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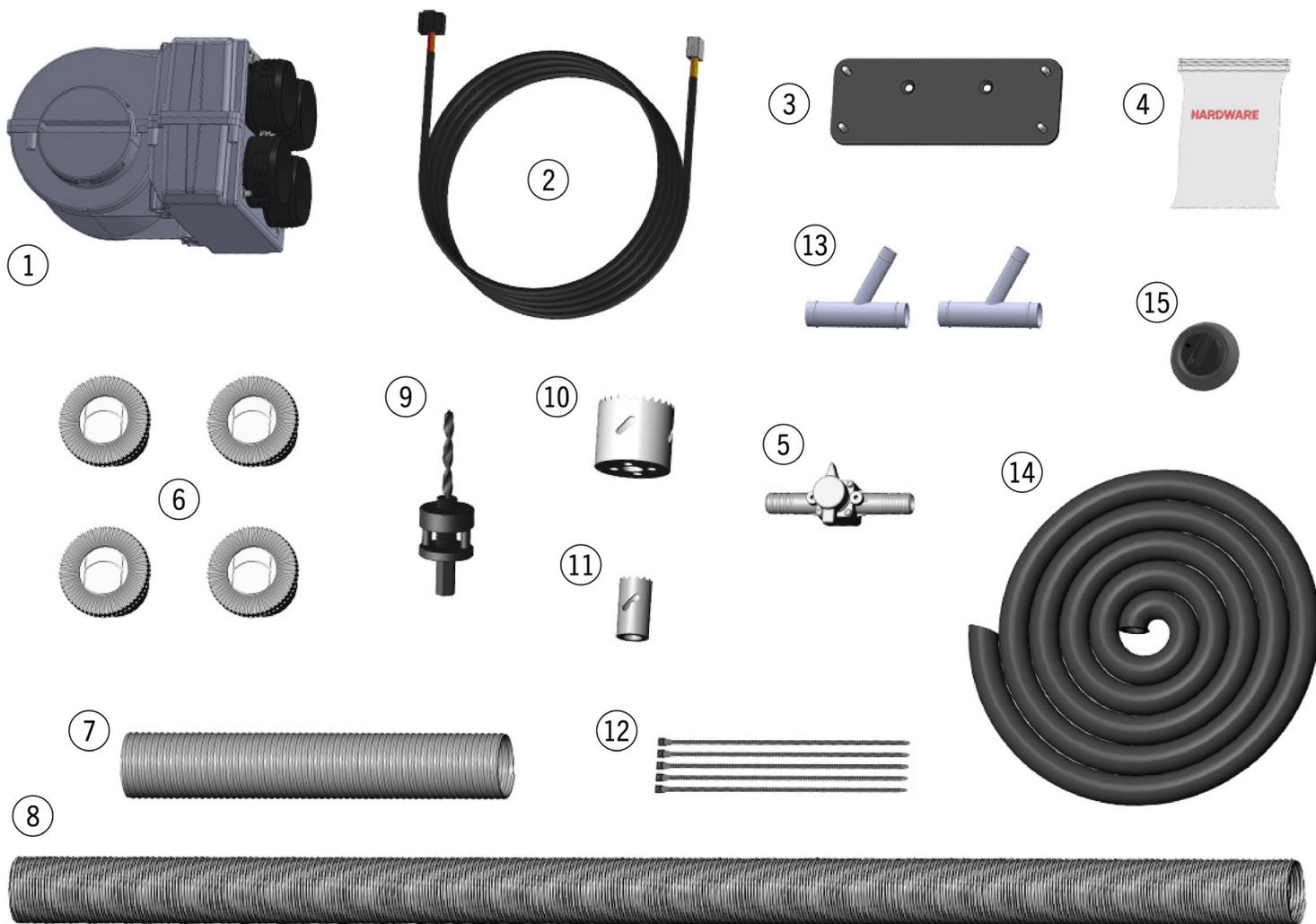


FIRESTORM
C A B H E A T E R S

Polaris General 1000 Cab Heater
HT_CU_405

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_499-4 Heater Mount Bracket
4	1	Hardware Pack

Part#	Qty	Item Description
2	2	Rubber Grommet
	2	M6-1.0x12mm Flat Head Cap Screw
	4	1/4"-20 Serrated Flange Nut
	2	Insulation Displacement Crimp
	6	#10 Stainless Steel Hose Clamps
	2	#16 Stainless Steel Hose Clamps
5	1	Plastic Shut-Off Valve
6	4	2" Vent
7	10"	2" Compressed Duct Hose

Part#	Qty	Item Description
8	24"	2" Compressed Duct Hose
9	1	Hole Saw Pilot Bit
10	1	2" Hole Saw
11	1	1 1/4" Hole Saw
12	20	Zip Ties
13	2	1" Aluminum Y
14	20'	5/8" Coolant Hose
15	1	3-Position Switch



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. Disconnect the negative battery cable from the battery and secure it away from the terminal.
2. Remove the driver and passenger side doors.
3. Remove the front hood.
4. Remove the windshield if present.
5. Remove the bottom skid plate.
6. Remove the center tunnel cover panel from the passenger side footwell.
7. Remove dash cover panel as shown in *FIGURE 1*.

Removing the side plastic clips will ease removing the dash cover panel.

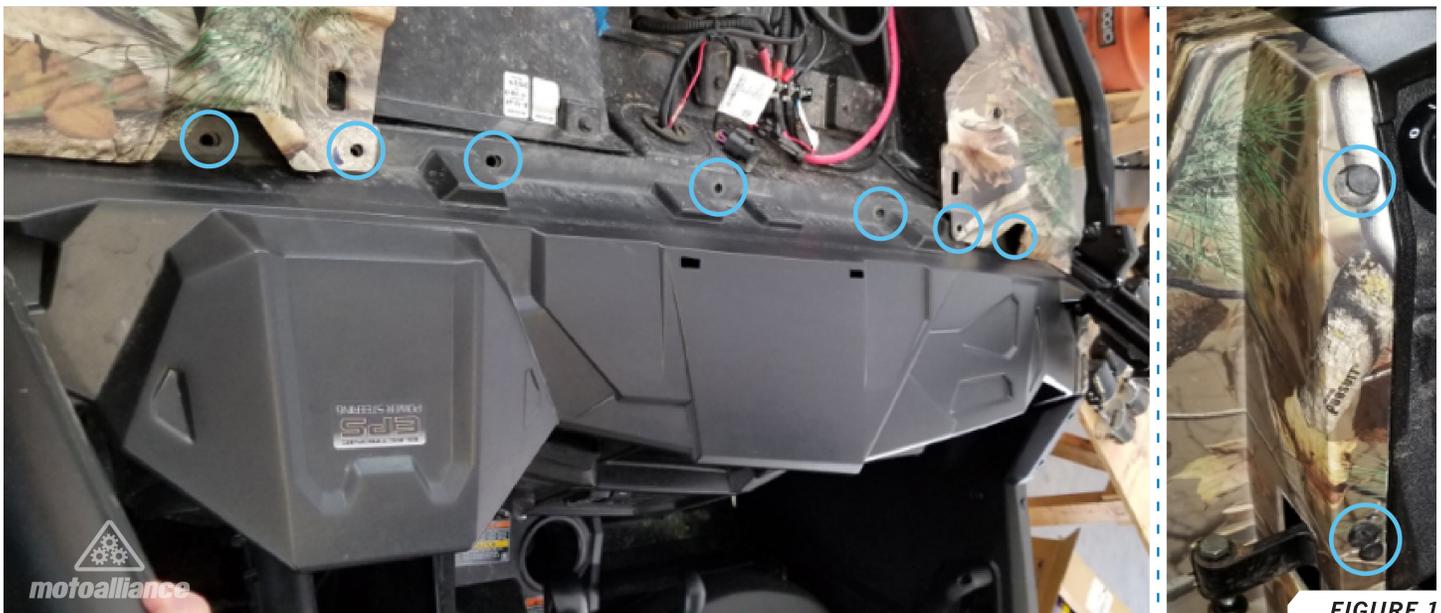


FIGURE 1

8. Use a flat head screw driver to pry up on the dash cover panel until the clips release. *FIGURE 2*



FIGURE 2

TEMPLATES

Use a tape measure to verify the templates are printed at a 1:1 scale.

9. Cut out the templates found in the back of this instruction manual. Position the templates as shown in **FIGURES 3, 4, 5** and tape them into place.

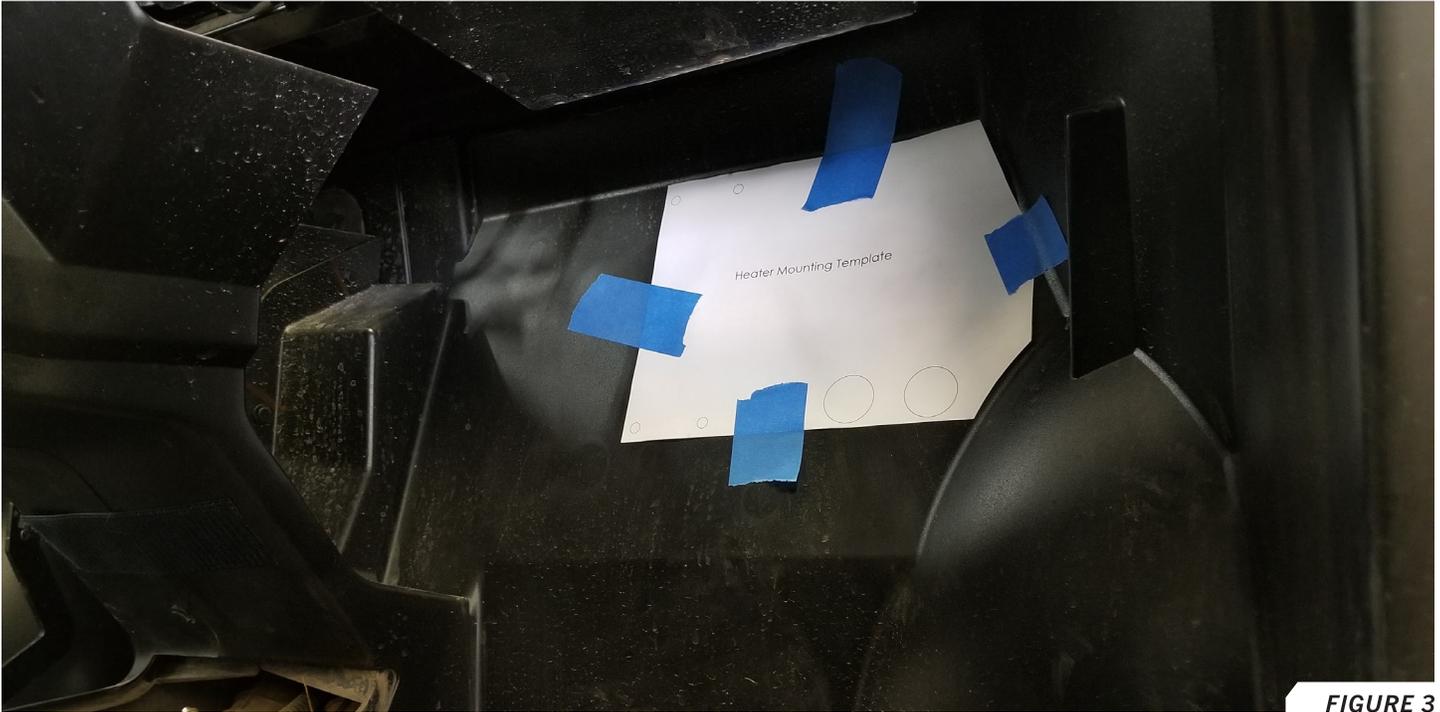


FIGURE 3

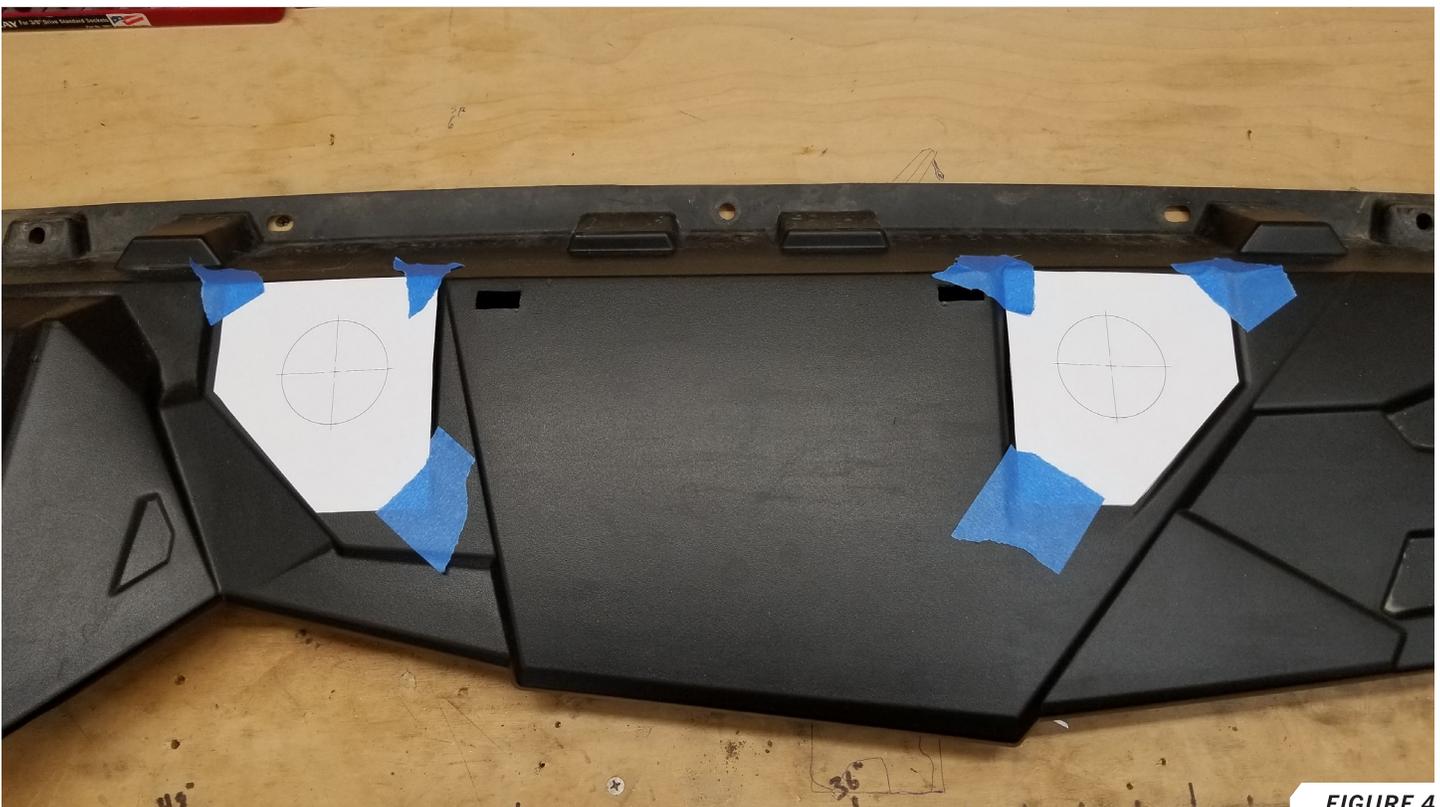


FIGURE 4

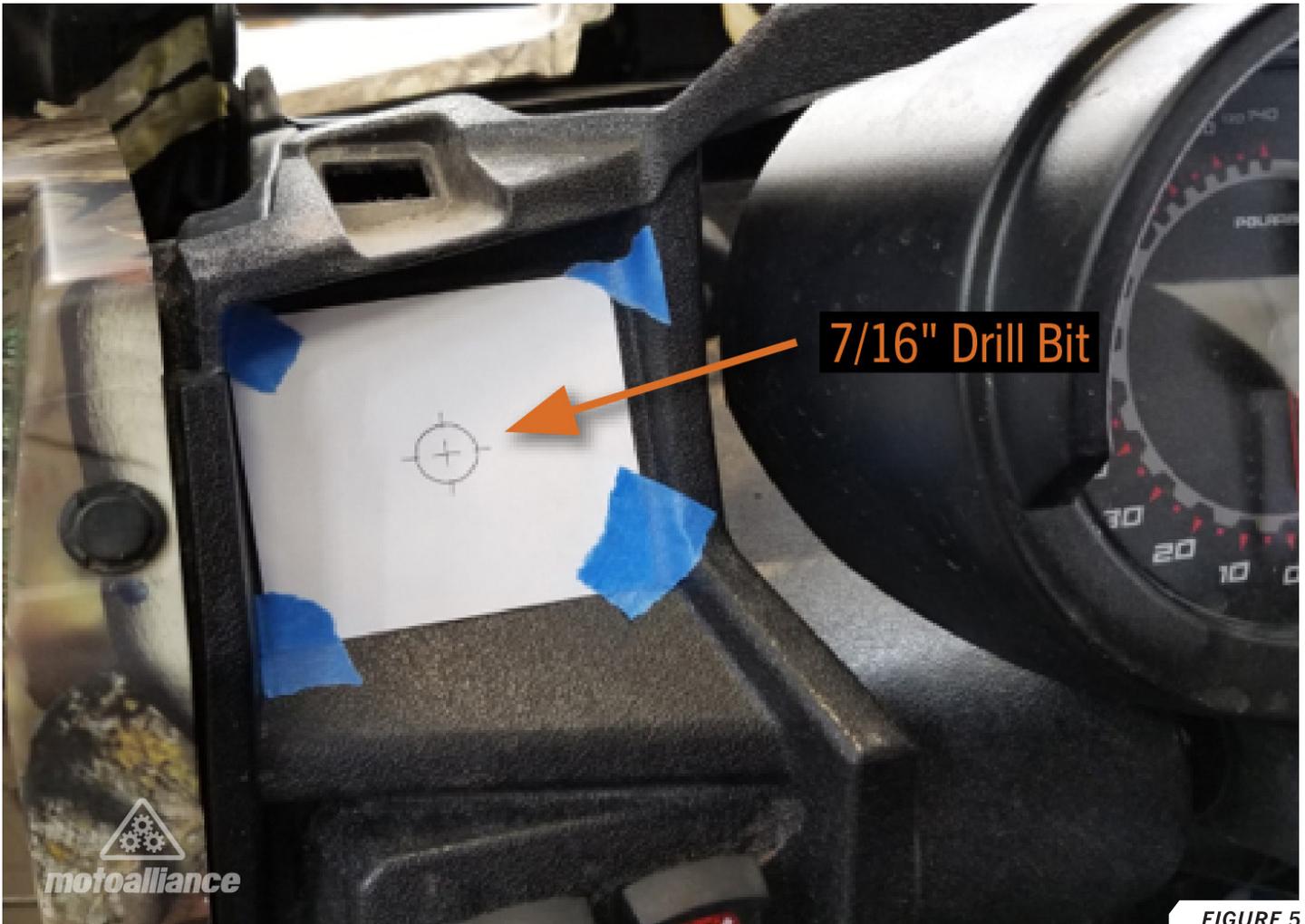


FIGURE 5

10. Mark the center of each hole and drill using the corresponding bit or hole saws. Remove any plastic burrs from the holes.

11. On each side of the center tunnel are dimples in the plastic. Use the 2" hole saw to drill a hole centered at each dimple. Remove any burrs from the holes. *FIGURE 6*



FIGURE 6

12. Place the two 1" rubber grommets into the 1¼" holes drilled through template #1. *FIGURE 3*

13. Remove the two black rubber shipping plugs from the copper ports on the heater unit.
14. Use the two 6mm flat head cap screws to attach the heater unit to the included mounting bracket as shown in *FIGURE 7*. Note the orientation of the copper hoses.

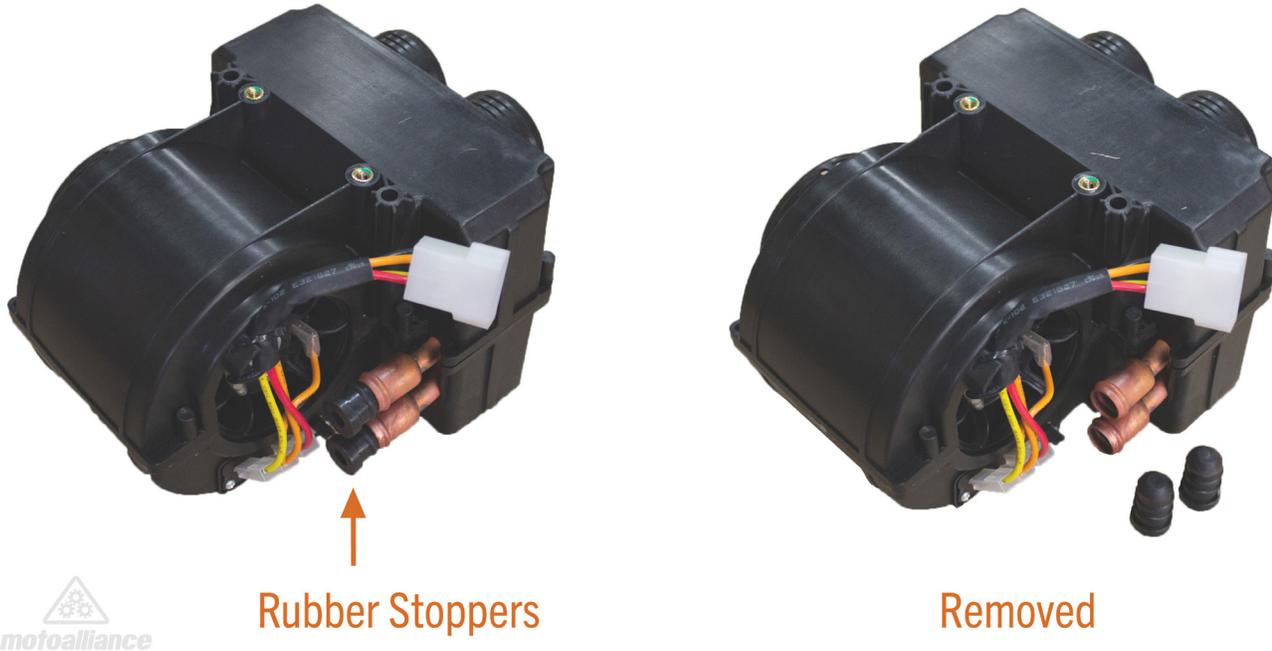


FIGURE 7

15. Test fit the heater and bracket assembly into the four $\frac{5}{16}$ " holes drilled into the passenger footwell. The copper inlet/outlet ports should be facing down with the four 50mm vents facing the driver side. Remove the heater and set aside.

RADIATOR HOSE ROUTING

16. From the passengers rear wheelwell, route the 5/8"x20' radiator hose to the front of the vehicle following the OEM radiator lines. *FIGURES 8, 9*

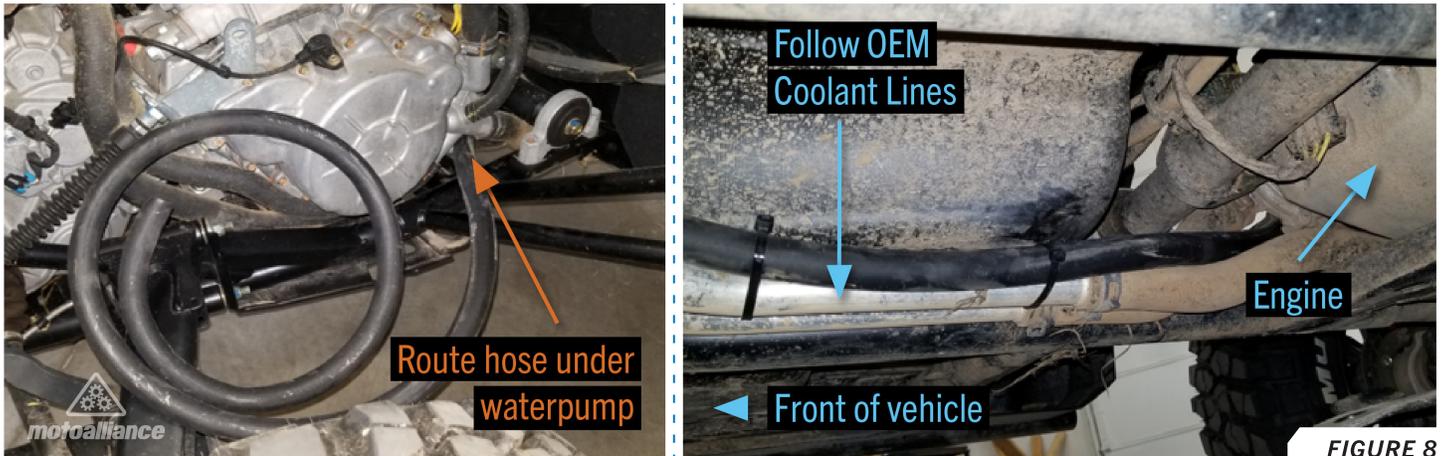


FIGURE 8

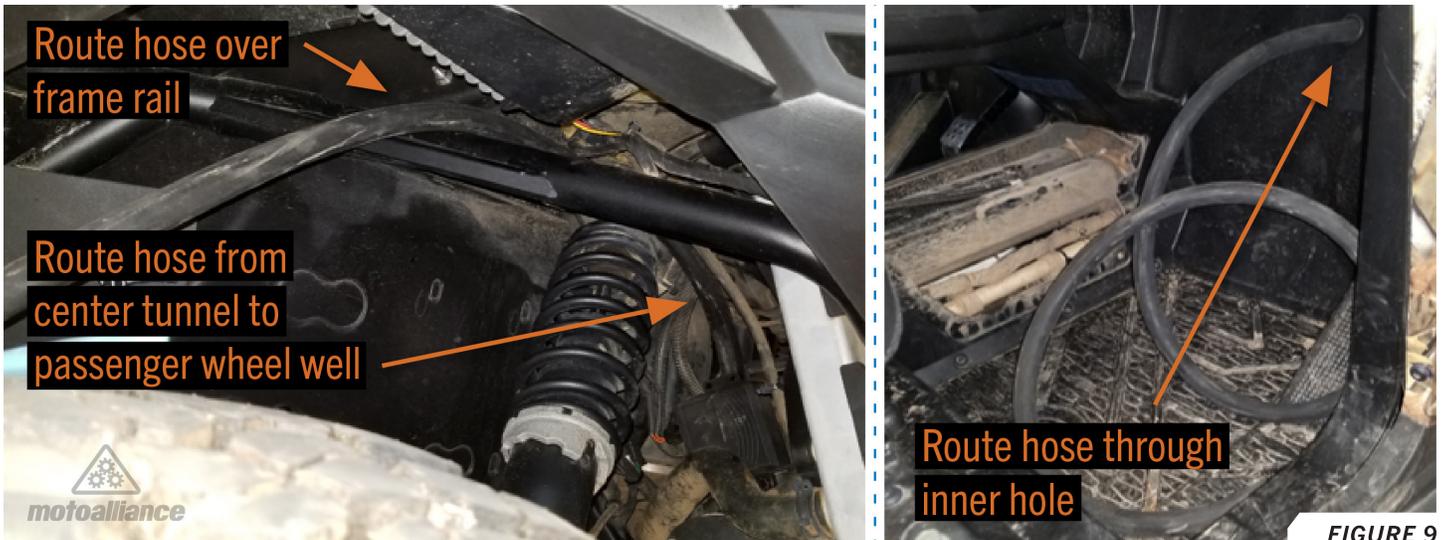


FIGURE 9

17. Route hose from center tunnel to passenger wheel well as shown in *FIGURE 9*. The hose should pass over the top of the frame rail and through the firewall via the inner 1¼" hole.
18. Pull excess hose through to the passenger foot well. There should be approximately three feet of hose remaining in the rear wheel well. *FIGURE 9*
19. Cut the remaining 5/8" radiator hose in the passenger side foot well, leaving approximately 8" on the inside of the firewall.

20. Route the cut-off portion of 5/8" radiator hose back through the outermost hole in the firewall, back over the frame rail, and to the outlet port of the radiator as shown in **FIGURE 10**. Leave the hose loose at this time.
21. Take the 24" section of compressed 2" duct hose and cut it into the following lengths:
12", 6", 6"

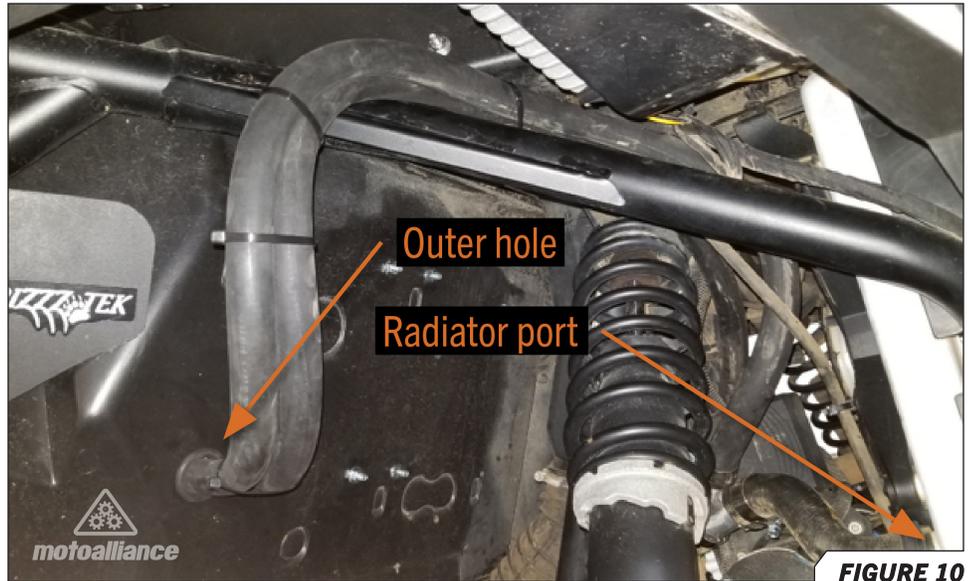


FIGURE 10

VENT INSTALLATION

22. Install two of the 2" vents into the plastic dash removed earlier. They will click into place when installed fully. **FIGURE 11**

 Do not press on the center of the vent.



FIGURE 11

23. Attach the 12" piece of compressed 2" duct hose to the driver side 2" vent on the dash panel. Install one of the 6" pieces of compressed 2" duct hoses to the passenger side 2" vent on the dash panel. It may be necessary to cut slits in the first two or three ribs to seat the hose over the vent. Secure using zip ties.
24. Install the remaining two 2" vents into the 2" holes drilled in the center tunnel.

25. Attach the 9" piece of compressed 2" duct hose to the driver side vent and route it toward the passenger foot well. Use zip ties to secure the hose to the vent.
26. Attach the remaining 6" piece of compressed 2" duct hose to the passenger side vent and route it toward the passenger foot well. Use zip ties to secure the hose to the vent.

SWITCH WIRING

27. 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*.

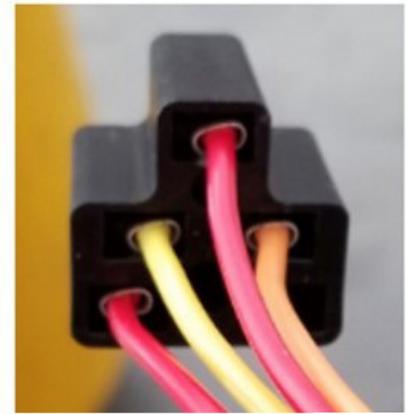
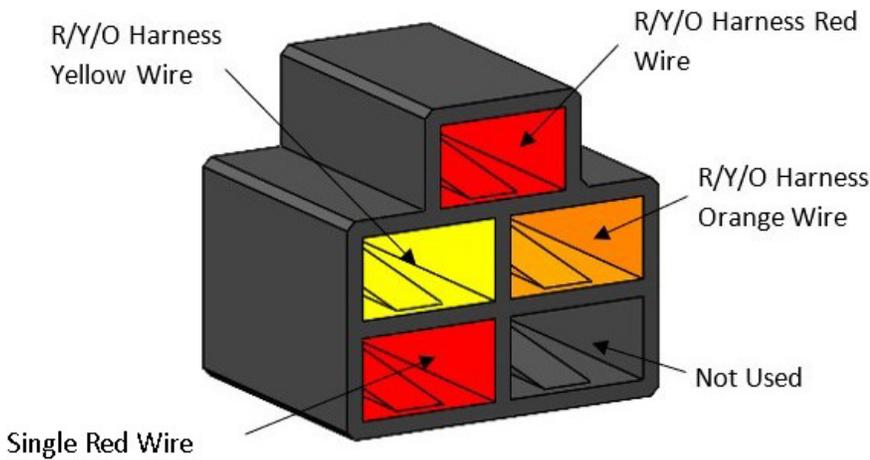


FIGURE 12

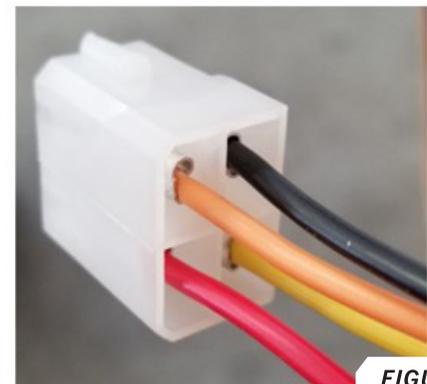
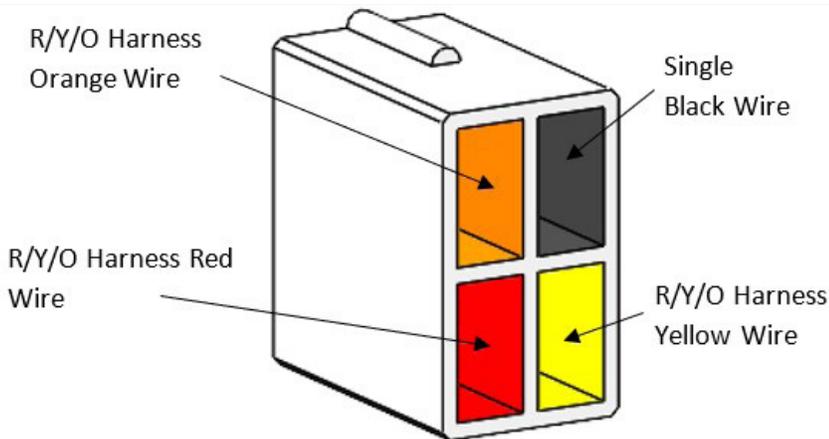


FIGURE 13

28. Connect the 5-Pin Black Connector to the 3-Position Switch included in the kit.
29. Insert the switch from the back of the dash panel, where 7/16" hole was drilled in step 10, and secure using the low-profile hex nut included in the switch bag. Disregard the flex lock washer.
30. 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*.
31. Place the bezel over the switch so that the 0, 1, 2, 3 markings are visible.
32. Press the switch dial onto the switch until it is seated firmly.
33. Connect the red wire to a keyed powered 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.
34. Connect the terminated end of the black wire to any vehicle ground.



FIGURE 14

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

HEATER MOUNTING & VENT ATTACHMENT

35. Replace the top dash panel while guiding the 2" duct hoses toward the passenger footwell.
36. With all duct hoses and electrical wires positioned in the passenger footwell begin connecting the 2" duct hoses to the four 50mm ports on the heater. Secure the hoses using zip ties.
37. Position the heater into the four 5/16" holes drilled earlier. Secure the heater from the back side using the four 1/4"-20 serrated flange nuts.
38. Connect the 4-Pin White Connector to the white terminal housing on the heater unit.
39. Test the switch to ensure that it can control the fan speed in all three positions.

It may be necessary to prop the heater up for easier access to the hoses.

INLET/OUTLET HOSE ATTACHMENT

Ensure the vehicle's engine is cold before proceeding.

40. Identify and mark the radiator hose as shown in *FIGURE 15*. The section being removed is midway between the two bent portions of hose. Remove $\frac{3}{4}$ "–1" of material from the midsection of the hose.

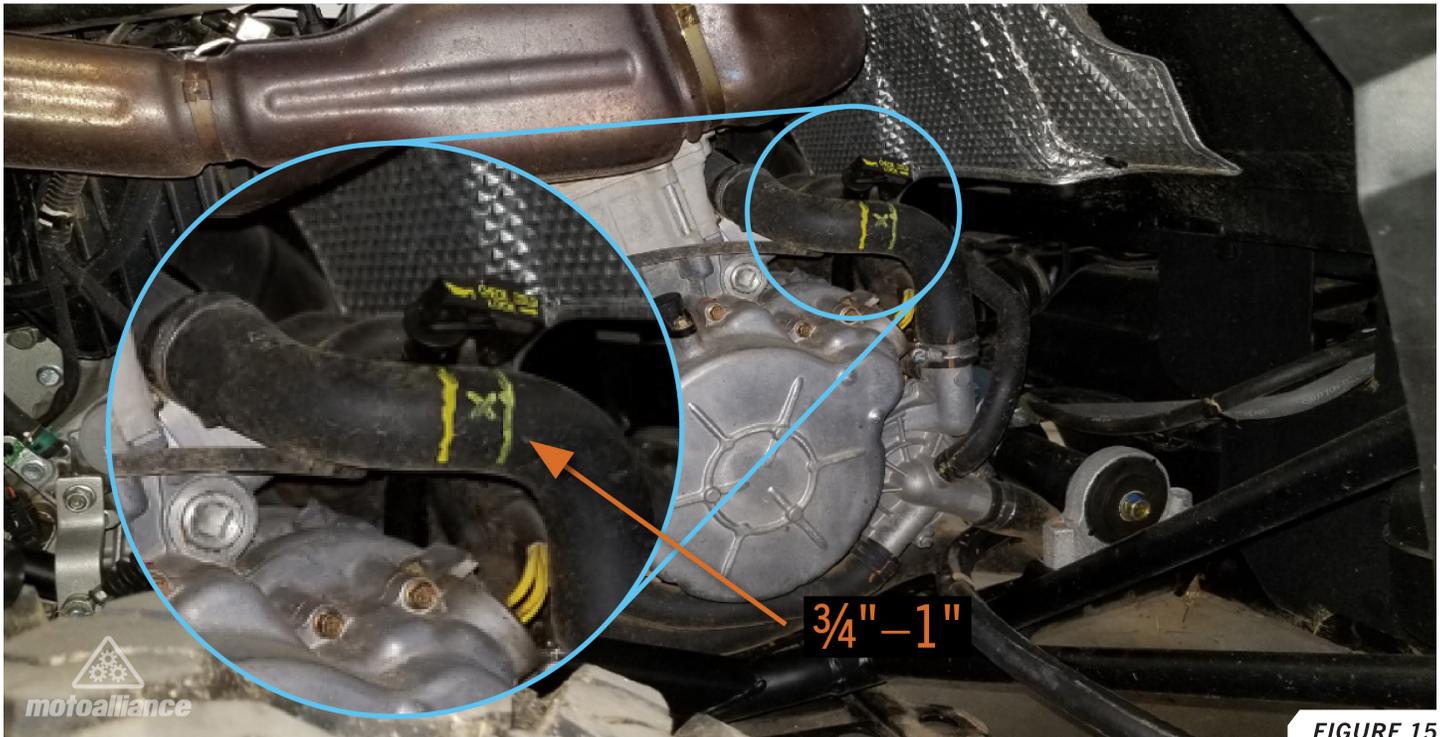


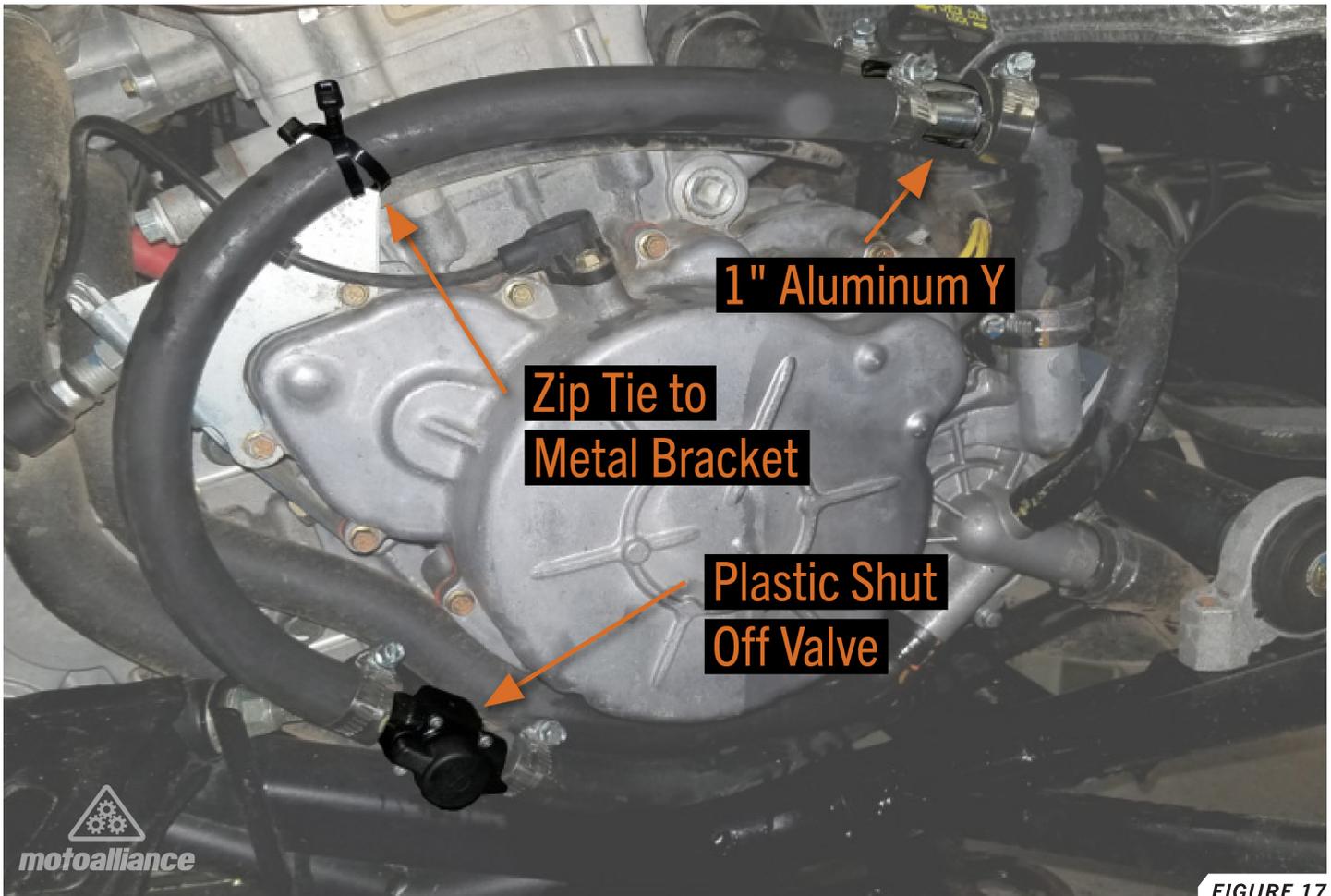
FIGURE 15

41. Install one of the 1" aluminum Y's into the openings so that the branch of the Y faces the rear of the vehicle. *FIGURE 16*



FIGURE 16

42. Secure the two ends of the 1" aluminum Y using #16 hose clamps.
43. Position the $\frac{5}{8}$ " radiator hose so that it creates a smooth loop toward the branch of the 1" aluminum Y. Cut the hose to length but do not attach it to the branch of the 1" aluminum Y yet. *FIGURE 17*
44. Secure the hose to the metal bracket as shown in *FIGURE 17*.
45. Make another cut in the $\frac{5}{8}$ " coolant hose as shown in *FIGURE 17* to install the plastic shutoff valve. Secure it using the #10 hose clamps.



46. Attach the radiator hoses to the heater. Secure using #10 hose clamps.
47. Mark the middle of the flat portion of the 1" OEM coolant line at the bottom of the radiator as shown in **FIGURE 18**. Cut along the line and position the remaining 1" aluminum Y so that the branch is facing the radiator. Secure using #16 hose clamps.

It may be necessary to cut a $\frac{3}{4}$ "–1" portion of hose to eliminate any kinks or bends in the 1" OEM coolant lines.



48. Cut the $\frac{5}{8}$ " coolant hose to length if needed. Attach it to the 1" aluminum Y and secure using #10 hose clamps.

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.

49. Fill radiator with coolant until radiator is full.
50. Open the shutoff valve.
51. 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.
52. Turn off the machine and wait for it to cool down.
53. Open the radiator cap and add more coolant.

Look at owner's manual for manufacturer-approved coolant

54. Repeat the steps in this section until consistent heat is coming out of the vents and machine temperature gauge stays under 200°F.
55. Verify that no leaks have occurred and that the radiator fluid level is per the manufacturer's specifications.

FINISHING

56. Reinstall the dash cover panel.
57. Reinstall the center tunnel cover panel.
58. Reinstall the front hood and windshield if applicable.
59. Reinstall the driver and passenger side doors.

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
2" Vent	HT_2Louvre
FIRESTORM Heater Motor	RPL_HT_CU_Fan_and_Motor
3-Position Switch	HT-FanSwitch
5/8" Coolant Hose	HT_RadiatorHose_20

Item Description	SKU
1" Aluminum Y	HT_AluminumY_1
Shut-Off Valve	HT_Plastic_Shut-off_Valve
Hole Saw Pilot Bit	HT_PilotBit
2" Hole Saw	HT_2_SAW
1¼" Hole Saw	HT_1.25_SAW

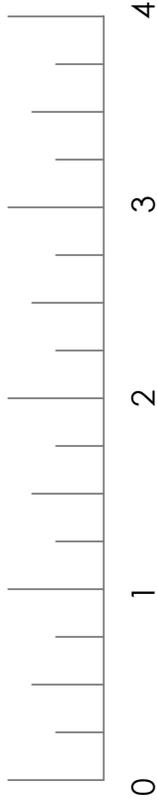
Scan this QR code to see the full list of FIRESTORM replacement parts on motoalliance.com



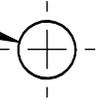
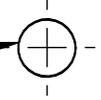
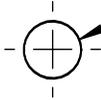
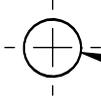
Scan this QR code to get more tech help, watch troubleshooting videos, or submit a help form on motoalliance.com



Heater Mounting Template #1

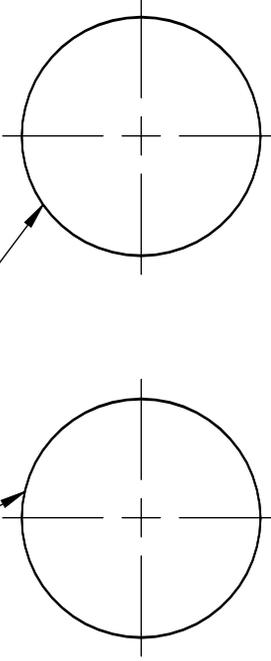


Use a 5/16" Drill Bit

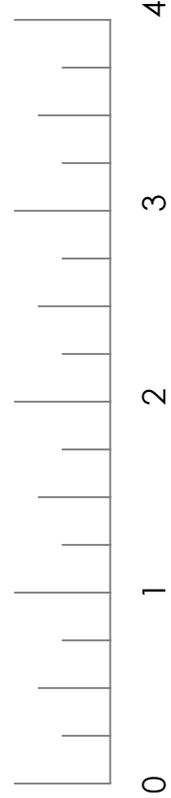
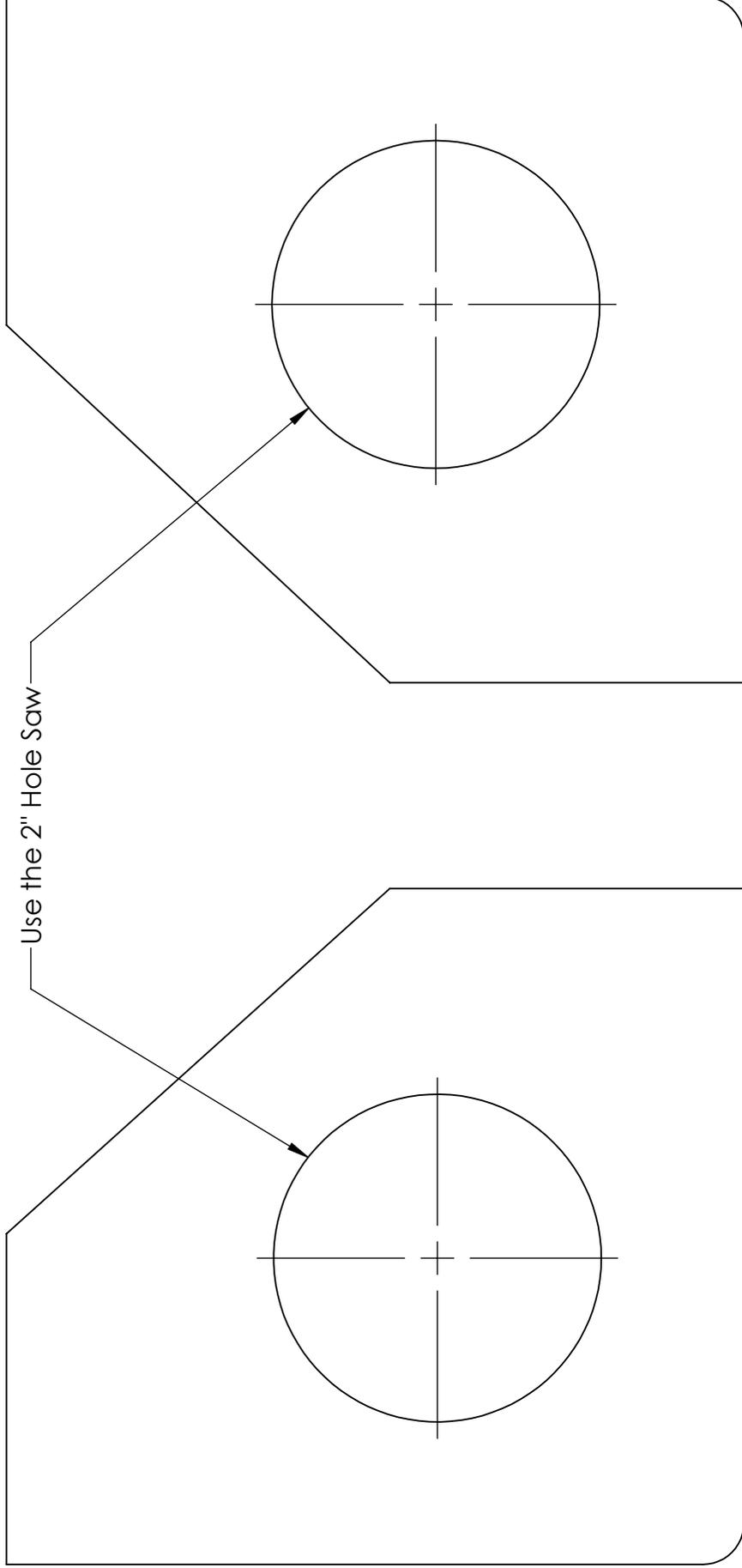


Use the 1 1/4" Hole Saw

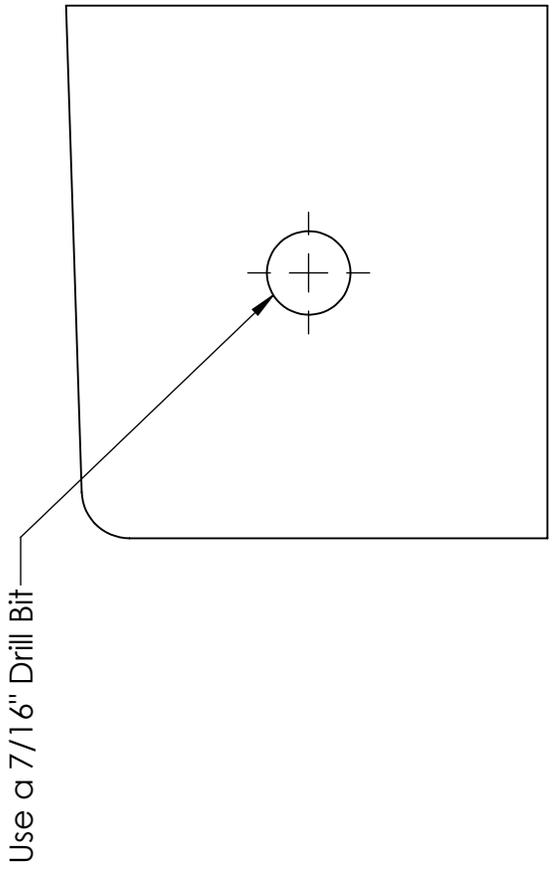
Position against the
Passenger side wheel well



Defrost Template #2



Switch Mounting Template #3



Position the Switch Mounting Template to the left of the steering wheel.

