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FIRESTORM

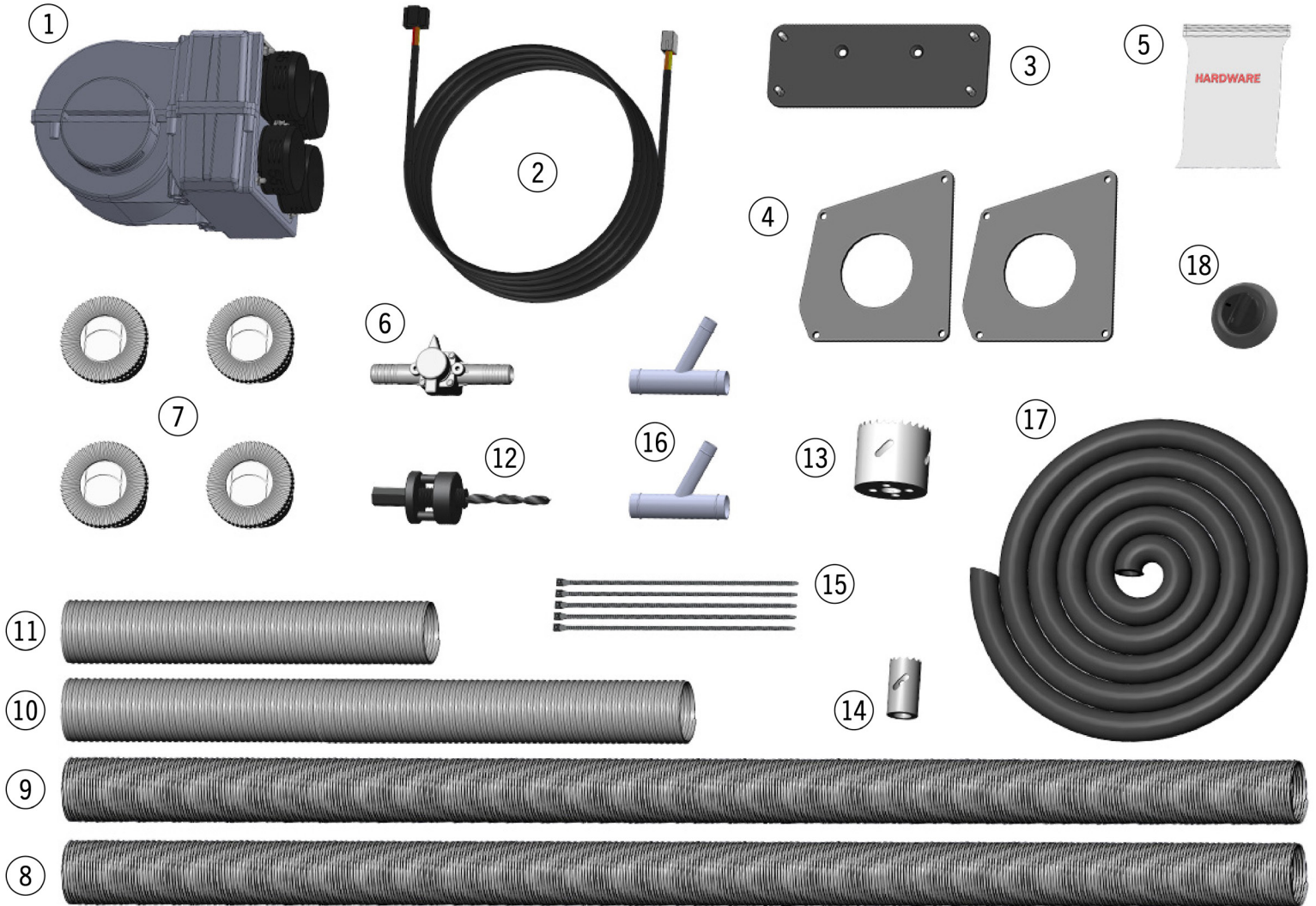
C A B H E A T E R S

Honda Pioneer 1000 Cab Heater

HT_CU_418

INSTALLATION INSTRUCTIONS

PARTS LIST



Part#	Qty	Item Description
1	1	FIRESTORM Cab Heater Unit
2	1	96" Wiring Harness
		Orange/Yellow/Black Wire
		Red Wire
		Black Wire
		5-Pin Black Connector
		4-Pin White Connector
3	1	CU-499-4 Flush Mount Heater Bracket
4	2	HT_CU_418-1 Cup Holder Bracket
5	1	Hardware Pack

Part#	Qty	Item Description
3	3	Rubber Grommet
2	2	M6-1.0x12mm Flat Head Cap Screw
8	8	Self-tapping Plastic Screw
4	4	1/4"-20 Serrated Flange Nut
6	6	#10 Stainless Steel Hose Clamps
4	4	#16 Stainless Steel Hose Clamps
6	1	5/8" Shut-Off Valve
7	4	2" Vent
8	24"	2" Compressed Duct Hose
9	24"	2" Compressed Duct Hose

Part#	Qty	Item Description
10	15"	2" Compressed Duct Hose
11	10"	2" Compressed Duct Hose
12	1	Hole Saw Pilot Bit
13	1	2" Hole Saw
14	1	1 1/4" Hole Saw
15	20	Zip Ties
16	2	1" Aluminum Y
17	20'	5/8" Radiator Hose
18	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

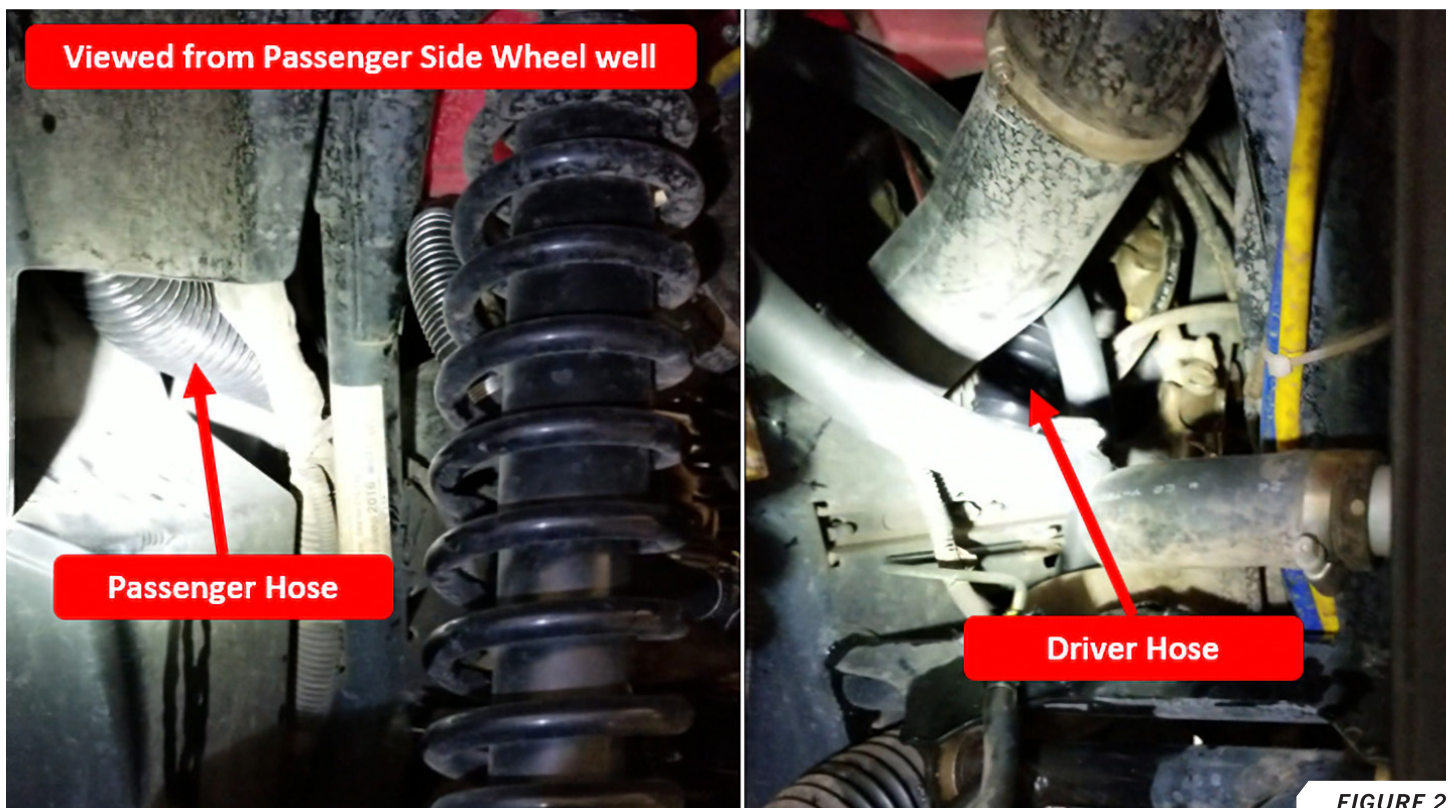
1. Remove the driver and passenger side doors.
2. Remove the cup holders on the driver and passenger sides.
3. Remove the front seats.
4. Remove square access panel to the right of the accelerator pedal.
5. Remove the skid plate under the passenger compartment.
6. Remove the plastic body panel around the front seat area as well as the plastic panel behind the front seat as shown in *FIGURE 1*.



FIGURE 1

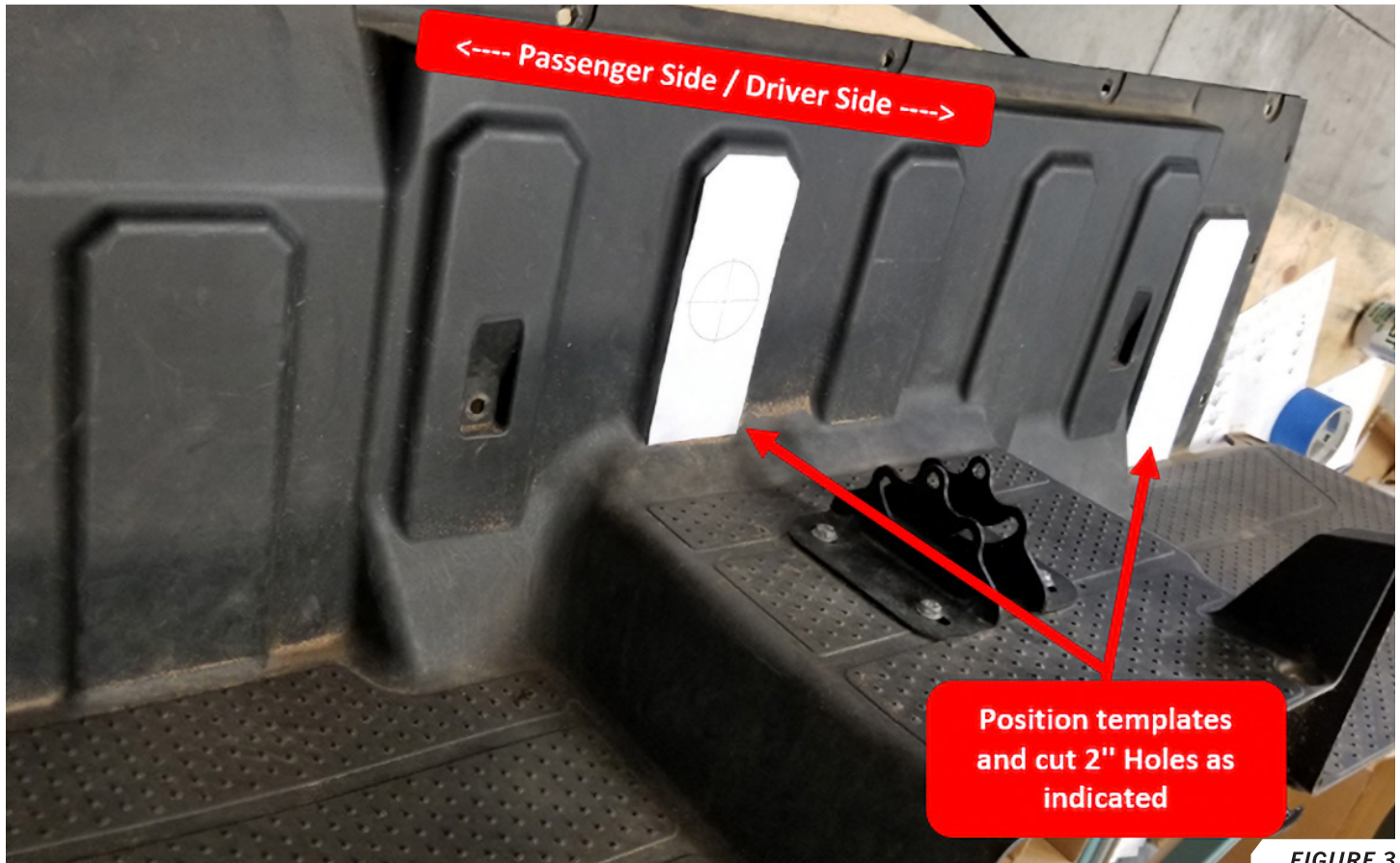
DUCT HOSE ROUTING

7. Route the two 24" (compressed) 2" duct hose sections from the front seating area through the center tunnel. NOTE: It is helpful if a second person can pull the hose from the square access panel next to the accelerator pedal while the hose is fed from the seating area.
8. Once the hose reaches the access panel, reach one of the hoses from the passenger side wheel well and pull it to the passenger side cup holder. Route the hose as close to the firewall as possible. Do the same thing for the driver side hose. Pull the duct hose up through the cup holder and leave a few inches of slack. *FIGURE 2*



9. Cut out Template #3 and position it on the plastic panel under the driver seat that separates the engine compartment from the storage compartment. Position the template along the angled contour of the panel, approximately half way up. Use tape to secure it and drill 2" holes according to the positions on the template. NOTE: Use caution as excessive force will drive the hole saw into the engine compartment and possibly damage components. Break all rough edges as necessary.

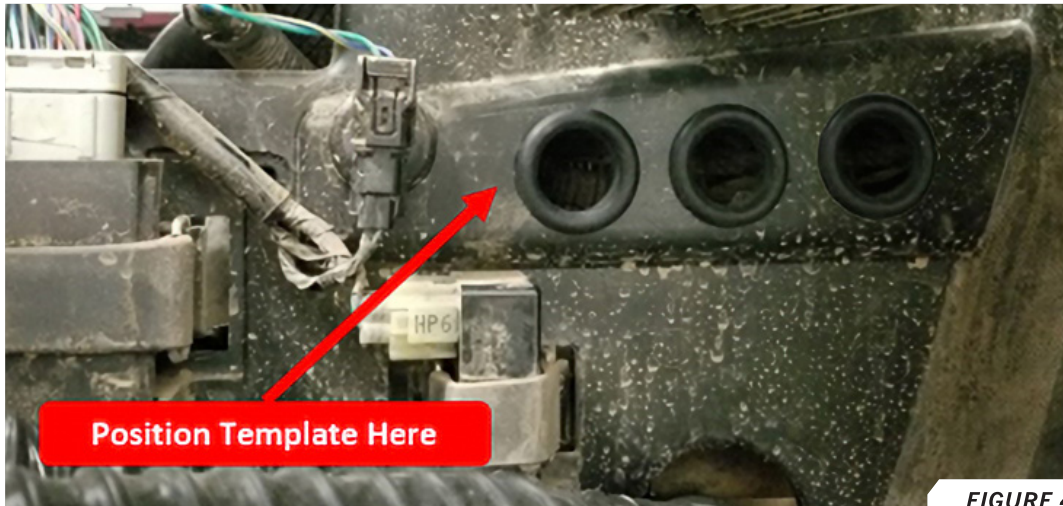
10. Cut out Templates #5 and #6 and position them on the front of the front plastic body panel removed in step 7. Attach the templates with tape and then cut two holes into the body panel. Break all rough edges as necessary. *FIGURE 3*



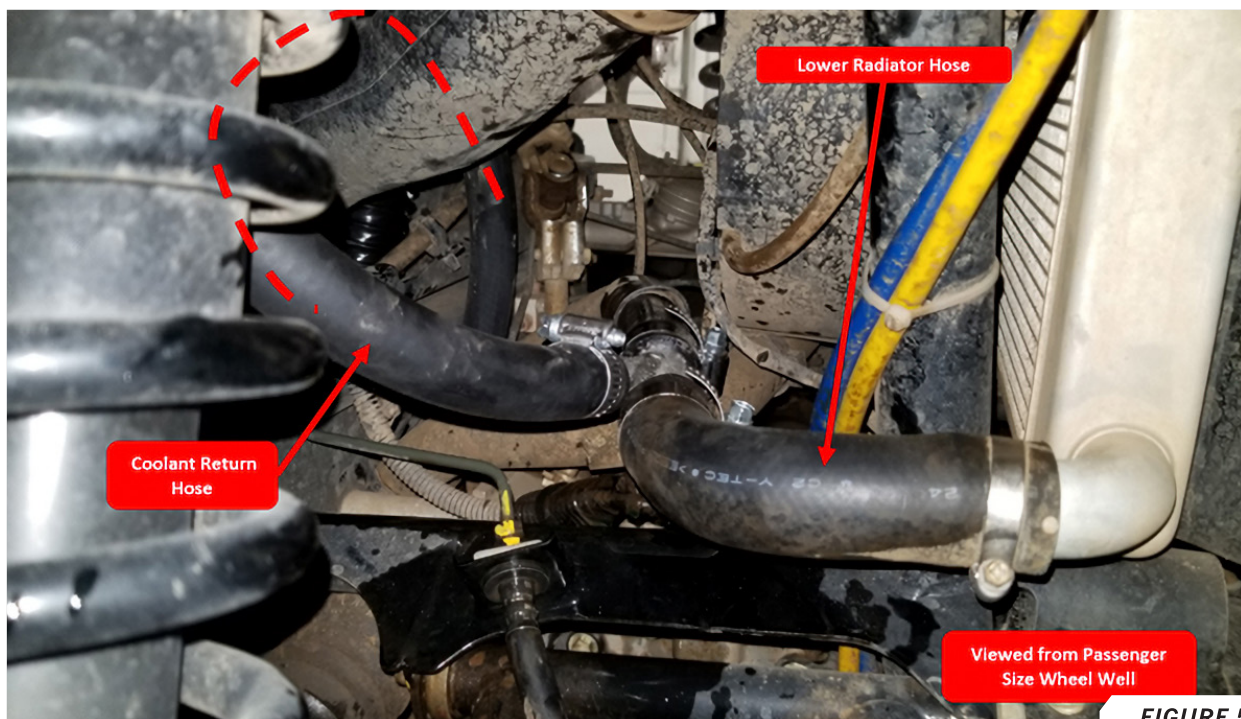
11. Route the 12" (compressed) 2" duct hoses from the storage area under the driver seat, through one of the holes made from Template #3 and lay it over the engine compartment. This hose will be routed through the hole made from Template #5.

COOLANT HOSE ROUTING

12. Cut out Template #2, and position it on the plastic panel just above the three 2" duct hose holes as shown in *FIGURE 4*.



13. Route the radiator hose from the storage compartment, through the left hole (as shown in *FIGURE 4*) and to the engine compartment. Follow the same path as the 2" duct hose toward the front of the vehicle. It may be necessary to work from the bottom of the vehicle to move the hose to the correct location.
14. Once the hose can be seen in the square access panel, direct it up and toward the radiator as it will need to make a 180° loop back toward the lower radiator hose as shown in *FIGURE 5*. Leave the hose hanging behind the radiator with a couple feet of excess material.



15. Once the hose is routed, ensure the two 2" duct hoses and single radiator hose are positioned away from the drive shaft and/or any sharp parts in the drive shaft tunnel. Secure the hoses away from the drive shaft using zip ties.
16. With the radiator hose loosely hanging out of the passenger wheel well, measure approximately 3' of hose on the other end and cut the excess hose.
17. Route the excess hose through the second $\frac{5}{8}$ " hole drilled in the plastic divider between the engine and storage compartment. Route the hose to the top of the engine and leave it there.

HEATER MOUNTING

18. Secure the heater mounting bracket to the heater unit using two M6-1.0x12mm flat head cap screws as shown in *FIGURE 6*.

The heater unit comes with rubber plugs inside the inlet and outlet ports. Remove these before continuing with the installation.

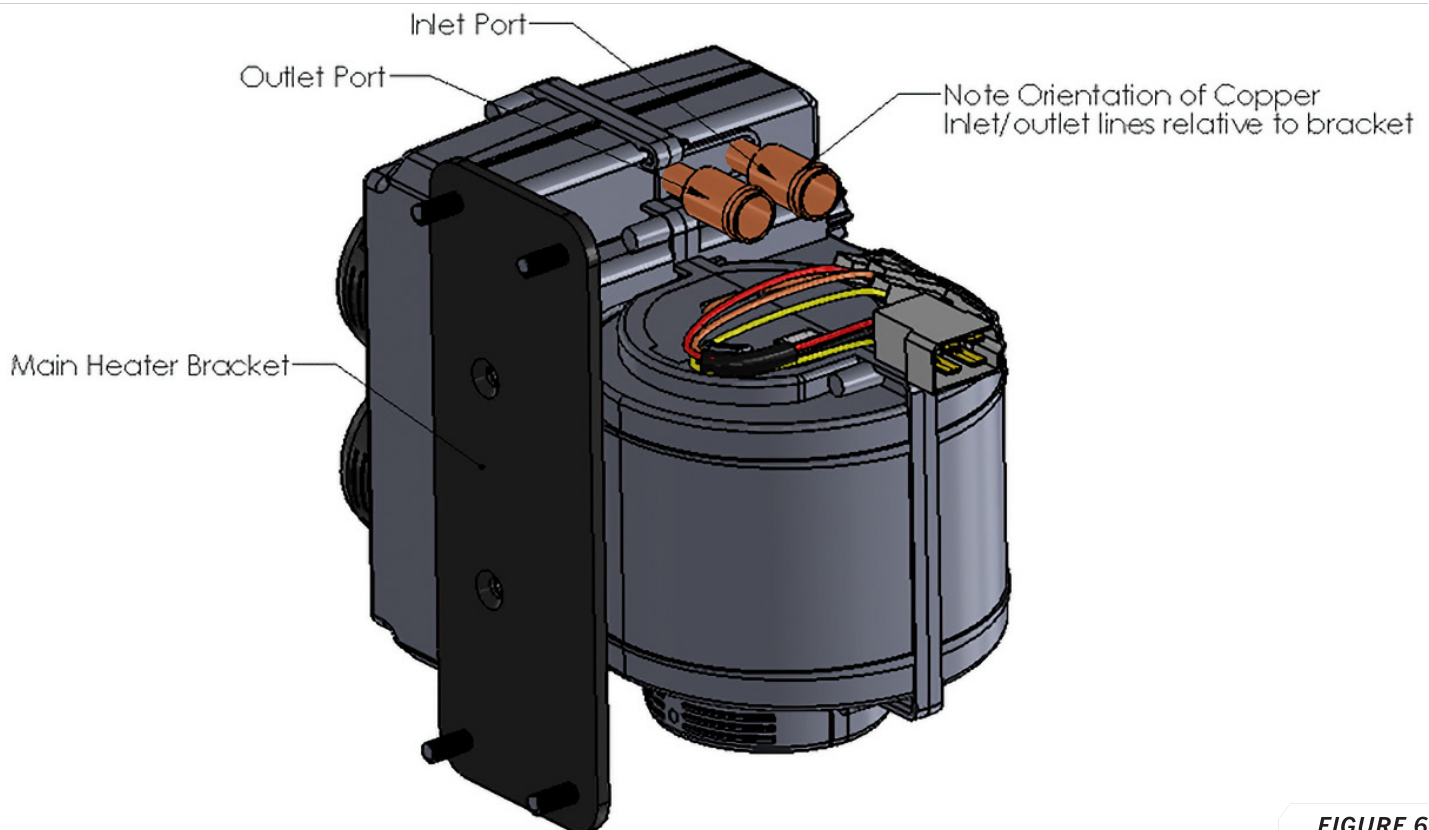


FIGURE 6

19. Cut out Template #1 and position it at the bottom of the storage compartment following the contours of the plastic. Tape the template down and drill four $\frac{5}{16}$ " holes according to the template.

20. Before putting the heater into place, attach the three previously-routed duct hoses to the 50mm vent ports and secure with zip ties. *FIGURE 7*

Make sure to minimize twisting of the hoses.



FIGURE 7

21. Attach the remaining duct hose to the open port and secure it with a zip tie.
22. Connect the long radiator hose to the outlet port of the cab heater (*FIGURE 6*). Connect the short radiator hose to the inlet port of the cab heater (*FIGURE 6*). Secure the two hoses with #10 hose clamps (*FIGURE 7*)
23. Position the heater and duct hose assembly into the $\frac{5}{16}$ " holes. Secure with four $\frac{1}{4}$ "-20 serrated flange nuts.

SWITCH WIRING

24. Locate the 96" Wiring Harness and ensure the wires are correctly connected to the 5-Pin Black Connector as shown in **FIGURE 8** and the 4-Pin White Connector as shown in **FIGURE 9**.

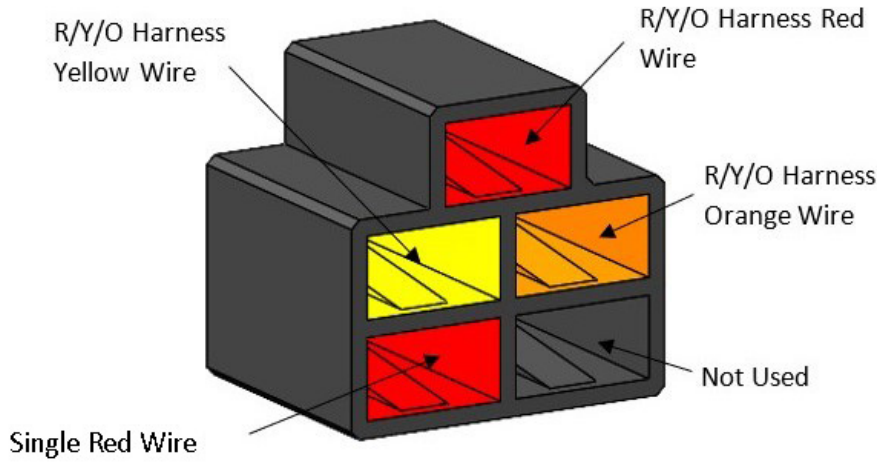


FIGURE 8

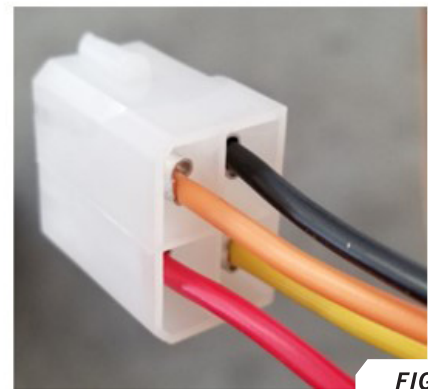
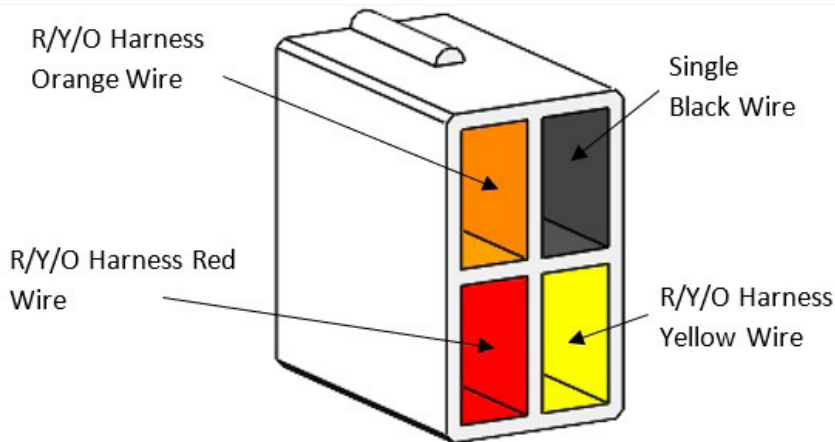


FIGURE 9

25. Connect the 5-Pin Black Connector to the 3-Position Switch included in the kit.

26. Cut out Template #4 and tape it to the area left of the steering column as shown in **FIGURE 10**. Use a $\frac{7}{16}$ " drill bit to make a hole for the switch armature to pass through.

Verify there is nothing behind the hole location prior to drilling.



FIGURE 10

27. Insert the switch from the back of the center dash panel, where $\frac{7}{16}$ " hole was drilled, and secure using the low-profile hex nut included in the switch bag. Disregard the flex lock washer.
28. 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 11**.
29. Place the bezel over the switch so that the 0, 1, 2, 3 markings are visible.
30. Press the switch dial onto the switch until it is seated firmly.
31. Connect the 4-Pin White Connector to the white terminal housing on the heater unit.



FIGURE 11

32. 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.

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

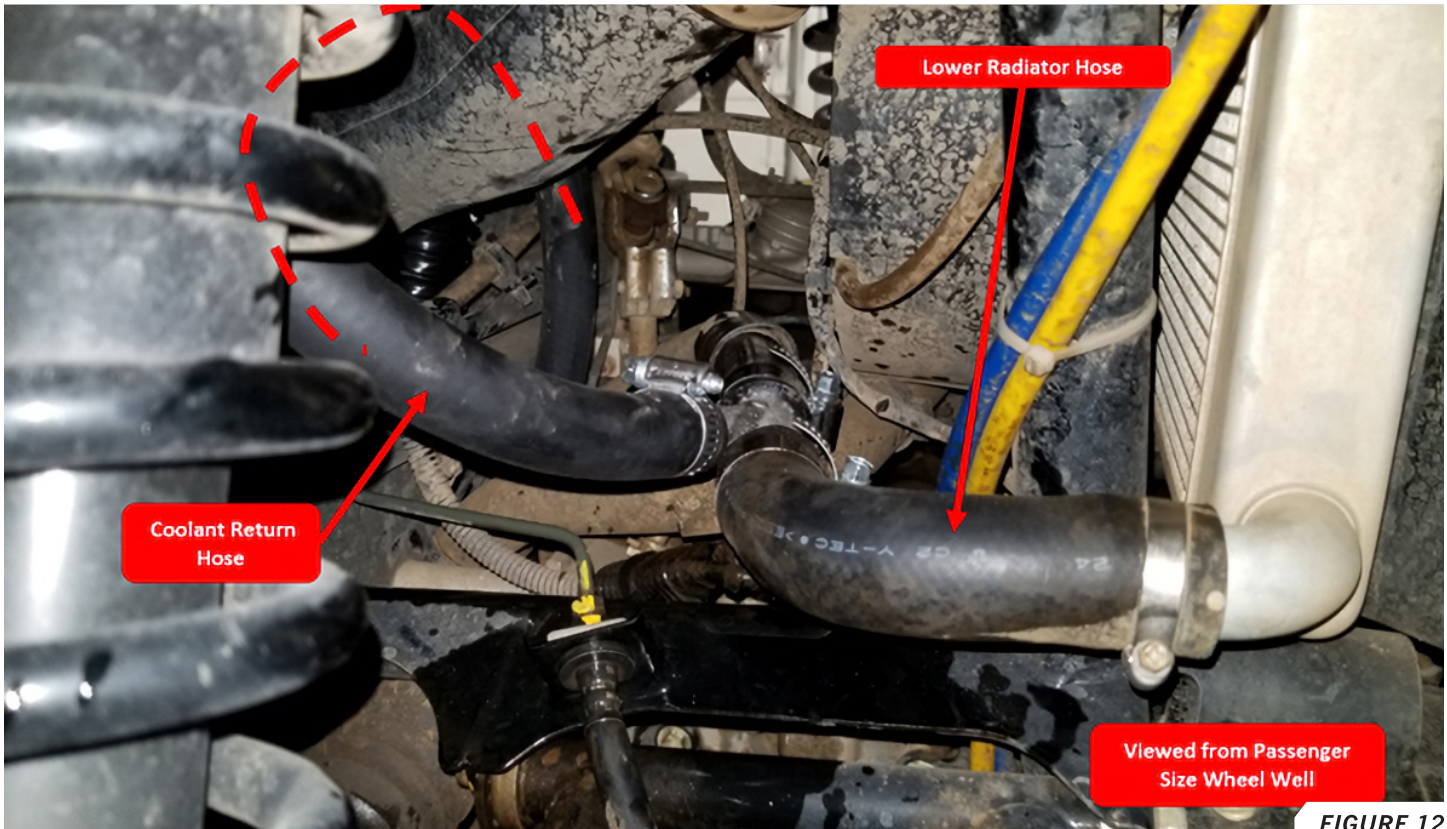
CAB HEATER UNIT INSTALLATION

33. Press two of the 2" vents into the LH and RH Brackets.
34. Connect the 24" (compressed) 2" duct hoses to the back of the 2" vents and secure using zip ties. If necessary, cut excess hose to length.
35. Place the duct brackets over the cup holder area and install them using the included self-tapping plastic screws.
36. Press the remaining two 2" vents into the holes drilled in step 10.
37. Reposition the front plastic body panel into it's original location.
38. Attach the 12" and 4" (compressed) 2" duct hoses to the vents in step 43 and secure using zip ties. If necessary, cut the duct hose to length.
39. Note: secure the 2" duct hoses and 5/8" radiator hoses away from any moving, hot, or sharp parts using zip ties.

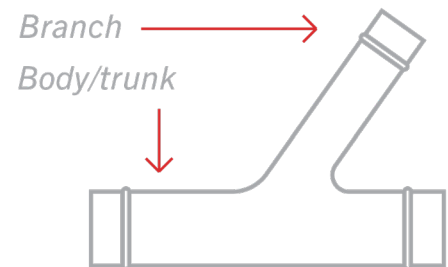
ALUMINUM Y INSTALLATION

Ensure the vehicle's engine is cold before proceeding.

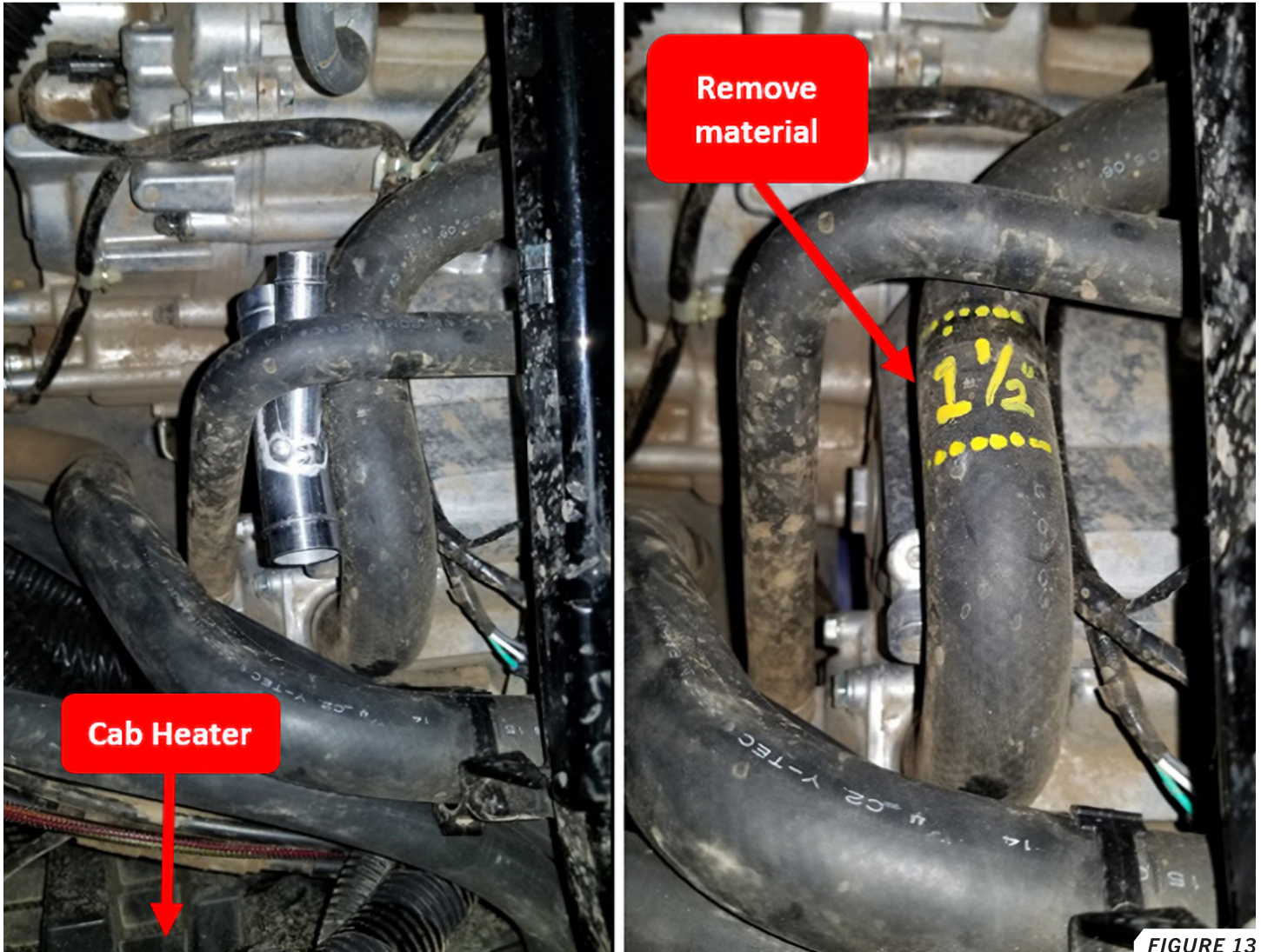
40. Place a drain pan directly below the bottom radiator hose. Identify the straight portion of the lower radiator hose and cut as shown in *FIGURE 12*.



41. Insert a 1" aluminum Y so that the branch is facing the radiator as shown in *FIGURE 12* and secure using #16 hose clamps.
42. Secure the two larger ends of the aluminum Y using #16 hose clamps. Do not attach the $\frac{5}{8}$ " radiator hose that returns to the cab heater at this time.




43. In the engine compartment, identify the hose shown in *FIGURE 13*. Mark two lines 1½" apart as shown in *FIGURE 13* so that the 1" aluminum Y can be centered between the two 90° bends in the hose.




44. Cut the hoses and install the remaining 1" aluminum Y as shown in *FIGURE 13* and secure using #16 hose clamps. Do not connect the 5/8" radiator hoses to the aluminum Y at this time.
45. Find a straight portion of the long 5/8" radiator hose that is easily accessible and splice in the 5/8" plastic shut-off valve. Secure using #10 hose clamps.
46. Attach the 5/8" radiator hoses to the 5/8" ports on the 1" aluminum Ys 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.

47. Fill radiator with coolant until radiator is full.
48. Open the shut-off valve.
49. 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.
50. Turn off the machine and wait for it to cool down.
51. Open the radiator cap and add more coolant.
52. Repeat the steps in this section until consistent heat is coming out of the vents and machine temperature gauge stays under 200°F.
53. Verify that no leaks have occurred and that the radiator fluid level is per the manufacturer's specifications.

 Look at owner's manual for manufacturer-approved coolant

FINISHING

54. Reattach all plastic body panels in reverse order.
55. Ensure all hardware is secure.
56. Use remaining zip ties to secure any loose hoses or wires.

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_2Louver
FIRESTORM Heater Motor	RPL_HT_CU_Fan_and_Motor
3-Position Switch	HT-FanSwitch
5/8" Radiator 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



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