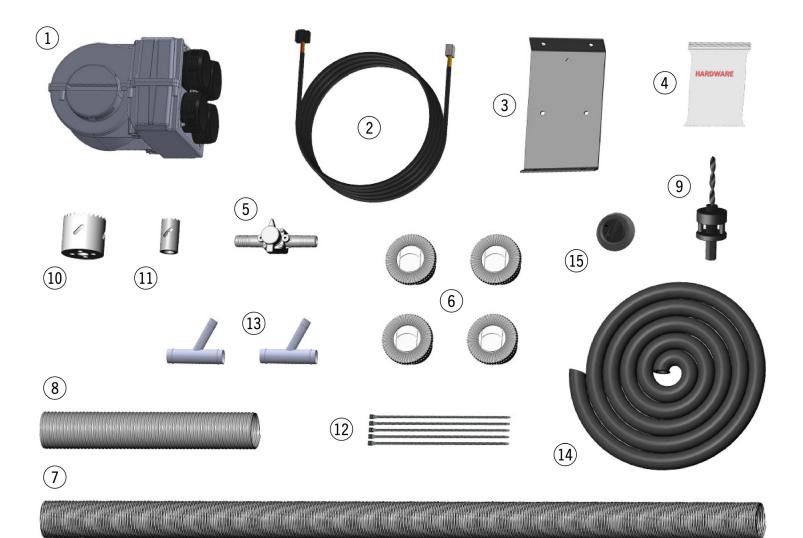






### PARTS LIST



### Qty Part# Qty **Item Description** Part# **Item Description** Part# Qty **Item Description** 1 **FIRESTORM Cab Heater Unit** 2 8 1 2" Compressed Duct Hose **Rubber Grommet** 10" 2 2 9 M6-1.0x12mm Hex Head Cap Screw 1 Hole Saw Pilot Bit 1 36" Wiring Harness 4 10 1 2" Hole Saw Orange/Yellow/Black Wire Self-tapping Plastic Screw 2 Red Wire Insulation Displacement Crimp 11 1 1¼" Hole Saw 6 12 20 Zip Ties **Black Wire** #10 Stainless Steel Hose Clamps 4 #16 Stainless Steel Hose Clamps 13 2 1" Aluminum Y 5-Pin Black Connector 5 Plastic Shut-Off Valve 4-Pin White Connector 1 14 10' 5/8" Coolant Hose 6 3 4 2" Vent 15 1 1 HT CU 435-1 Bracket **3-Position Switch** 7 4 1 Hardware Pack 24" 2" Compressed 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.

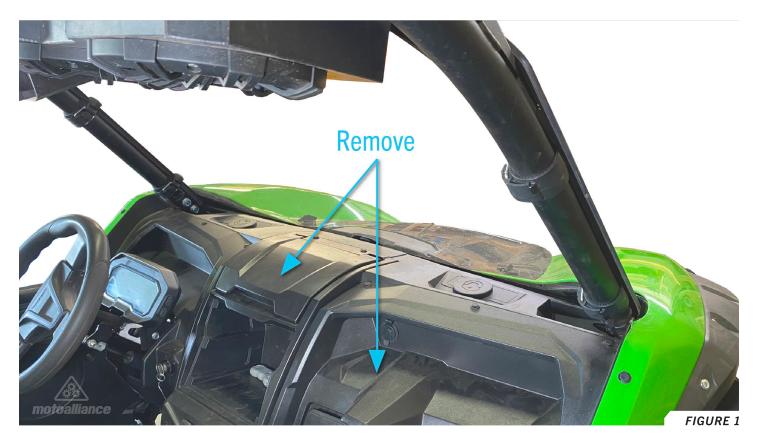
Before working with any electrical system on your vehicle, **ALWAYS** remove the negative battery cable and secure it away from the battery terminal.

Parts native to the machine

Parts native to FIRESTORM Cab Heater

### PREPARATION

- 1. Remove the passenger side door.
- 2. Remove the center dash and glove compartments and set aside. FIGURE 1





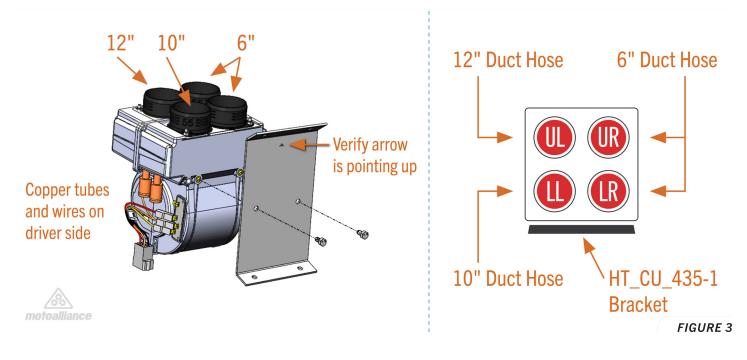


3. Remove the front fender and all of the plastics on the front of the machine for easy access. FIGURE 2



FIGURE 2

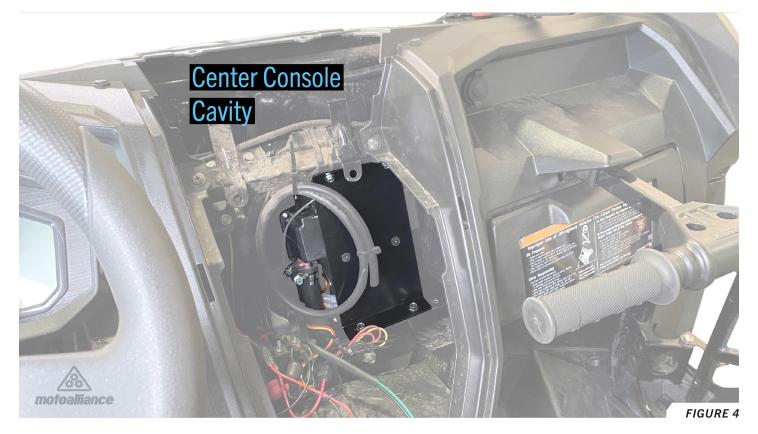
- 4. Cut 24" duct hose into three lengths: 12", 6", 6"
- 5. Use zip ties to attach duct hoses to the heater in the orientation shown in *FIGURE* 3.







6. Attach the heater to the mount using the provided M6 hardware as seen in *FIGURE 3*. Put the heater and bracket into position as seen in *FIGURE 4*, but do not secure the mounting bracket to the frame at this time.



7. Remove the two rubber shipping plugs from the copper on the heater as seen in *FIGURE* 3. Set the assembly aside.





### **COOLANT HOSE AND DEFROST VENT DRILLING**

8. Cut out the template and position it as shown. FIGURE 5.



FIGURE 5

- Use the  $1\frac{1}{4}$ " hole saw to drill holes for the  $\frac{5}{8}$ " coolant hose. Install the rubber grommets. 9.
- 10. Use a 7/16" drill bit to cut the switch hole to the left of the steering wheel as shown in *FIGURE* 6. Use the switch base as a template.







11. Use the 2" hole saws to drill two holes for defrost vents as shown in *FIGURE 7*. Place them in the center of the stock vent location.



12. Attach the duct hoses to the 2" vents using the provided zip ties and secure the vents into place.



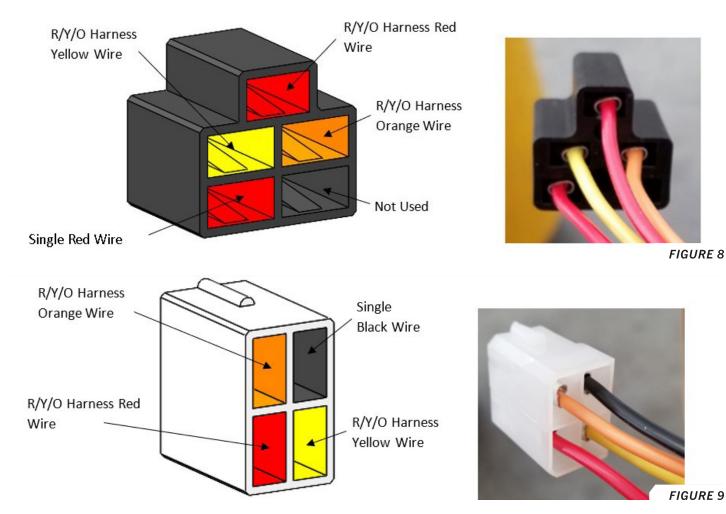
Do not press on the center of the vents as the fins may break.





### SWITCH WIRING

13. Locate the 36" 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*.



- 14. Connect the 5-Pin Black Connector to the 3-Position Switch included in the kit.
- 15. Insert the switch from the back of the center dash panel, where <sup>7</sup>/<sub>16</sub>" hole was drilled in step 9, and secure using the low-profile hex nut included in the switch bag. Disregard the flex lock washer.
- 16. 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 10*.
- 17. Place the bezel over the switch so that the 0, 1, 2, 3 markings are visible.



FIGURE 10

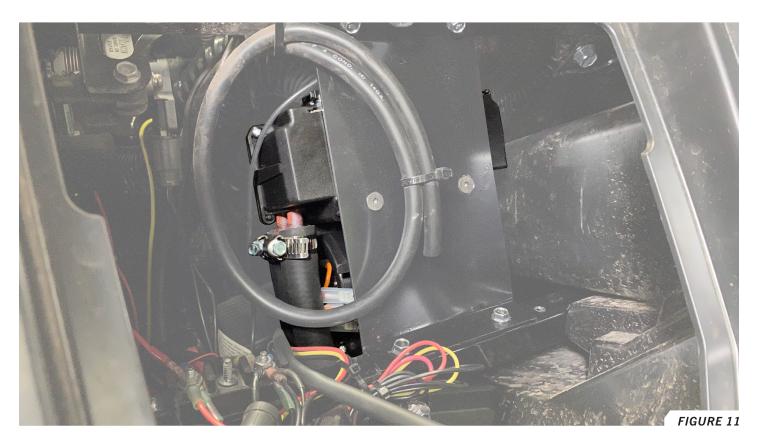




- 18. Press the switch dial onto the switch until it is seated firmly.
- 19. Connect the 4-Pin White Connector to the white terminal housing on the heater unit.
- 20. Connect the red wire to a keyed powered source (any power source that is only powered when the vehicle is on) using the terminated end. 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.

### **COOLANT HOSE ROUTING**

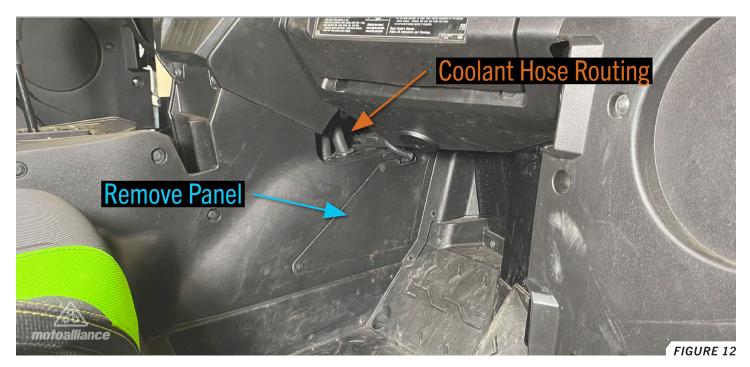
- 21. Cut the provided <sup>5</sup>/<sub>8</sub>" coolant hose in half.
- 22. Attach one hose to each of the copper tubes on the side of the heater as shown in *FIGURE 11*. Secure with the provided #10 hose clamps.







23. Route the hoses through the 1<sup>1</sup>/<sub>4</sub>" holes drilled in step 8 and out to the front of the machine. Remove the side panel for easier access. *FIGURE 12* 



24. Route one hose to the inlet side of the radiator and one hose to the outlet side of the radiator as shown in *FIGURE 13*.



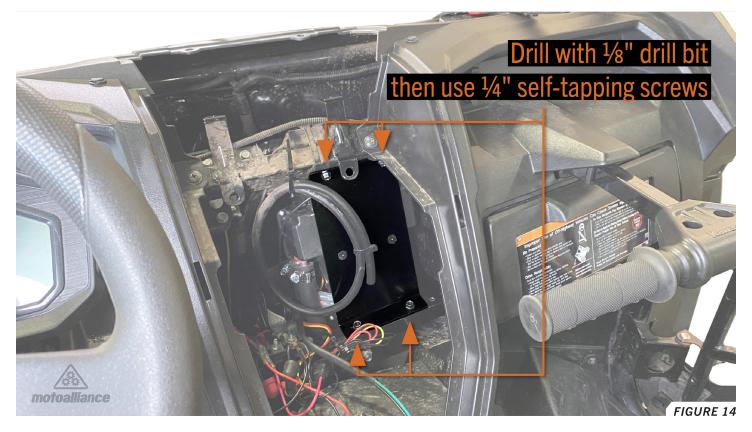
25. Choose an accessible location along the inlet of the 5/8" coolant line to install the plastic shut-off valve. Cut the 5/8" coolant hose, insert the plastic shut-off valve, and secure it using #10 hose clamps.





### HEATER BRACKET MOUNTING

- 26. Reinstall the glove compartment.
- 27. Once the glove compartment is installed, line your heater and mounting bracket up as shown in *FIGURE 14*.



- 28. Using a <sup>1</sup>/<sub>8</sub>" drill bit, drill pilot holes through the holes in your mounting bracket and into the frame bar.
- 29. Use the provided self-tapping screws to secure the mount plate to the frame.
- 30. Reinstall the center plastics.



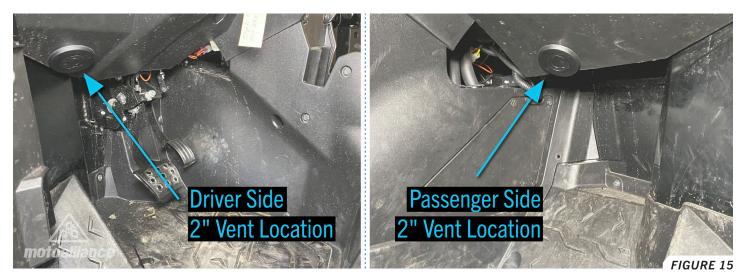


Use hose pliers if available to eliminate coolant

loss, otherwise drain coolant into a bucket.

### **IN-CAB VENT MOUNTING**

31. Use the 2" Hole Saw to drill two holes for the in-cab vents as shown in FIGURE 15.



- 32. Set the 2" Vents into the holes but do not secure them into place.
- 33. Attach the remaining 2" Duct Hoses to the 2" Vents with zip ties and secure into place.

### RADIATOR Y INSTALLATION

34. Find the Aluminum Y locations shown in *FIGURE 16*.

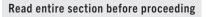


- 35. Verify that the Ys will fit as shown, and cut the coolant hose.
- 36. Install the Ys as shown, with the branch of the Ys pointing toward the radiator and away from the engine, and secure with the provided #16 hose clamps.
- 37. Attach coolant hoses to heater.





### **BLEEDING THE COOLANT SYSTEM**





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.

38. Fill radiator with coolant until radiator is full.



Look at owner's manual for manufacturerapproved coolant

- 39. Open the shut-off valve.
- 40. 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.
- 41. Turn off the machine and wait for it to cool down.
- 42. Open the radiator cap and add more coolant.
- 43. Repeat the steps in this section until consistent heat is coming out of the vents and machine temperature gauge stays under 200°F.
- 44. Verify that no leaks have occurred and that the radiator fluid level is per the manufacturer's specifications.

### FINISHING

- 45. Reinstall the center dash.
- 46. Reinstall the passenger side door.
- 47. Ensure all hardware is secure.
- 48. 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" 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

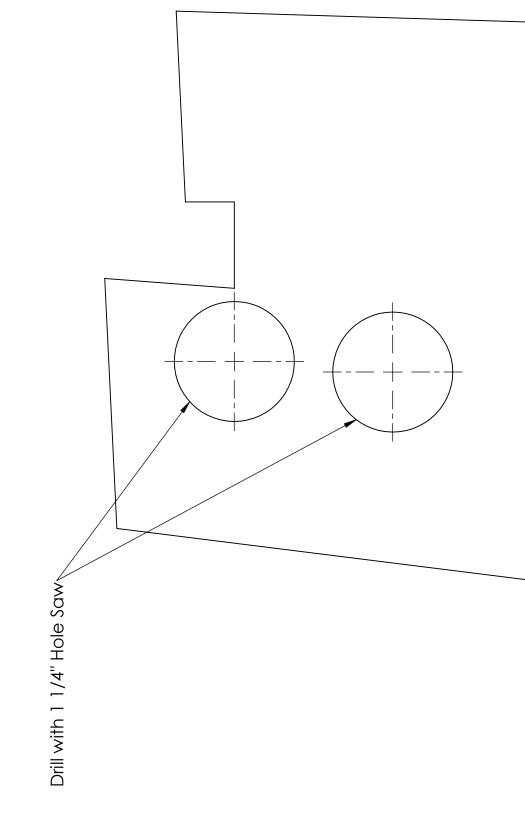
# Scan this QR code to see the full list of FIRESTORM replacement parts on <u>motoalliance.com</u>



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



# HT\_CU\_435 Template #1 5/8" Hose Cut Out



Front of Machine (