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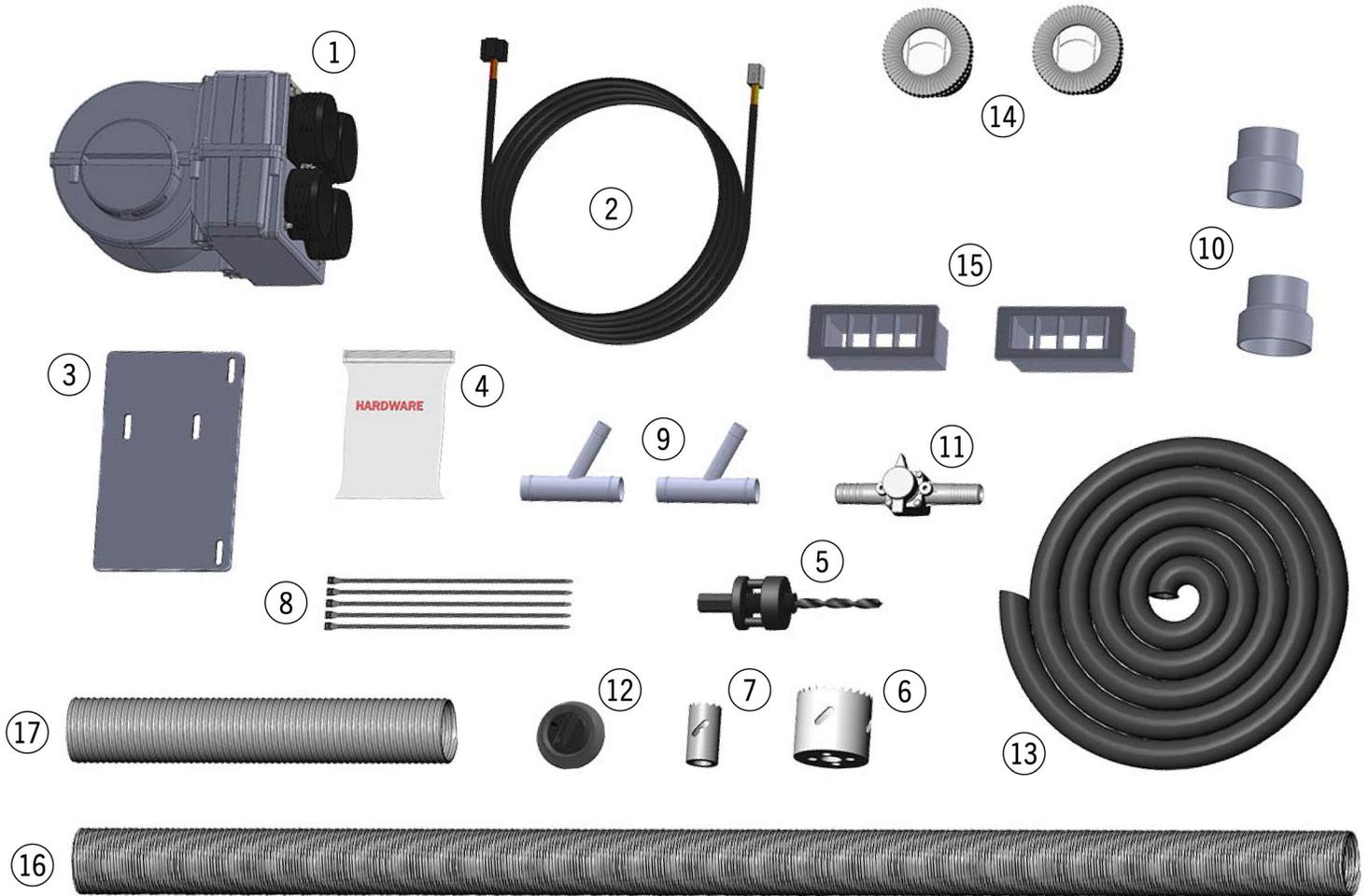


FIRESTORM
C A B H E A T E R S

Polaris Ranger XP1000 Cab Heater
HT_CU_452

INSTALLATION INSTRUCTIONS

PARTS LIST



Part#	Qty	Item Description
1	1	FIRESTORM Cab Heater Unit
2	1	36" Wiring Harness
		Orange/Yellow/Black Wire
		Red Wire
		Black Wire
		5-Pin Black Connector
		4-Pin White Connector
3	1	HT-CU-452-1 Heater Bracket
4	1	Hardware Pack
	2	Installation Displacement Crimp
	2	M6-1.0x12mm Hex Head Screw
	6	#10 Stainless Steel Hose clamp

Part#	Qty	Item Description
4	4	#16 Stainless Steel Hose clamp
2	2	M4x18 Hex Bolt
2	2	M4 Nylock Nut
2	2	M4 Fender Washer
2	2	Rubber Grommet
5	1	Hole Saw Pilot Bit
6	1	2" Hole Saw
7	1	1 1/4" Hole Saw
8	20	Zip Ties
9	2	1" Aluminum Y
10	2	2 1/2"-2" Flex Hose Reducer
11	1	Plastic Shut-Off Valve

Part#	Qty	Item Description
12	1	3-Position Switch
13	20'	5/8" Radiator Hose
14	2	2" Vents
15	2	Delta Vents
16	24"	Compressed 2" Duct Hose
17	10"	Compressed 2 1/2" Duct Hose



Please read all instructions before beginning installation. Verify that all parts listed are present.

We have found that several steps in this installation are easier with two people. We recommend finding a partner to assist with this installation.



When working on cooling systems, always allow vehicles to cool to avoid being burned or scalded by hot coolant.

Before working with any electrical system on your vehicle, **ALWAYS** remove the negative battery cable and secure it away from the battery terminal.

Figures Color Key

 Parts native to the machine

 Parts native to FIRESTORM Cab Heater

PREPARATION

1. Remove the windshield, if applicable.
2. Remove the hood of the vehicle.
3. Remove the cup holder panel *OR* the radio from the upper dash panel. **FIGURE 1**

 If removing a radio, it is recommended to label the electrical connections to aid in reassembly.

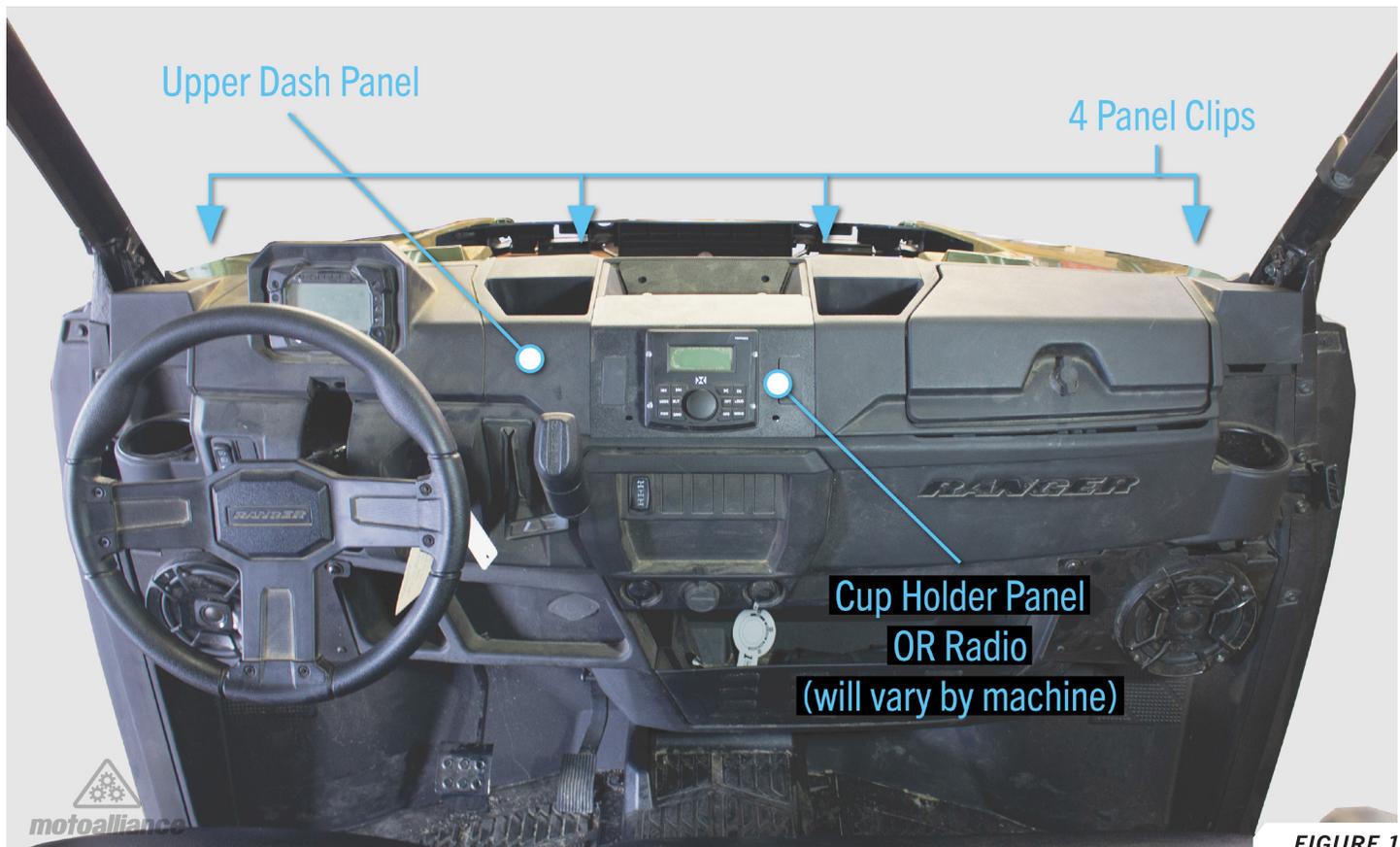


FIGURE 1

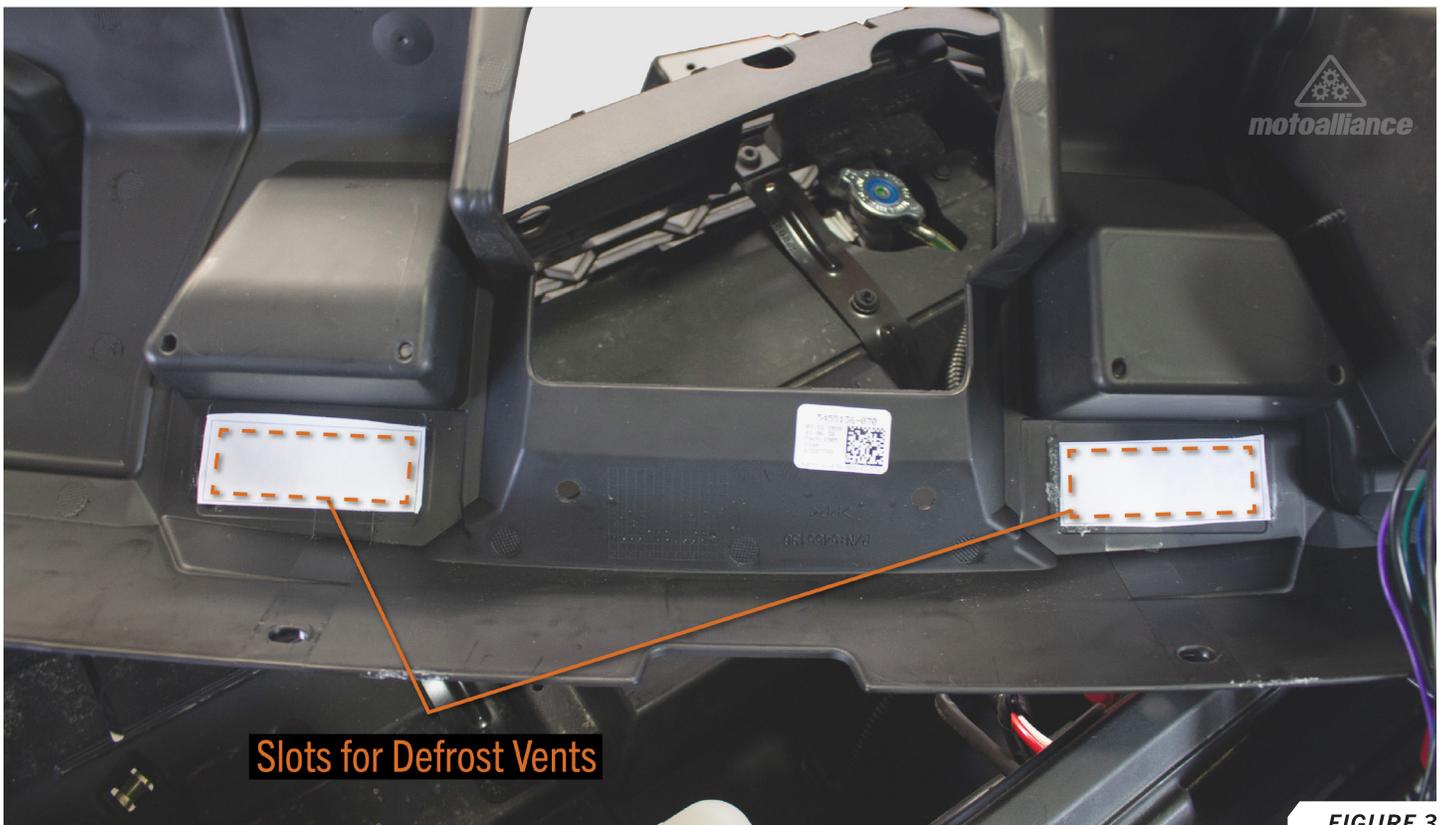
4. Remove the panel clips holding in the upper dash panel, then remove the panel and set aside.

FIGURE 1

5. Drill holes for the passenger and driver vents using the 2" hole saw provided in the kit. The drilling locations have a centering mark molded into the plastic. **FIGURE 2**



6. Using the photo below as a guide, cut out appropriately-sized slots for the Delta vents. **FIGURE 3**

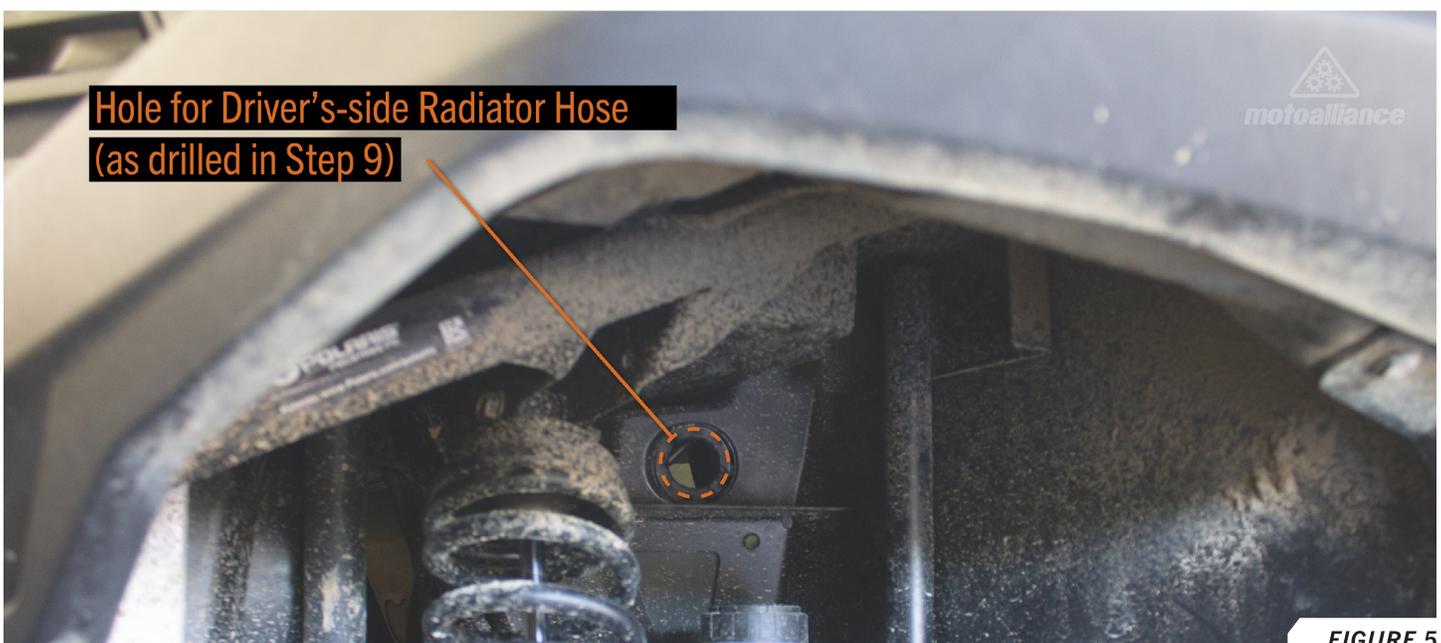


- Using the provided 1¼" hole saw, drill a hole for the passenger-side radiator hose. The drilling location is pre-marked in the plastic. **FIGURE 4**



- Using the provided 1¼" hole saw, drill a hole for the driver's-side radiator hose. The drilling location is pre-marked in the plastic. **FIGURE 5**

◀ This is easiest to do from outside the vehicle.



9. Line up the bezel for the 3-position switch in the indicated area on the center console so that it is easily adjustable from the driver's seat. *FIGURE 6*



10. Mark the center of the 3-position switch bezel, then remove the bezel and drill out the hole with a 7/16" drill bit.
11. Remove any burrs from the previously drilled holes.
12. Add rubber grommets to the 2 holes for the radiator hose that were drilled in steps 8 and 9.

CAB HEATER PREPARATION

13. Remove the 2 rubber stoppers from the FIRESTORM Cab Heater coolant inlet and coolant outlet.

FIGURE 7

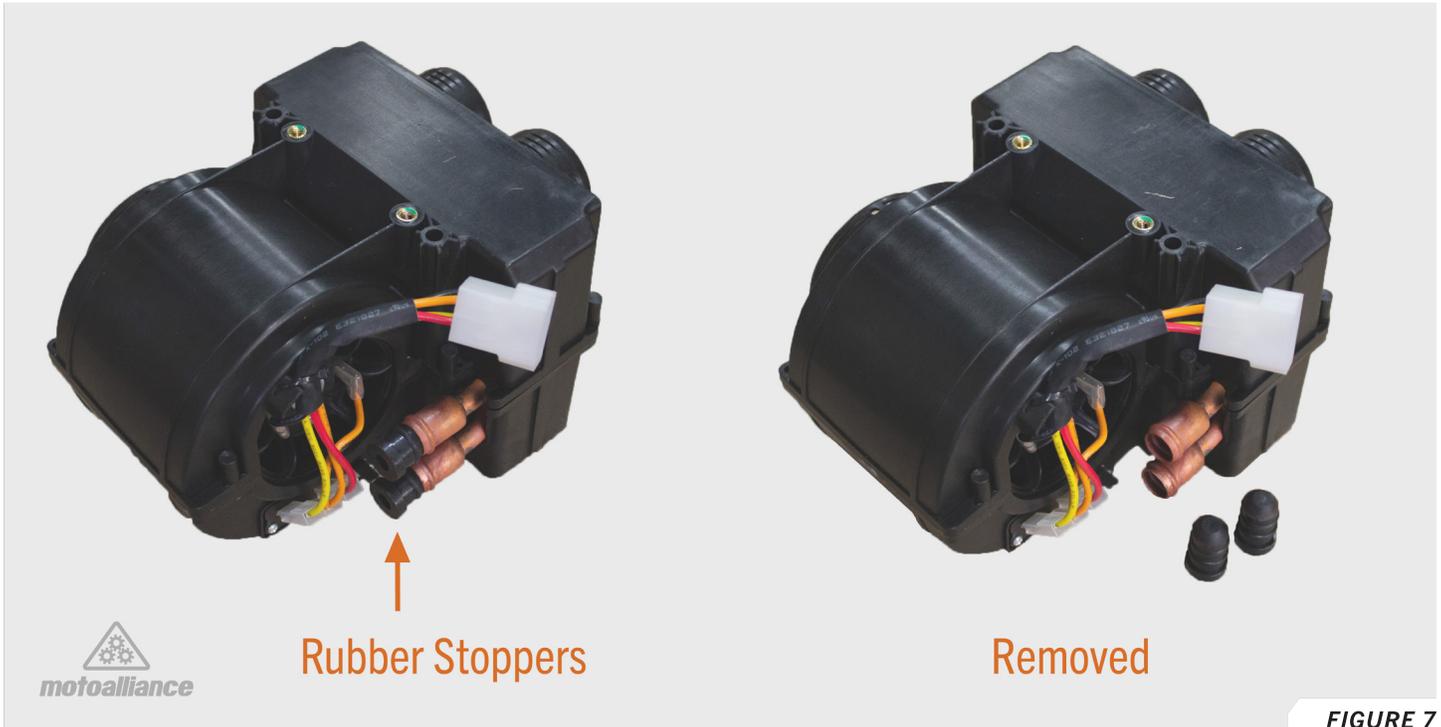
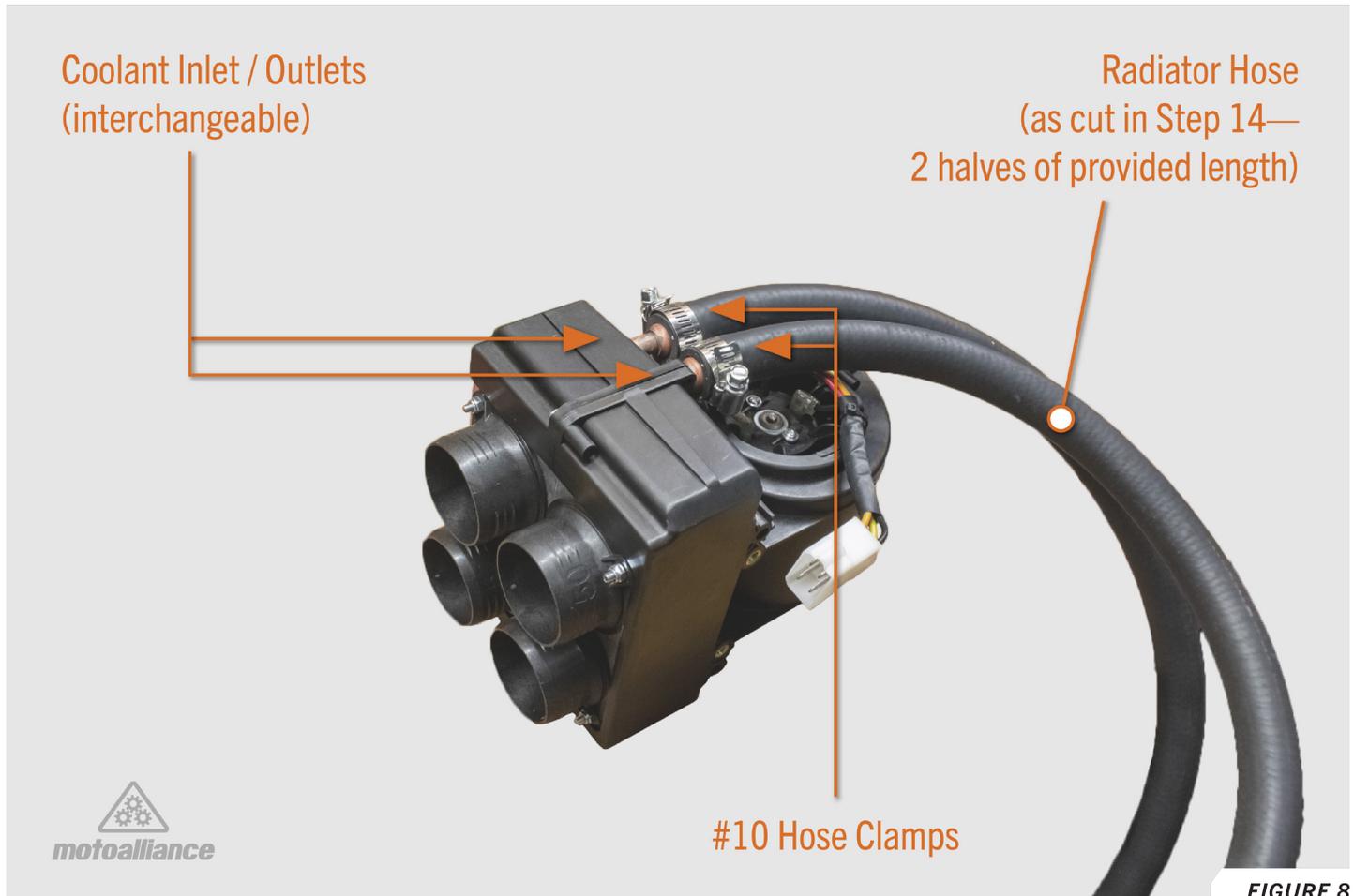


FIGURE 7

14. Cut the provided radiator hose in half. Connect one half of the radiator hose to the coolant inlet using a #10 hose clamp. Connect the other half of the radiator hose to the coolant outlet using a #10 hose clamp. *FIGURE 8*



15. Place the heater unit into the dashboard cavity so that the vent outlets are on the passenger side and the radiator hoses are on the firewall-side of the heater. *FIGURE 9*

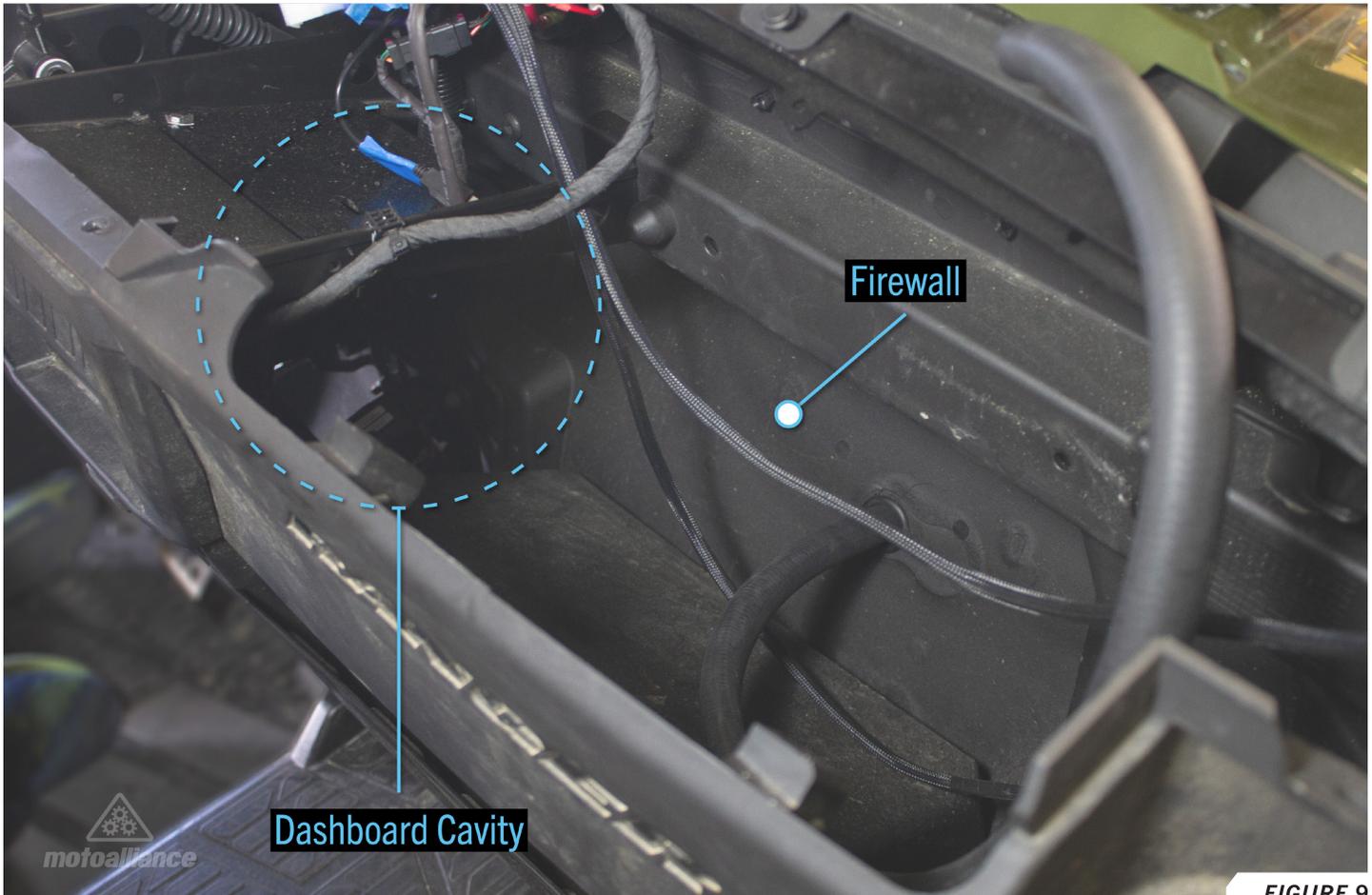
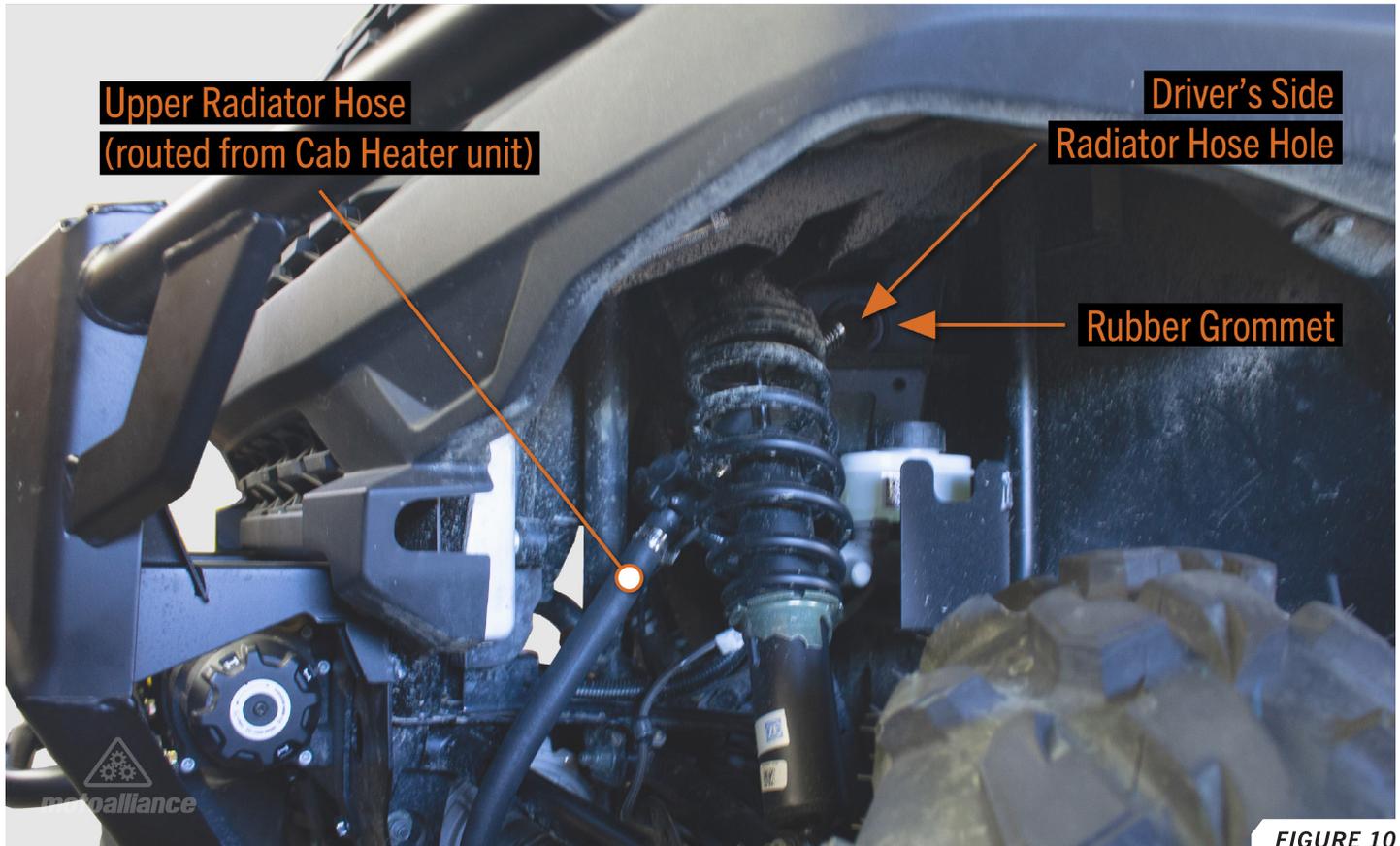


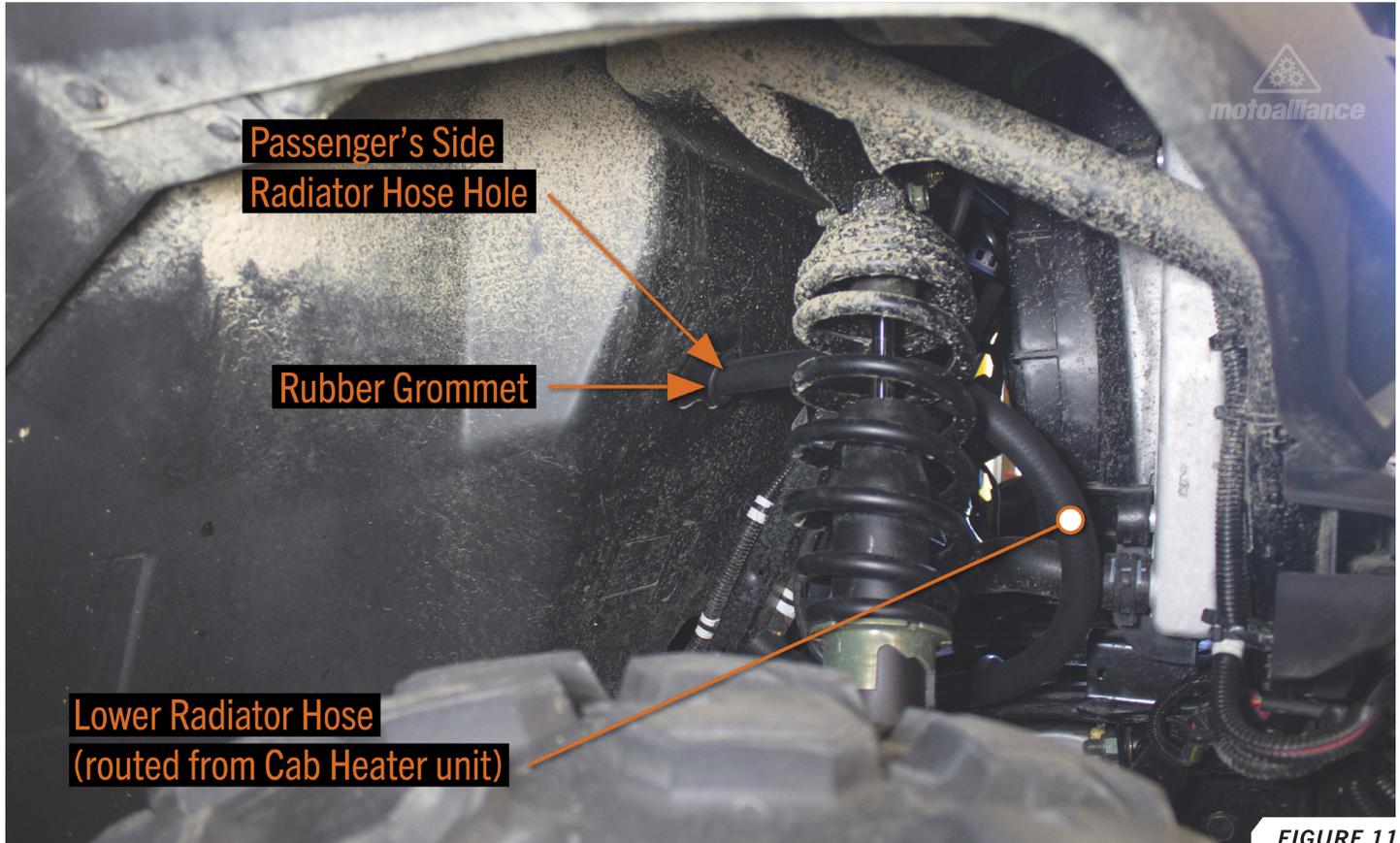
FIGURE 9

16. Route the upper radiator hose from the cab heater through the driver's side radiator hose hole. Make sure the rubber grommet is protecting the radiator hose from the sharp edges of the hole.

FIGURE 10



17. Route the lower radiator hose down and through the passenger side radiator hose hole. Make sure the rubber grommet is protecting the radiator hose from the sharp edges of the hole. **FIGURE 11**



SWITCH WIRING

18. Locate the 36" Wiring Harness and ensure the wires are correctly connected to the 5-Pin Black Connector as shown in *FIGURE 12* and the 4-Pin White Connector as shown in *FIGURE 13*.

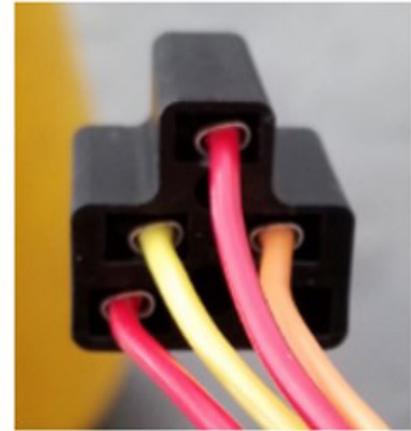
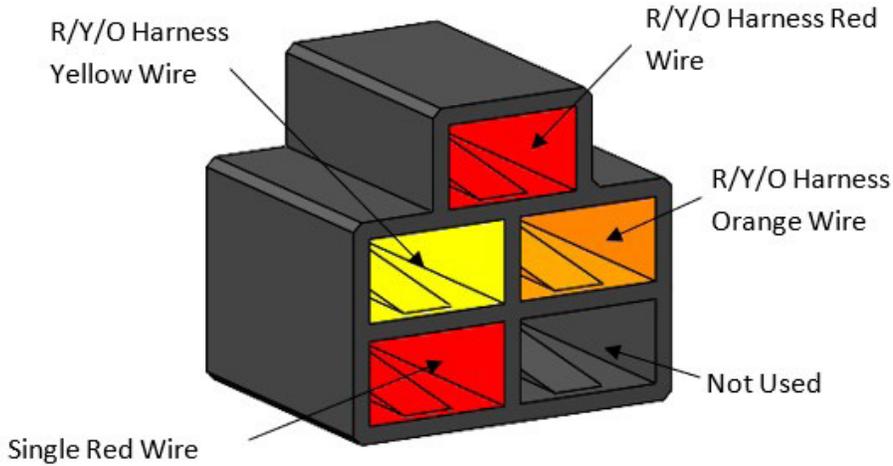


FIGURE 12

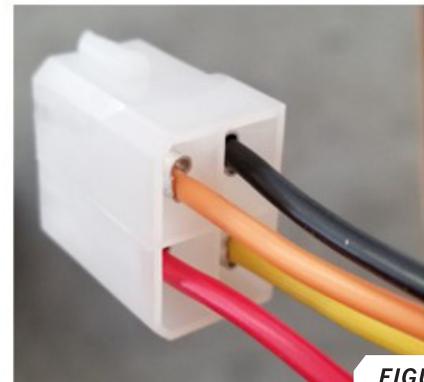
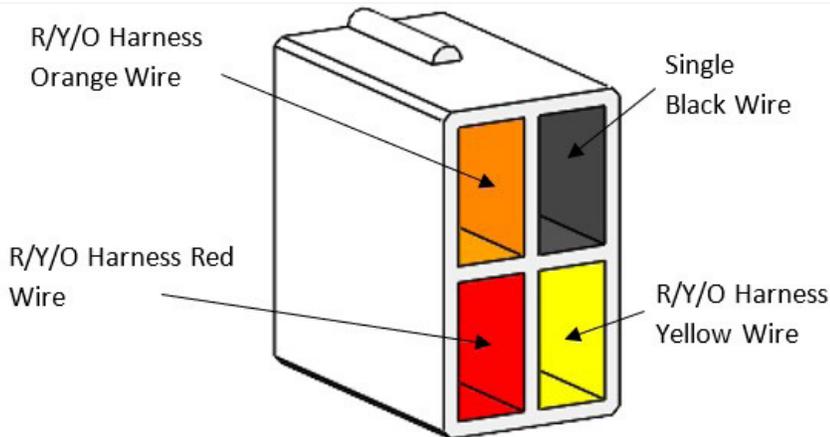


FIGURE 13

19. Connect the 5-Pin Black Connector to the 3-Position Switch included in the kit.
20. Insert the switch from the back of the dash panel, where 7/16" hole was drilled, and secure using the low-profile hex nut included in the switch bag. Disregard the flex lock washer.
21. Prior to pressing the switch bezel on, use a pair of pliers to remove the two nubs on the back of the switch bezel as shown in *FIGURE 14*.



FIGURE 14

22. Place the bezel over the switch so that the 0, 1, 2, 3 markings are visible.
23. Press the switch dial onto the switch until it is seated firmly.
24. Connect the 4-Pin White Connector to the white terminal housing on the heater unit.
25. Connect the red wire to a keyed power source (any power source that is only powered when the vehicle is on) using the terminated end. If you have no connection spot for the terminated end, cut the ring terminal off and use the insulation displacement crimps to connect the red wire to a keyed power source. This can be found by testing wires with a multimeter.
26. Connect the terminated end of the black wire to any vehicle ground.
27. Test the switch to ensure that it can control the fan speed in all three positions.

Common examples may include the ignition, radios, and winches, though this may vary with your vehicle.

CAB HEATER AND VENT HOSE INSTALLATION

28. Attach the HT-CU-452-1 Cab Heater Bracket to the 2 frame pieces in the dashboard cavity using the provided M4 hardware. *FIGURE 15*

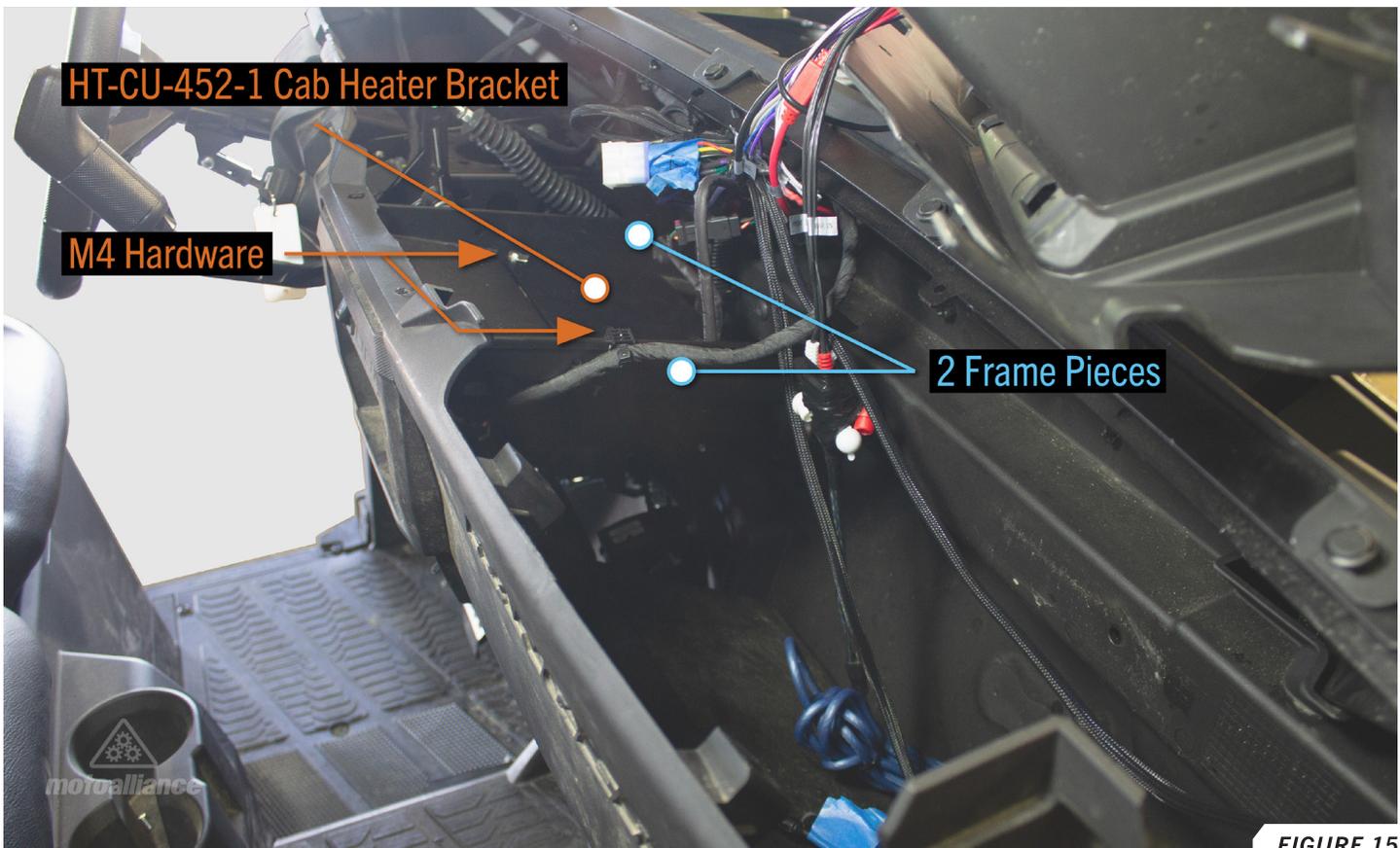


FIGURE 15

29. Secure the FIRESTORM Cab Heater Unit to the Cab Heater Bracket using the provided M6 hex head bolts. Ensure that the vent outlets are facing the passenger side of the vehicle and that the radiator hoses are on the firewall side of the cab heater. **FIGURE 16**

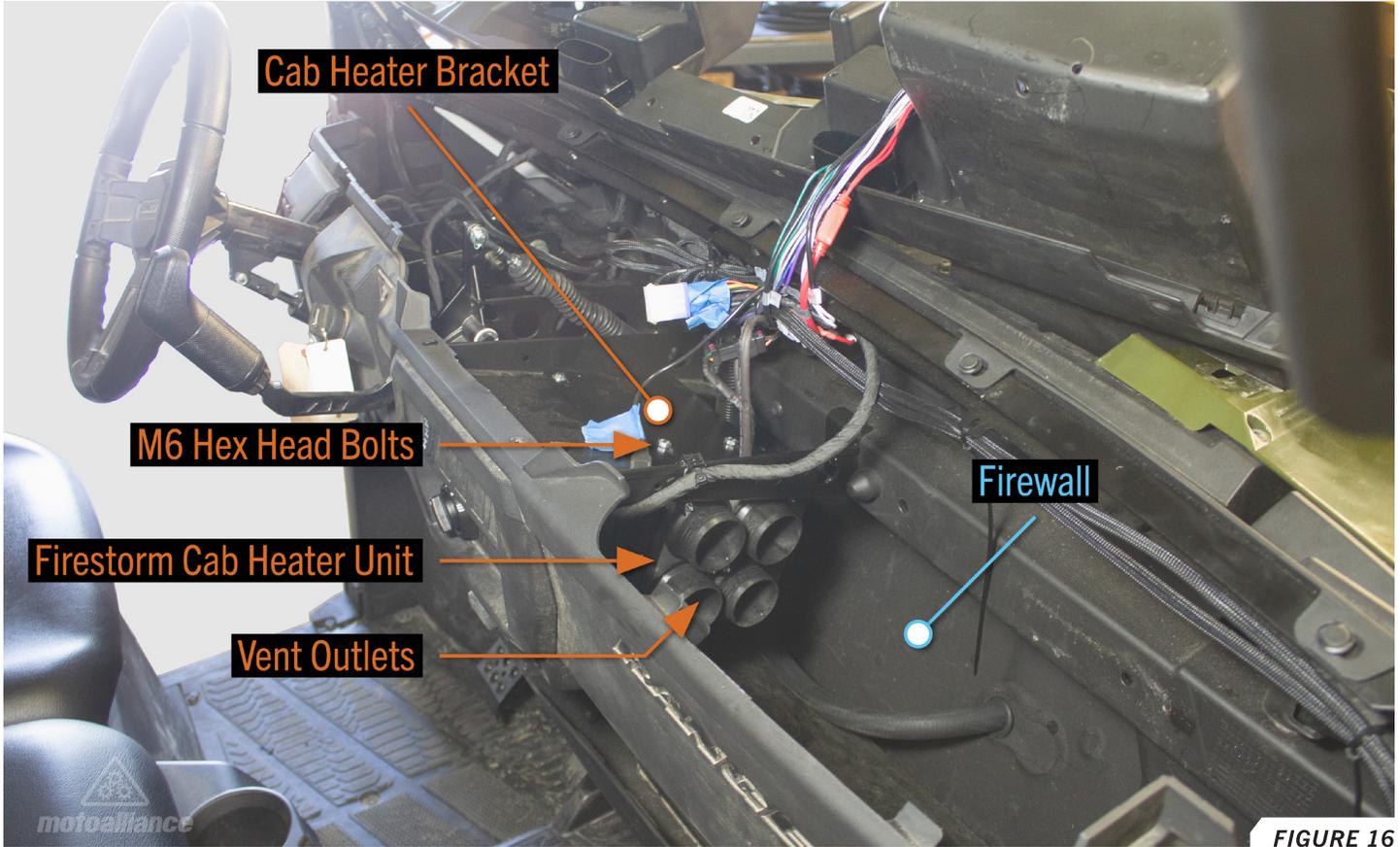


FIGURE 16

30. Attach the Delta and passenger vents to the upper dash panel. **FIGURE 17**

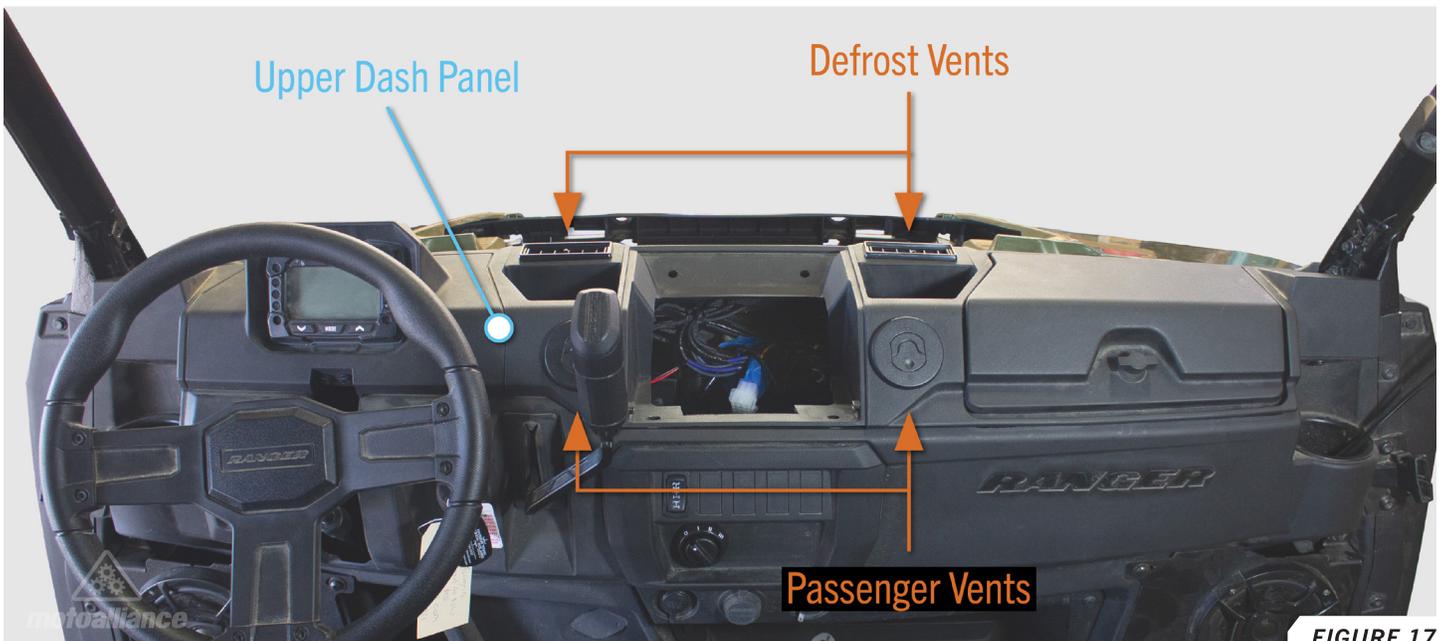


FIGURE 17

31. Cut duct hose into lengths as described below.
32. Connect a 3" length of compressed 2½" hose and a 2" length of compressed 2" duct hose to one of the flex hose reducers, then connect the other end of the 2½" hose to the driver's side Delta vent.
33. Connect the other 3" length of compressed 2½" hose and a 6" length compressed 2" duct hose to the other flex hose reducer, then connect the other end of the 2½" hose to the passenger side Delta vent. **FIGURE 18**

Distances vary by machine and aftermarket additions. Verification is always recommended.

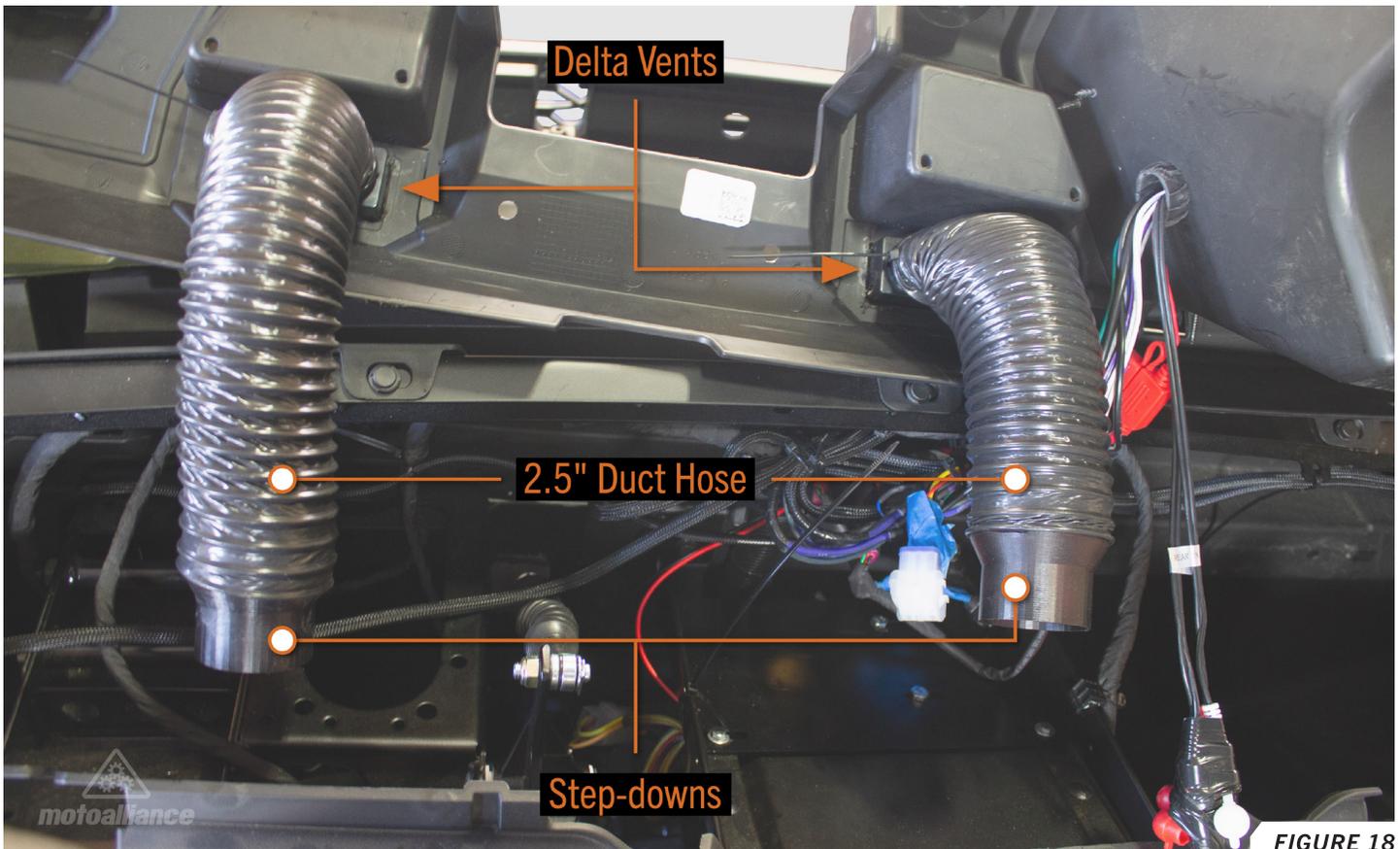
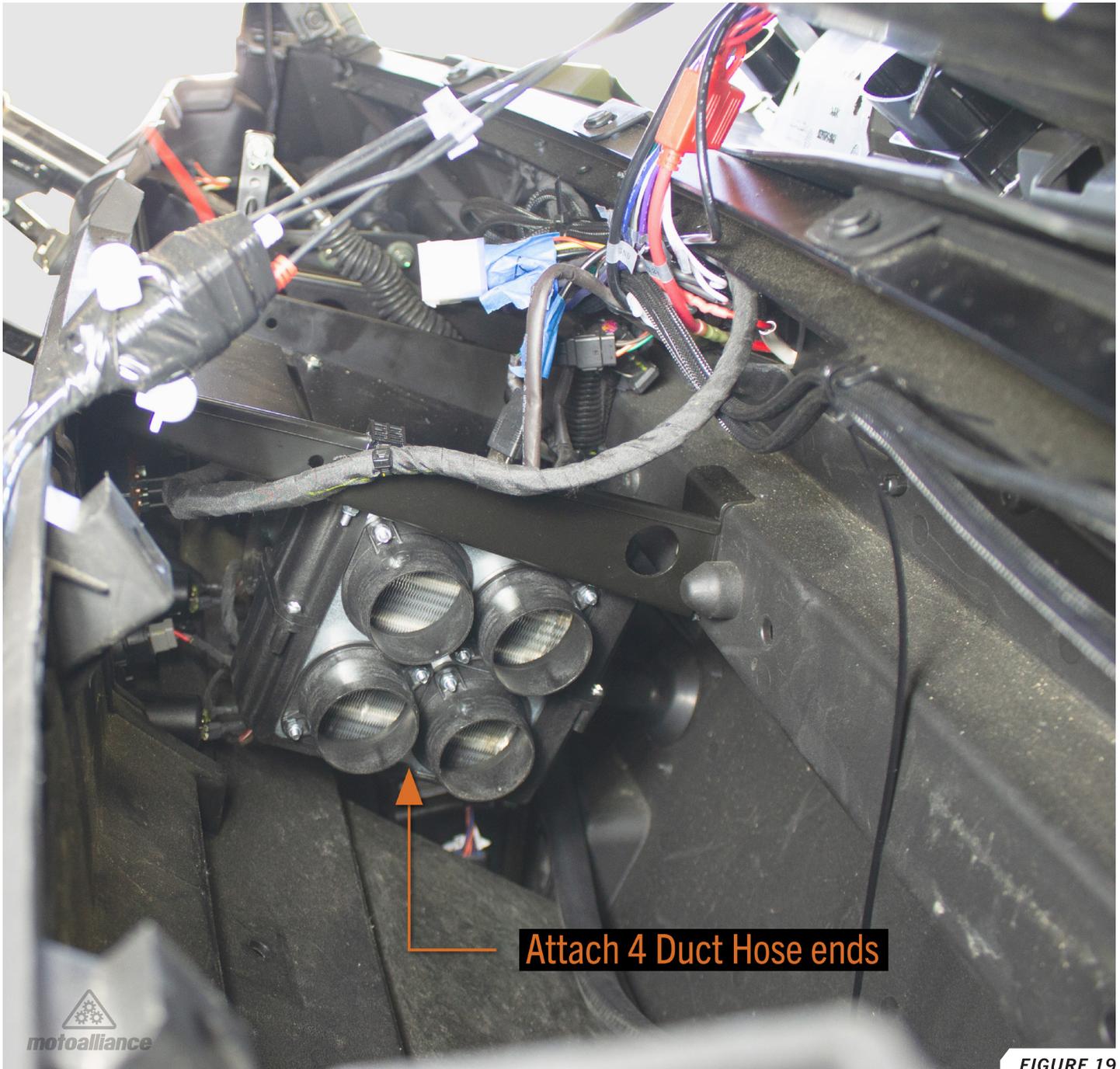


FIGURE 18

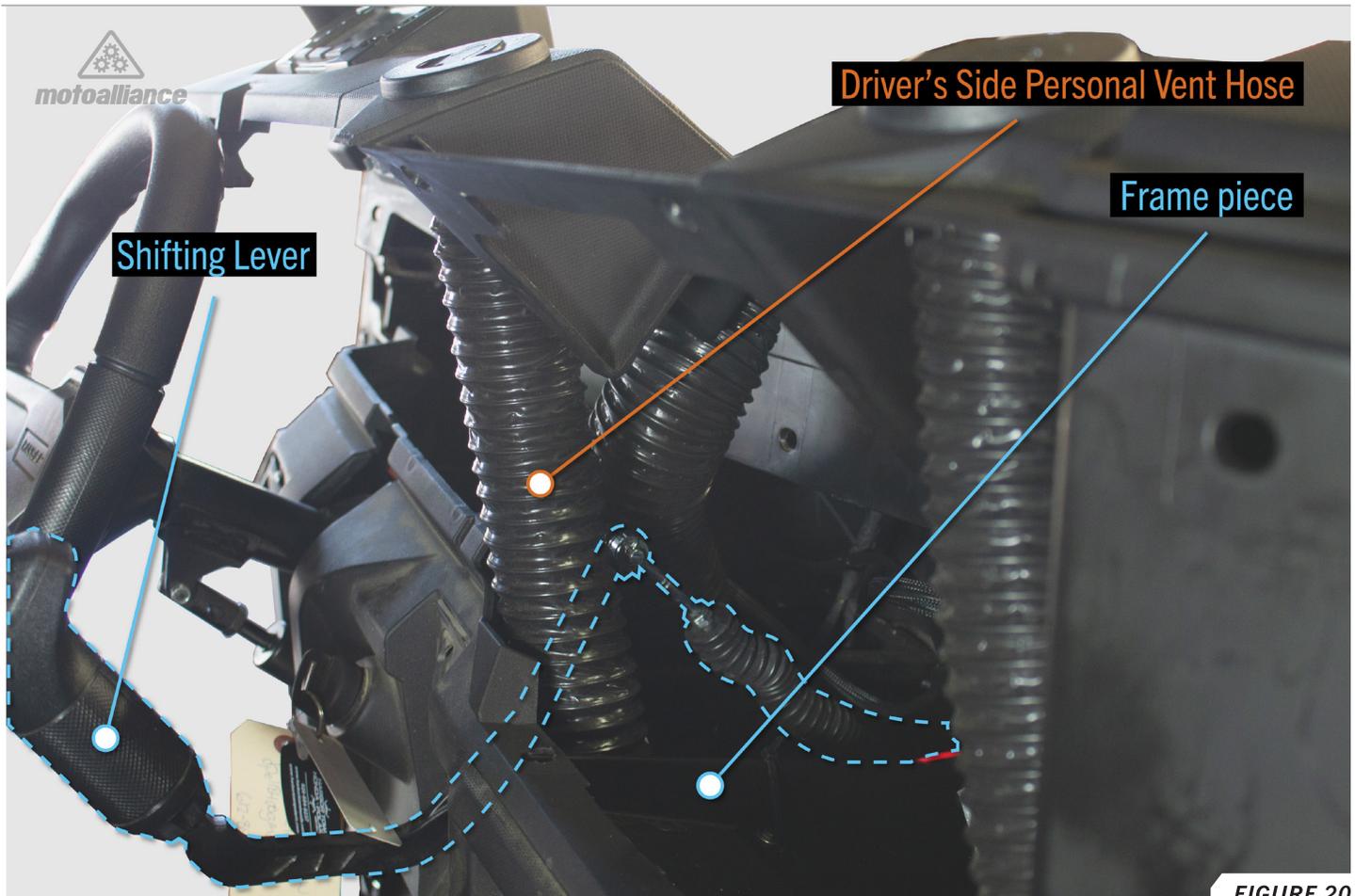
34. Secure the connections to the flex hose reducers and to the Delta vents with zip ties.
35. Connect a 9" length compressed 2" duct hose to the driver's side personal vent and secure with a zip tie.
36. Connect a 4" length compressed 2" duct hose to the passenger side personal vent and secure with a zip tie.

37. Connect all 4 remaining duct hose ends to the cab heater unit and secure with zip ties. *FIGURE 19*



38. Put the upper dash panel back into place and reattach with its associated panel clips.

39. Through the cavity where the cupholders or radio goes, secure the driver's side personal vent hose as close to the plastic as possible to prevent it rubbing against the shifting lever. Secure the driver's side Delta vent hose to the frame piece holding the cab heater bracket to prevent rubbing against the shifting lever. **FIGURE 20**

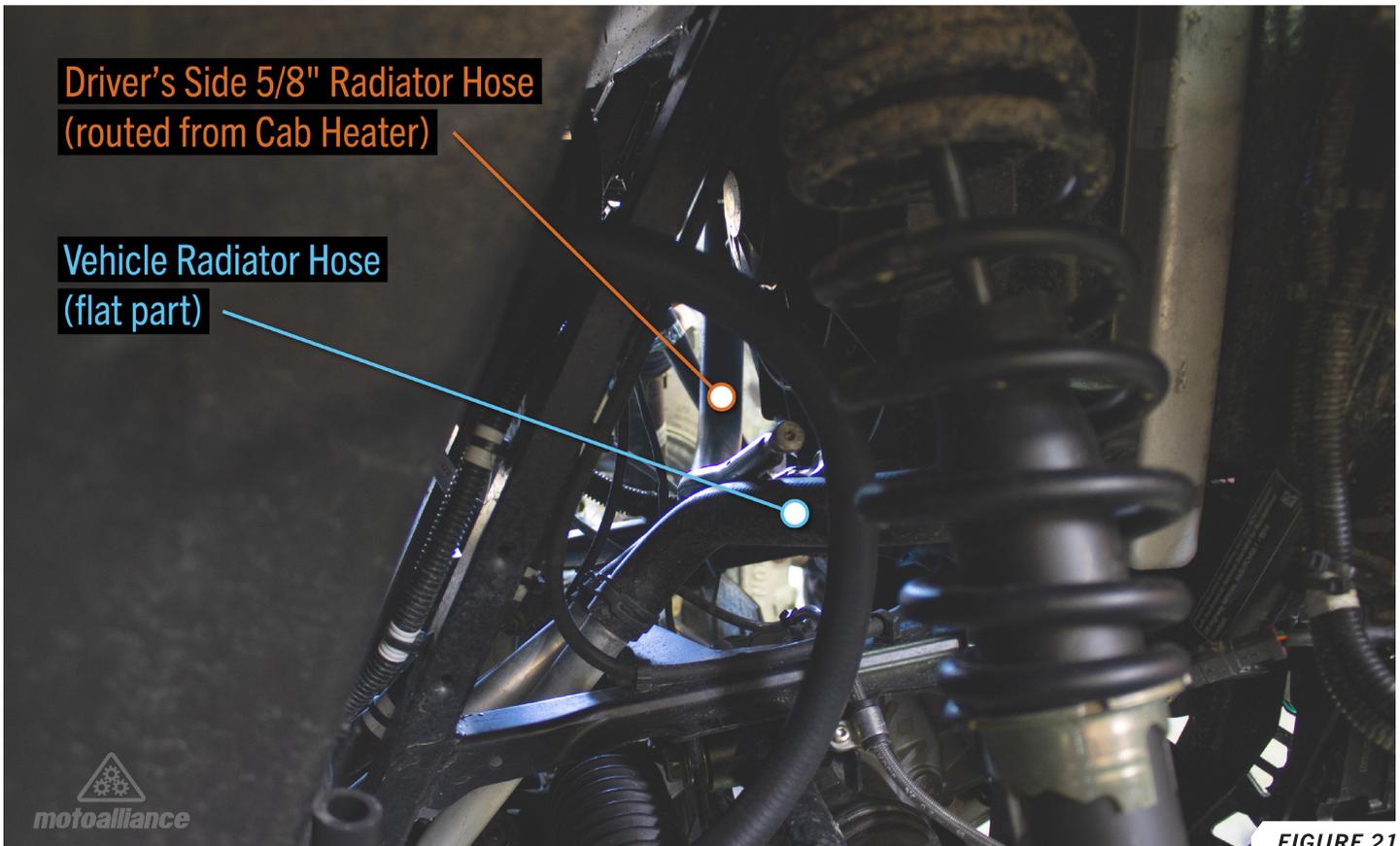


40. Verify that there is no rubbing between either driver's side vent hose and the shifting lever.
41. Turn the vehicle key to the "on" position and test the cab heater fan to make sure that air comes through both personal vents and both Delta vents. Some vents may have slightly different amounts of airflow.
42. If your machine has a radio, reattach all its electrical connections and secure it back in place. If your machine has cupholders instead, then secure the cupholder panel back in place.

RADIATOR HOSE SHUTOFF VALVE INSTALLATION

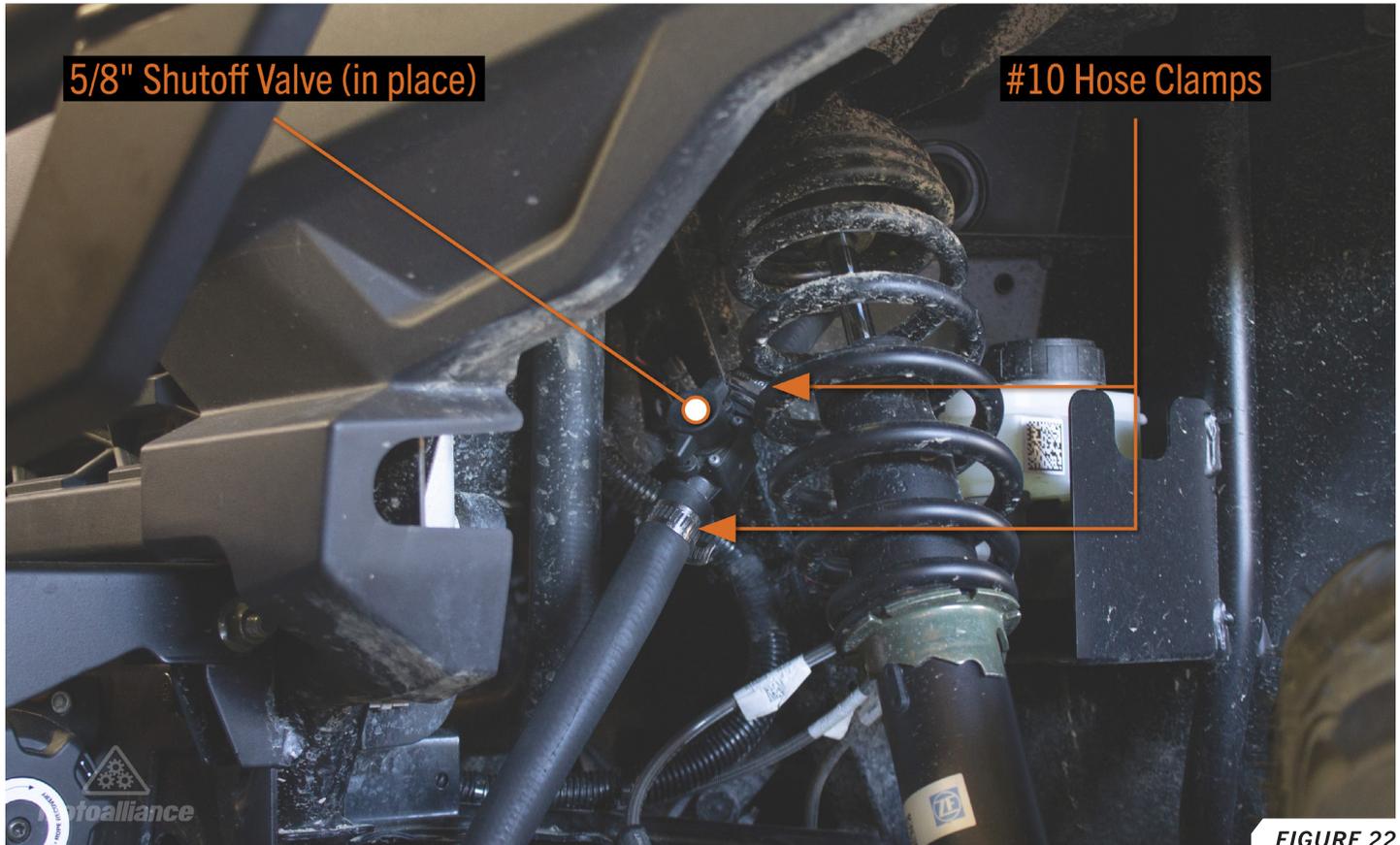
Read entire section before proceeding

43. In the driver's side front wheel well, find the end of the $\frac{5}{8}$ " radiator hose routed earlier.
44. Route the radiator hose such that it lines up with the flat part of the vehicle radiator hose, then cut off any excess length from the $\frac{5}{8}$ " radiator hose. *FIGURE 21*



45. Move up roughly 4-6" from the end of the radiator hose and cut all the way through the radiator hose.

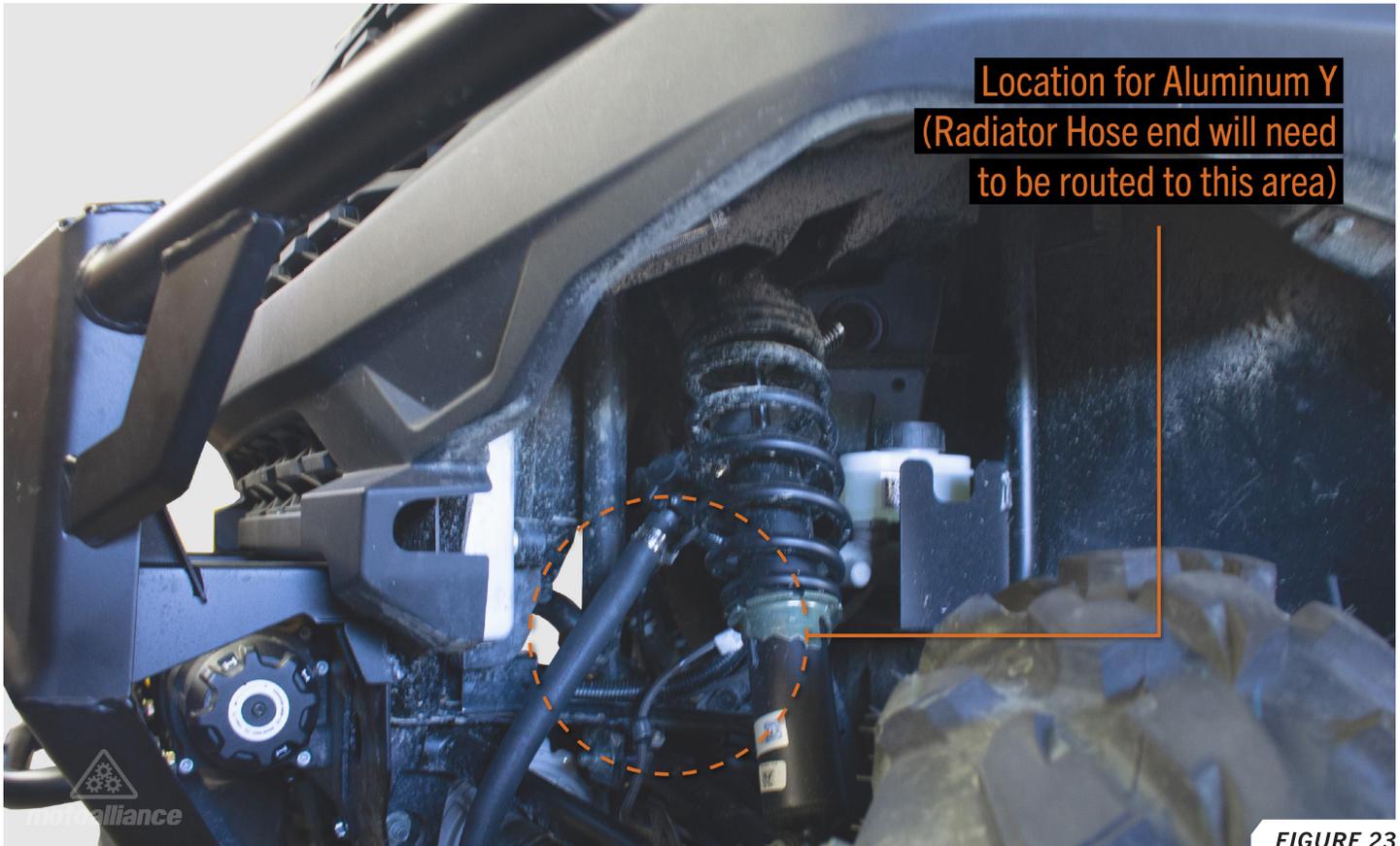
46. Put a #10 hose clamp on both sections, then push the 5/8" Shutoff Valve into place. Secure with the #10 hose clamps. **FIGURE 22**



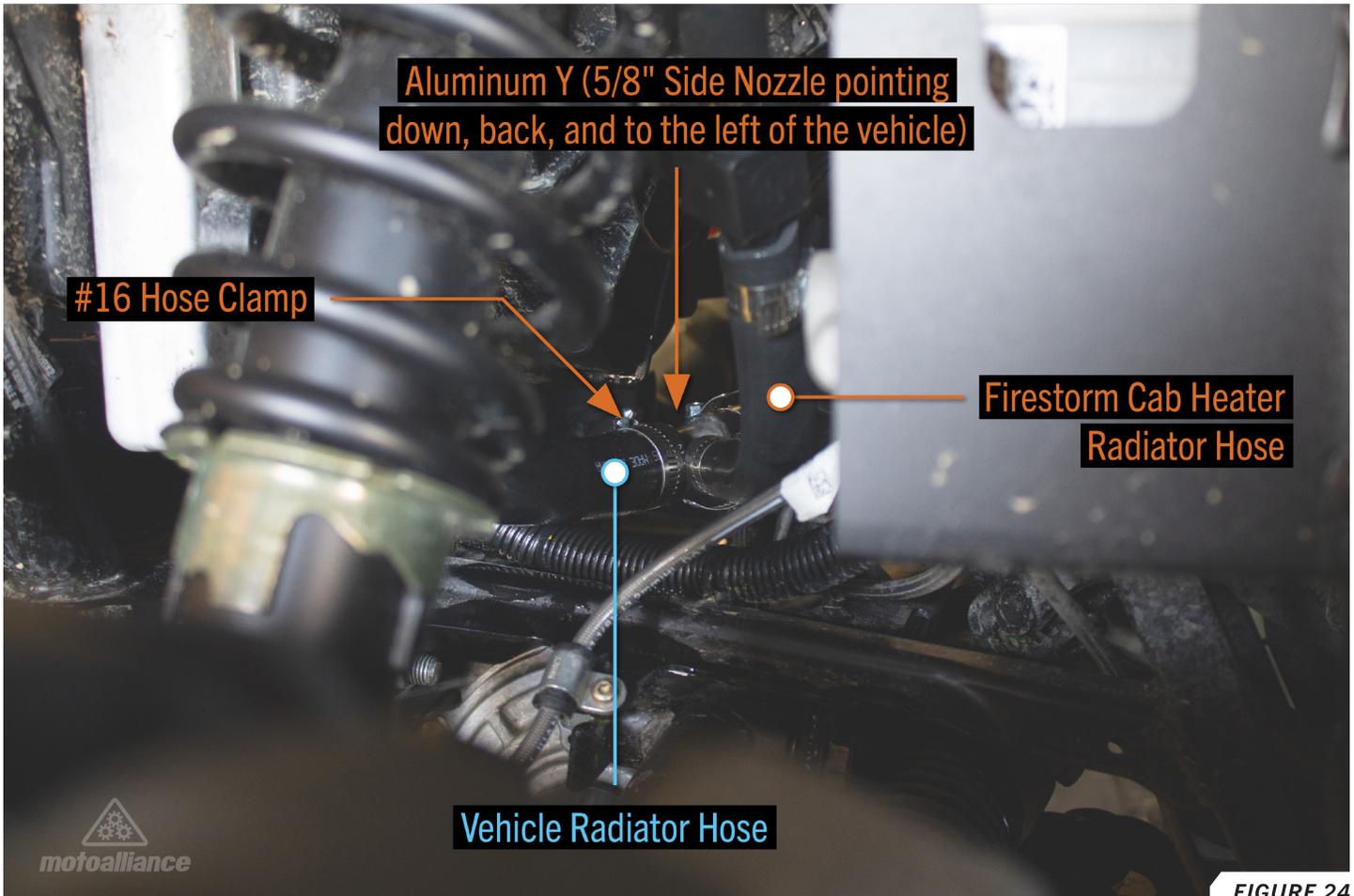
DRIVER'S SIDE RADIATOR Y INSTALLATION

47. Locate one Aluminum Y, two #16 hose clamps, and one #10 hose clamps.
48. Secure the 5/8" end of the Aluminum Y to the 5/8" radiator hose on the driver's side of the vehicle using the #10 hose clamp.

49. Verify that the Aluminum Y will fit as shown in the front left wheel-well, then cut the radiator hose. If you have hose pliers, use them to clamp the radiator hose and prevent coolant loss. If hose pliers are not available, then drain the coolant in to a bucket. *FIGURE 23*



50. Slide one of the #16 hose clamps onto each side of the vehicle radiator hose, then connect the Aluminum Y and secure with the #16 hose clamps. The 5/8" side nozzle should be pointing down, back, and to the left of the vehicle. *FIGURE 24*

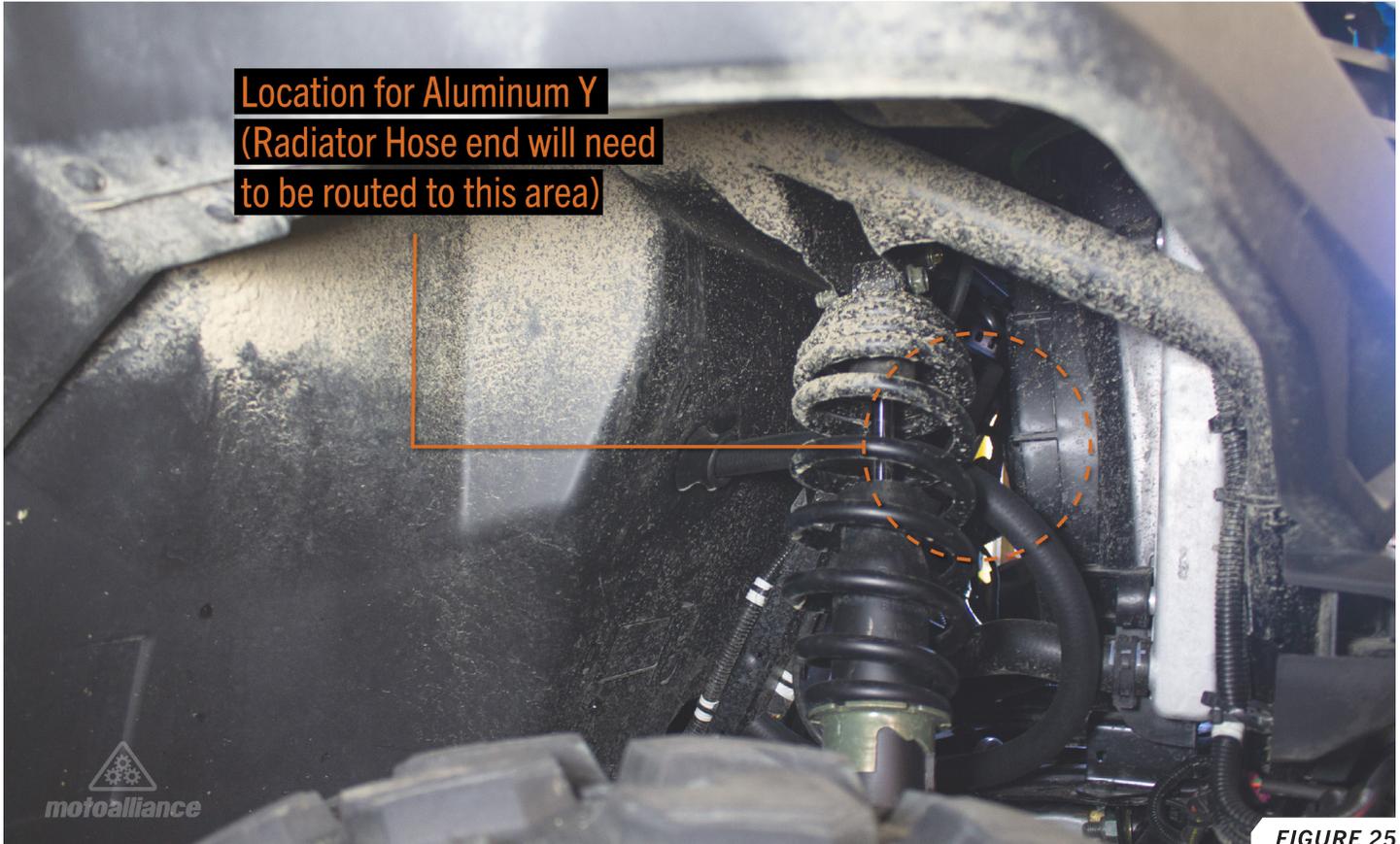


51. Check for any leaks and clean up any coolant that spilled out during this process.

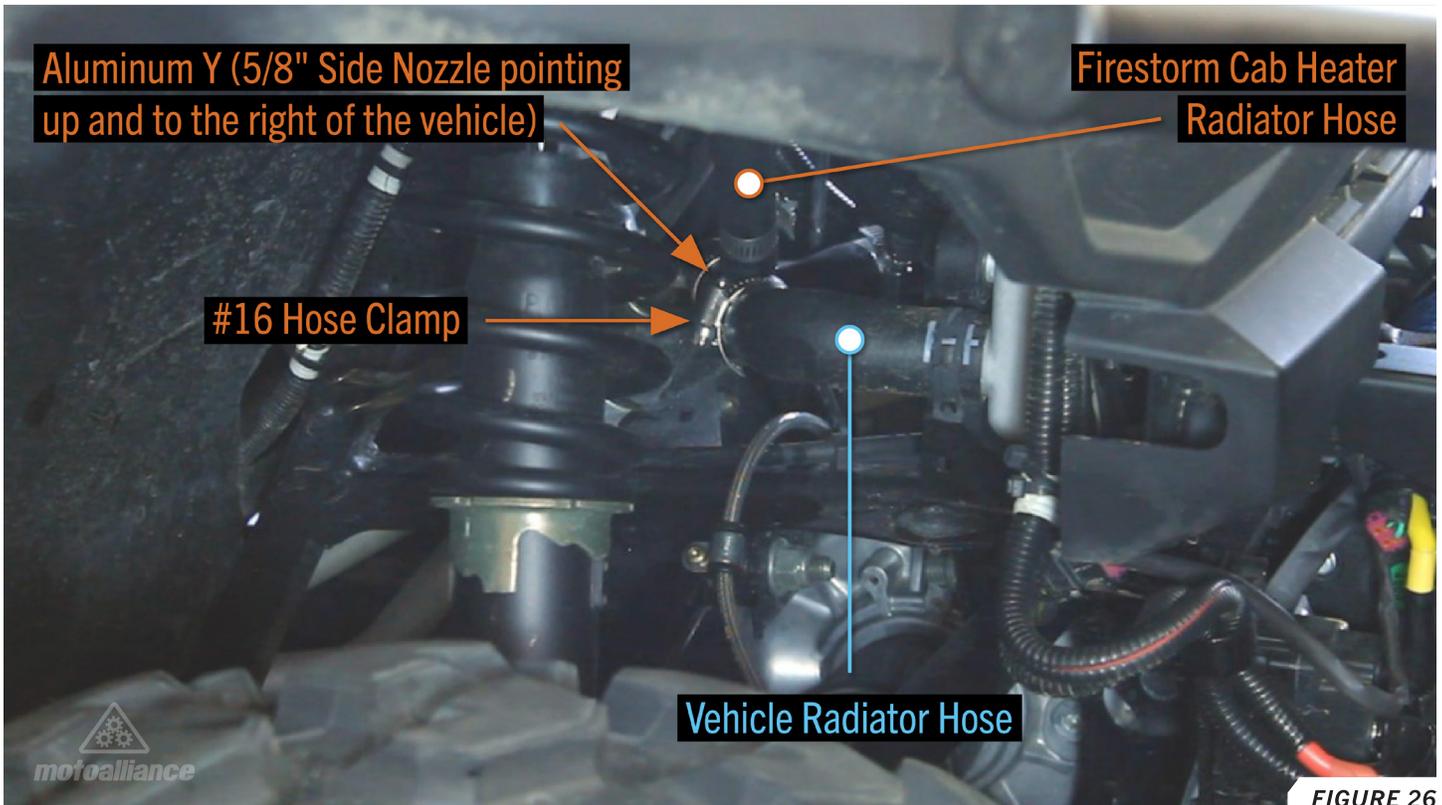
PASSENGER SIDE RADIATOR Y INSTALLATION

52. Locate the other Aluminum Y, two #16 hose clamps, and one #10 hose clamp.
53. Secure the 5/8" end of the aluminum Y to the 5/8" radiator hose on the passenger side of the vehicle using the #10 hose clamp.

54. Verify that the Aluminum Y will fit as shown under the front right wheel-well, then cut the radiator hose. If you have hose pliers, use them to clamp the radiator hose and prevent coolant loss. If hose pliers are not available, then drain the coolant into a bucket. **FIGURE 25**



55. Slide one of the #16 hose clamps onto each side of the radiator hose, then connect the Aluminum Y and secure with the #16 hose clamps. The 5/8" side nozzle should point toward the right side of the vehicle. *FIGURE 26*



56. Check for any leaks and clean up any coolant that spilled out during this process.

BLEEDING THE COOLANT SYSTEM

Read entire section before proceeding

 Some amount of air will have made its way into the coolant system. The following bleeding procedure must be performed to eliminate the air and obtain heat. The following procedure is most easily accomplished with the help of a partner.

57. Fill radiator with coolant until radiator is full.
58. Open the shutoff valve.
59. Close the radiator cap and drive the machine around until heat comes through the vents or the machine's engine temperature goes above 200°F.
60. Turn off the machine and wait for it to cool down.
61. Open the radiator cap and add more coolant.
62. Repeat the steps in this section until consistent heat is coming out of the vents and machine temperature gauge stays under 200°F.

 Look at owner's manual for manufacturer-approved coolant

BEFORE YOUR NEXT RIDE

63. Verify that no leaks have occurred and that the radiator fluid level is per the manufacturer's specifications.

REPLACEMENT PARTS

 Replacement parts can be ordered from motoalliance.com. Enter the associated SKU number into the search bar to find the product.

Item Description	SKU
2" Compressed Duct Hose	HT_2inch_Compressed
2½" Compressed Duct Hose	HT_2.5inch_Compressed
2" Vent	HT_2Louvre
Delta Vent	HT_Louver_06-2797-HA
FIRESTORM Heater Motor	RPL_HT_CU_Fan_and_Motor

Item Description	SKU
3-Position Switch	HT-Fan Switch
5/8" Radiator Hose	HT_RadiatorHose_20
1" Aluminum Y	HT_1
Plastic Shut-Off Valve	HT_Plastic_Shutoff_Valve

Scan the QR code to see the full list of FIRESTORM replacement parts on motoalliance.com

