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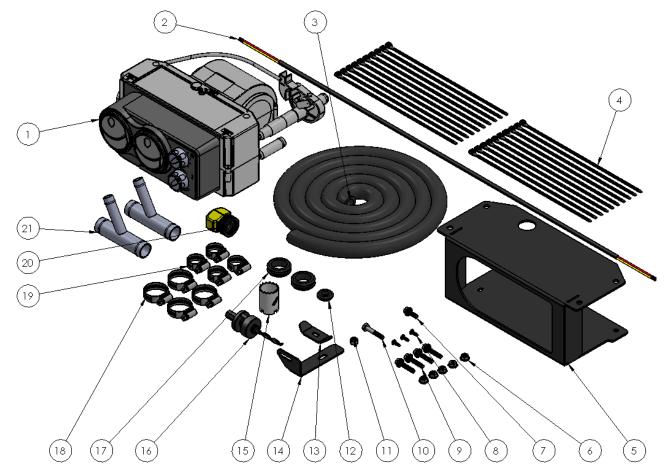
Warrior 800 CAB HEATER KIT INSTALLATION INSTRUCTIONS

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.

Part #	Qty	Description
1	1	Firestorm Cab Heater (undrilled)
2	1	42" Red/Black Wiring Harness
3	8 ft	5/8" Coolant Hose
4	20	Zip Ties
5	1	HT_CP_451-W1 Heater Bracket
6	5	1/4"-20 Serrated Flange Nut
7	1	1/4"-20 x 3/4" Serrated Flange Bolt
8	3	#10 x 5/8" Plastic Screws
9	4	1/4"-20 x 1 1/4" Serrated Flange Bolt
10	1	1/4"-20 x 1 1/2" Hex Bolt
11	1	1/4"-20 Nylock Nut

Part #	Qty	Description
12	1	1/2" Grommet (G3218)
13	1	HT_CP_499-14 Cupped Bracket
14	1	HT_CP_499-12 L Bracket
15	1	1 ¼" Hole Saw
16	1	Pilot Bit
17	2	1" Grommet (G3062)
18	4	#16 Hose Clamp
19	4	#10 Hose Clamp
20	1	Garden Hose Adapter
21	2	7/8" Aluminum Y



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

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

Cab Heater Installation

1. Insert the cab heater unit into the main heater bracket and secure the bottom side using three of the 10mm plastic screws as shown in Figure 1. Hand tighten these screws.

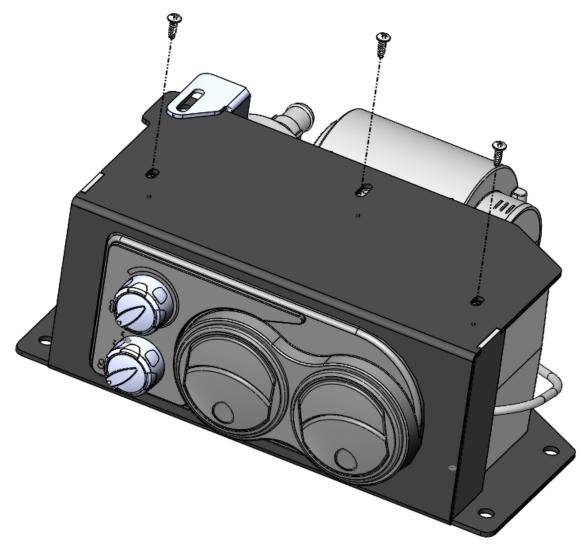


Figure 1



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- 2. Attach the right-angle support bracket to the main heater bracket using the $\frac{1}{4}$ "-20 x $\frac{3}{4}$ " serrated flange bolt and serrated flange nut as shown in Figure 2.
- 3. Attach the cupped support bracket to the back side of the hoses using $\frac{1}{4}$ "-20 x 1 $\frac{1}{4}$ " serrated flange bolt and serrated flange nut as shown in Figure 2.

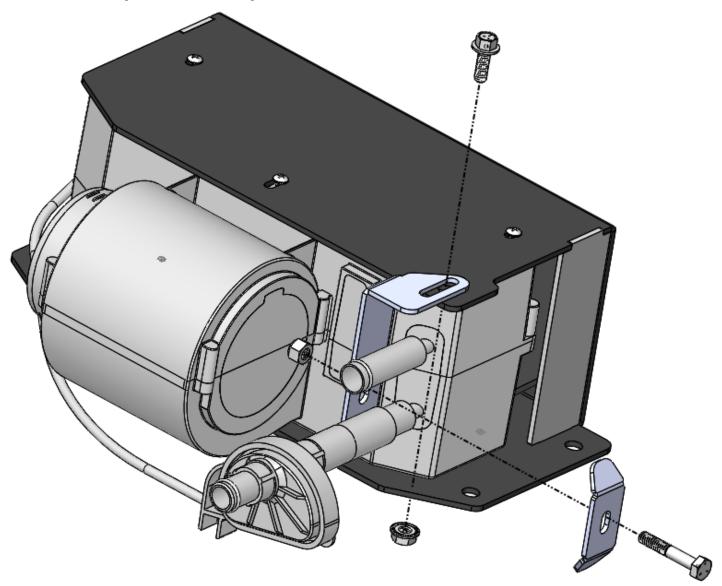


Figure 2

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4. Remove the shipping plug from the cab heater a shown in Figure 3.



Figure 3

5. Hold the heater assembly up against the angled face of the Warrior front dash as shown in Figure 4. Once positioned parallel to the leading edge of the dash, mark the center of the four holes on the heater bracket that are touching the dash panel.



Figure 4

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- 6. Set the heater aside and using a 5/16" drill bit, drill the four holes insuring that there are no wires behind the center dash prior to drilling.
- 7. Mount the heater assembly to the front dash using the four $\frac{1}{4}$ "-20 x 1 $\frac{1}{4}$ " serrated flange bolts and $\frac{1}{4}$ "-20 serrated flange nuts as shown in Figure 5.



Figure 5

8. With the heater mounted to the dash panel, use the 1 ½" hole saw and pilot bit to drill two holes in the firewall so that the holes are generally in line with the two 5/8" coolant ports on the heater itself as shown in Figure 6.

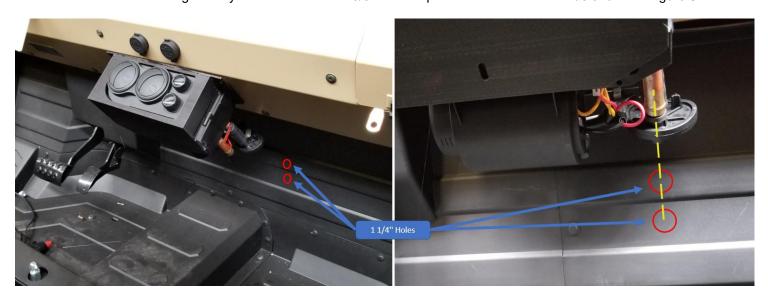


Figure 6



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- 9. Insert the two 1" Rubber Grommets into the holes drilled previously.
- 10. Using a 3/4" Drill bit, drill a hole in the firewall near the 1 1/4" holes that will allow the heater wiring harness to pass through. Insert the smaller rubber grommet into this hole.
- 11. From the inside of the firewall route the red/black wiring harness through the smaller grommet and to the exterior of the vehicle. Connect the white plug on the wiring harness to the white plug on the heater unit.
- 12. Route the wiring harness to the OEM contactor mounted to the frame behind the radiator on the passenger side of the vehicle (See Figure 7). Use the ¼" ring terminals to connect the red wire to the red post of the contactor and the black wire to the black post.



Figure 7

- 13. Verify that the heater fan works on all speeds.
- 14. Make a large "U' shape with the 5/8" coolant hoses so that the ends are at equal length.
- 15. From external side of the firewall (outside of vehicle cab), route the 5/8" coolant hoses through the two grommets.
- 16. Connect the top most hose on the firewall to the top hose on the heater (one with plastic shutoff connected). Secure the 5/8" coolant hose with a #10 hose clamp. **Note: Do not use power tools for this.**
- 17. Connect the bottom most hose on the firewall to the bottom hose on the heater. Secure the 5/8" coolant hose with a #10 hose clamp. **Note: Do not use power tools for this.**
- 18. Cut the 5/8" coolant hose in half at the base of the 'U' shape. Route the top hose to the driver side of the vehicle and bottom hose to the passenger side.

19. Position the 7/8" Aluminum Y's as shown in Figure 8 and Figure 9.



Figure 8

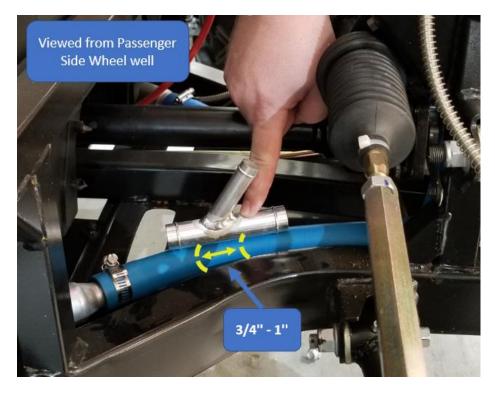


Figure 9



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- 20. Mark the 7/8" ID radiator hose with a pen leaving a 3/4"-1" gap for the aluminum Y to fit in. See Figures 8 & 9.
- 21. Place a bucket under each hose and cut the coolant lines at the marked positions.
- 22. Insert the 7/8" aluminum Y's in the orientation shown in Figures 8 & 9.
- 23. Secure the 7/8" Aluminum Y's using the #16 (larger) hose clamps.
- 24. Route the upper 5/8" coolant hose (attached to plastic shutoff valve), to the drive side aluminum Y. Avoid tight bends. Do not attach the hose to the 5/8" Port at this point.
- 25. Route the lower 5/8" coolant hose (attached to bottom port of heater), to the passenger side aluminum Y. Avoid tight bends. Do not attach the hose to the 5/8" Port at this point.
- 26. 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.
- 27. Fit the 5/8" coolant hoses to the aluminum Y and secure with #10 Hose Clamps.
- 28. Use zip ties to secure the hoses 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.

- 29. Move the vehicle to an area where it can be run. If possible, place the front end of the vehicle on ramps.
- 30. Open the radiator cap and add as much 50/50 premix coolant as allowable (only add coolant that is rated for your vehicles make and model).
- 31. 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.
- 32. 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 the previous two steps 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.
- 33. Close the radiator cap securely. Fill the coolant overflow reservoir to the full line.
- 34. 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.



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- 35. 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.
- 36. Repeat the heat up & cool down procedure until there is no longer a drop in the coolant overflow reservoir and the heater produces heat in the cab after the first radiator fan cycle.
- 37. Verify there are no coolant leaks.



Figure 10 - Installed view, hoses not shown

Before Your Next Ride:

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