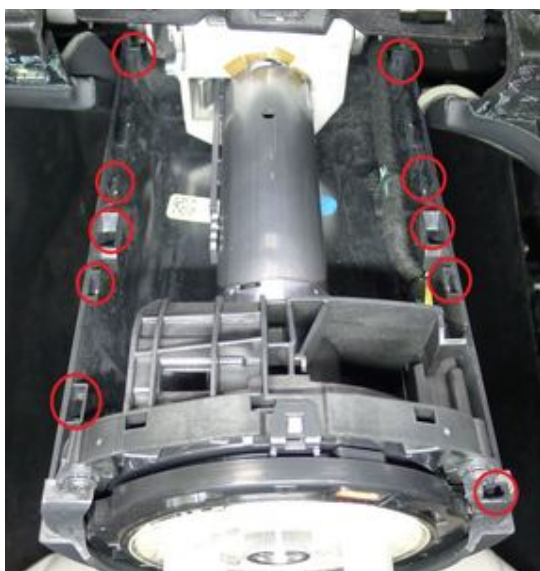
2x screws, T20, 1.5 Nm, 1x clip, 1x datum, Slide lower shroud forward to engage datum





162. Align the clips and datums then press downward to install upper shroud onto lower shroud

Note
6x clips, 4x datums



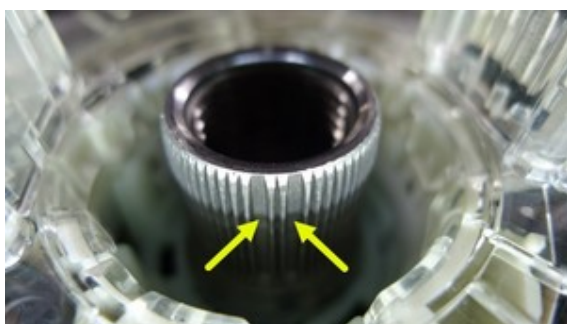


163. Install steering wheel



Note

Note that the steering wheel is splined to the column and can only be installed in the correct position



164. Install bolt securing steering wheel to steering column



Note

1x patch bolt, 10mm allen, 80 Nm, Install new patch bolt



165. Secure steering wheel connector

Note
1x connector



166. Connect driver air bag assembly connector

Note
1x connector, 2x tabs





167. Install driver air bag assembly to yoke steering wheel



Note

2x datums, 2x spring clip, Position driver air bag onto yoke steering wheel, Align datums onto the clips, Press down on one side of the air bag until clip is fully seated, then repeat on other side, You should hear an audible click, Perform pull test on each side of driver air bag assembly, Confirm the gap and space between driver air bag assembly to yoke steering wheel is symmetrical





168. Install driver IP air vent duct



Note

1x rivets, 1x connector, Slide inboard and into HVAC unit assembly



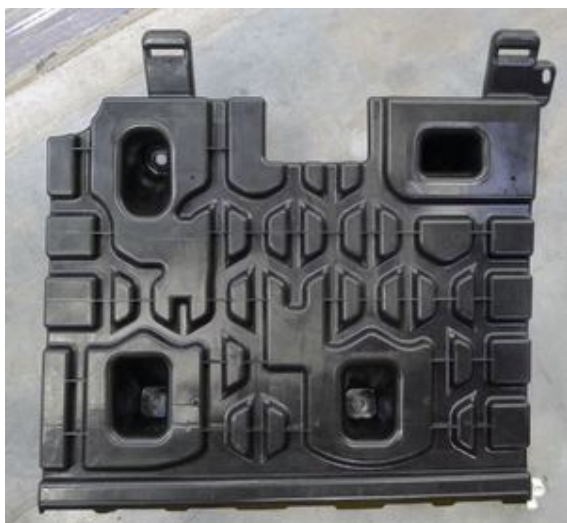


169. Install RH footrest panel



Note

2x bolts, 10mm, 5 Nm, 1x nut, 10mm, 5 Nm



170. Secure harness to RH footrest panel



Note

1x clip



171. Fold RH main carpet back into place



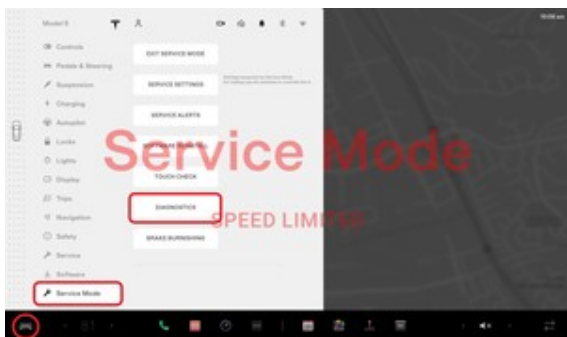
172. Install the instrument panel sub-assembly and all other parts that were removed for access. See Sub-Assembly - Instrument Panel (Remove and Install).

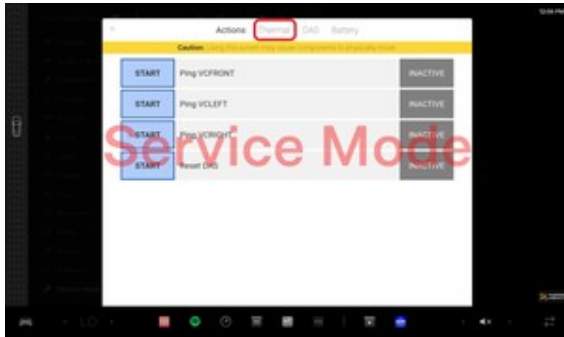
173. Access thermal system routines using the UI



Note

Select quick controls > Service mode > Diagnostics > Thermal, Authorize routines by holding right turn signal, depressing brake pedal for 10 seconds with key on phone dock





174. Select 'Start' button at 'Run Heat Pump Commissioning' "TEST-SELF_VCFRONT_X_HEAT-PUMP-COMMISSIONING", Status will change from 'INACTIVE' to 'RUNNING'

Note

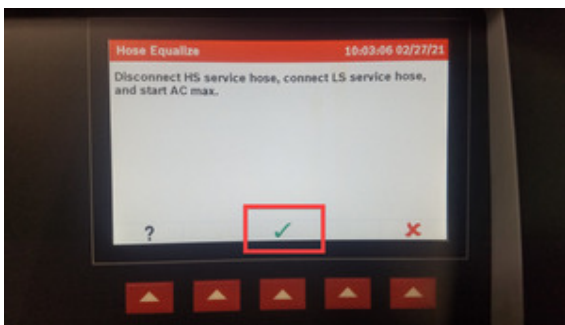
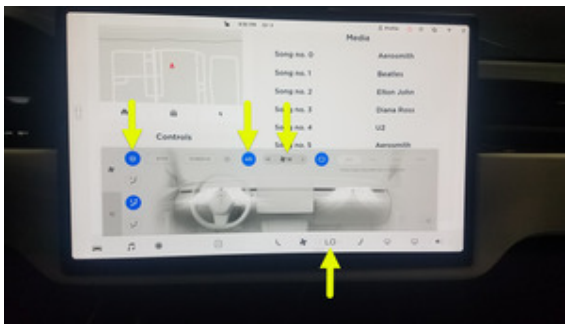
If this routine is not run after entering Thermal Drain/Fill mode, the AC compressor operation will be blocked, Select 'X' at top left of window to close once 'TEST-SELF_VCFRONT_X_HEAT-PUMP-COMMISSIONING SUCCESS' window appears



175. Proceed with Hose Equalize steps to complete AC recharge process and follow instructions displayed on AC Machine

Note

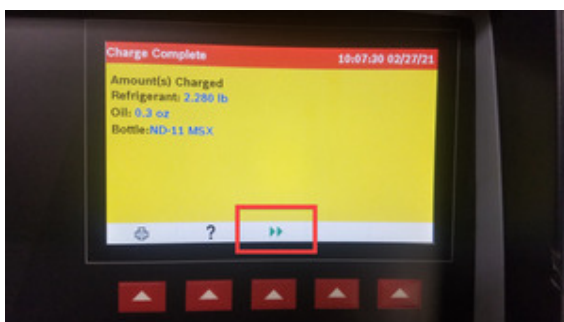
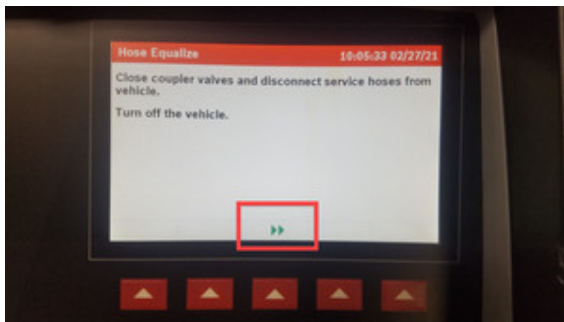
Disconnect high side coupler from vehicle, Turn AC on, Temp setting LO, Panel mode on, Fresh air mode on, Blower speed set to 10, Verify Hose Equalize settings, Verify discharge pressure does not exceed 26 bar and suction pressure is not below 1.15 bar,



176. Proceed with Hose Equalize steps to complete AC recharge process and follow instructions displayed on AC Machine

Note

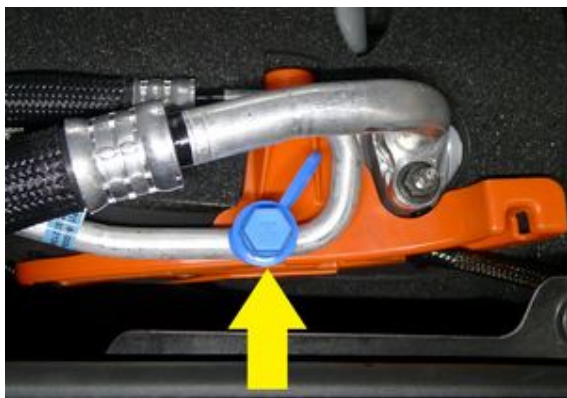
Remove low side coupler from vehicle, Turn vehicle off, Verify Hose Equalize settings, Machine will chime once process is complete



177. Install caps onto AC ports

Note
2x caps





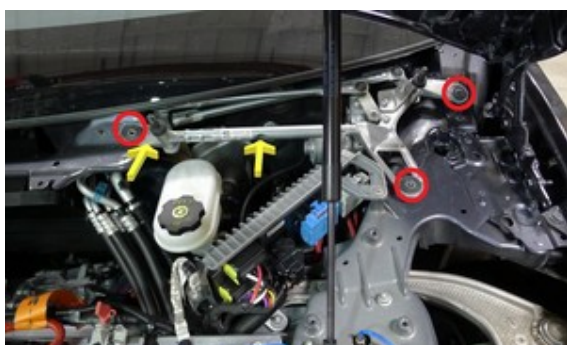
178. Install wiper module



Note

3x bolts, 10mm, 8 Nm, 1x connector, Secure electrical connector first, Rotate module rearward and under windshield, Observe LH wiper arm pivot during install to avoid damage to windshield





179. Install fasteners securing LH V-brace and secure

- Note**
3x bolts, 10mm, 18 Nm, 1x nut, 10mm, 9 Nm

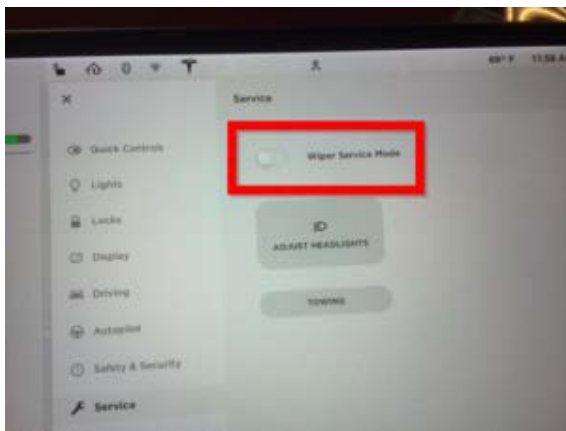


180. Install wiper cowl screen panel

- Note**
4x push clips, 2x end tabs



181. Using center display, remove wipers from "Service Mode"



182. Install RH wiper arm assembly and secure nut

i Note

1x nut, 15mm, 26 Nm, Line up wiper to reference mark on windshield



183. Install RH wiper arm nut cover



184. Secure RH wiper arm washer nozzle

i Note

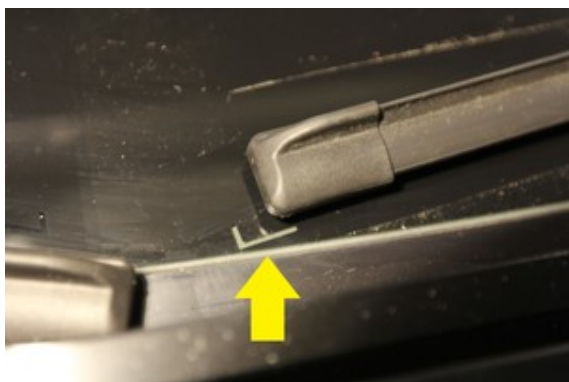
1x hose, Hose is routed below the arm



185. Install LH wiper arm assembly and secure nut

i Note

1x nut, 15mm, 26 Nm, Line up wiper to reference mark on windshield



186. Install LH wiper arm nut cover



187. Secure LH wiper arm washer nozzle



Note

1x hose, Hose is routed below the arm



188. Install RH shock tower cover

- Note**
3x push clip, 1x fir tree clip



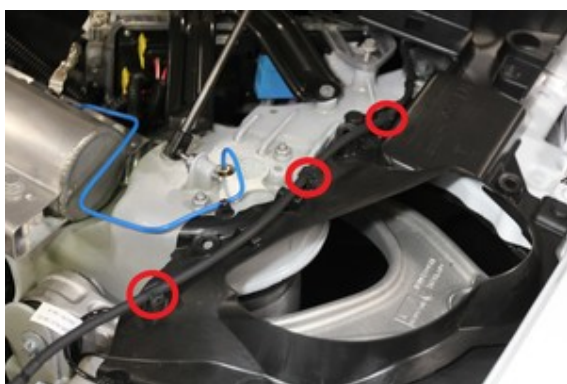
189. Install LH shock tower cover

- Note**
3x push clip, 1x fir tree clip



190. Secure washer hose nozzle by LH shock tower cover

Note
1x hose, 3x clips



191. Install RH underhood apron

Note
10x clips



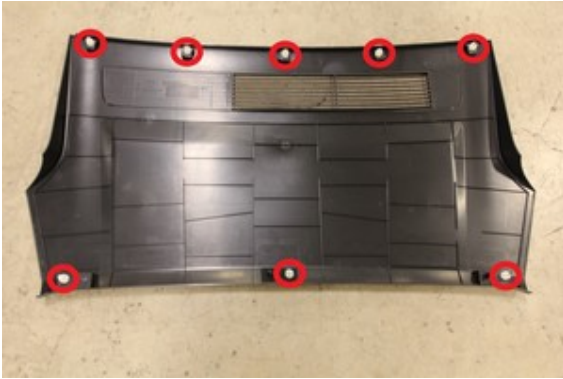
192. Install LH underhood apron

i Note
10x clips



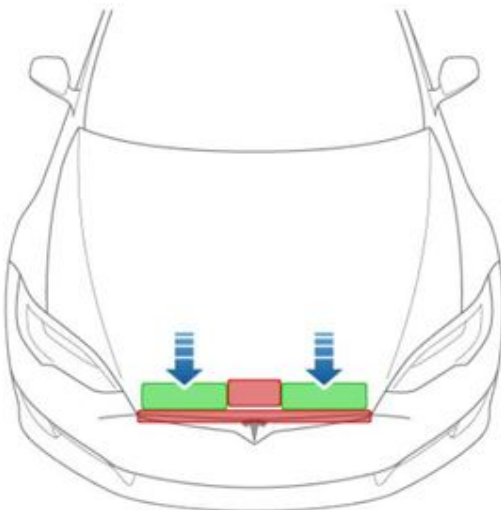
193. Install rear underhood apron

i Note
8x clips



194. Close hood

i Note
Press firmly in green highlighted areas (see image), Damage may result from pressure elsewhere on hood



195. Install the center console. See [Center Console Assembly \(Remove and Replace\)](#).

196. Test Thermal Performance

Note

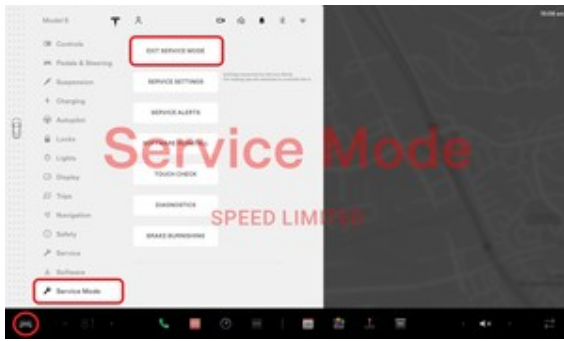
Scroll up Thermal menu, Select 'Start' button at 'Test Thermal Performance' using the UI, Menu will change from 'INACTIVE' TO 'RUNNING'- allow routine to complete, Select 'X' at top left of window to close once 'TEST-SELF_VCFRONT_X_THERMAL-PERFORMANCE-SUCCESS' window appears



197. Exit Service Mode

Note

Controls>Software select Exit Service Mode button



198. Adjust steering column back to original position



Note

Via UI>Controls>Steering, Use left steering wheel scroll wheel to adjust steering column