



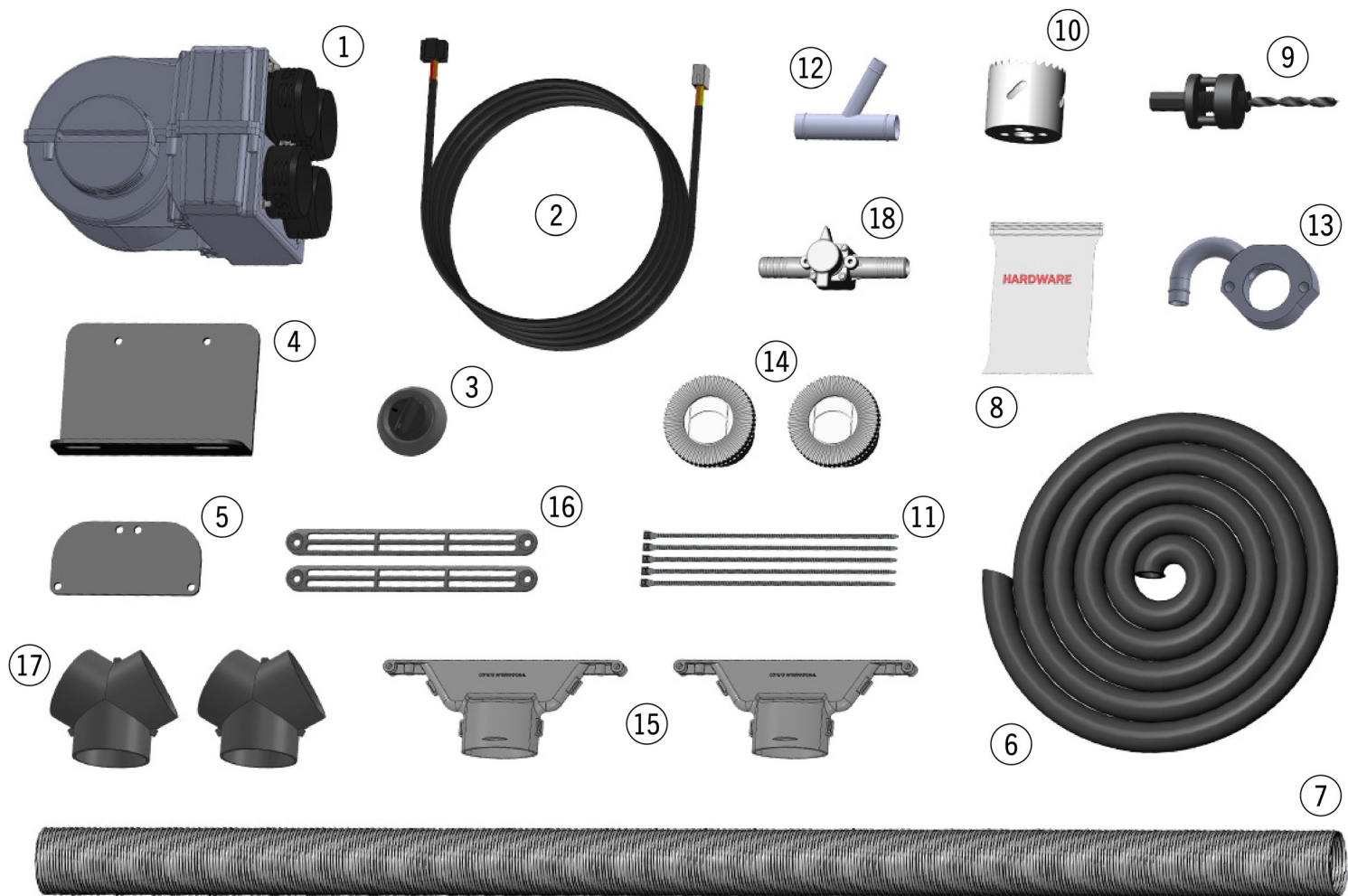
FIRESTORM
C A B H E A T E R S

Yamaha Wolverine RMAX Cab Heater

HT_CU_438

INSTALLATION INSTRUCTIONS

PARTS LIST



Part#	Qty	Item Description
1	1	FIRESTORM Cab Heater Unit
2	1	36" Wiring Harness
		Red/Yellow/Orange Harness
		Red Wire
		Black Wire
		5-Pin Black Connector
		4-Pin White Connector
3	1	3-Position Switch
4	1	HT-CU-438-1 Heater bracket
5	1	HT-CU-499-20 Heater bracket
6	20'	5/8" Radiator Hose
7	40"	Compressed 2" Duct Hose

Part#	Qty	Item Description
8	1	Hardware Pack
	2	Insulation Displacement Crimp
	2	M6-1.0x12mm Hex Head Screw
	6	#10 Stainless Steel Hose clamp
	2	#16 Stainless Steel Hose clamp
	4	#10-16x3/4 Self-Drilling Screw
	2	1/4"x1" Hex Bolt
	2	1/4" Nylock Nut
	4	1/4" Fender Washer
9	1	Hole Saw Pilot Bit
10	1	2" Hole Saw
11	20	Zip Ties

Part#	Qty	Item Description
12	1	1" Aluminum Y
13	1	Coolant Coupler
14	2	2" Vent
15	2	Plenum Vent
16	2	Vent Grille
17	2	2" Y Connector
18	1	Plastic Shut-Off Valve



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

It is recommended to label all electrical connections as you disconnect them to aid in reassembly.

1. Remove the hood of the vehicle. Remove the plastic firewall divider at the back of the bay. **FIGURE 1**

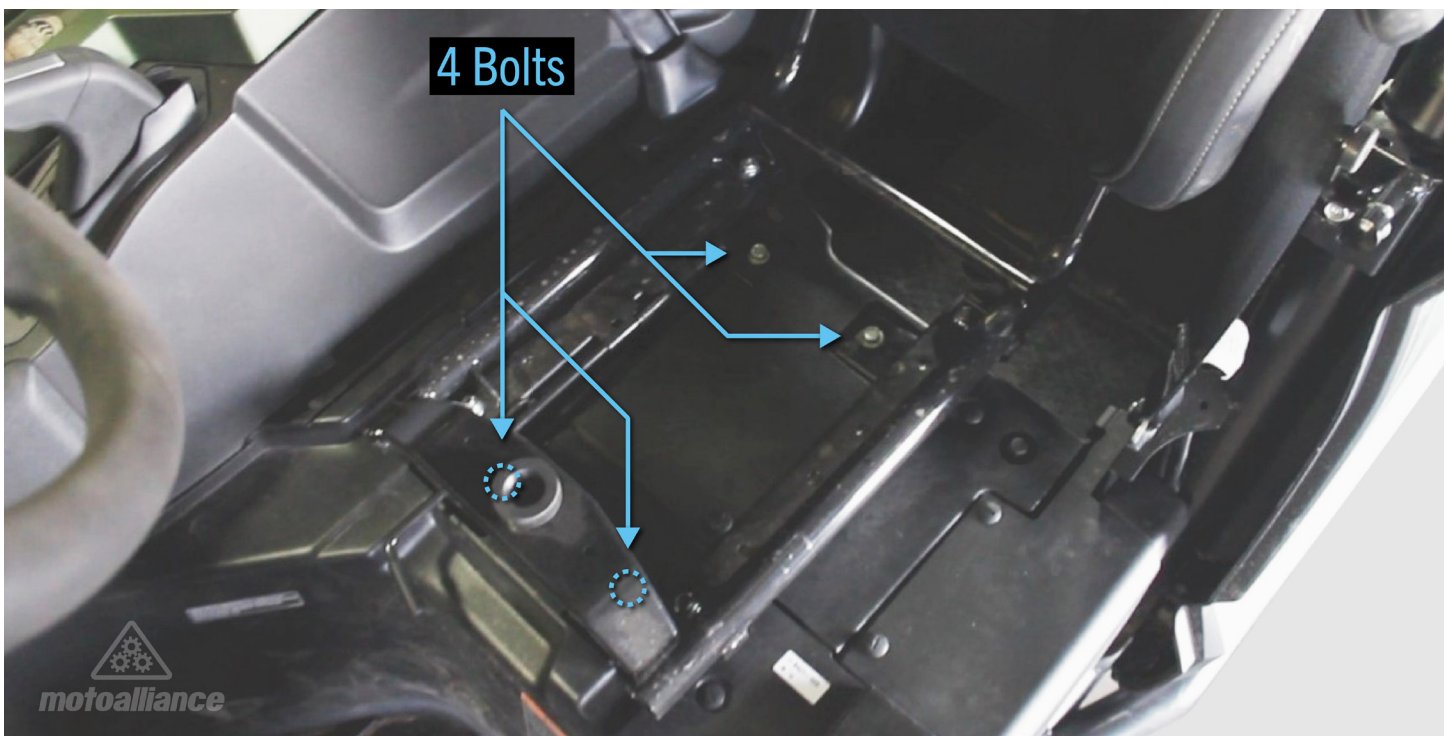
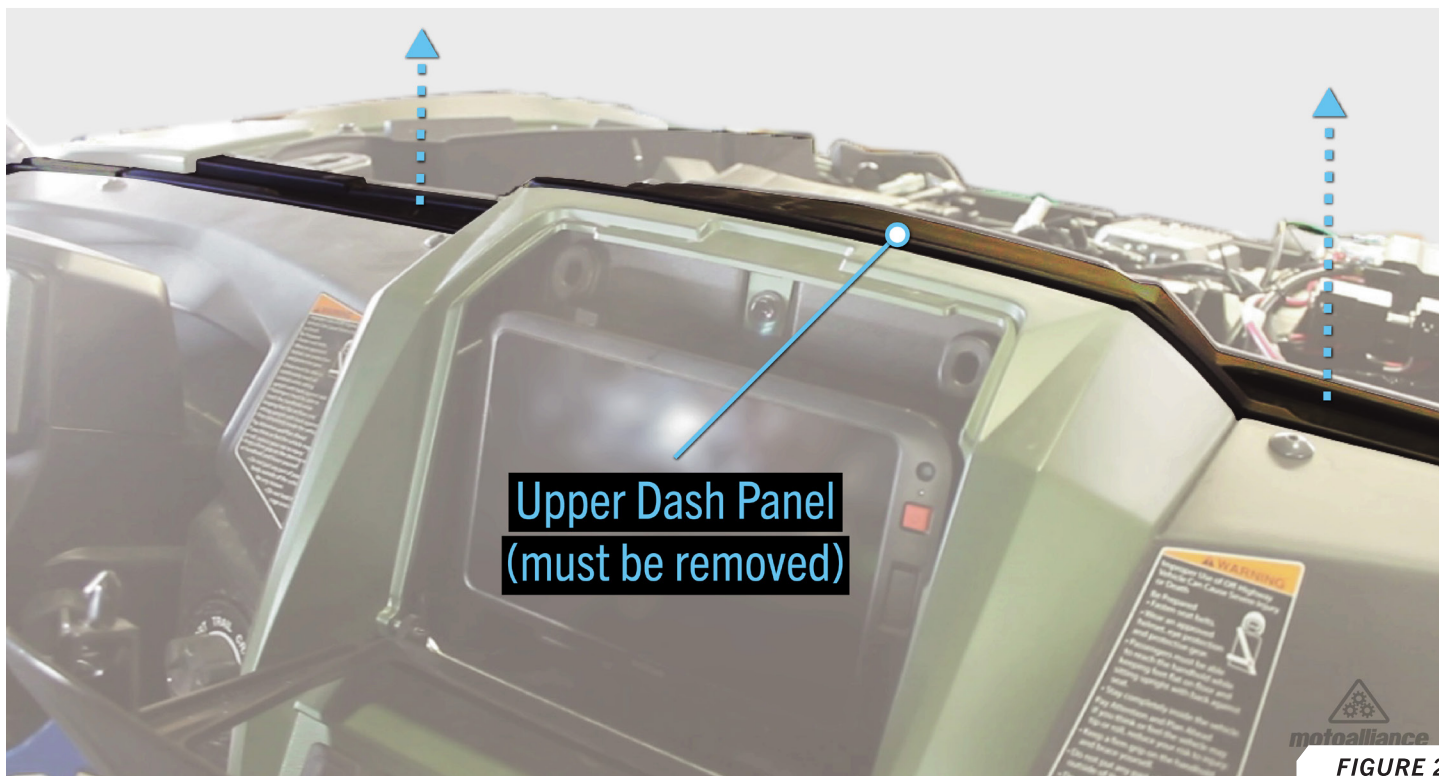


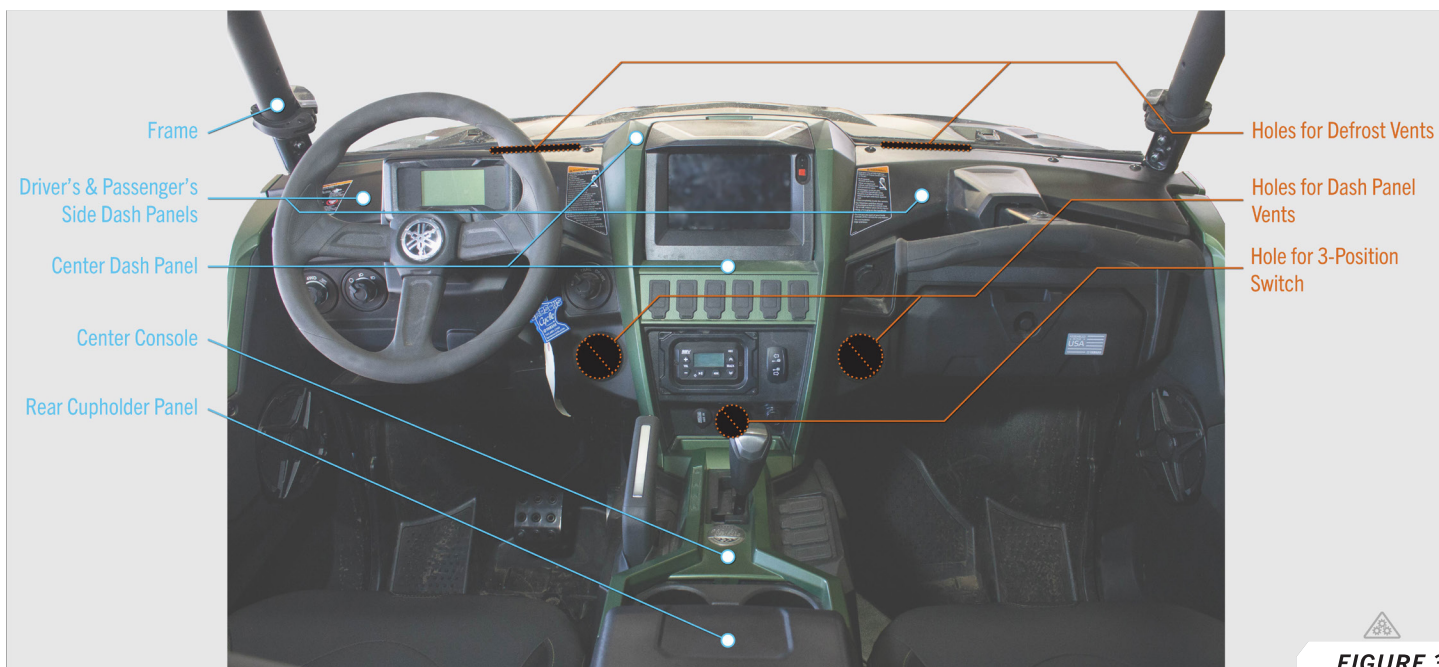
FIGURE 1

2. Remove the front 2 doors.
3. Remove the rear driver's side door.

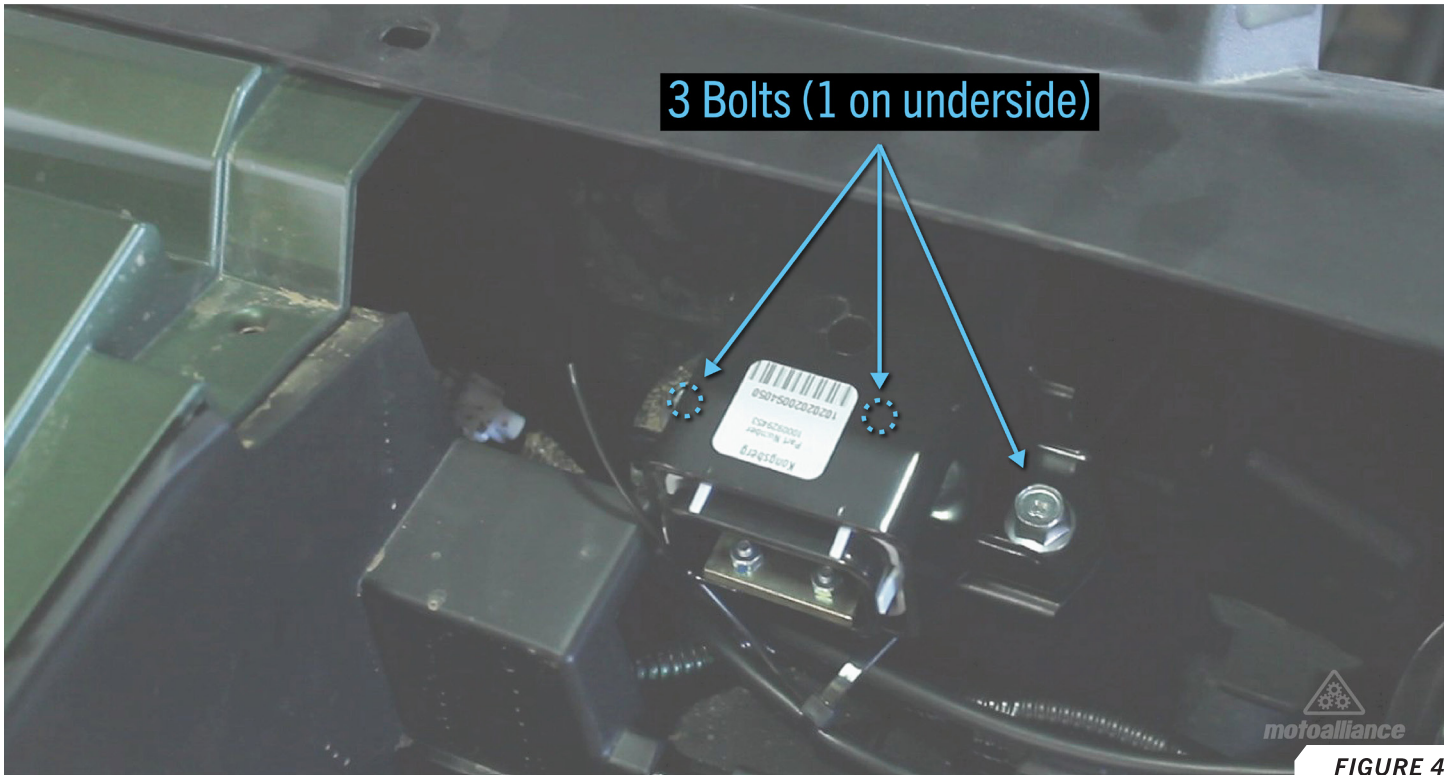
4. Remove the bolts holding in the upper dash panel, then remove the panel and set aside. **FIGURE 2**



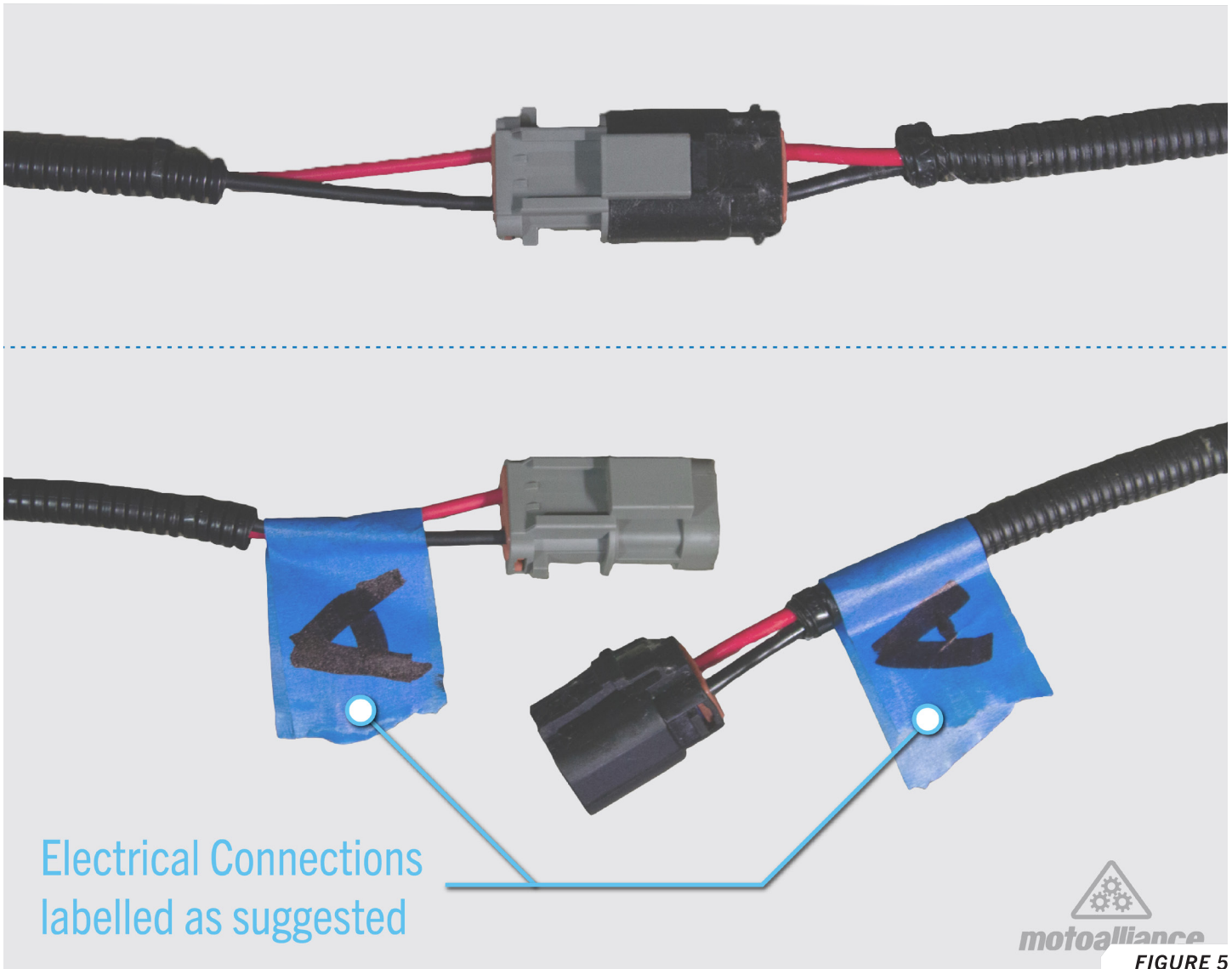
5. Remove the bolts and rivets from the passenger-side dash panel. **FIGURE 3**



6. Remove the 3 bolts securing the passenger handlebar. *FIGURE 4*



7. Disconnect the electrical connections between the passenger-side dash panel and the frame. **FIGURE 5**



8. Remove the passenger-side dash panel and set aside. **FIGURE 3**
9. Remove the steering wheel and set aside.
10. Remove the bolts and rivets from the driver side dash panel. **FIGURE 3**
11. Disconnect the electrical connections between the driver side dash panel and the frame. **FIGURE 5**
12. Remove the driver side dash panel and set aside. **FIGURE 3**
13. Remove the center dash panel bolts and rivets. **FIGURE 3**
14. Disconnect the electrical connections between the center dash panel and the frame. **FIGURE 5**
15. Remove the center dash panel and set aside. **FIGURE 3**

16. Pull out the bottom of the front 2 seats, then remove the bolts holding in the front 2 seats. Remove the front 2 seats from the vehicle and set aside. **FIGURE 6**

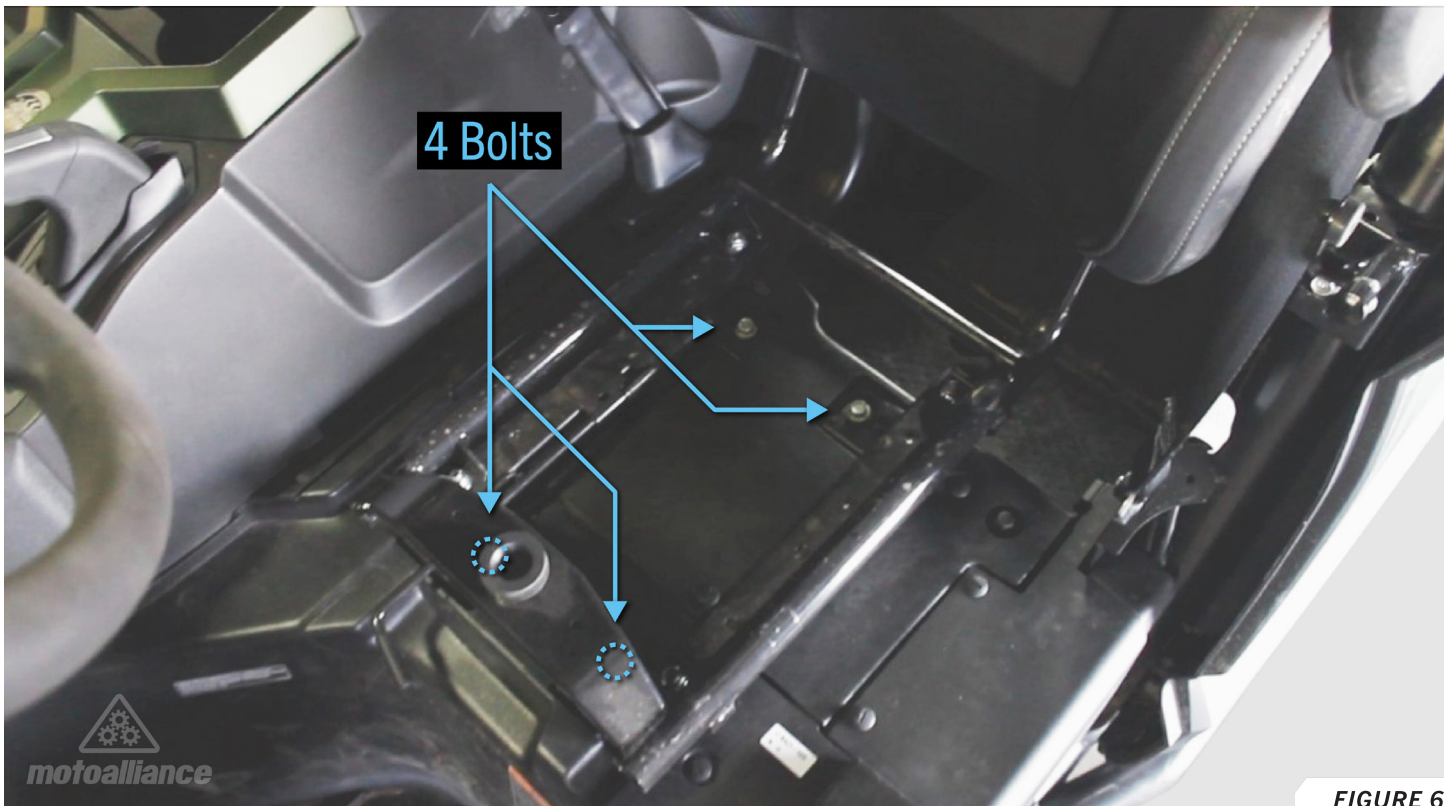


FIGURE 6

17. Remove the 5 twist-rivets holding the rear cupholder panel in place, then remove the rear cupholder panel and set aside. **FIGURE 7**

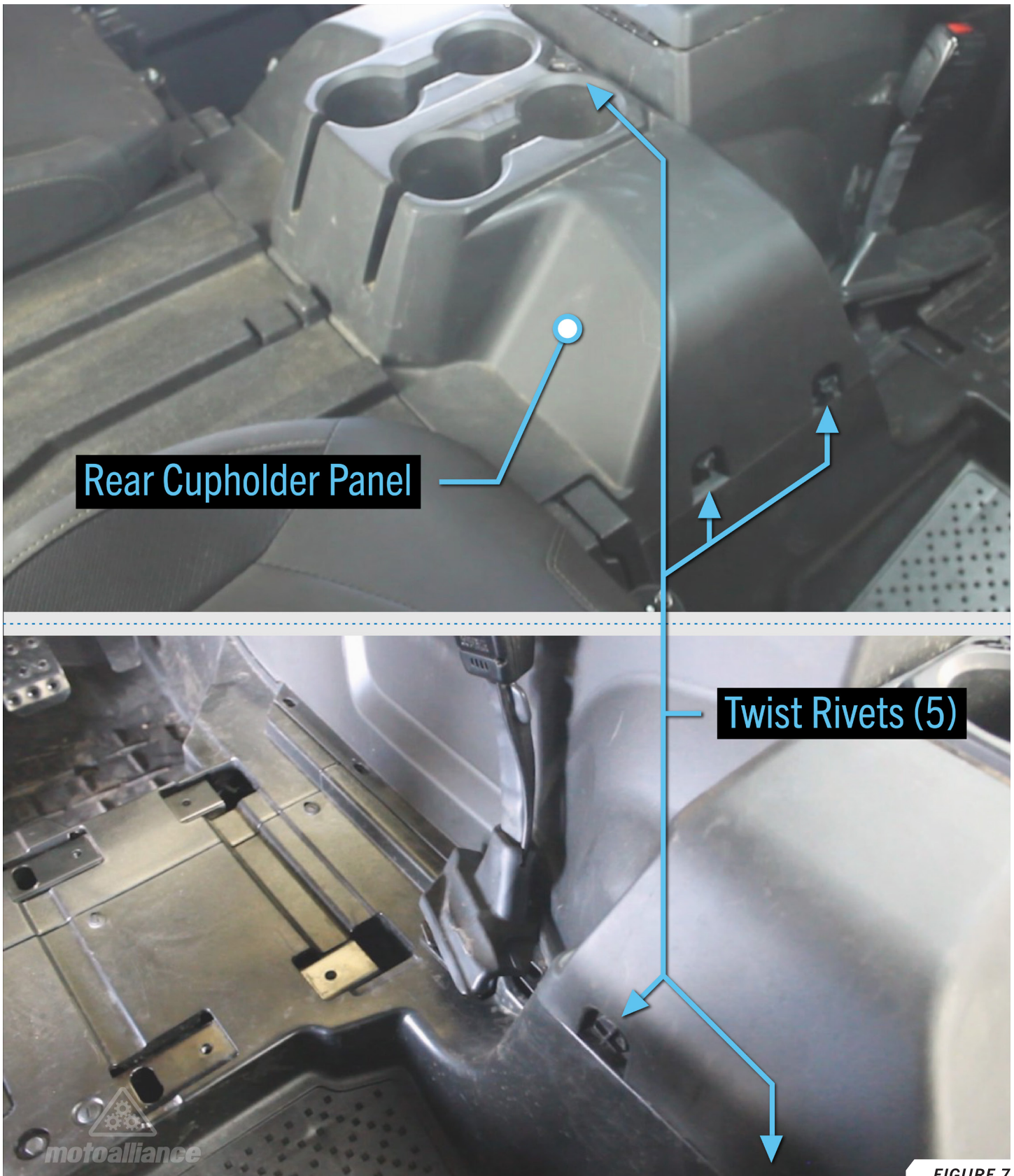


FIGURE 7

18. Remove the shifter knob.
19. Remove the bolts and rivets from the center console, then remove the center console and set aside. **FIGURE 3**
20. Remove the side panel under the driver's seat. **FIGURE 8**
21. Remove the rear driver side foot-well. **FIGURE 8**

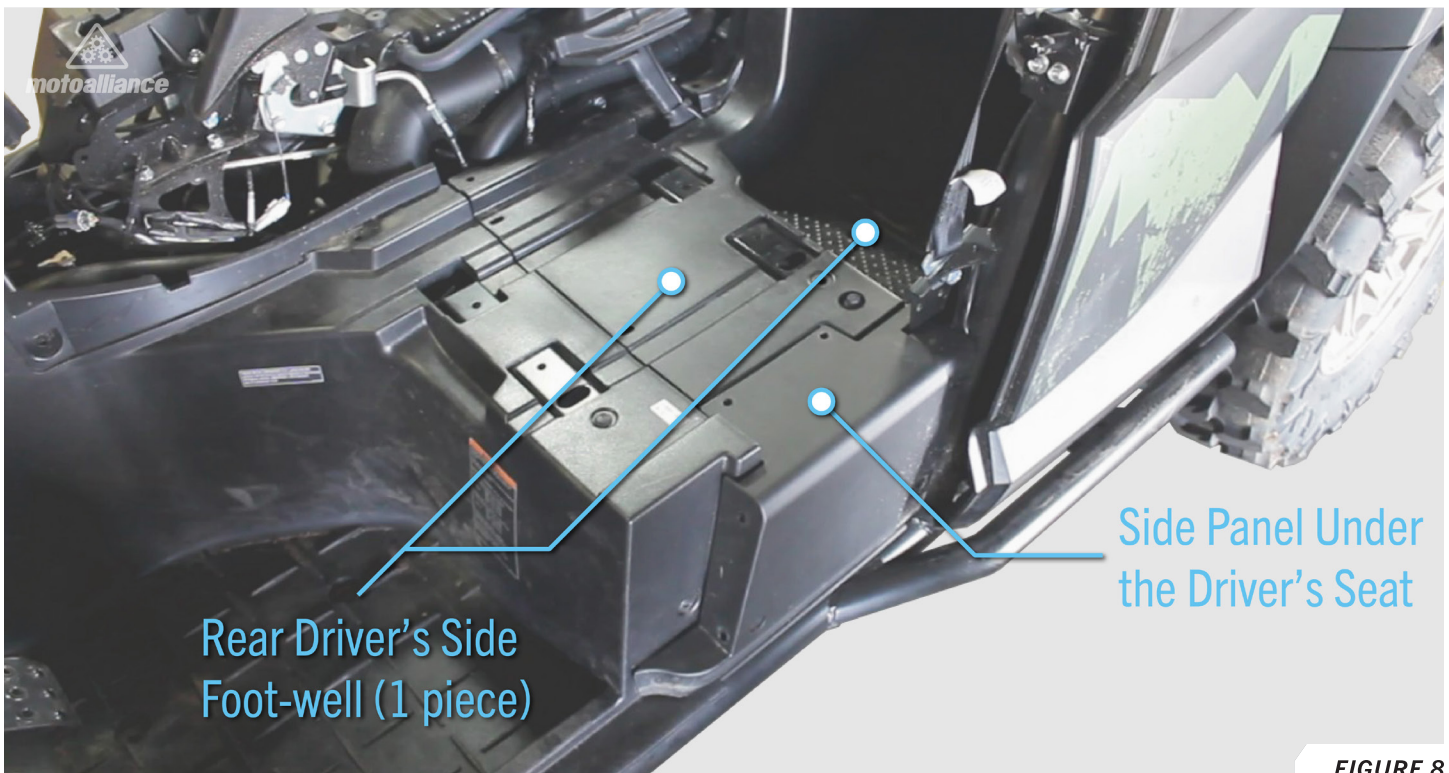
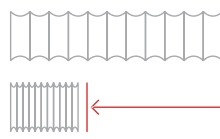


FIGURE 8

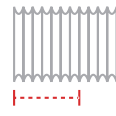
DUCT HOSE ROUTING

22. Measure and cut the following lengths of COMPRESSED duct hose:

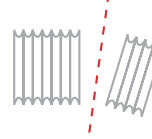
- 10" (qty 1)
- 3" (qty 2)
- 13" (qty 1)
- 5" (qty 2)



1. Compress



2. Measure



3. Cut

All measurements are given in **compressed** length.

23. Connect the 13" duct hose section and the two 5" duct hose sections to one of the Y connectors. **FIGURE 9**

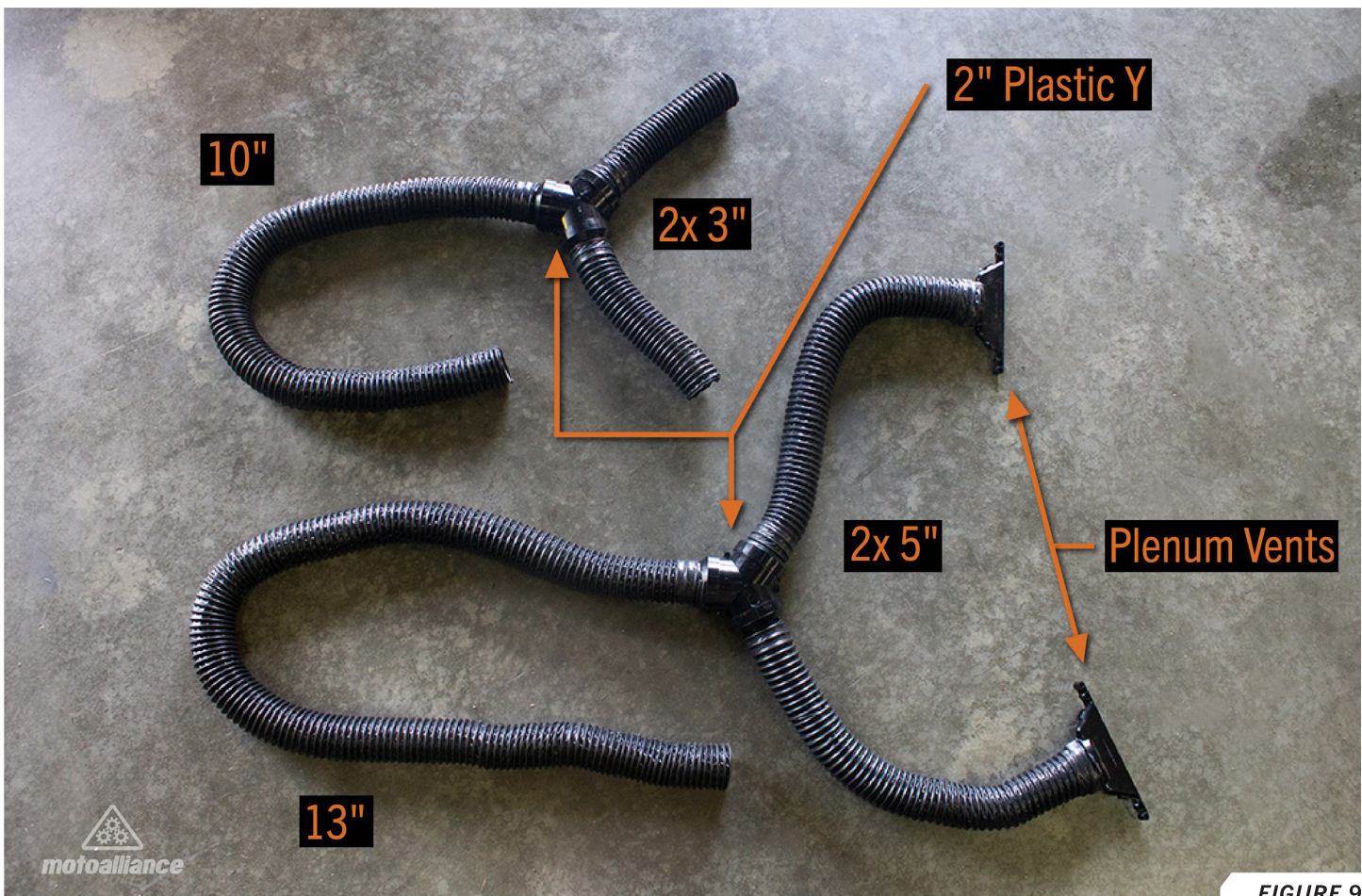


FIGURE 9

24. Connect the 10" duct hose section and the two 3" duct hose sections to the other Y connector. **FIGURE 9**

25. Route the 13" section and the 10" section through the center console to the cavity under the driver's seat. **FIGURE 10**

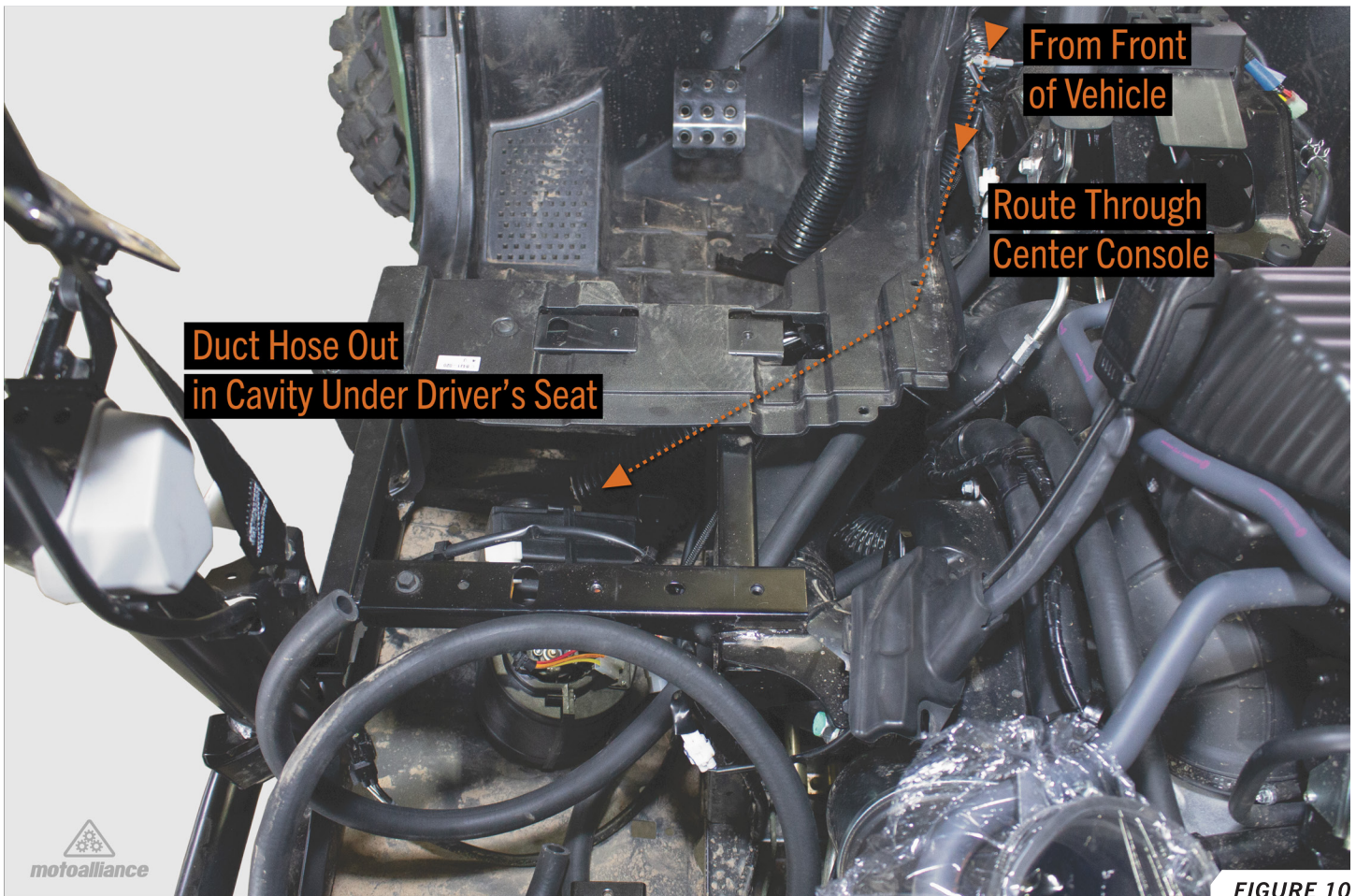


FIGURE 10

26. Route one 5" section and one 3" section to the driver's side, next to the steering wheel. Route the other 3" and 5" sections to the passenger side. **FIGURE 11**

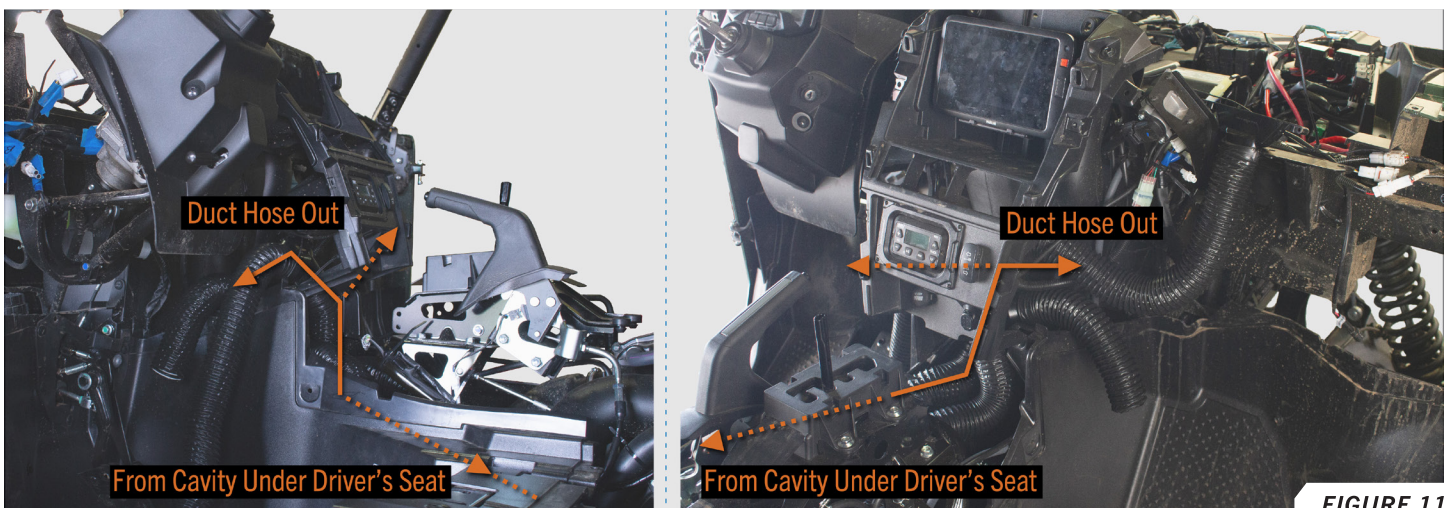


FIGURE 11

27. Take the driver side dash panel and find the circular location for the driver's vent. Mark the center of the circle. **FIGURE 12**

Location may be factory-indicated.

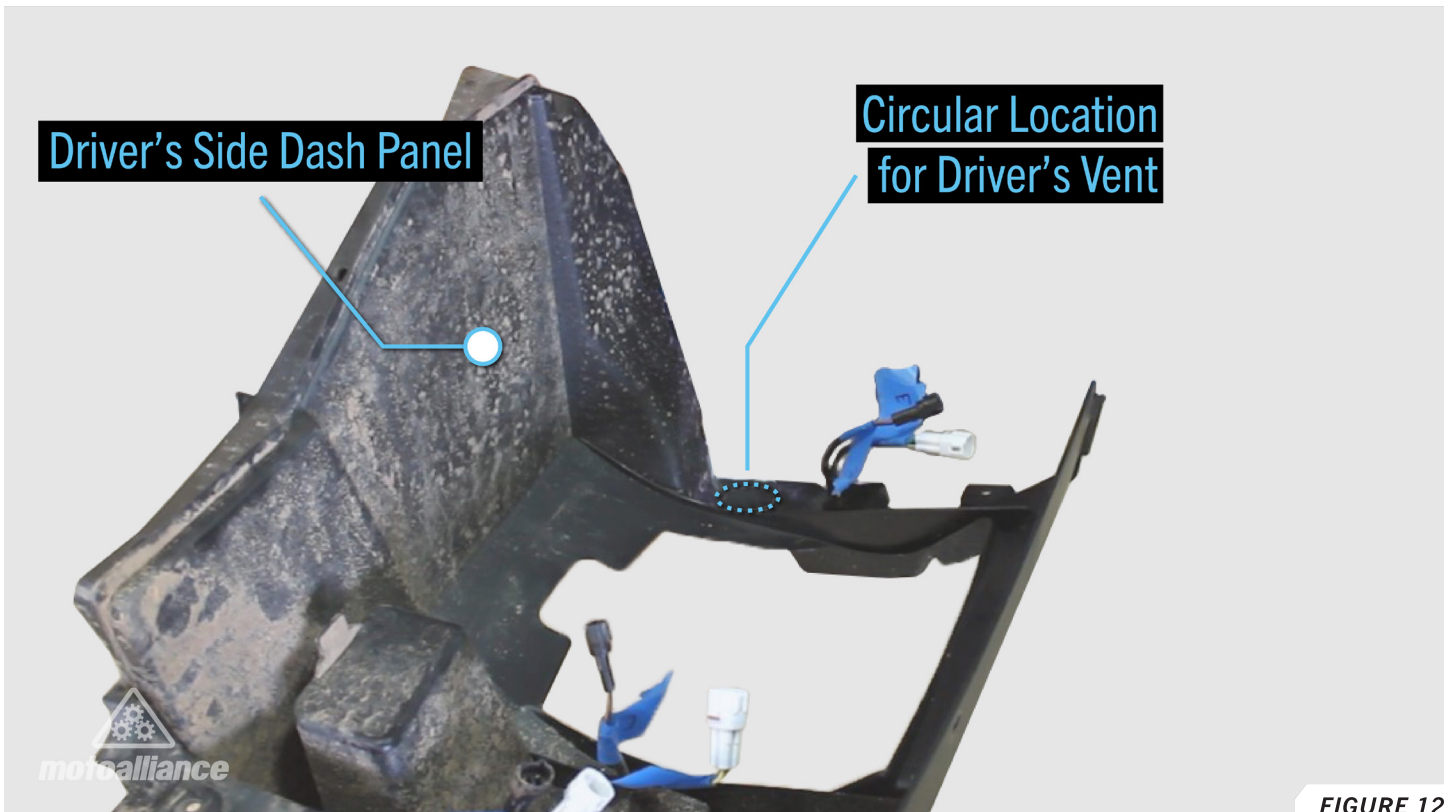


FIGURE 12

28. Take the 2" hole saw and drill through the driver side dash panel to make a hole for the driver side vent. Clean up any burs from around the hole, then insert the driver's side 2" vent into the hole. **FIGURE 12**

29. Take the passenger side dash panel and find the circular location for the passenger vent. Mark the center of the circle. **FIGURE 13**

Location may be factory-indicated.

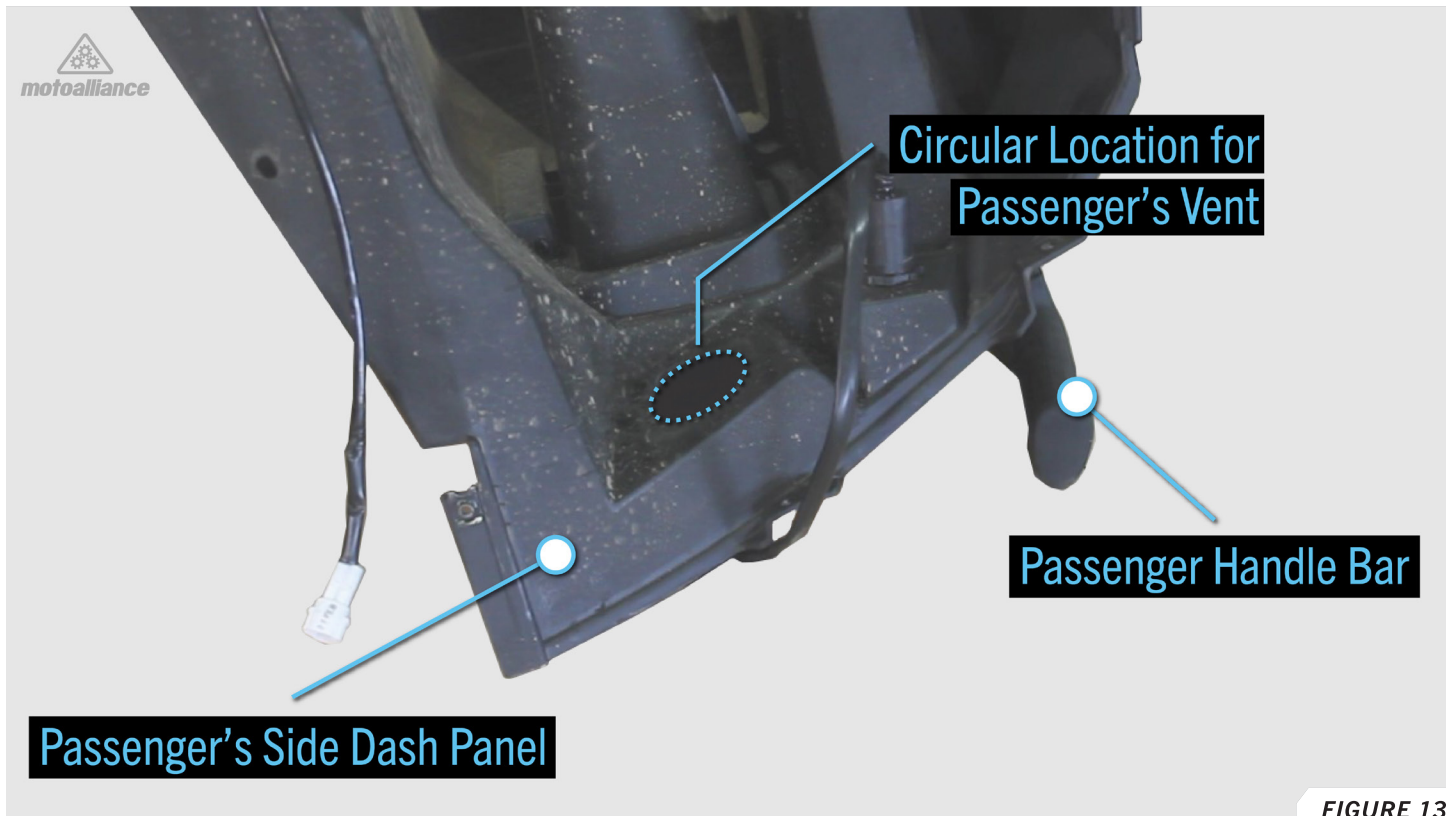


FIGURE 13

30. Take the 2" hole saw and drill through the passenger side dash panel to make a hole for the passenger's side 2" vent. Clean up any burrs from around the hole, then insert the driver's vent into the hole. **FIGURE 13**

31. Take the upper dash panel and find the locations for plenum vents. Drill a hole through the ends of each plenum vent location, then cut out the plenum vent holes. *FIGURE 14*

Locations may be factory-indicated.

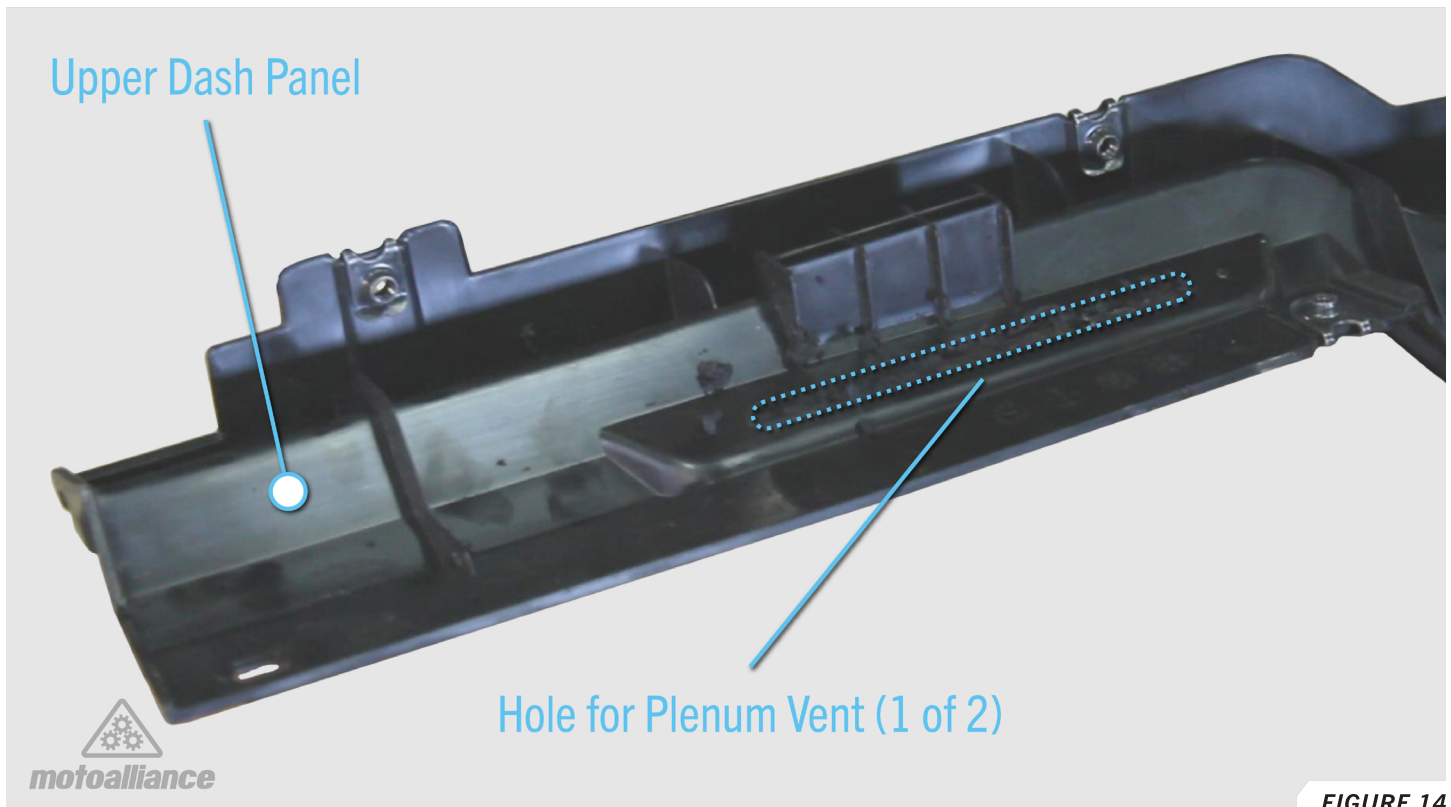


FIGURE 14

32. Clean up any burrs from around the plenum vent holes, then set the panel aside.

RADIATOR HOSE ROUTING

33. Route the 20' radiator hose into the cavity under the driver's seat, through the center console, and up through the center of the dash. Continue routing the radiator hose to the right of the air intake for the engine, then pass it toward the driver's side of the vehicle to the front left wheel-well. The end of the radiator hose should meet up next to the 1" radiator hose for the radiator. **FIGURE 15**

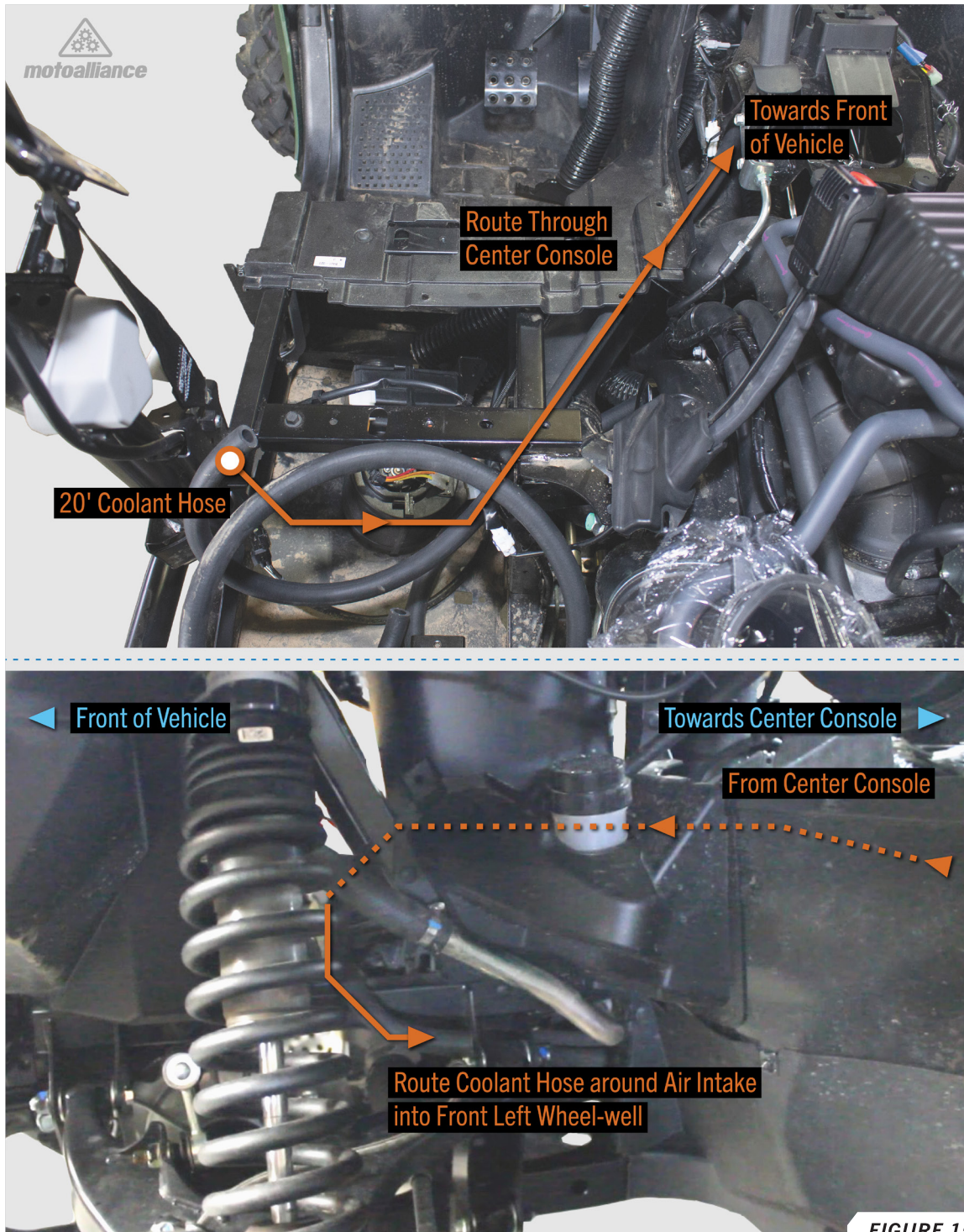


FIGURE 15

34. Cut the radiator hose in the cavity under the driver's seat with extra length (12" is recommended) so it can easily be attached to the cab heater unit later.
35. Take the remainder of the radiator hose and route it from the cavity under the driver's seat toward the back of the vehicle. It should follow the engine's main coolant line until they both reach the engine. **FIGURE 16**

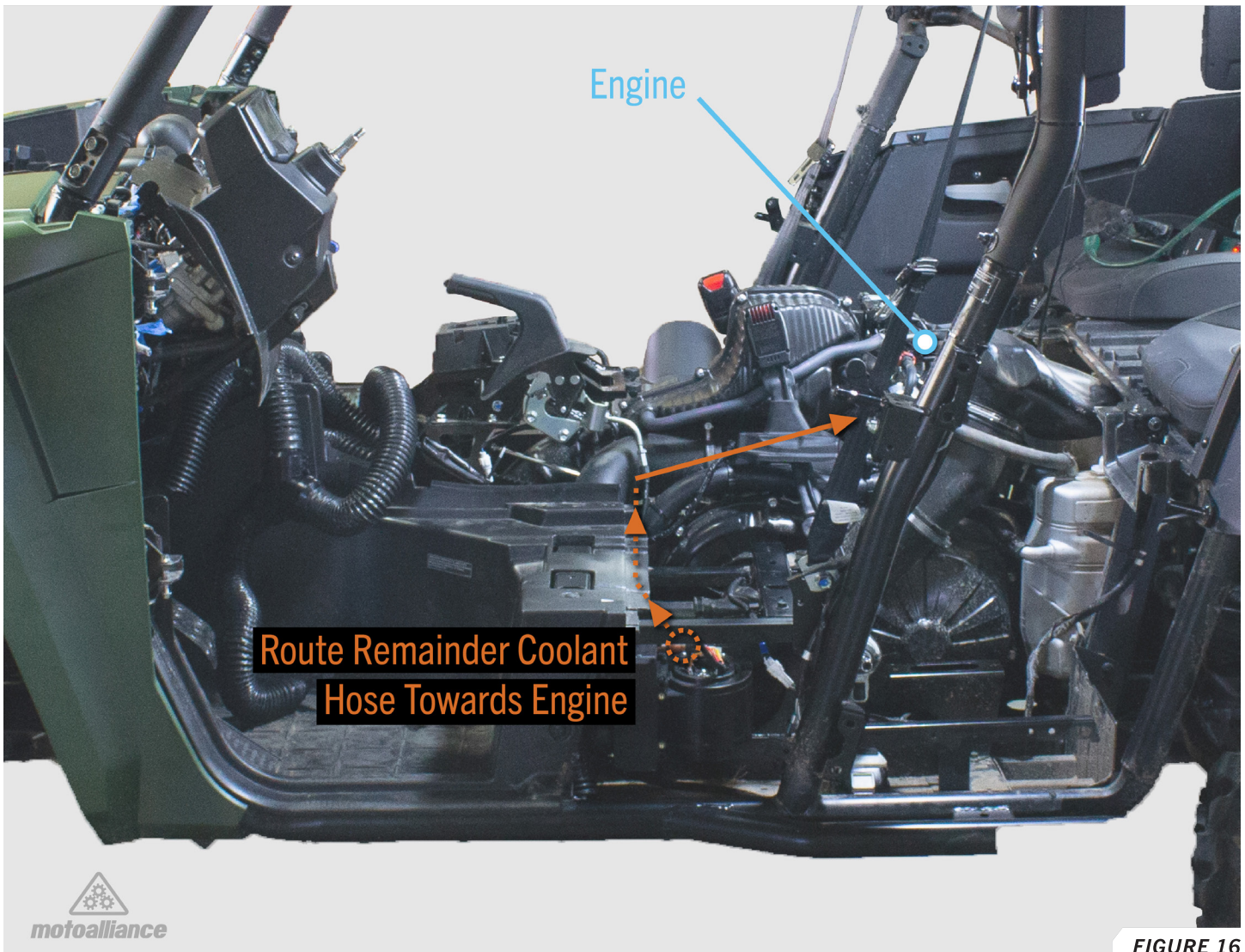


FIGURE 16

36. Cut the radiator hose in the cavity under the driver's seat with extra length (12" is recommended) so it can easily be attached to the cab heater unit later.

37. Select a location along the hose to the engine that will be easy to access (we recommend a location within the cavity under the driver's seat), then install the shutoff valve by cutting into the hose and securing with two #10 hose clamps. **FIGURE 17**

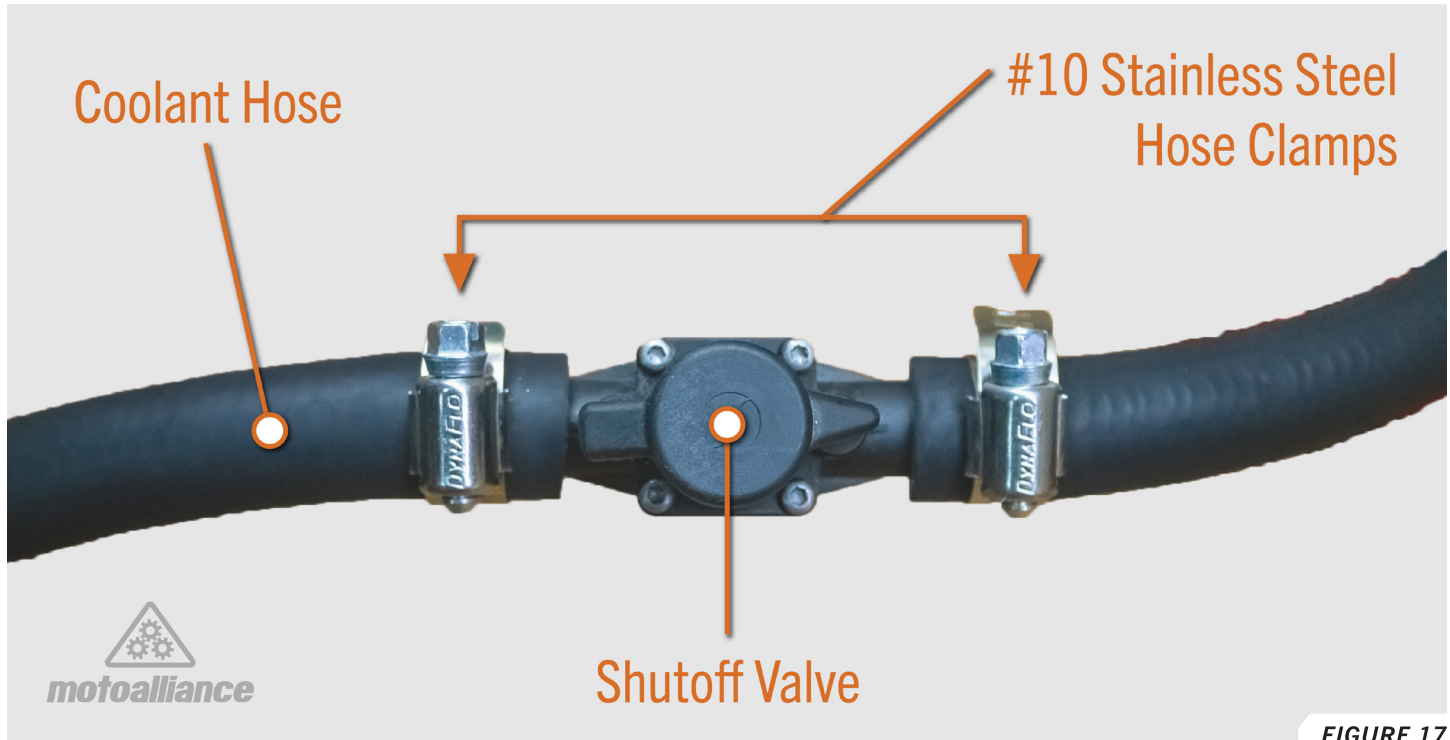


FIGURE 17

CAB HEATER UNIT INSTALLATION

38. Remove the rubber stoppers from the FIRESTORM Cab Heater coolant inlet/outlets. **FIGURE 18**

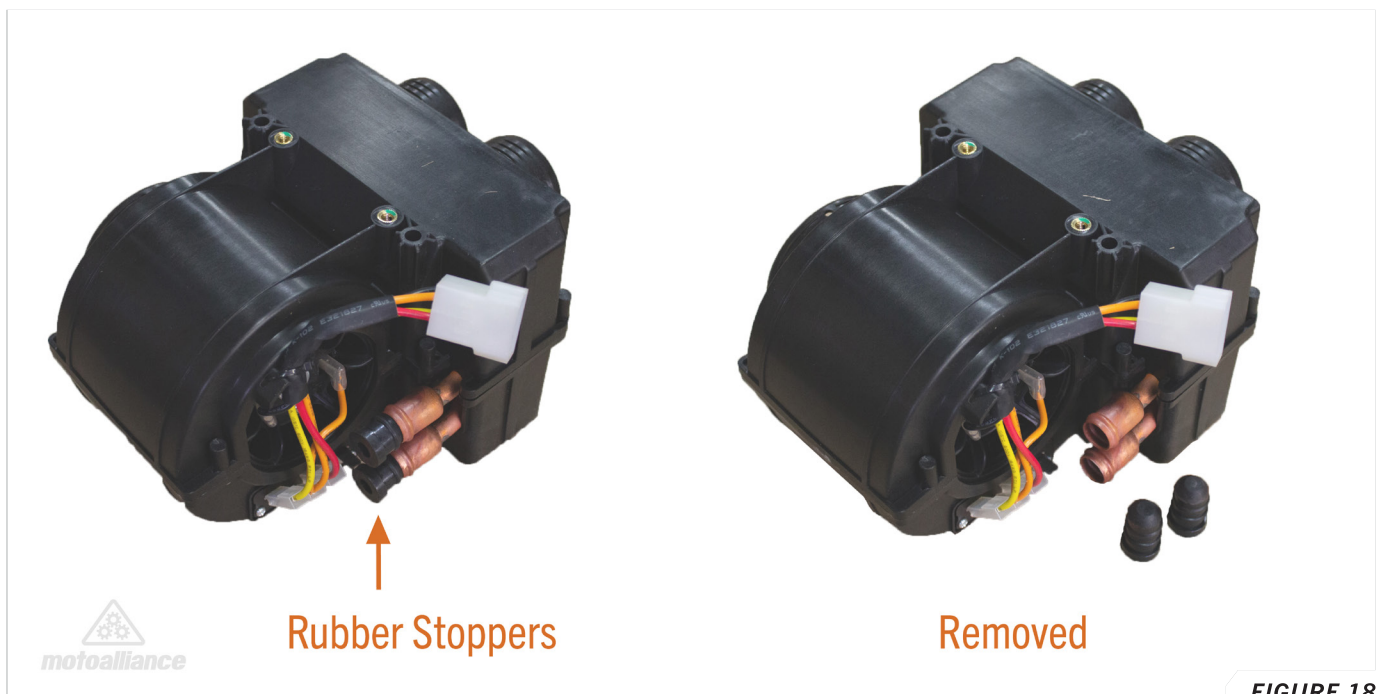
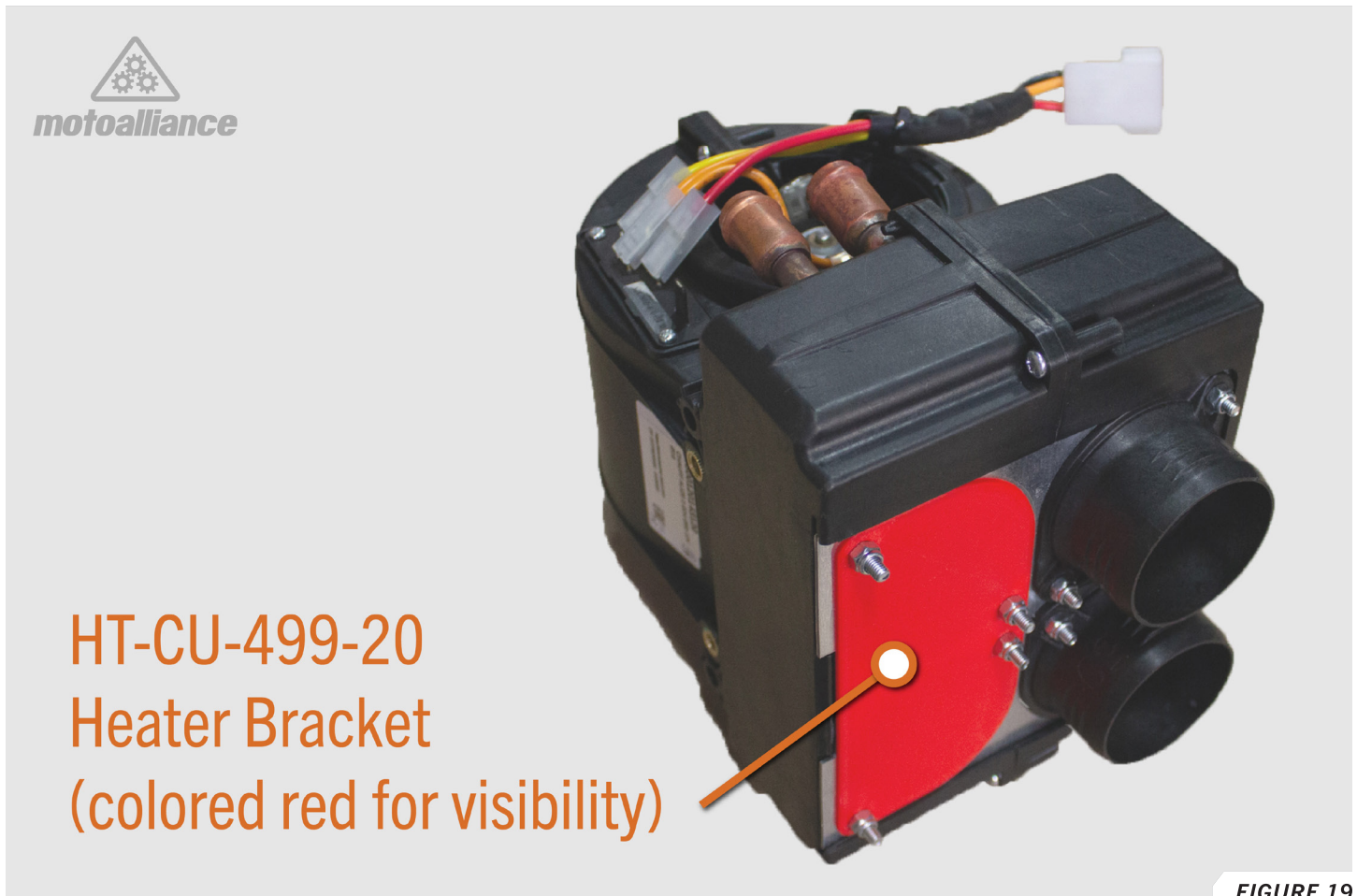


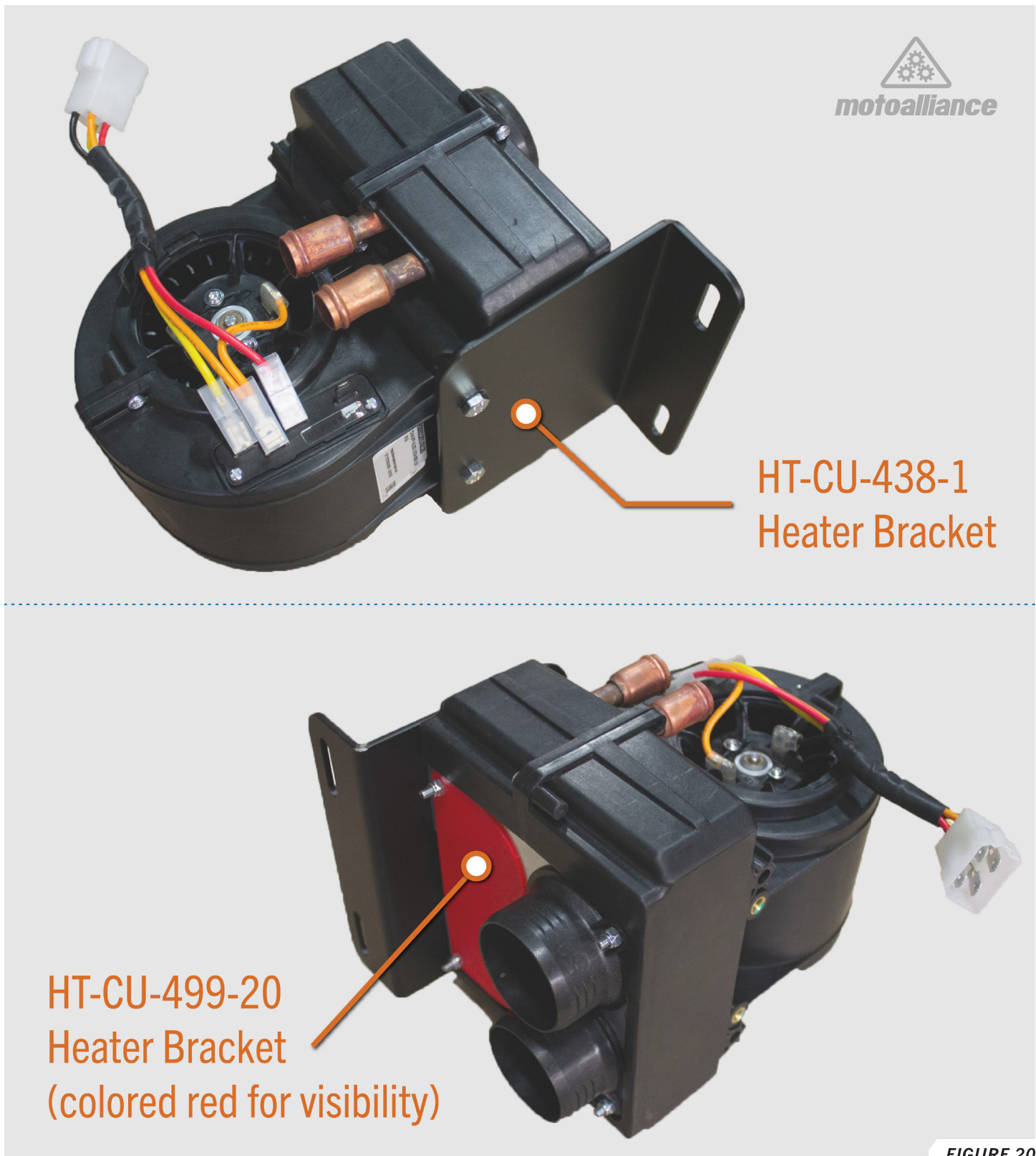
FIGURE 18

39. Unscrew the nuts holding in two adjacent FIRESTORM Cab Heater vent outlets and remove the outlets. **FIGURE 19**



40. Take the HT-CU-499-20 plate and use it to cover the holes left from removing the vent outlets. Use the nuts from step 39 to secure the plate. **FIGURE 19**

41. Attach the HT-CU-438-1 heater bracket to the FIRESTORM Cab Heater as shown in **FIGURE 20** using the two M6 hex bolts provided.



42. Fit the FIRESTORM Cab Heater into the cavity under the driver's seat. Secure the FIRESTORM Cab Heater to the vehicle frame by using the ¼"x1" hex bolts, ¼" fender washers, and ¼" nylock nuts through the slotted holes of the HT-CU-438-1 heater bracket into the two holes in the frame. The vent outlets should face forward and the radiator hose connections should face rearward.
43. Connect the 10" and 13" sections of duct hose to the two remaining vent outlets on the FIRESTORM Cab Heater.
44. Connect the two coolant lines in the cavity under the driver's seat to the FIRESTORM Cab Heater. **FIGURE 21**

Either side may be used as a coolant inlet or outlet; it does not matter. Simply ensure hoses are not kinked.

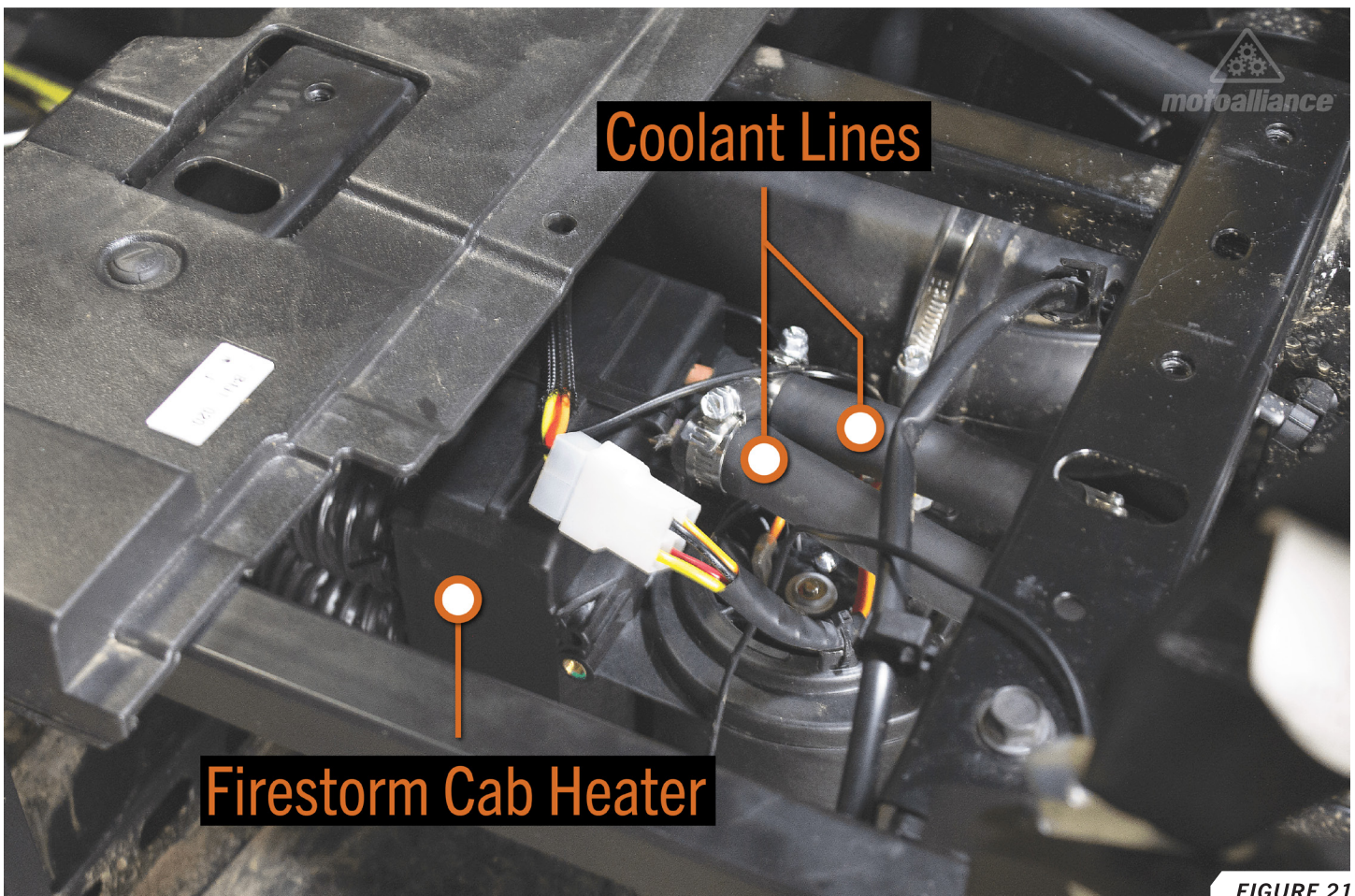


FIGURE 21

45. Turn the Shutoff Valve to the open position.

SWITCH WIRING

46. Locate the 36" Red/Yellow/Orange (R/Y/O) Harness and insert the red, yellow, and orange wires into the 5-Pin black connector as shown in **FIGURE 22**. When installed correctly, the wire terminals will snap into place. If a terminal does not snap into place, flip the terminal over and try again.
47. Locate the 36" single red wire and insert it into the lower left corner of the 5-Pin black connector as shown in **FIGURE 22**.

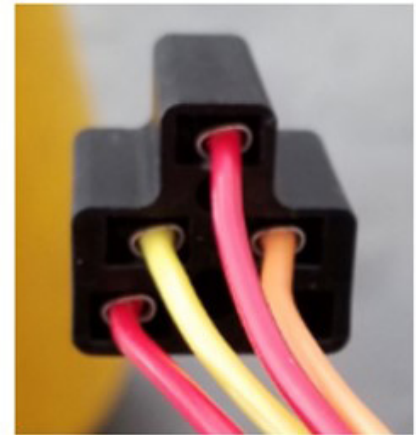
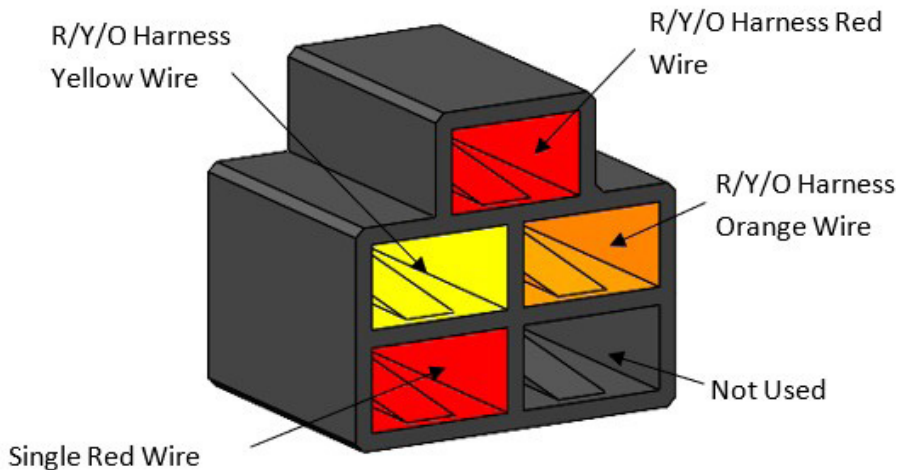


FIGURE 22

48. Connect the 5-Pin black connector to the 3-Position switch included in the kit.
49. Find the center dash panel and the plastic bezel from the 3-Position switch. Position the 3-Position switch bezel onto the center dash panel as shown in **FIGURE 23** and mark the center. Remove the 3-Position switch bezel and drill a 7/16" hole at the marked location. Remove any burs around the hole.



FIGURE 23

50. Insert the switch from the back of the center dash panel and secure using the low-profile hex nut included in the switch bag. Disregard the flex lock washer.

51. 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 24**.

52. Place the bezel over the switch so that the 0, 1, 2, 3 markings are visible.

53. Press the switch dial onto the switch until it is seated firmly.

54. Locate the 4-Pin white connector included in the kit. Insert the other ends of the red, yellow, and orange wires from the 36" Red/Yellow/Orange (R/Y/O) Harness into the 4-Pin white connector as shown in **FIGURE 25**. When installed correctly, the wire terminals will snap into place. If a terminal does not snap into place, flip the terminal over and try again.



FIGURE 24

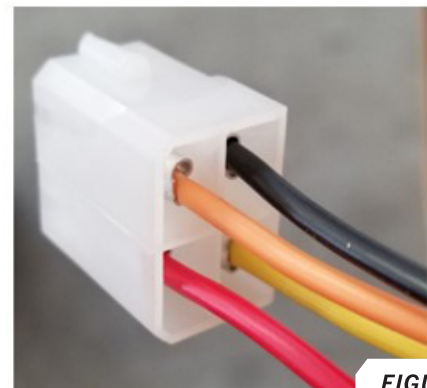
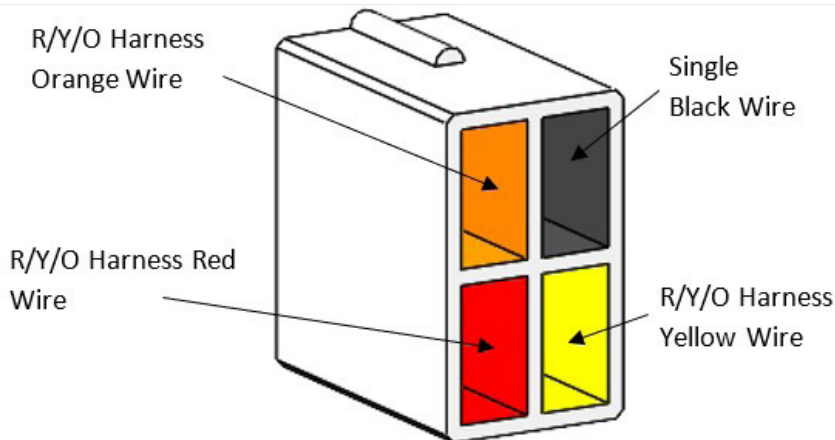


FIGURE 25

55. Insert the 36" single black wire into the 4-Pin white connector as shown in **FIGURE 25**. Ensure the terminal snaps into place as described above.

56. Insert the assembled connector into the white terminal housing on the heater unit.

57. Use the insulation displacement crimps to connect the non-terminated end of the 36" red single wire to a keyed power source. This would be any power source that is only powered when the vehicle is on. This can be found by testing wires with a multimeter. Common examples may include the ignition, radios, and winches though this may vary with your vehicle.

58. Connect the non-terminated end of the 36" black single wire to any vehicle ground.

59. Test the switch to ensure that it can control the fan speed in all three positions.

COOLANT COUPLER INSTALLATION

DO NOT USE POWER TOOLS ON
ANY PART OF THE ENGINE BLOCK

60. Find the coolant outlet on the engine. *FIGURE 26*

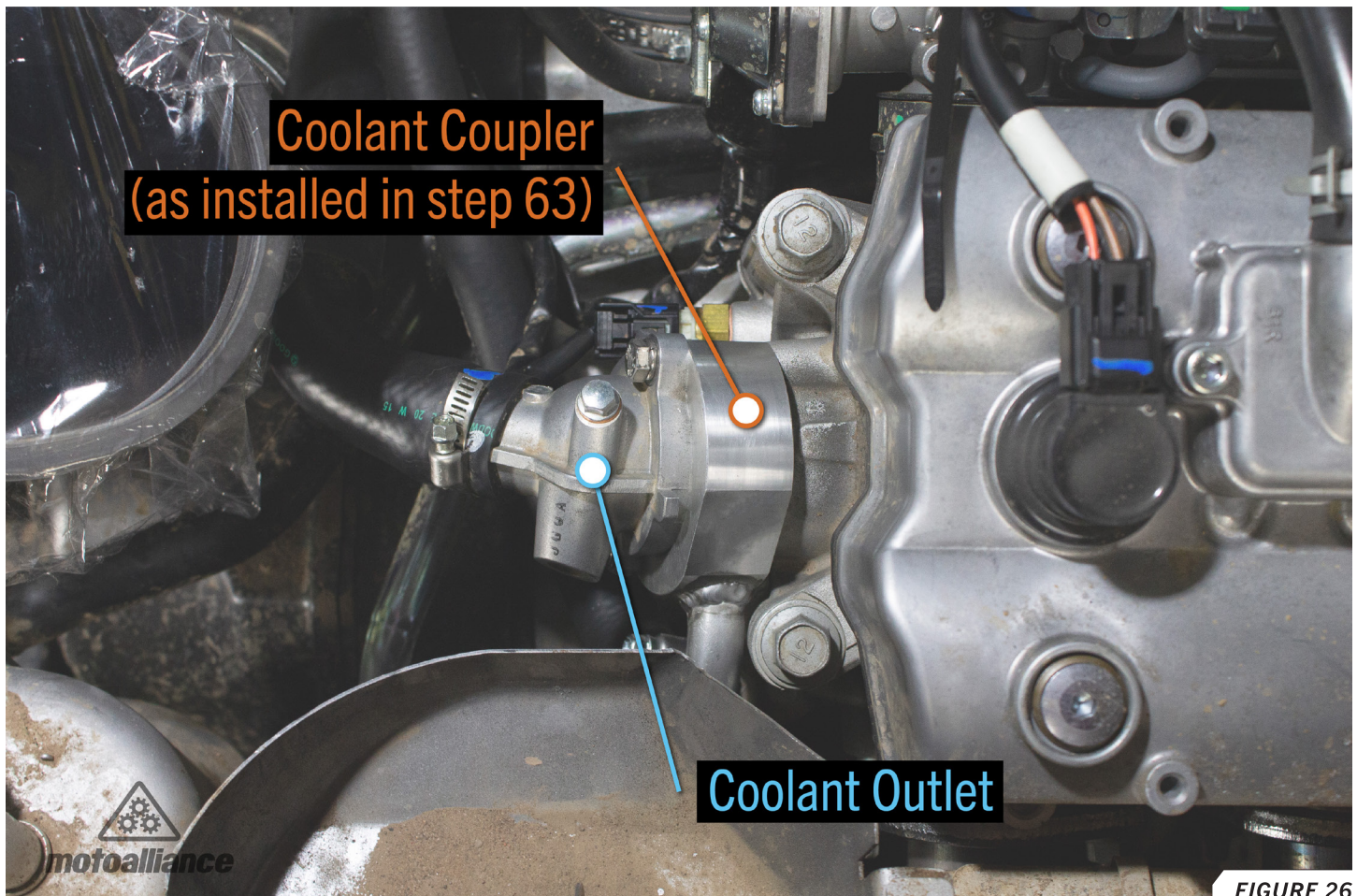


FIGURE 26

61. Connect the coolant coupler to the $\frac{5}{8}$ " radiator hose and secure it with a #10 hose clamp.
62. Disconnect the coolant outlet from the engine block.
63. Place the coolant coupler between the coolant outlet and the engine block, with the $\frac{5}{8}$ " radiator hose on the bypass kit facing down and forward. *FIGURE 26*
64. Thread the two bolts provided in the coolant coupler into the engine block, ensuring that the large green rubber o-ring seated in the recess of the coolant coupler.
65. Check for any leaks and clean up any coolant that spilled out during this process.

RADIATOR Y INSTALLATION

66. Locate the aluminum 1" Y, two #16 hose clamps, and one #10 hose clamp.
67. Verify that the 1" aluminum Y will fit as shown under 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 into a bucket. **FIGURE 27**

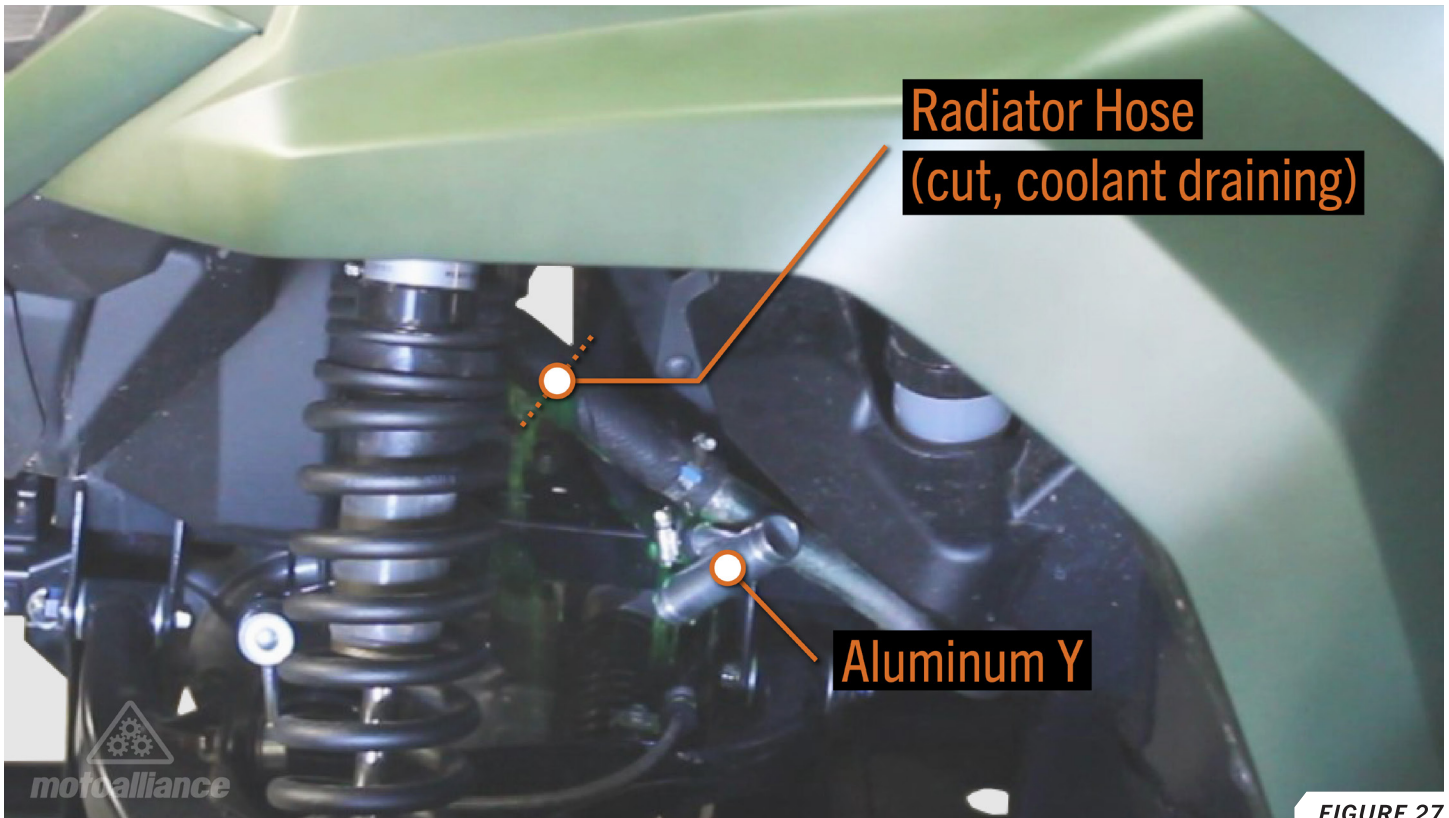


FIGURE 27

68. Slide one of the #16 hose clamps onto each side of the radiator hose, then connect the 1" aluminum Y. The $\frac{5}{8}$ " side nozzle should point toward the back of the vehicle. **FIGURE 28**

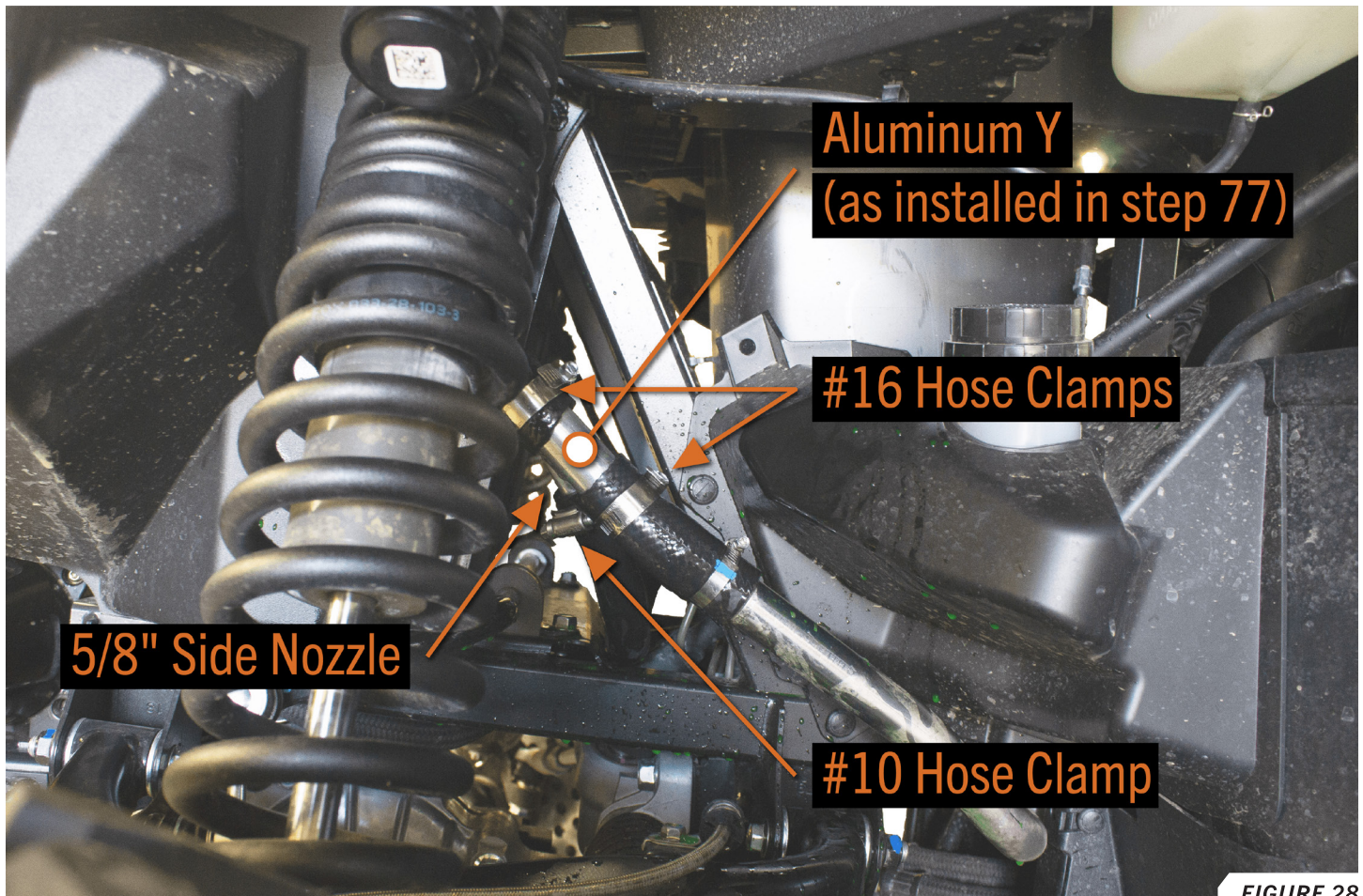


FIGURE 28

69. Secure the aluminum Y using the #16 hose clamps, then find the $\frac{5}{8}$ " radiator hose you routed earlier, place a #10 hose clamp over it, and connect it to the $\frac{5}{8}$ " nozzle of the aluminum 1" Y.

70. Secure the 5/8" radiator hose using the #10 hose clamp. *FIGURE 29* below is included as a reference photo for how the radiator hoses should be attached to the aluminum Y.



FIGURE 29

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.

71. Fill radiator with coolant until radiator is full.
72. Open the shutoff valve.
73. 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.
74. Turn off the machine and wait for it to cool down.
75. Open the radiator cap and add more coolant.
76. Repeat the steps in this section until consistent heat is coming out of the vents and machine temperature gauge stays under 200°F.
77. Check for any leaks and clean up any coolant that spilled out during this process.

Look at owner's manual for manufacturer-approved coolant

FINISHING

78. Reassemble all panels removed from the machine.
79. During reassembly, attach the plenum vents to the dash and attach the vent grilles to the vents.
80. 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
Plenum Vent	HT_Plenum
Vent Grille	HT_VentGrille
Coolant Coupler	HT_BP107

Item Description	SKU
FIRESTORM Heater Motor	RPL_HT_CU_Fan_and_Motor
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



Scan this QR code to get more tech help, watch troubleshooting videos, or submit a help form on motoalliance.com

