

Bulkhead Cracking, Repair VHD

FSB 837-001, Bulkhead Cracking, Repair

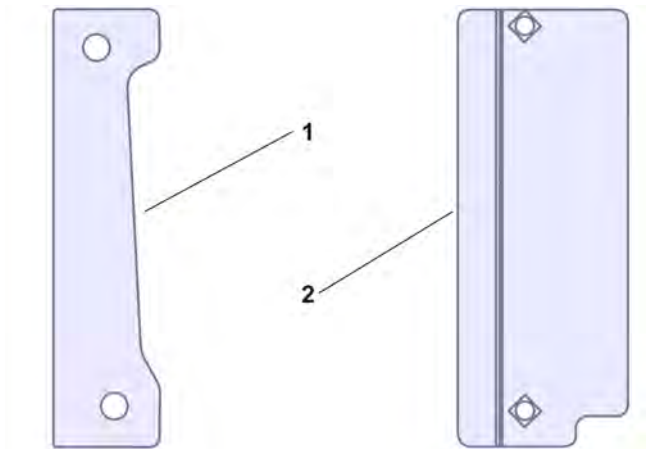
(April 2017)

On some VHD trucks, excess harsh vibration may cause the bulkhead to crack where the air filter assembly attaches to the cab. Follow the procedure below to install reinforcement bracket to strengthen the air filter assembly mounting points.

Service personnel: Please circulate, read and initial

Service Manager	Warranty Administrator	Workshop Foreman	Service Technicians						

Required Parts Bulkhead Mounting, Repair



W8120800

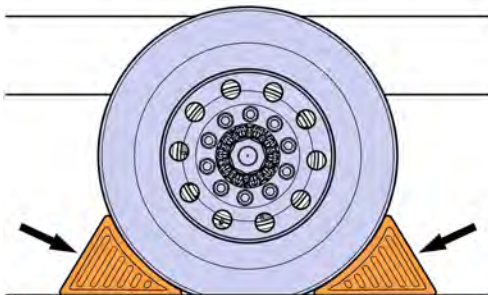
Item	Description	Part Number	Qty
1	Reinforcement Bracket	84728428	1
2	Reinforcement Bracket	84736358	1
3	2 Part Epoxy		N/A
4	M10 Bolt		2
5	M10 Nut		2
6	Air Dryer		1

Decommissioning the Truck for Repair

You must read and understand the precautions and guidelines in Service Information, group 80, "General Safety Practices, Body, Cab & Interior" before performing this procedure. If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform it.

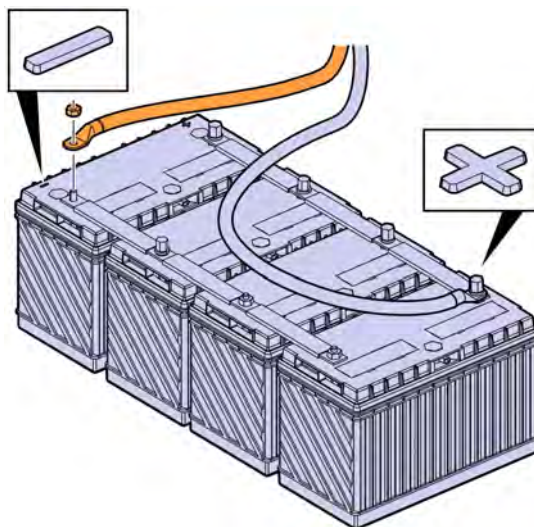
NOTE: Information is subject to change without notice. Illustrations are used for reference only and can differ slightly from the actual vehicle being serviced. However, key components addressed in this information are represented as accurately as possible.

- 1 Park the vehicle on a flat and level surface.
- 2 Apply the parking brake.
- 3 Place the transmission in neutral or park.
- 4 Install the wheel chocks on the front wheels.



W7086748

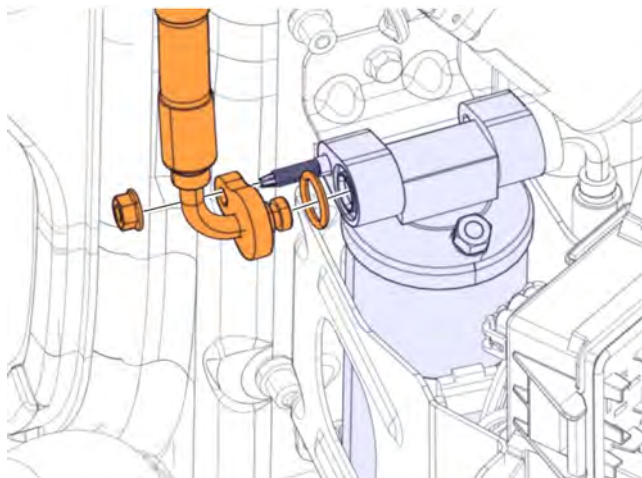
- 5 Disconnect the cable from the battery's negative terminal.



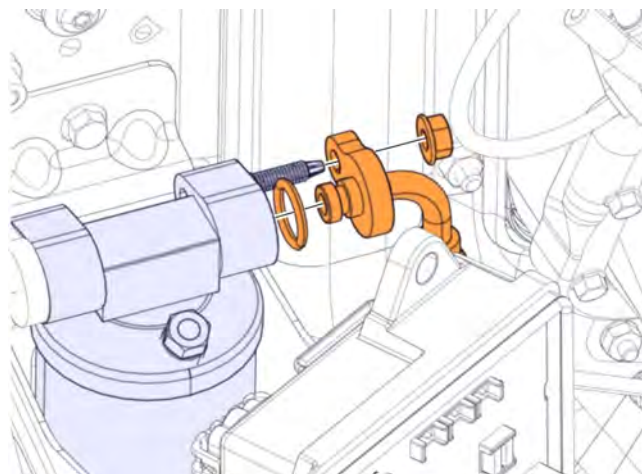
W3086747

HVAC System, Remove

- 1 Drain the HVAC system using the refrigerant recovery tool.
- 2 Remove the fasteners to disconnect the HVAC lines from the air dryer. Discard the o-rings.

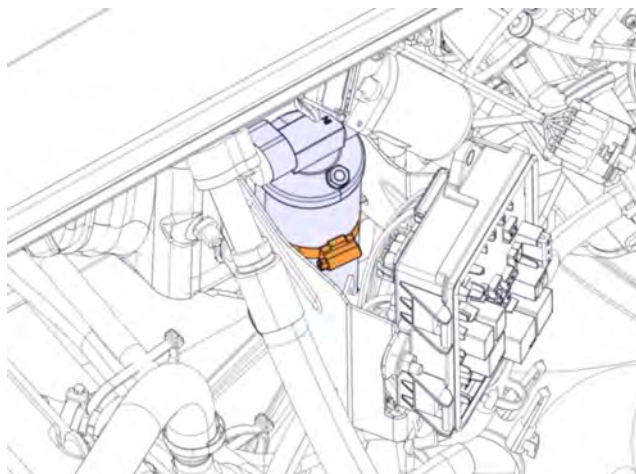


W8120705



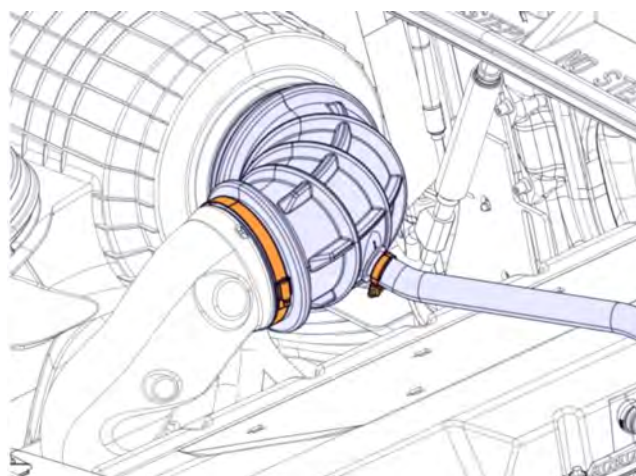
W8120706

- 3 Loosen the clamp and remove the air dryer. Discard the air dryer.



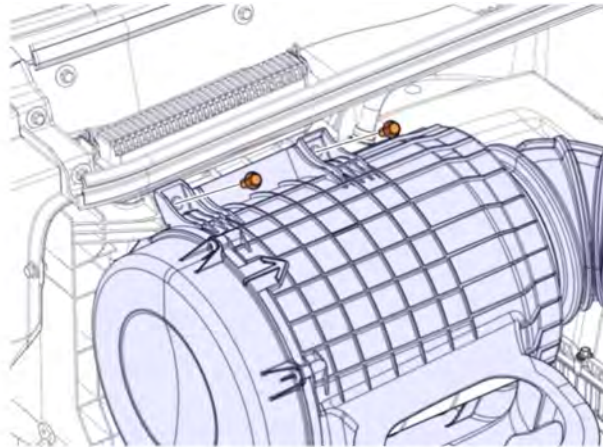
W8120703

- 4 Loosen the pipe clamps.

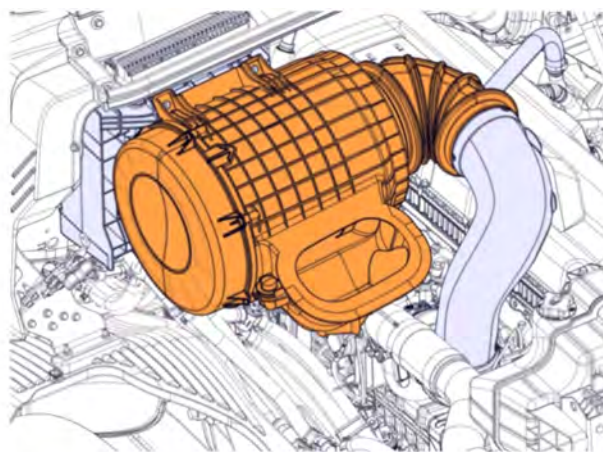


W2120689

- 5 Remove the fasteners and tilt the filter assembly forward to remove.



W2120771



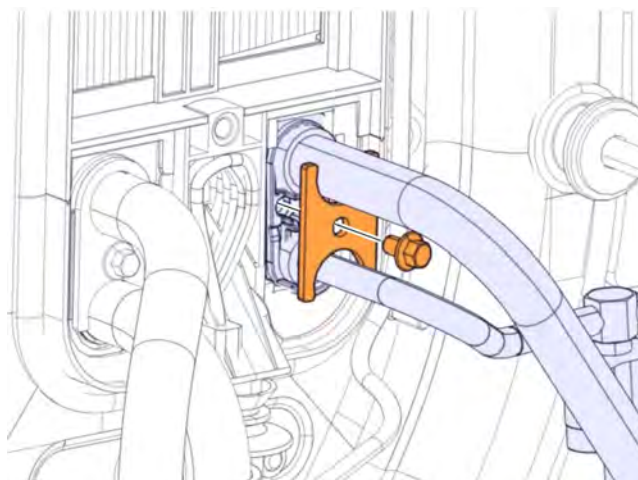
W2120772

- 6 Remove the fasteners holding the air filter assembly bracket to the bulkhead and remove the bracket.



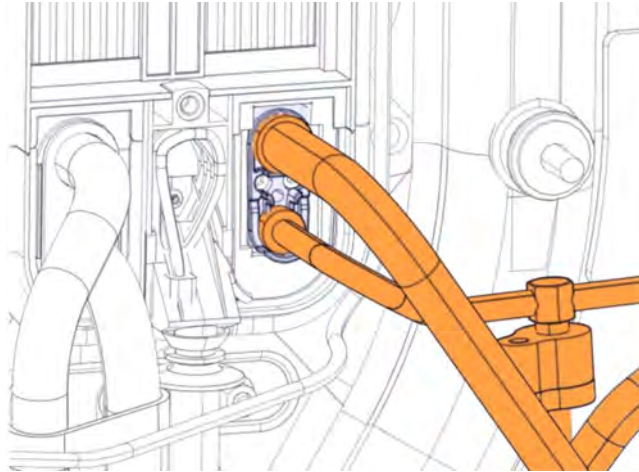
W2120691

- 7 Remove the fastener and the clamp.



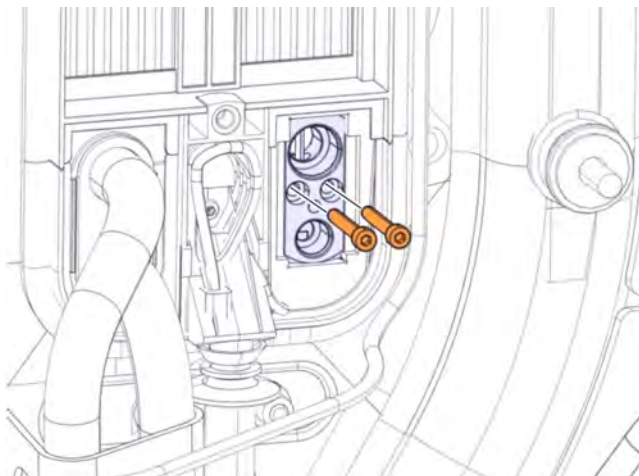
W8120692

- 8 Remove the air conditioning pipes. Discard the o-rings.



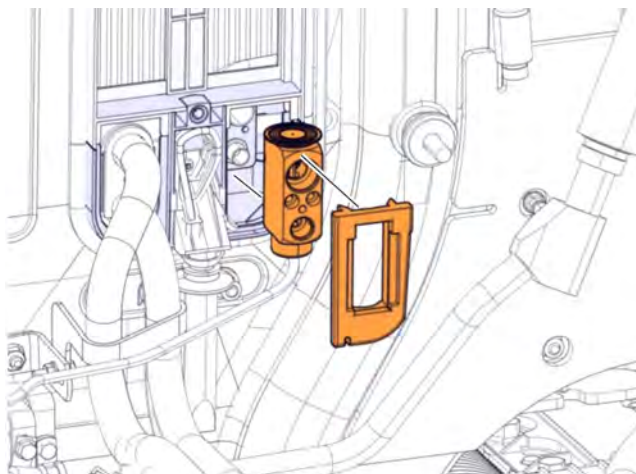
W8120694

- 9 Remove the fasteners to the expansion valve.



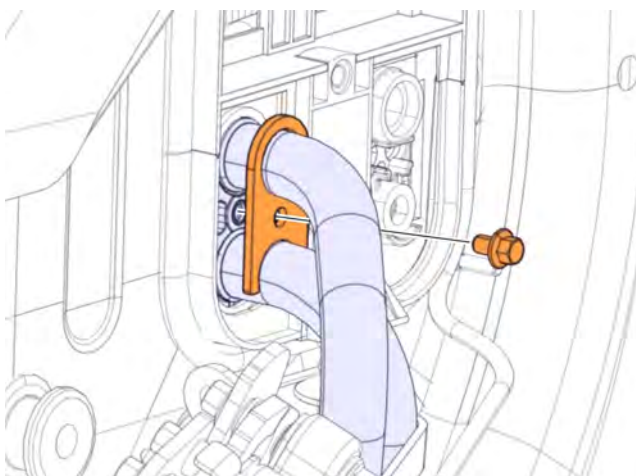
W8120696

10 Remove the expansion valve and discard the o-rings.



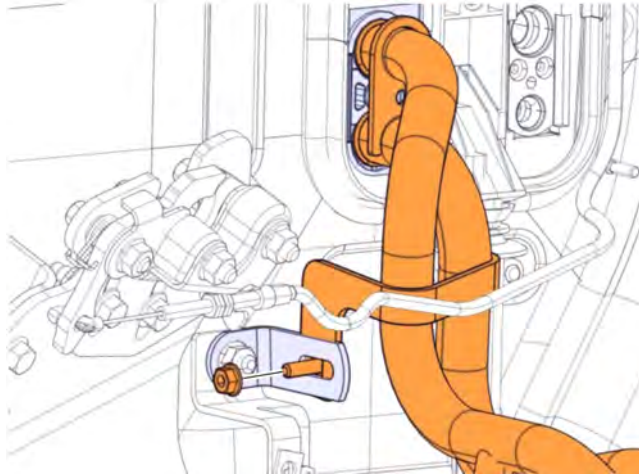
W8120698

11 Remove the fasteners and clamp to the heater pipes.



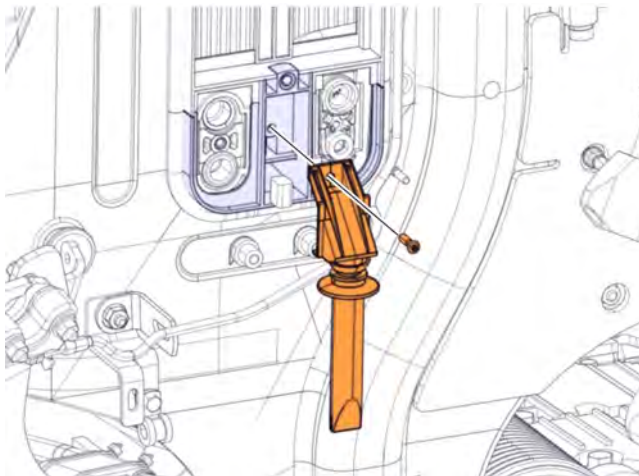
W8120699

12 Remove the fastener and the heater pipes. Discard the o-rings.



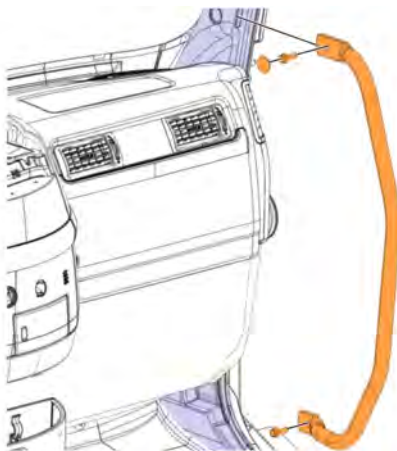
W8120701

13 Remove the fastener and the drain pipe.



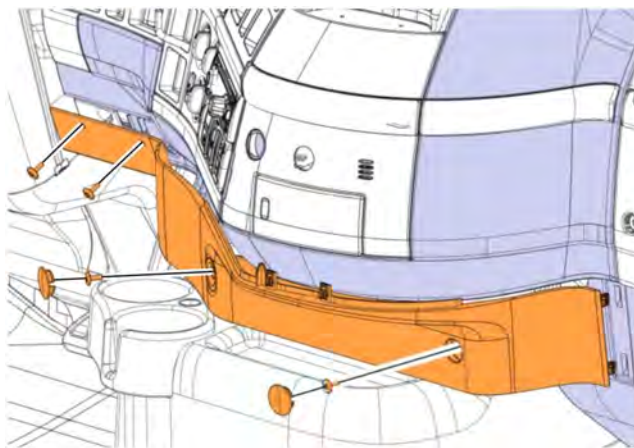
W8120702

14 Remove the fasteners and grab handle.



W8120734

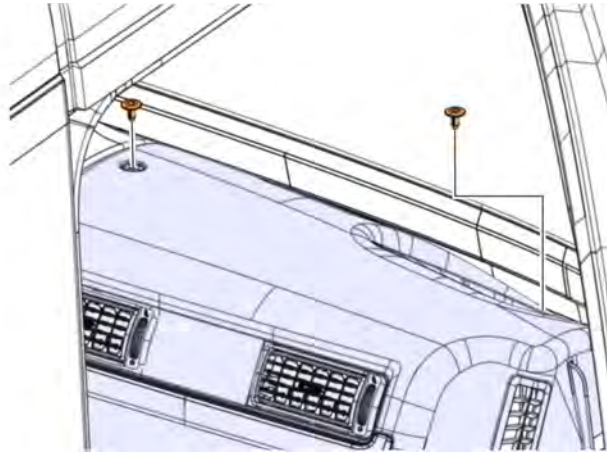
15 Remove the fasteners and the center trim piece.



W8120733

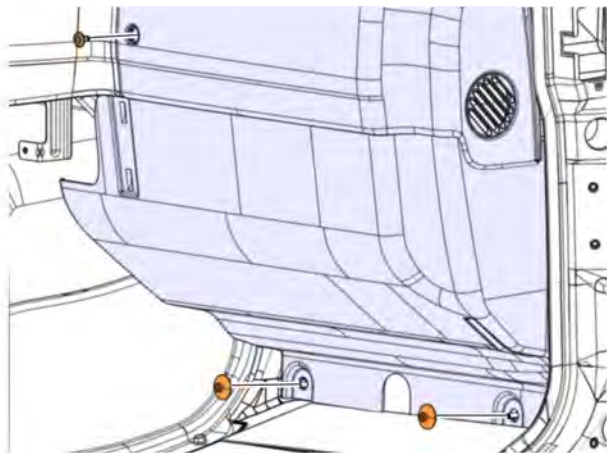
16 Remove the speaker grill and speaker.

17 Remove the fasteners



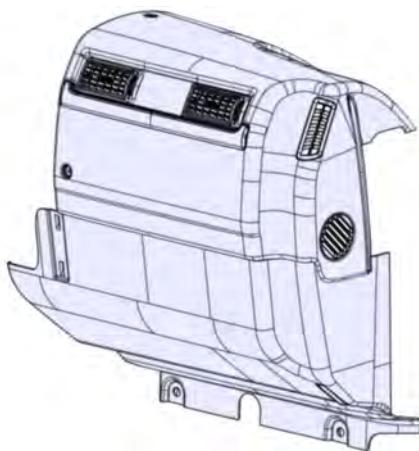
W8120731

18 Pull back the floor mat and remove the fasteners holding the trim in place.



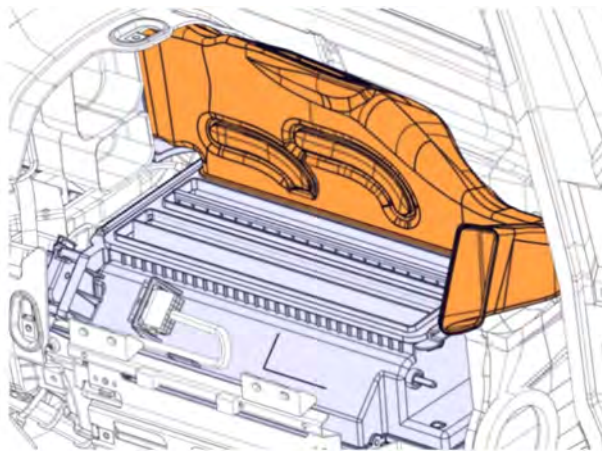
W8120730

19 Remove the trim covering the HVAC assembly.



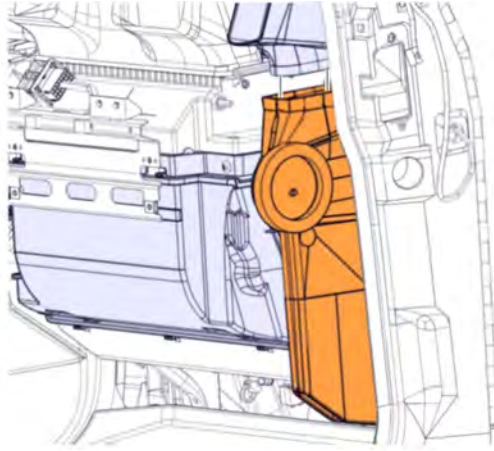
W8120732

20 Remove the 3 vent tubes.



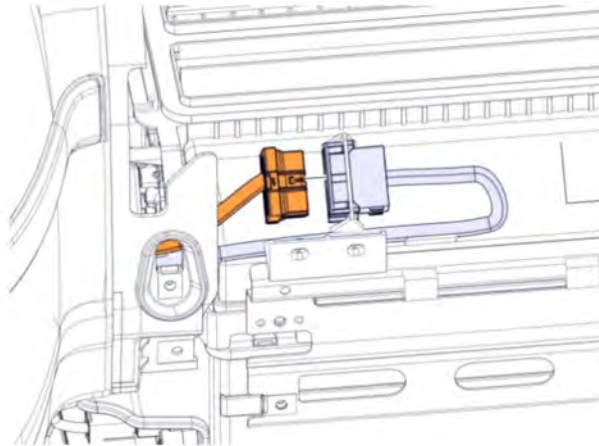
W8120736

21 Remove the screw and side vent tube.



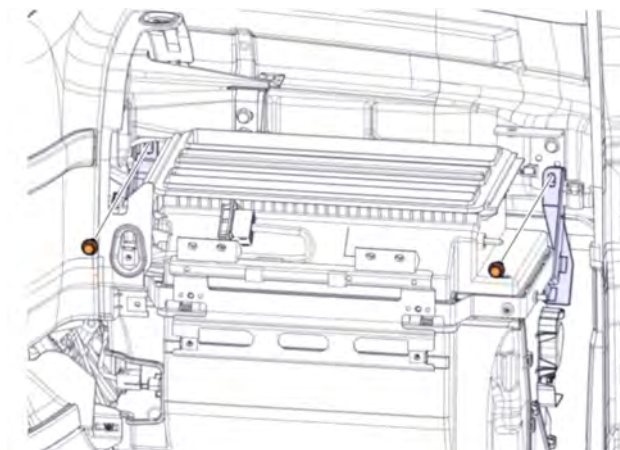
W8120737

22 Disconnect the connector..

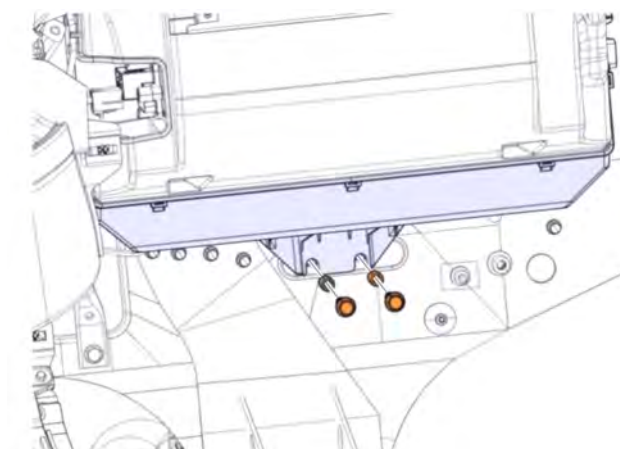


W8120738

23 Remove the fasteners.

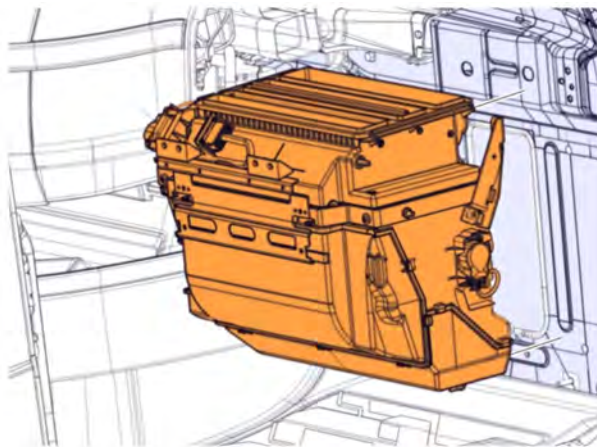


W8120739



W8120740

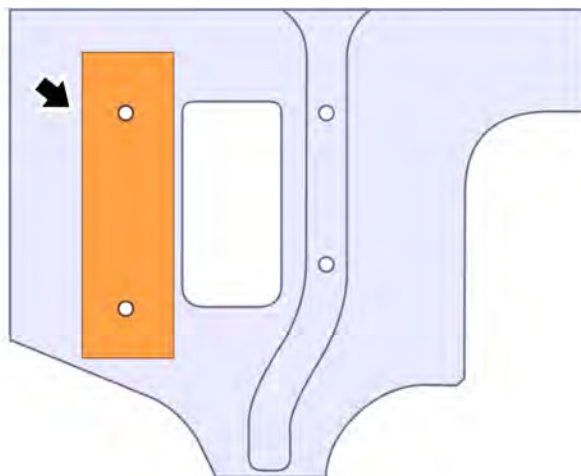
24 Remove the HVAC assembly.



W8120741

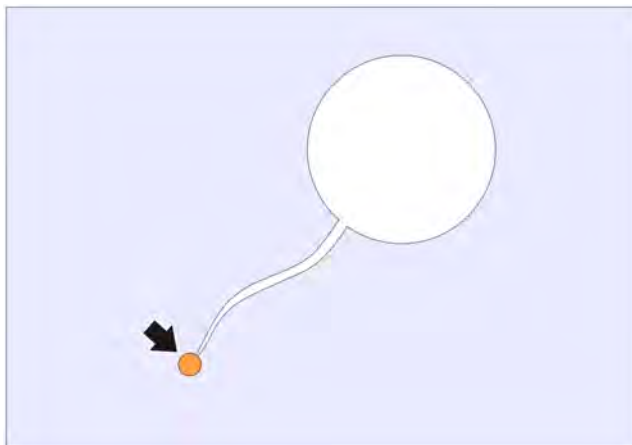
Cab Bulkhead, Repair

1 Clean the area shown on the engine bay side of the bulkhead thoroughly.



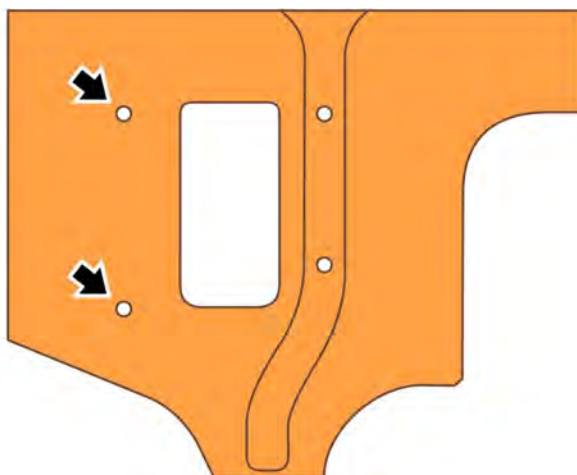
W8120791

- 2 At the tip of each crack, drill a 5 mm hole to prevent the crack from spreading further.



W8120804

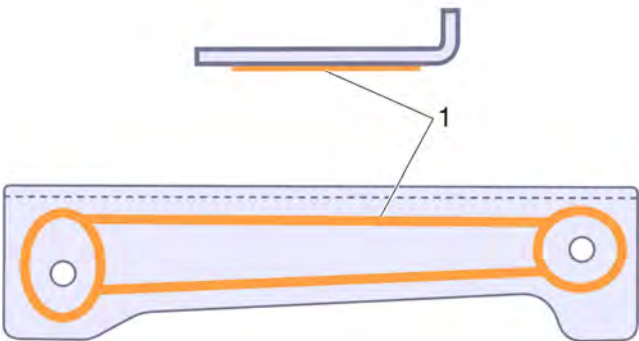
- 3 Use a 1 to 2 inch hole saw to drill out the holes and remove the weld nuts from the back side of the bulkhead.



W8120780

4 Apply a 2 part epoxy in the pattern shown.

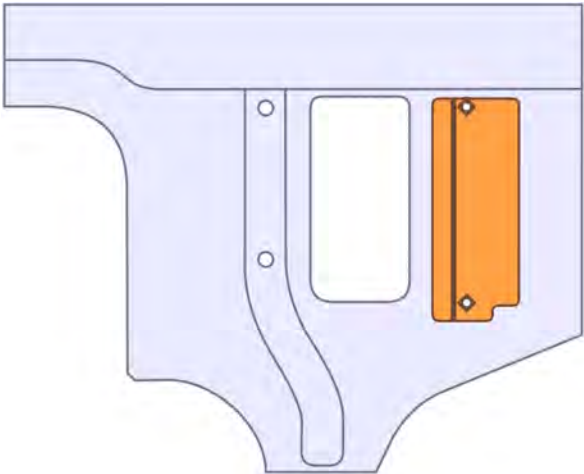
Note: Most 2 part epoxy products set and harden quickly. The following steps must be done quickly to avoid premature hardening.



W8120783

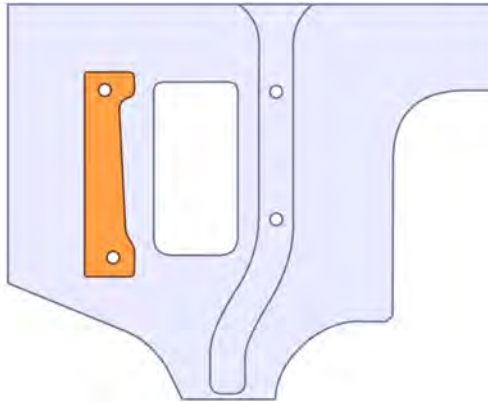
Item	Description
1	2 part epoxy

5 With assistance, fit the bracket with the weld nuts to the interior of the cab.



W8120784

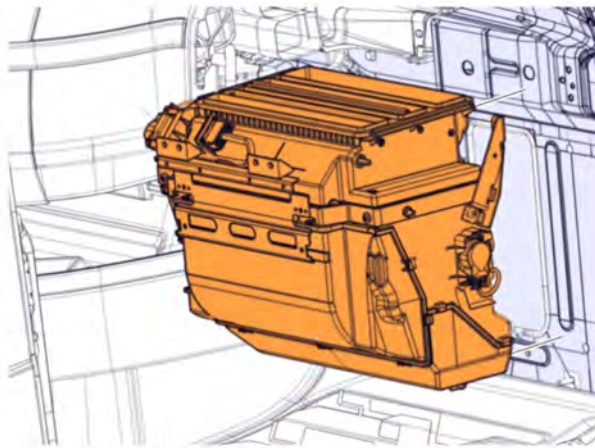
- 6 Thread the M10 bolts through the holes in the bracket and mount the bracket to the cab bulkhead. Thread the bolts through the bracket on the opposing side and torque the bolts while the epoxy cures.



W8120785

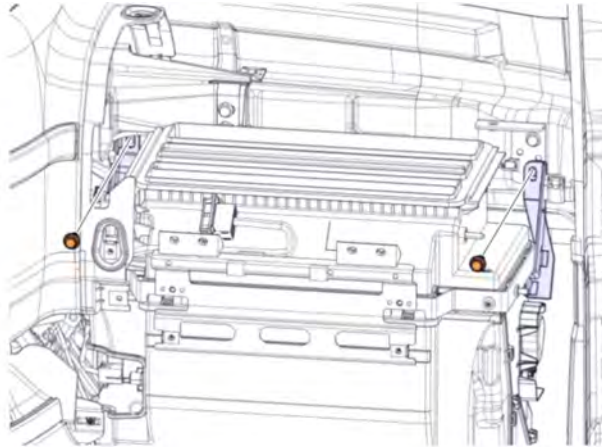
HVAC System, Installation

- 1 Install the HVAC assembly.

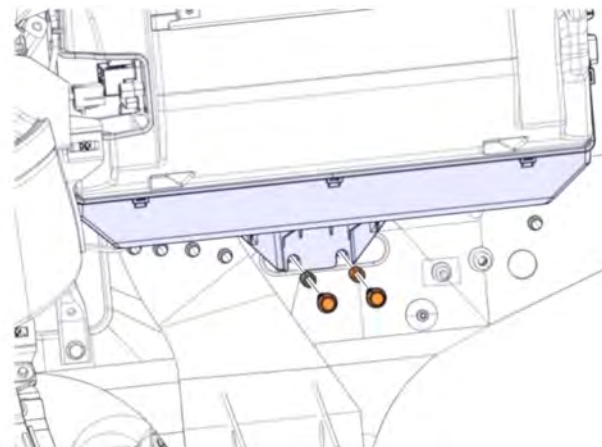


W8120741

- 2 Install the fasteners. Torque the fasteners to 24 +/- 4 Nm.

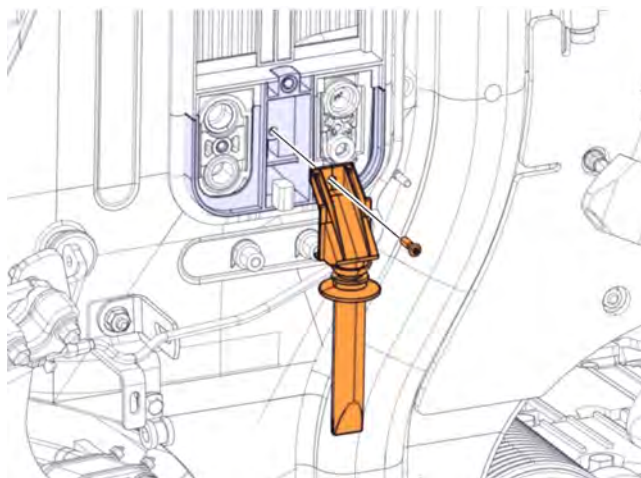


W8120739



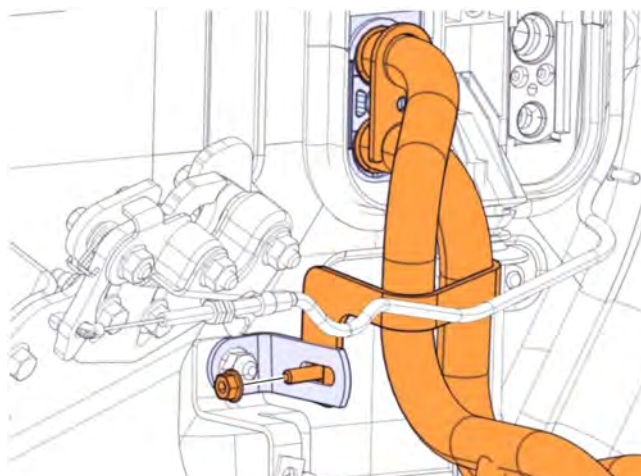
W8120740

- 3 Install the drain pipe and fastener. Torque the fastener to 13 +/- 4 lb-in..



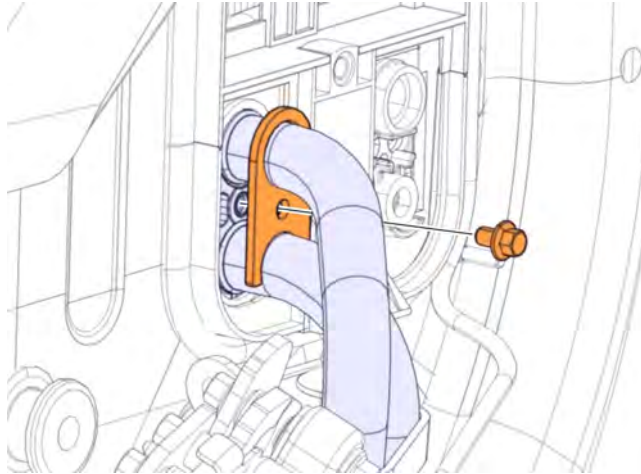
W8120702

- 4 Using new o-rings install the fastener and the heater pipes. Torque the fastener to 10 +/- 1.5 Nm.



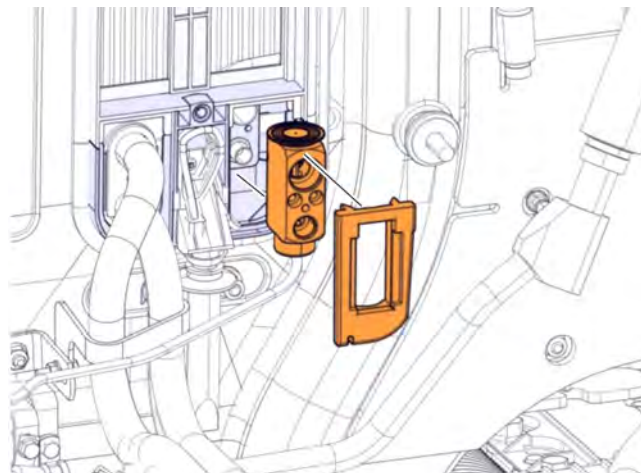
W8120701

- 5 Install the fasteners and clamp to the heater pipes. Torque the fasteners to 13 +/- 4 Nm.



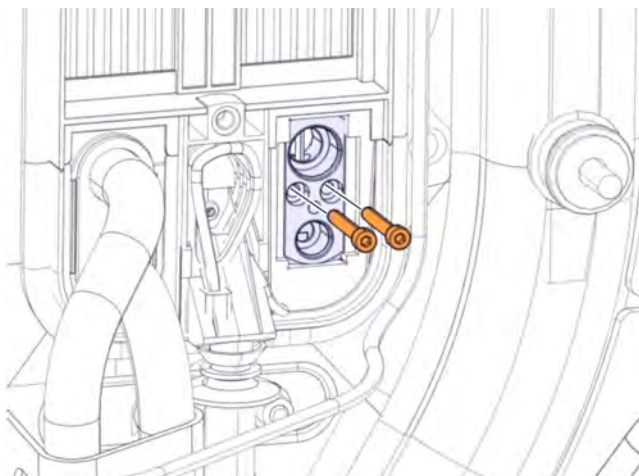
W8120699

- 6 Using new o-rings, install the expansion valve.



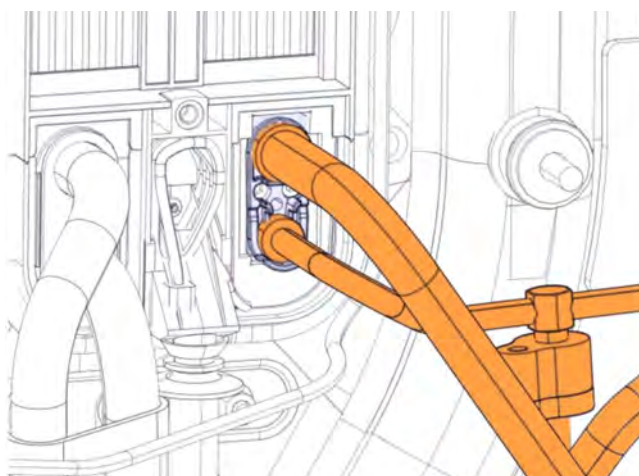
W8120698

- 7 Install the fasteners to the expansion valve. Torque the fasteners to 13 +/- 4 Nm.



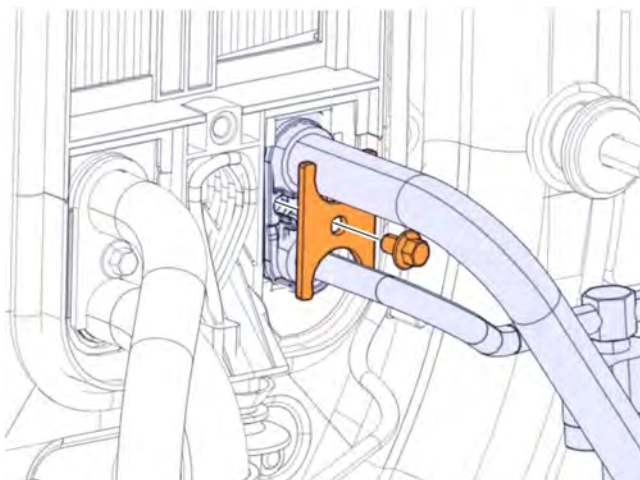
W8120696

- 8 Using new o-rings, install the air conditioning pipes..



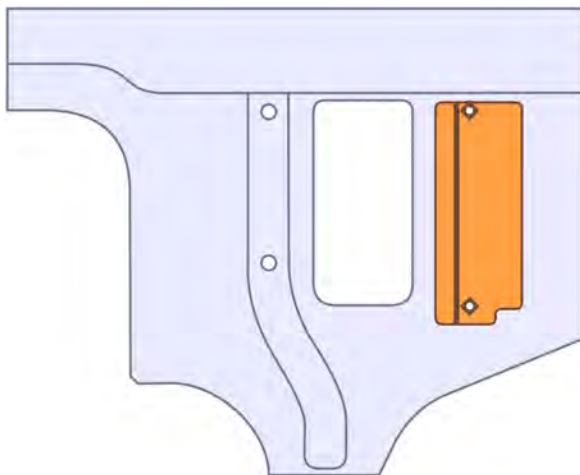
W8120694

- 9 Install the fastener and the clamp. Torque the fasteners to 13 +/- 4 Nm.



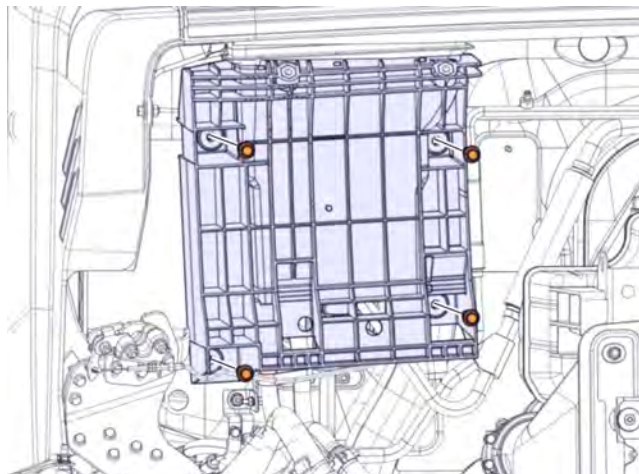
W8120692

- 10 With assistance, Remove the bolts holding the repair plates together. Hold the interior plate in place.



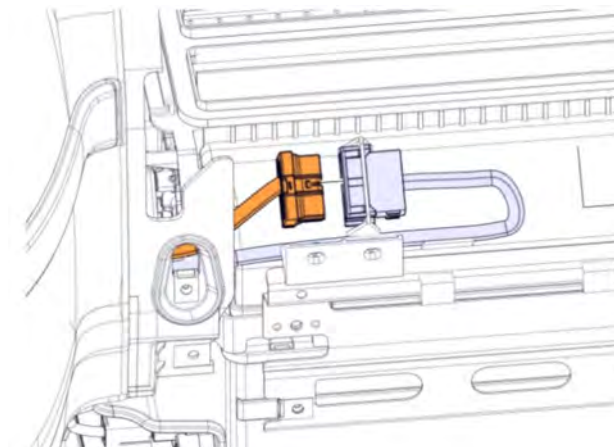
W8120784

- 11 Install the bracket and the fasteners holding the air filter assembly bracket to the bulkhead. The fasteners should thread into the plate on the interior of the wall. Torque the fasteners to 45 +/- 5 Nm.



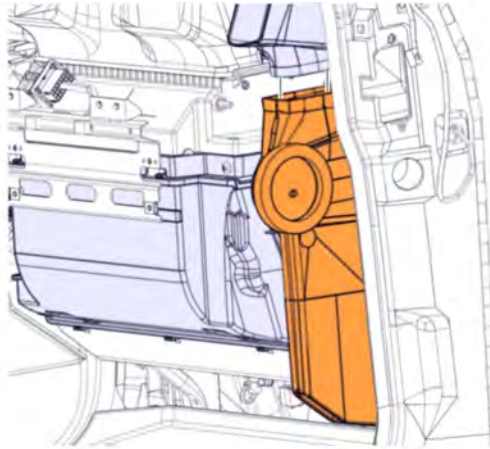
W2120691

- 12 Connect the connector..



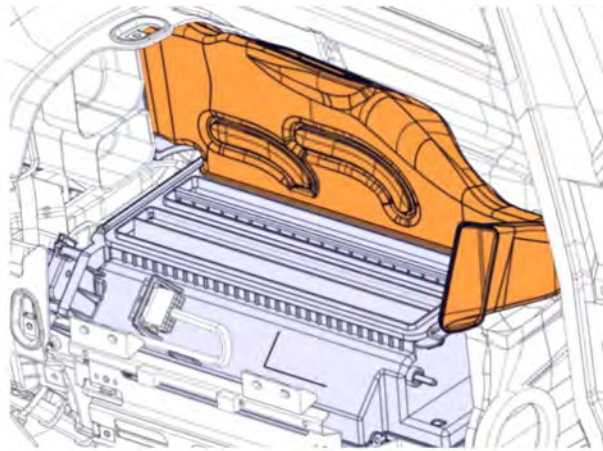
W8120738

13 Install the side vent tube and fastener. Torque the fastener to 27 +/- 7 lb-in.



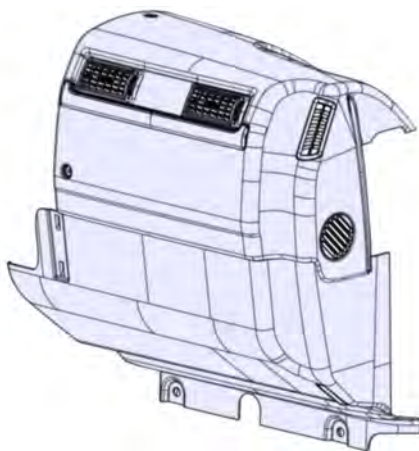
W8120737

14 Install the 3 vent tubes.



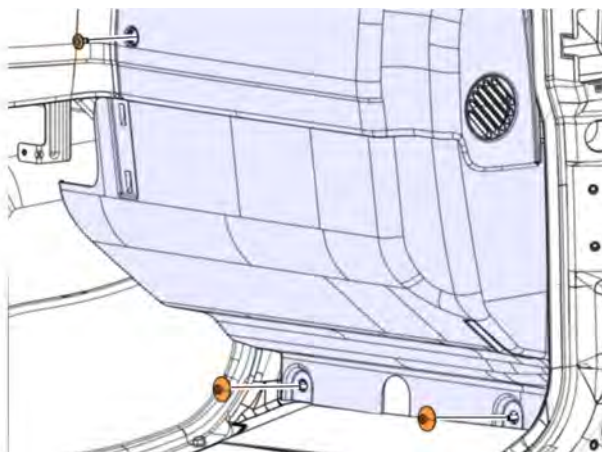
W8120736

15 Install the trim covering the HVAC assembly.



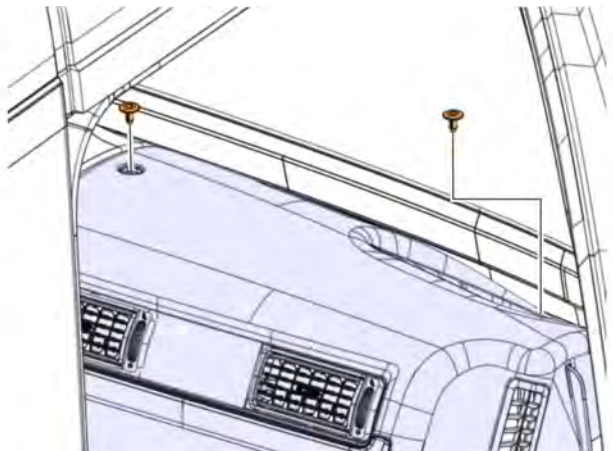
W8120732

16 Pull back the floor mat and install the fasteners holding the trim in place. Torque the fasteners to 10 +/- 1.5 Nm.



W8120730

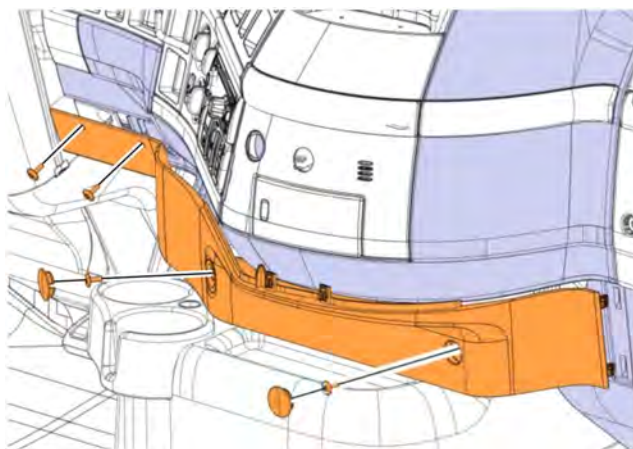
17 Install the fasteners. Torque the fasteners to 10 +/- 1.5 Nm.



W8120731

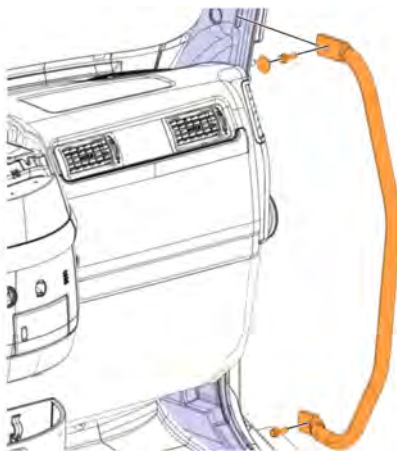
18 Install the speaker grill and speaker.

19 Install the fasteners and the center trim piece. Torque the fasteners to 10 +/- 1.5 Nm.



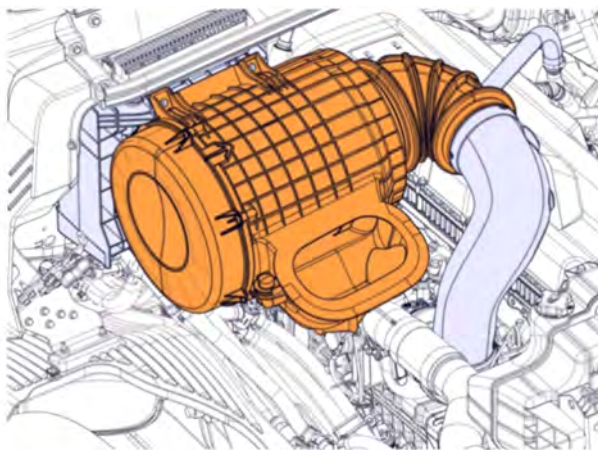
W8120733

20 Install the grab handle and fasteners. Torque the fasteners to 24 +/- 4 Nm.



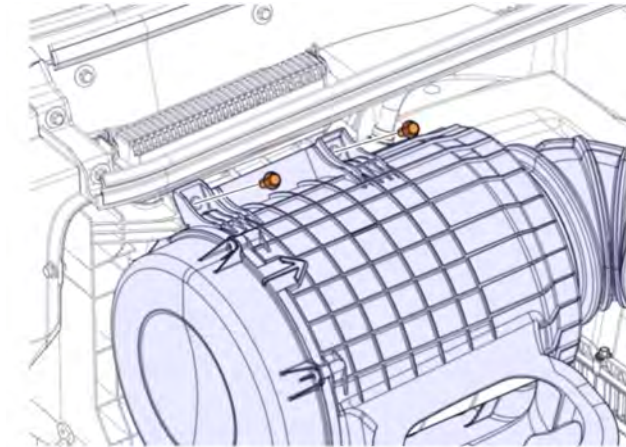
W8120734

21 Install the air filter assembly and install the fasteners.



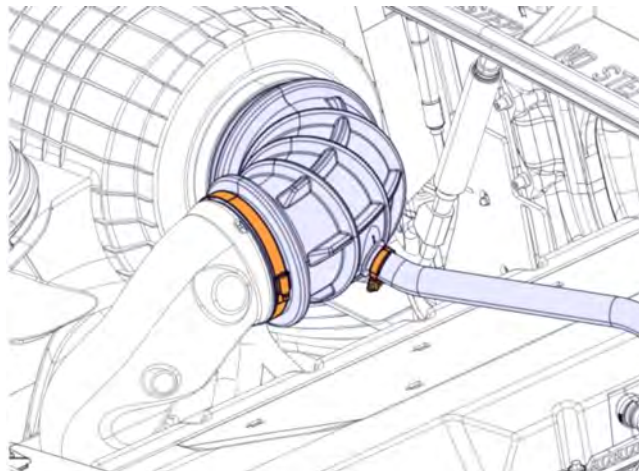
W2120772

22 Torque the fasteners to 48 +/- 8 Nm.



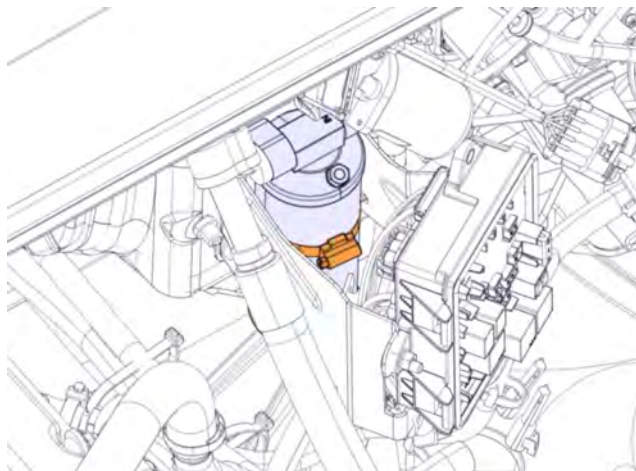
W2120771

23 Tighten the pipe clamps. Torque the fasteners to 35 +/- 9 lb-in.



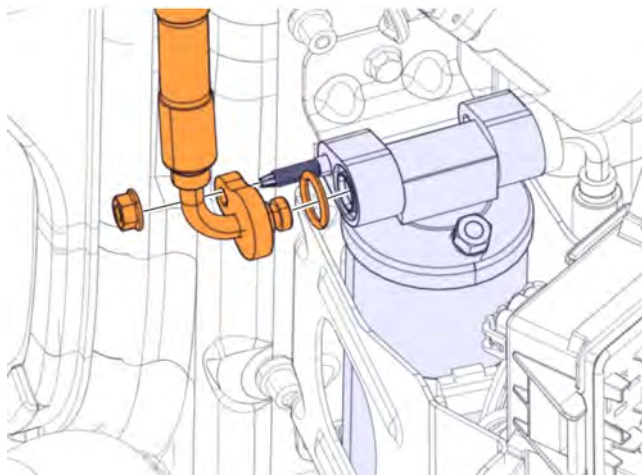
W2120689

- 24 Install a new air dryer and tighten the clamp holding it in place. Torque the fastener to 5.5 +/- 0.8Nm.

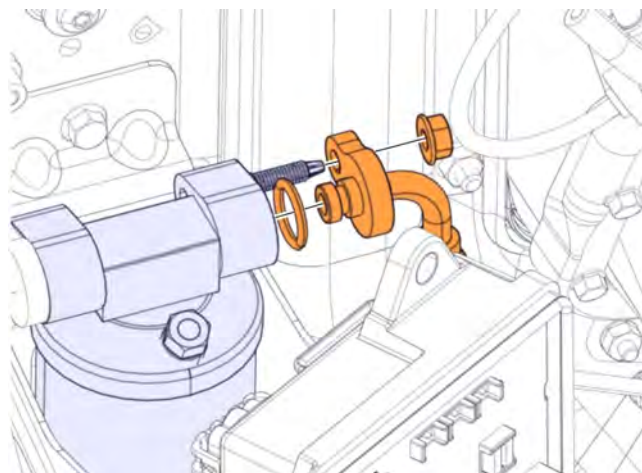


W8120703

25 Using new o-rings, install the pipes to the air dryer and tighten the fasteners. Torque the fasteners to 20+/- 1.5 Nm.



W8120705

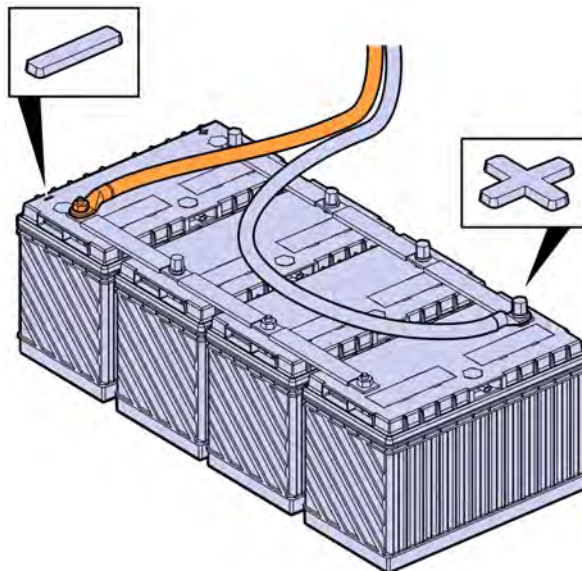


W8120706

26 Refill the HVAC system with refrigerant using the refrigerant collection tool.

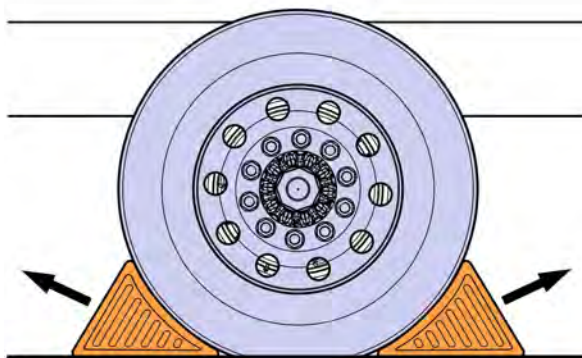
Commissioning the Truck for Operation

- 1 Connect the battery cable to the negative (ground) terminal.



W3086758

- 2 Remove the wheel chocks.



W7086759

Reimbursement

This repair may be eligible for reimbursement if a product failure was experienced within time and mileage limits of the applicable Warranty coverage. Reimbursement is obtained via the normal claim handling process.	UCHP Reimbursement
Claim Type (used only when uploading from the Dealer Bus. Sys.)	W
Labor Code	
Primary Labor Code (Bulkhead Cracking, Repair)	8910-03-09-01 6 hrs.
Causal Part	82728020

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