		<b>Tesla, Inc.</b> Service Bulletin	<b>Replace Refrigerant Pressure/Temperature Sensors</b>	
<b>SB-21-18-002</b> March 1, 2021				
<b>Classification</b>		<b>Section/Group</b>		<b>Mobile Service</b>
Campaign Bulletin		18 - Thermal Management		Cannot Perform
<b>Model Year</b>	<b>Model</b>	<b>Country/Region</b>		<b>Version</b>
2020 - 2021	Model 3, Model Y	All		Heat Pump
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.				

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

Certain Model 3 and Model Y vehicles may be equipped with refrigerant pressure/temperature (P/T) sensors in the heat pump that can fault over time.

## Correction

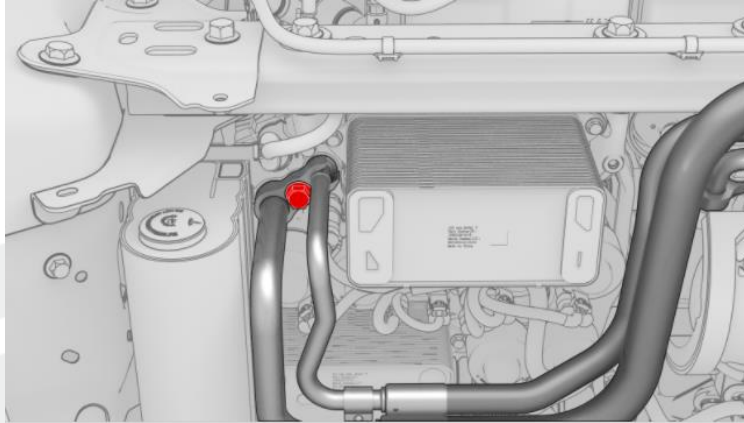
Replace all 3 refrigerant P/T sensors.

Correction Description	Correction	Time
Replace Refrigerant P/T Sensors	S012118002	1.5

	Part Number	Description	Quantity
<b>Parts Required</b>	1510047-00-B	PT SENSOR, HIGH PRESSURE	2
	1510048-00-B	PT SENSOR, LOW PRESSURE	1
		<b>And if parts are available:</b>	
	1111738-00-A	WASHER, 1/2, STL ZN, SEAL	1
	1111740-00-A	WASHER, 3/4, STL ZN, SEAL	1
	These part numbers were current at the time of publication. Use the revisions listed <b>or later</b> , unless otherwise specified in the <a href="#">Parts Catalog</a> .		
<b>Special Tools</b>	1588741-00-A	Model Y HVAC Socket Kit	
	1501412-00-A	Oil Injector, R1234YF	
<b>Shop Supplies</b>	ND-11 Oil		<b>Shop Supplies</b>

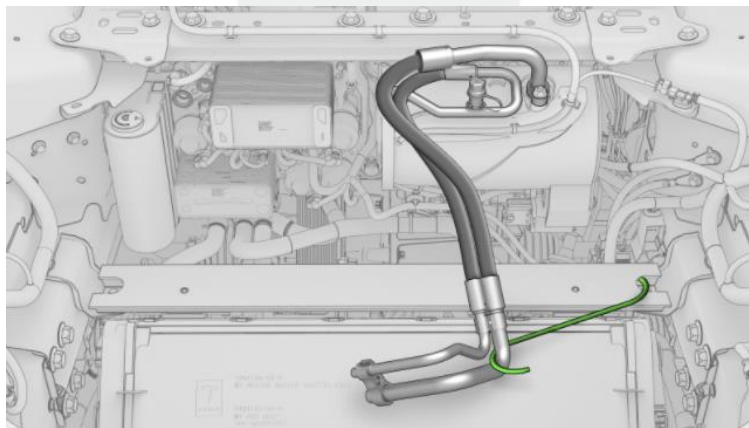
## Procedure

1. Remove the underhood storage unit (refer to Service Manual procedure 15240702), [Model 3](#), [Model Y](#).
2. Recover the A/C refrigerant (refer to Service Manual procedure 18200102), [Model 3](#), [Model Y](#).
3. Remove the 13 mm bolt that attaches the Supermanifold-to-compressor A/C line to the Supermanifold (Figure 1).



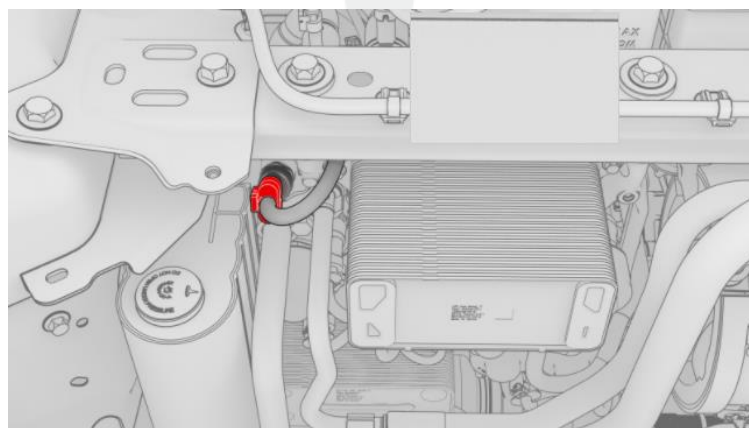
**Figure 1**

4. Remove the Supermanifold-to-compressor A/C line from the Supermanifold, and then use an S-hook to restrain the line to the underhood storage unit support beam (Figure 2).



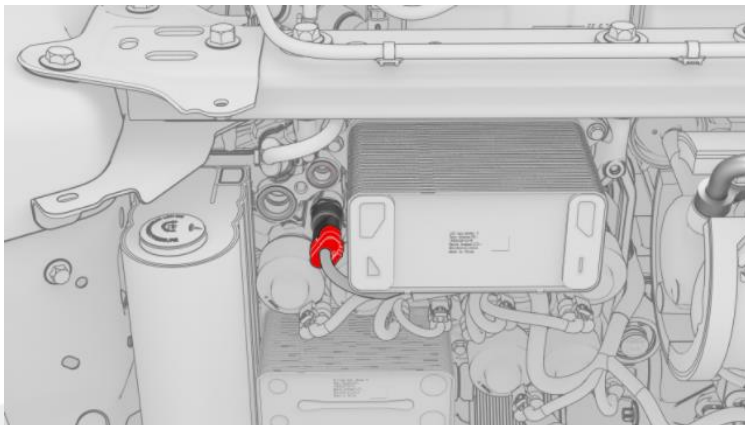
**Figure 2**

5. Release the locking tab, and then disconnect the electrical harness from the low pressure P/T sensor connector (Figure 3).



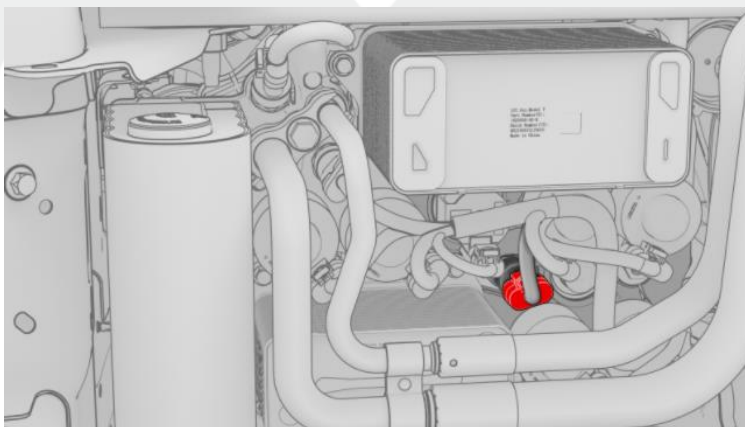
**Figure 3**

6. Release the locking tab, and then disconnect the electrical harness from the high pressure P/T sensor connector (Figure 4).



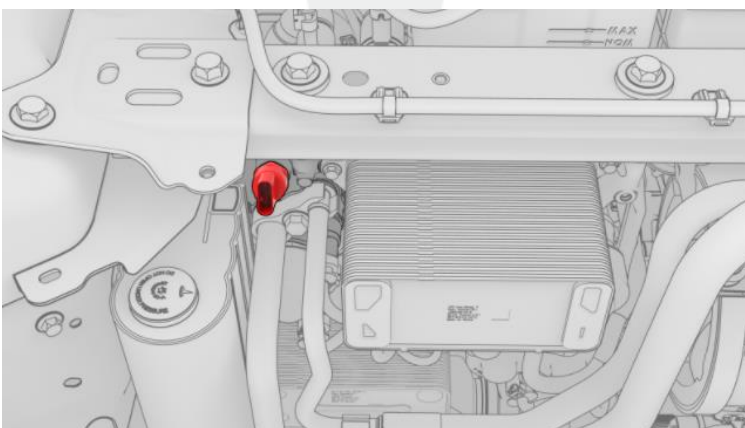
**Figure 4**

7. Release the locking tab, and then disconnect the electrical harness from the subcool high pressure P/T sensor connector (Figure 5).



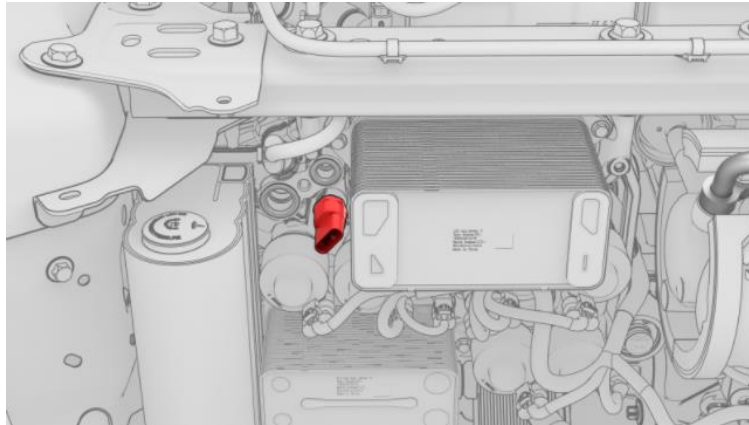
**Figure 5**

8. Use the HVAC socket kit special tool to remove the low pressure P/T sensor from the Supermanifold (Figure 6).



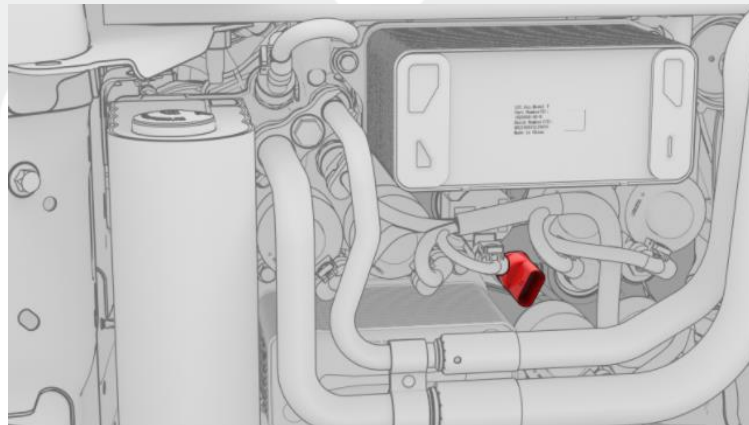
**Figure 6**

9. Use the HVAC socket kit special tool to remove the high pressure P/T sensor from the Supermanifold (Figure 7).



**Figure 7**

10. Use the HVAC socket kit special tool to remove the subcool high pressure P/T sensor from the Supermanifold (Figure 8).



**Figure 8**

11. If parts are available, install new washers on the Supermanifold-to-compressor A/C line.

 **NOTE:** If the parts are not available, reuse the existing washers.

12. Lubricate the washers of the Supermanifold-to-compressor A/C line and the O-rings and threads of the 3 new P/T sensors with ND-11 oil.
13. Hand-install the new subcool high pressure P/T sensor (black connector) into the Supermanifold, and then use the HVAC socket kit special tool to tighten (torque 9 Nm) (Figure 8).
14. Hand-install the new high pressure P/T sensor (black connector) into the Supermanifold, and then use the HVAC socket kit special tool to tighten (torque 9 Nm) (Figure 7).
15. Hand-install the new low pressure P/T sensor (brown connector) into the Supermanifold, and then use the HVAC socket kit special tool to tighten (torque 9 Nm) (Figure 6).
16. Connect the electrical harness to the subcool high pressure P/T sensor connector, and then fasten the locking tab (Figure 5).
17. Connect the electrical harness to the high pressure P/T sensor connector, and then fasten the locking tab (Figure 4).
18. Connect the electrical harness to the low pressure P/T sensor connector, and then fasten the locking tab (Figure 3).

19. Release the Supermanifold-to-compressor A/C line from the S-hook (Figure 2), install the A/C line into the Supermanifold, hand-install the 13 mm bolt that attaches the A/C line to the Supermanifold, and then tighten (torque 22 Nm) (Figure 1).
20. Perform the vacuum leak test and oil injection (refer to Service Manual procedure 18200102), [Model 3](#), [Model Y](#).
21. Recharge the A/C refrigerant (refer to Service Manual procedure 18200102), [Model 3](#), [Model Y](#).



**NOTE:** Do not disconnect the laptop from the vehicle at this time.

22. In Toolbox, click the **Actions/Autodiag** tab, type “Thermal” in the search field, click **TEST-SELF\_VCFRONT\_X\_THERMAL-PERFORMANCE**, click **RUN**, and allow the routine to complete.
23. Disconnect the laptop from the vehicle.
24. Install the underhood storage unit (refer to Service Manual procedure 15240702), [Model 3](#), [Model Y](#).

