

## Firestorm Polaris RZR 570/800/XP900 Non-EPS Cab Heater HT\_CP-402/HT\_CP-408

23001 Industrial Blvd Rogers, MN 55374 866.527.7637

# Polaris RZR 570/800/XP900 Non-EPS COMPACT CAB HEATER KIT INSTALLATION INSTRUCTIONS

Please read all instructions before beginning 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.

Please check your kit with the parts list and picture below for all required parts.

Qty	Description		
1	Firestorm Heater Unit		
1	Standard Heater Mount Bracket		
1	4' x 5/8 Heater Hose		
2	Unicoil		
17	Cable Ties		
4	#16 Hose Clamps		
4	#10 Hose Clamps		
1	1 ¼" Hole Saw		
1	RZR Wiring Loom		
2	1" Y Fittings (Aluminum)		
1	Coolant Tank Relocation Mounting Bracket (XP900 <b>ONLY</b> )		
2	RH and LH Mounting Brackets		
2	Heater Core Support Brackets		
2	Grommets (Rubber)		
1	¼"-20x1 ½" Bolt		
1	1/2"-20 Nylock Nut		
1	Garden Hose Adapter (not pictured)		

Qty	Description			
12	1/4-20x3/4" Serrated Flange Bolts			
8	1/4-20x3/4" Serrated Flange Nuts			
4	1/4" x 20 U-nuts			
6	#10 x 5/8 Screws for Plastic Mounting			
1	1/4"-20x2" Bolt			
1	1/4-2" Nylock Nut			
1	1/4" Fender Washer			
1	1/2" - 1 1/2" Spacer			
1	Defrost Duct Mounting Bracket			
1	90° Duct Elbow			
1	13" Duct Hose (Compressed)			
2	3" Defrost Vents			
1	2.5" Duct Y			
1	3" Hole Saw			
1	Pilot Bit			
1	Blue Quick Connect (not shown)			



## Firestorm Polaris RZR 570/800/XP900 Non-EPS Cab Heater HT\_CP-402/HT\_CP-408

23001 Industrial Blvd Rogers, MN 55374 866.527.7637





HT\_CP-402/HT\_CP-408

23001 Industrial Blvd Rogers, MN 55374 866.527.7637

### **Coolant Tank Relocation – XP900 ONLY**

**Please note**: Before drilling holes, check the area behind the firewall panel to make sure no damage will occur by drilling holes.

- 1. Remove the plastic push pin from the lower coolant tank bracket.
- 2. Unbolt the coolant tank from the vehicle's frame.
- 3. Install the coolant tank relocation bracket as shown in Figure 1a.

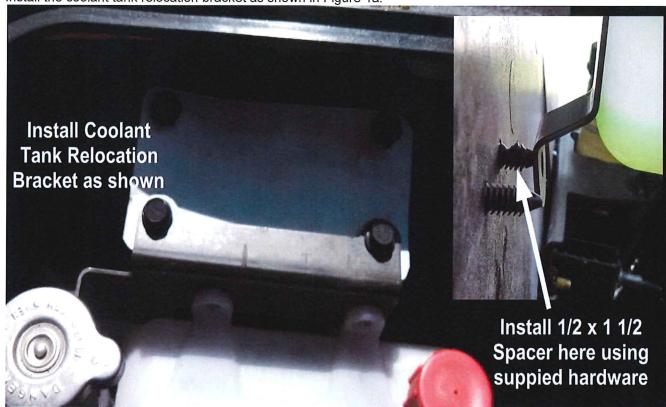


Figure 1a

- **4.** Discard two of the factory bolts and use the supplied ¼" hardware to attach the tank to the factory bracket and Coolant Tank Relocation Bracket.
- 5. Use two of the factory bolts to attach the Coolant Tank Relocation Bracket to the vehicle's frame.
- 6. Install the ½" x 1 ½" Spacer in the position as shown in Figure 1a.
- 7. Using the ¼" x 2" Bolt with the ¼" Fender Washer placed on the bolt and passed through the existing hole from the cab side of the firewall.
- 8. Attach the lower mounting of the Coolant Tank Relocation Bracket.



## Firestorm Polaris RZR 570/800/XP900 Non-EPS Cab Heater HT\_CP-402/HT\_CP-408

23001 Industrial Blvd Rogers, MN 55374 866.527.7637

### **Cab Heater Installation**

1. Cut out the Under Dash Heater Hose Template (Template 1) and position on the firewall as shown in Figure 1.



Figure 1

- 2. Mark the 1 1/4" hole saw centers and remove the Template.
- 3. Carefully drill the heater hose holes using the supplied 1 1/4" Hole Saw and Pilot Bit.
- 4. Place the supplied Rubber Grommets into the drilled holes.



HT\_CP-402/HT CP-408

23001 Industrial Blvd Rogers, MN 55374 866.527.7637

- 5. Remove the electrical plug from the dash support as shown in Figure 2 and relocate with the supplied Cable Ties.
- **6.** Attach the Red wire of the included Wiring Loom to the loose orange and white wire shown in Figure 2. To do this, use the included Blue Quick Connect.

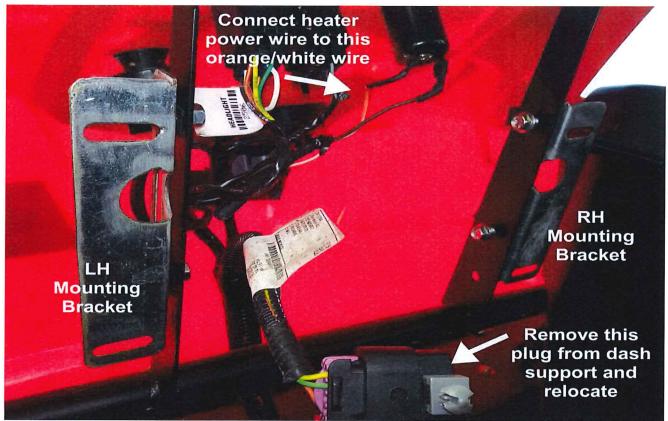


Figure 2

- **7.** Push the U-Nuts over the mounting brackets locating the U-Nuts in the large slotted holes with the threaded parts facing inward.
- 8. Mount the LH and RH Mounting Brackets as shown in Figure 2 using the existing holes in the RZR dash support bars to locate the brackets.
- 9. Use the supplied ¼"x ¾" Serrated Flange Bolts to attach the brackets. Use one of the mounting bolts to attach the black wire of heater wiring loom to the dash support bar. Before mounting the black wire, remove some of the paint from the dash support in this area to assure a good connection. Do not tighten the mounting bolts at this time.



HT\_CP-402/HT\_CP-408

23001 Industrial Blvd Rogers, MN 55374 866.527.7637

**10.** Install the Standard Heater Mount Bracket (defrost duct end with tabs toward defrost duct mounting bracket) and the Defrost Duct Mounting Bracket to the heater as shown in Figure 3 and attach using the supplied Plastic Mounting Screws with the 1/4" Fender Washers.



Figure 3

- 11. Take the supplied 5/8" Heater Hose and install the Unicoil over each end of the Heater Hose.
- **12.** Pass each end through the Rubber Grommets in the firewall from the *radiator side* of the firewall; *do not cut hose to do this*.
- **13.** Attach the 5/8" Heater Hoses to the Heater Unit. Secure with#10 Host Clamp. **Note the lower hose clamp placement for future reference.**
- 14. Install the Heater Core Support Bracket to the Heater Hoses as shown in Figure 4. Do not over tighten.



Figure 4



HT\_CP-402/HT\_CP-408

23001 Industrial Blvd Rogers, MN 55374 866.527.7637

### **Defrost Duct Installation**

1. Using the Defrost Kit Dash Template (Template 2) and the supplied 3" Hole Saw and Pilot Bit, drill holes for the Vents as shown in Figure 5.

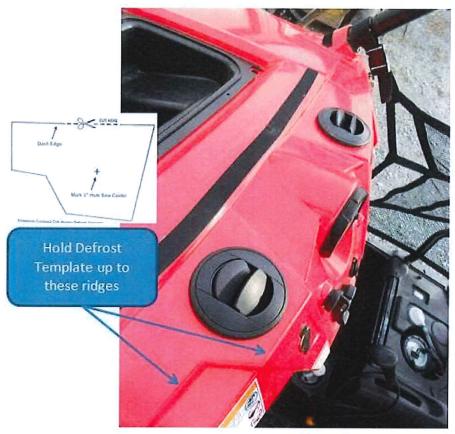


Figure 5

- 2. Attach the 2.5" Duct Hose to the Defrost Duct Elbow and secure with Cable Ties.

  Note: using a wire cutter, split the hose in half up to 3 rings on each side. This will give more flexibility when attaching the Duct Hose to the Defrost Elbow. Seal with electrical tape if necessary.
- 3. Stretch 2.5" Duct Hose from the Main Heater to a length just past the rear of the heater and cut to length.
- 4. Attach 2.5" Duct Y to the 2.5" Duct Hose running from the Main Heater and secure with Cable Ties.
- 5. Divide and cut the remaining 2.5" Duct Hose in half, attach each piece to the open ports of the 2.5" Duct Y and secure with Cable Ties.
- 6. Run each 2.5" Duct Hose out to the vent hole and pass through the hole in the dash.
- 7. Attach the 2.5: Duct Hoses to the Defrost Vents and secure with Cable Ties.
- 8. Place the Vents into the holes and push down carefully until the vents snap into place.

  Important Tip: Cleaning any burs from around hole with a knife will make installing the vent into place easier.
- 9. Lift the Main Heater up into position, pushing the 5/8" hoses back through the Rubber Grommets; fit the ½"x¾" Serrated Flange Bolts and 1/4" Serrated Flange Nuts into place **temporarily**.
- 10. Move the Main Heater into the correct position making sure the Defrost Duct is not interfering with the dash, switches, etc.
- 11. Remove the Main Heater and tighten the dash support and Heater Mounting Bracket Mounting Bolts.

# motoalliance

### Firestorm Polaris RZR 570/800/XP900 Non-EPS Cab Heater

HT\_CP-402/HT\_CP-408

23001 Industrial Blvd Rogers, MN 55374 866.527.7637

- 12. Connect the Wiring Loom to the heater:
  - a. Connect the red wire on the wiring loom to the red wire of the heater plug
  - b. Connect the black wire on the wiring loom to the black wire of the heater plug
- 13. Reconnect the battery.
- 14. Turn the key on to check the fan operation.
- 15. Disconnect the battery.
- 16. Reinstall the heater and tighten the mounting bolts.

### **Coolant Setup**

**Important Tip:** Raise the front of vehicle on jack stands or ramps before draining the cooling system. This will help in preventing air locks and you won't have to drain the whole cooling system.

- 1. Push the Unicoil into position behind the coolant tank, bending the coils to make a gradual bend in the heater hose so the hose does not become kinked and restrict coolant flow.
- 2. Drain the cooling system by removing the lower radiator hose.
- 3. Cut the radiator hoses as shown in Fig 6a and 6b.
- 4. Insert the Y Connectors exactly as shown in Fig 6a, 6b and 7 in the radiator hoses and secure with the #16 Hose Clamps.

Before cutting the radiator hoses, be sure that the placement of Y's will not interfere with any part of the vehicle. Be sure the hose connected to the temperature control valve of the heater is connected to the top radiator hose.



Figure 6a



HT\_CP-402/HT\_CP-408

23001 Industrial Blvd Rogers, MN 55374 866.527.7637



Figure 6b

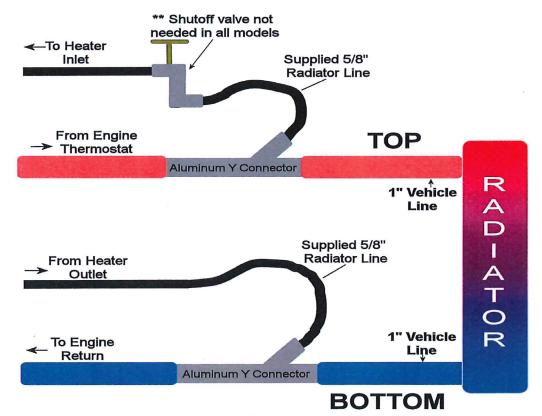


Figure 7

# motoalliance

#### Firestorm Polaris RZR 570/800/XP900 Non-EPS Cab Heater

HT\_CP-402/HT CP-408

23001 Industrial Blvd Rogers, MN 55374 866.527.7637

- 5. Run the 5/8" Heater Hose to the Aluminum Y Connectors
  - a. The hose that comes from the top hose of the radiator will connect to the temperature control valve. See Figures 4 & 6.
  - b. The hose that comes from the bottom hose of the heater core will attach to the bottom hose of the radiator. See Figures 4 & 6.
- 6. Cut the Heater Hoses to length.
- 7. Before connecting the hoses to the Y Connectors use a garden hose with the Garden Hose Adapter to run water through the heater hose and heater assembly. This step must be carried out as it forces air bubbles out of the heater core. Filling the heater core without the pressure of the garden hose leaves the chance for air pockets inside the core. This will lead to no or limited heating during operation.
- 8. Fit the hose to the Y Connectors and secure with #10 Hose Clamps. Make sure all hoses are as far away as possible from the driveshaft, steering shaft and sharp areas, etc.
- 9. Use the Cable Ties as necessary.

### Bleeding the Coolant System - Read entire section before proceeding

**IMPORTANT NOTE**: 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.

- 1. Move the vehicle to an area where it can be run. If possible, place the front end of the vehicle on ramps.
- 2. Open the radiator cap and add as much 50/50 premix coolant as allowable.
- 3. Turn on the machine and run the engine at 3,000-4,000 RPMS until the radiator fan turns on. During this time, continue to add coolant to the radiator as needed. It is normal for coolant to overflow at times as bubbles move through the system.
- 4. When the radiator fan turns off, release the accelerator. If the temperature reaches 205 degrees, turn off the engine and allow the system to cool down. Once the engine temp reaches approximately 180 degrees, perform steps 3 & 4 again. As air moves out of the system the vehicle's ability to cool itself improves to the point where the radiator fan is able to mitigate the heat generated by the engine. Perform this step for two cycles of the radiator fan. Depending on how much coolant was lost during installation, a third or fourth cycle may be necessary.
- 5. Close the radiator cap securely. Fill the coolant overflow reservoir to the full line.
- 6. Again, rev the engine at 3,000-4,000 RPMs until three radiator fan ON/OFF cycles. Turn off the machine and let it completely cool down.
- 7. In a few hours, check the reservoir level and fill accordingly. Verify that the engine is cold and then open the radiator cap. Fill as necessary. Close the radiator cap.
- 8. Repeat Step #3 and Step #7 until you no longer see a drop in the coolant overflow reservoir and you feel good heat in the cab after the first radiator fan cycle.
- 9. Verify there are no coolant leaks.
- 10. For troubleshooting see the Supplemental Instructions Important Note at the beginning of your instructions.

HT\_CP-402/HT\_CP-408

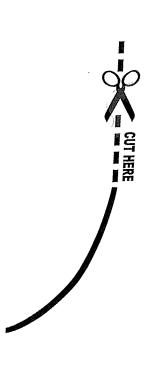
23001 Industrial Blvd Rogers, MN 55374 866.527.7637



**Installed View** 

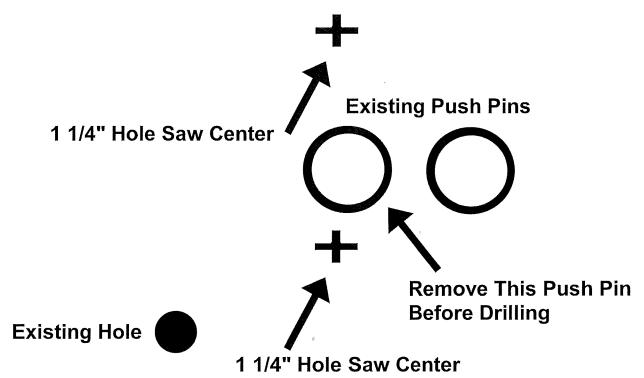
### **Before Your Next Ride:**

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



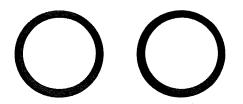
## Top

Polaris RZR 570/800/900 Non EPS Firestorm Under Dash Heater Hose Template.

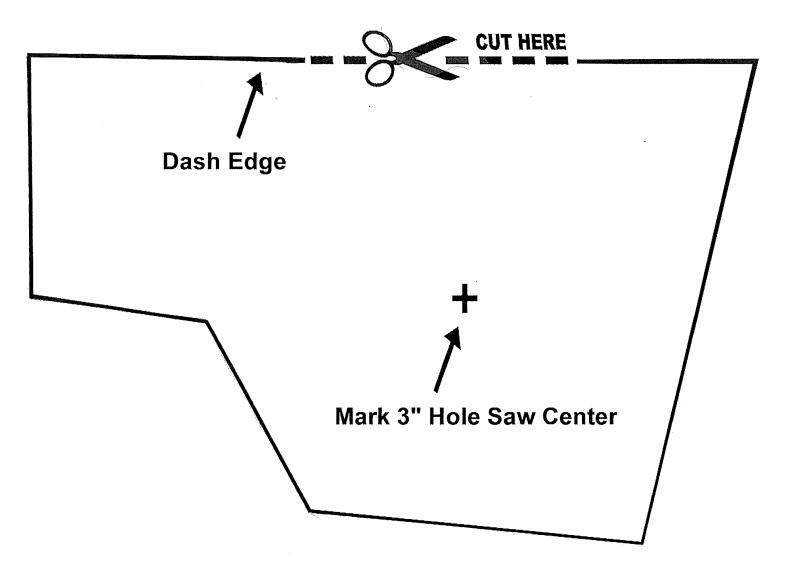


Cut out template. Tape to firewall as shown in instructions. Mark hole center on firewall. Remove template. Using 1 1/4" hole saw, drill hose holes in firewall. Please Note: Before you drill please check the other side of firewall for anything that may interfere with the placement of the holes. We will not be held responsible for holes being drilled in the incorrect place.

**Existing Push Pins** 



**Template** 



Polaris RZR Defrost Kit Dash Template.

Cut out template, place on upper dash panel and align with the contours of the dash. Mark center hole on dash. Repeat on opposite side. Remove template. Using hole saw, drill vent hole in dash. Please Note: Before you drill please check the under side of dash directly below template for anything that may interfere with the placement of the vent. We will not be held responsible for vent holes being drilled in the incorrect place.