Firestorm Textron Stampede Cab Heater
HT_CU_464

23001 Industrial Blvd
Rogers, MN 55374
866.527.7637

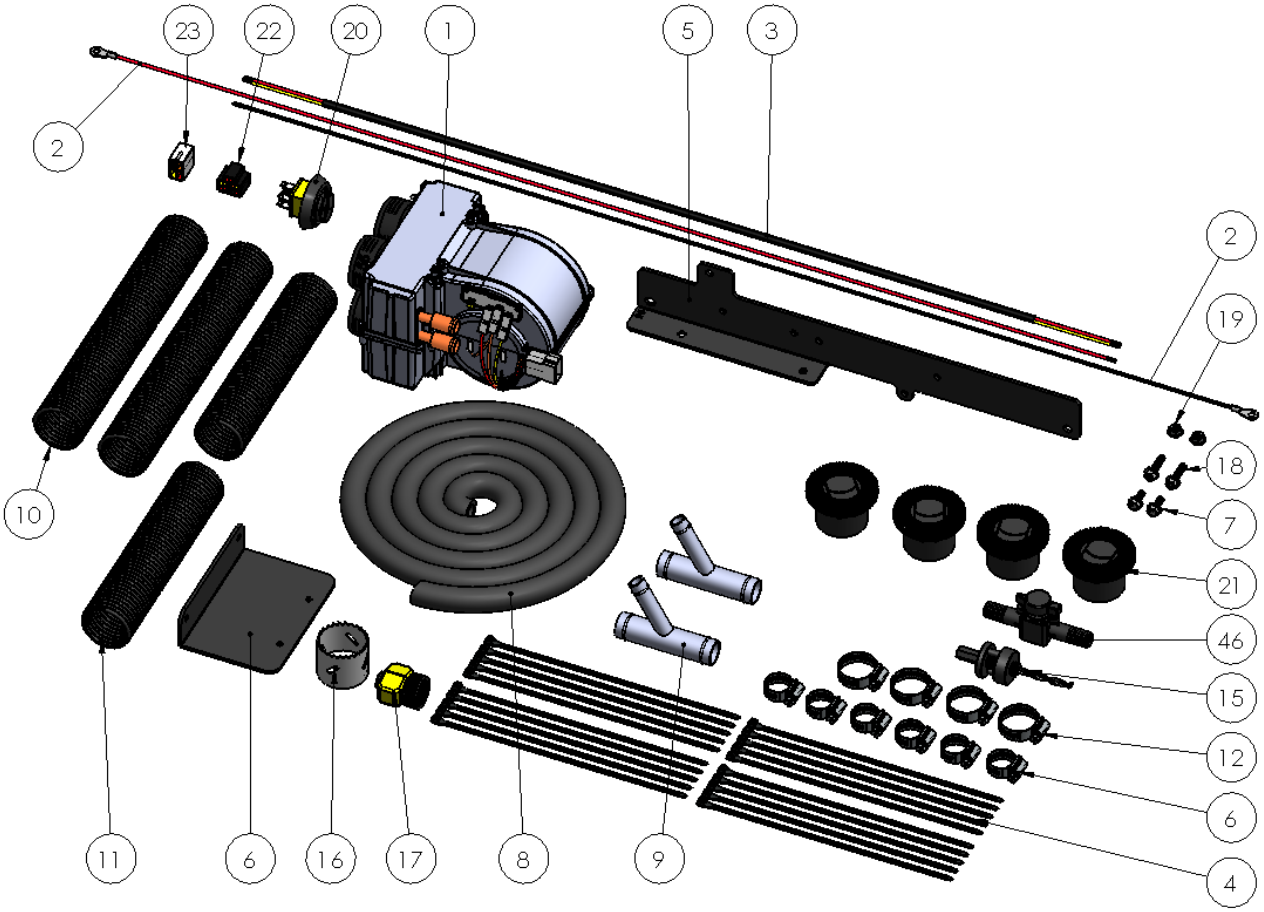
Textron Stampede CAB HEATER KIT INSTALLATION INSTRUCTIONS

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 Underdash Heater
2	1	36'' Red/Black Wiring Harness
3	1	36'' Red/Yellow/Orange Harness
4	20	Zip Ties
5	1	HT_CU_464-1 Metal Cross Bracket
6	1	HT_CU_464-2 Heater L Bracket
7	2	M6-1.0 x 16mm Serrated flange bolt
8	20ft	5/8'' Coolant Hose
9	2	1'' Aluminum Y
10	2	2'' x 12'' Duct Hose
11	2	2'' x 9'' Duct Hose
12	4	#16 Hose Clamp

13	6	#10 Hose Clamp
14	1	Plastic Shutoff Valve
15	1	Pilot Bit
16	1	2'' Hole Saw
17	1	Garden Hose Adapter
18	2	¼''-20 x 1'' Serrated Flange Bolt
19	2	¼''-20 Serrated Flange Nut
20	1	3 Position Switch
21	4	2'' Duct Vent
22	1	5 Pin Black Connector (not shown)
23	1	4 Pin White Connector (not shown)



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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 the vehicle on jack stands or ramps before draining cooling system. This will help in preventing air locks.

Preparation

1. Remove the front hood using the twist lock clips. Set the hood aside.
2. Remove the U-shaped plastic body panel as shown in Figure 1 & Figure 2. Set the plastic body aside.

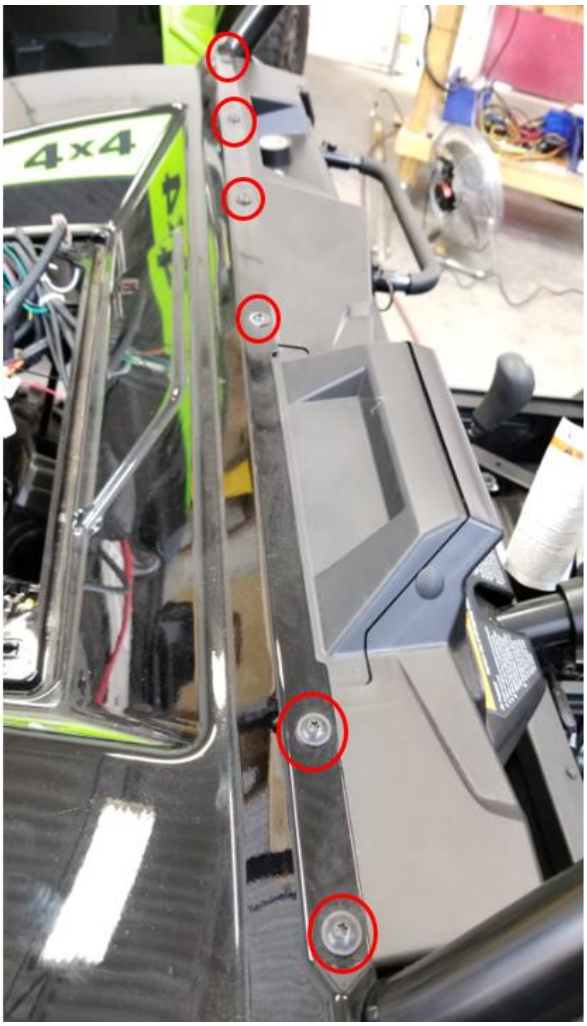

Figure 1

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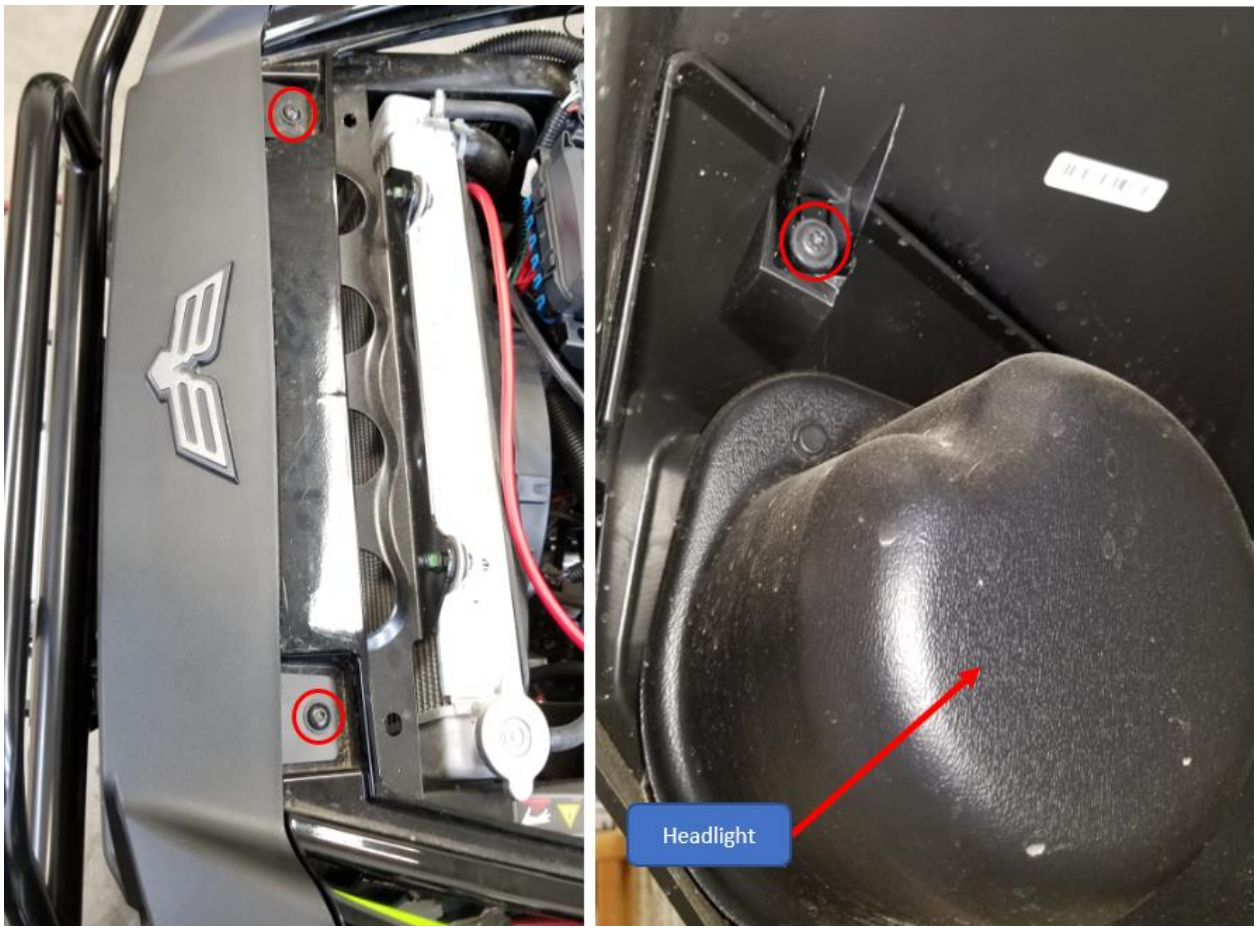

Figure 2

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3. Remove the metal cross bar bracket that carries the accessory electronics and detach the coolant reservoir as shown in Figure 3, Figure 4, Figure 5, and Figure 6. Once the metal cross bar is free, remove it and set aside. Keep the coolant reservoir attached to its metal bracket. Allow it to hang down in the open cavity below the metal cross bar. Remove the thin plastic cover and set it aside. Note: it may be necessary to cut zip ties to temporarily move wiring harnesses out of the way. Figure 3 shows some aftermarket components that will not be found on a standard vehicle.

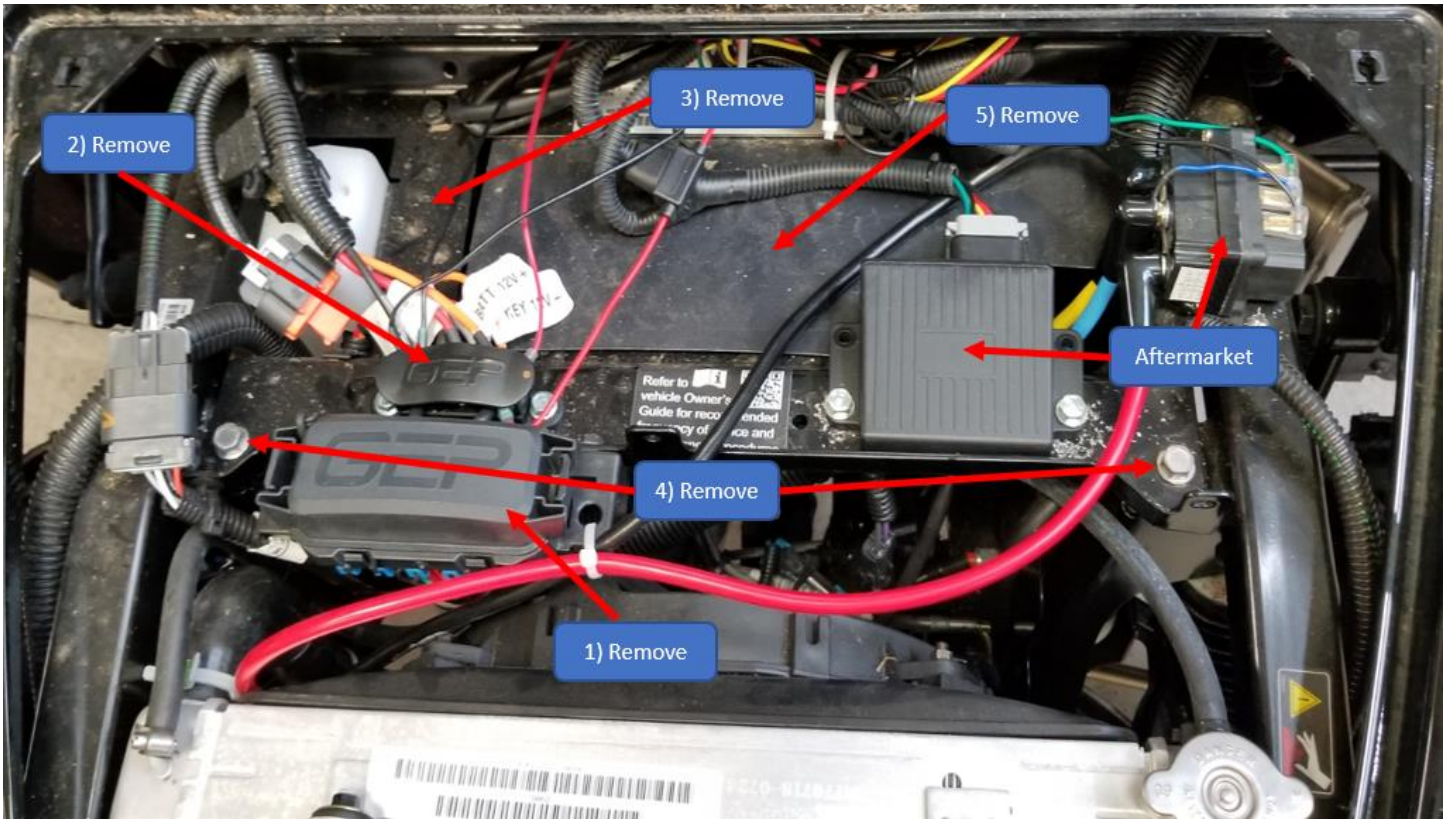

Figure 3

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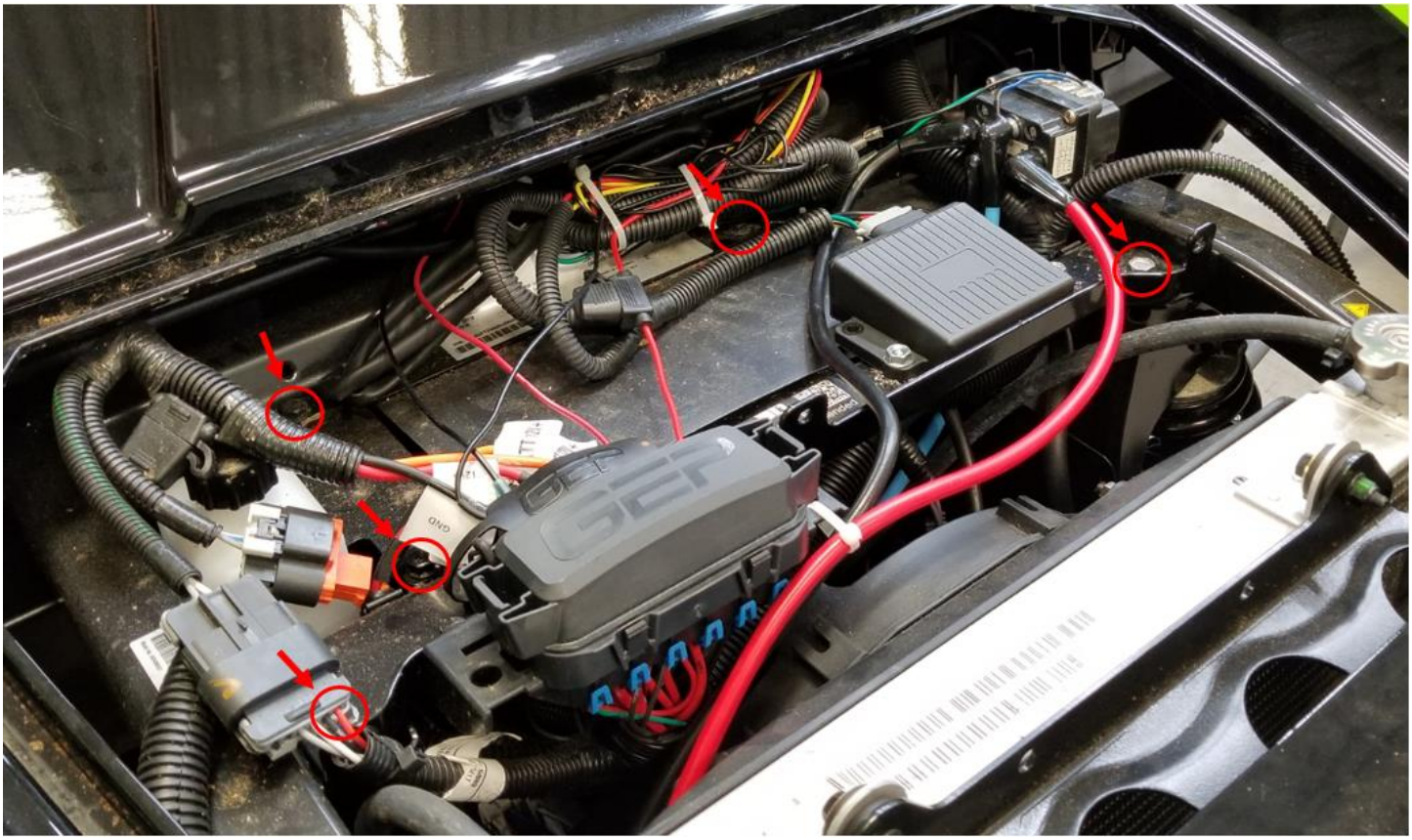

Figure 4

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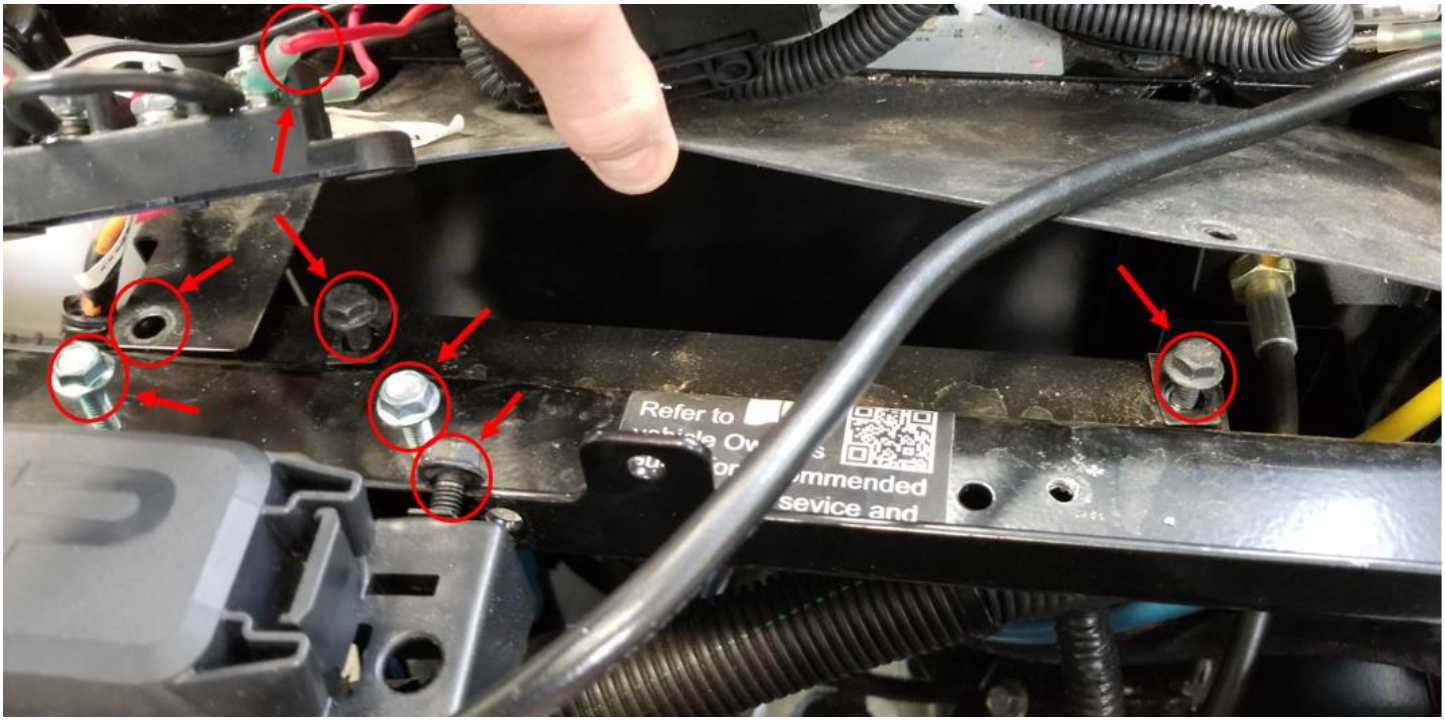

Figure 5

Figure 6

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4. Below the metal cross bar bracket shown in Figure 6, is a thin metal splash guard bracket. The bracket is a right-angle shape with one leg running parallel to the radiator fan and the other running along the driver side wheel well. The bracket is attached with three bolts and will require some finesse to remove out the passenger side wheel well. See Figure 7.

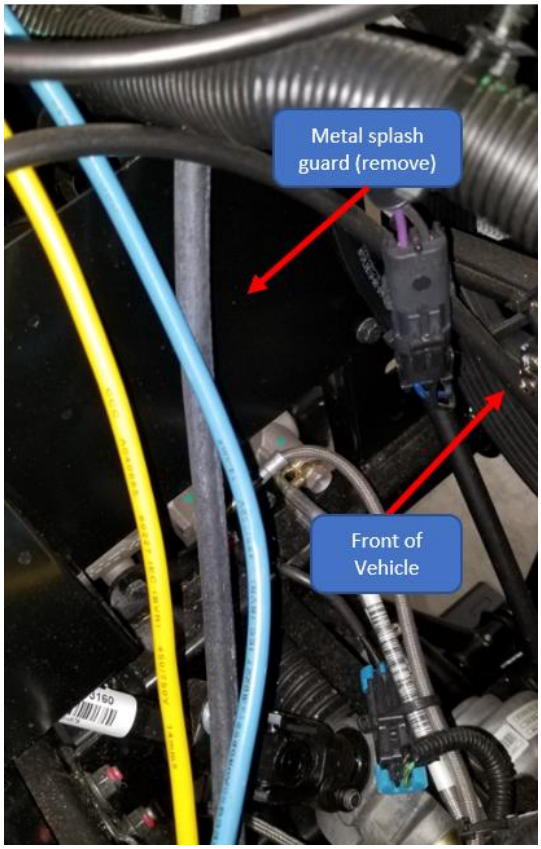

Figure 7

5. With the metal splash guard removed. Reinstall the replacement cross support bracket included with the heater kit. The replacement bracket mounts to the same bolt locations as the OEM version. Reuse the hardware removed earlier. See Figure 8.

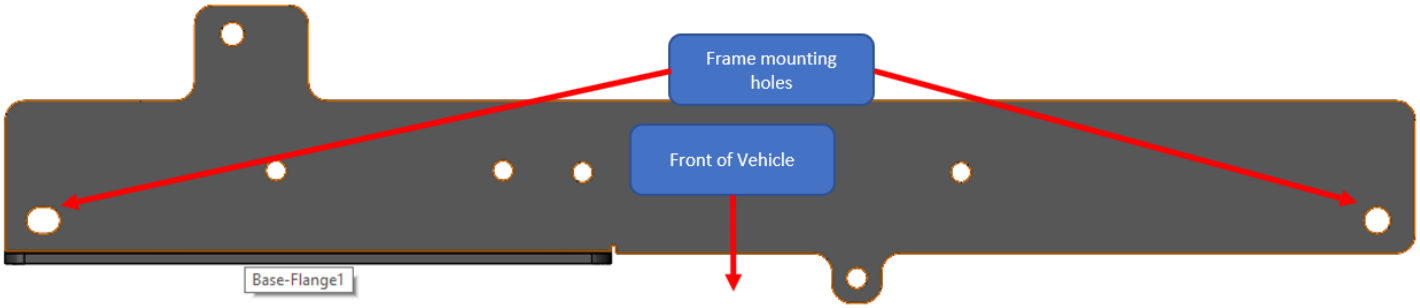

Figure 8

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6. Reinstall the fused terminal block, control module, coolant reservoir bracket and secure wiring harnesses with zip ties if removed earlier. **Note: Do not replace the thin plastic splash guard removed earlier.**
7. Mount the Heater unit to the right-angle heater bracket as shown in Figure 9.

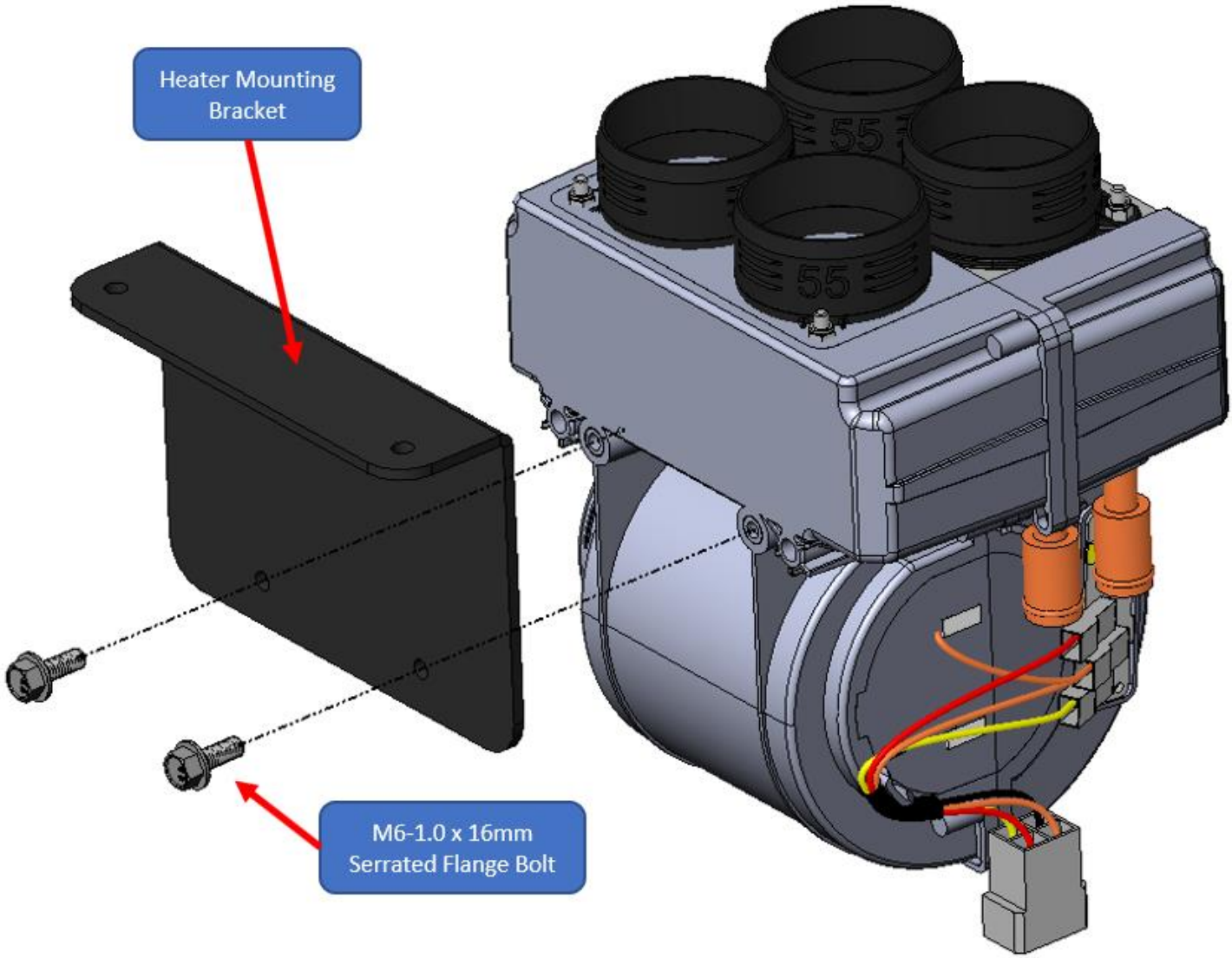

Figure 9

8. Unravel the 20’ of 5/8’’ Coolant Hose and cut it in half leaving two pieces approximately 10’ in length.

9. Remove the front bench seat and set aside.

10. Route the two 10’ pieces of 5/8’’ Coolant Hose from the engine compartment following the aluminum coolant lines to the radiator at the front of the vehicle. Pull any extra 5/8’’ Coolant hose toward the area behind the radiator leaving the ends of the Coolant Hose near the engine.

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11. Position the Heater unit and right-angle bracket over the center most holes of the replacement metal cross support bracket and secure with ¼'' serrated flange hardware. See Figure 10

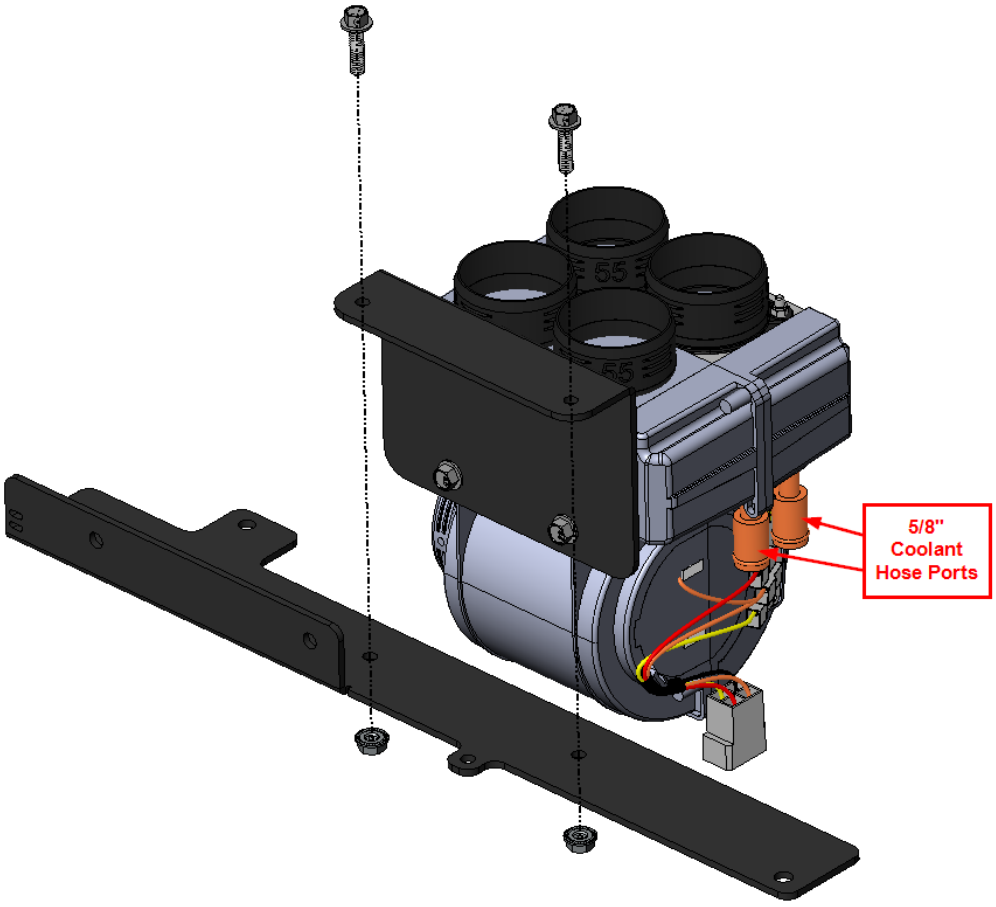

Figure 10

12. Connect the 5/8'' Coolant Hoses to the 5/8'' Coolant Hose ports as shown in Figure 10. Secure the hoses using #10 hose clamps.

13. Cut one of the 5/8'' Coolant Hoses approximately 1 foot behind the Heater unit and insert the Plastic Shutoff valve. Secure with #10 hose clamps.

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Wiring & Vent Installation

14. Cut out the Vent and Switch templates from the back of the instructions and tape them into place as shown in Figure 11 and Figure 12.

Figure 11

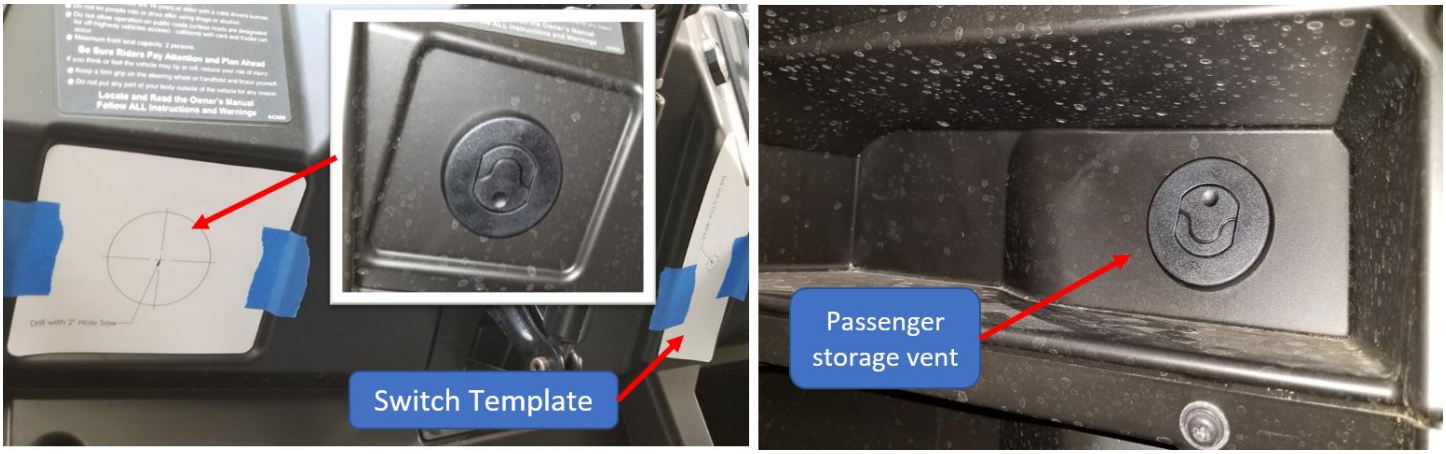

Figure 12

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Important Note: Before drilling check the reverse side for any obstructions

15. Use the 2'' hole saw to drill the Vent holes and a 7/16'' drill to drill the switch mounting hole.

16. Press the 2'' Duct Vents into the 2'' holes until they click into place.

17. Connect the 2'' duct hoses to the four ports on the heater unit using the zip ties to keep them from slipping off.

18. Route the 2'' duct hoses to the passenger side vents through the area below the top dash. Use the longer 2'' duct hoses to reach the furthest vents. Attach the 2'' duct hoses to the vents and secure with zip ties. It may be necessary to cut slits in the first two or three ribs to seat the hose over the vent.

19. Locate the 36'' Three Conductor wiring harness and insert the Yellow, Red, and Orange wires into the Black Five Pin Connector as shown in Figure 13 . If installed properly the terminal will snap into place. If the terminal does not snap into place flip it 180 degrees and try again.

20. Locate the 36'' Single Conductor Red wire and insert it into the lower left corner of the Black Five Pin Connector as shown in Figure 13.

21. Connect the Black Five Pin Connector to the Five Pin Switch Body.

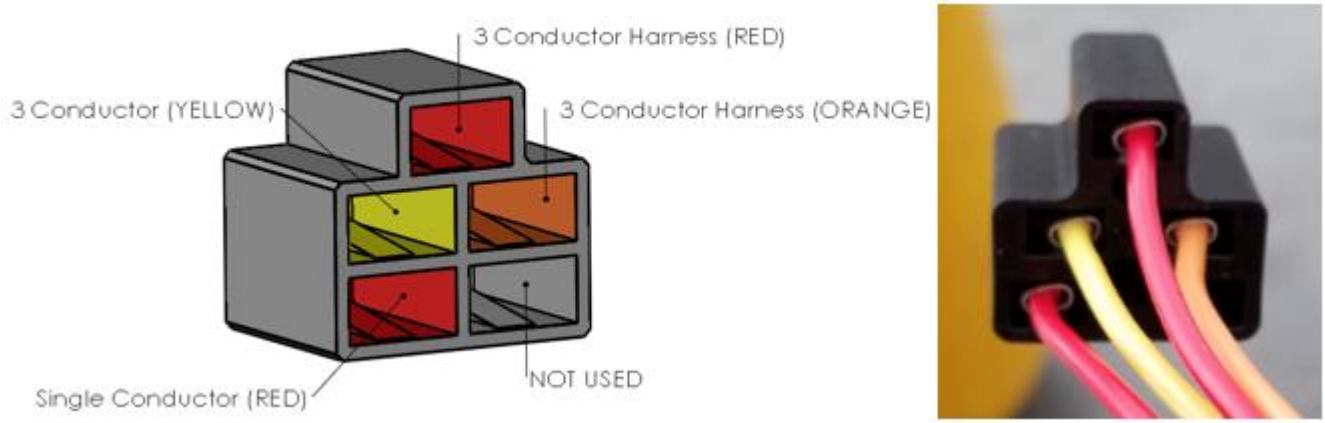

Figure 13

22. Insert the switch from the rear of the front dash and secure using the low profile hex nut. Disregard the flex lock washer.

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23. 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.

Figure 14

24. Place it over the switch so that the 0,1,2,3 markings are oriented in a desirable way.

25. Place the switch cover on to the switch.

26. Locate the White Four Pin Connector included in the kit. Insert the other end of the 36'' 3 conductor harness, Orange, Red, and Yellow wires into the White Four Pin Connector in the orientation shown in Figure 15. The metal terminals will snap into place if installed properly.

27. Insert the 36'' Single Black Conductor wire in the orientation shown below in Figure 15 ensuring it snaps into position.

28. Insert the assembled connector into the White Terminal Housing on the Heater Unit.

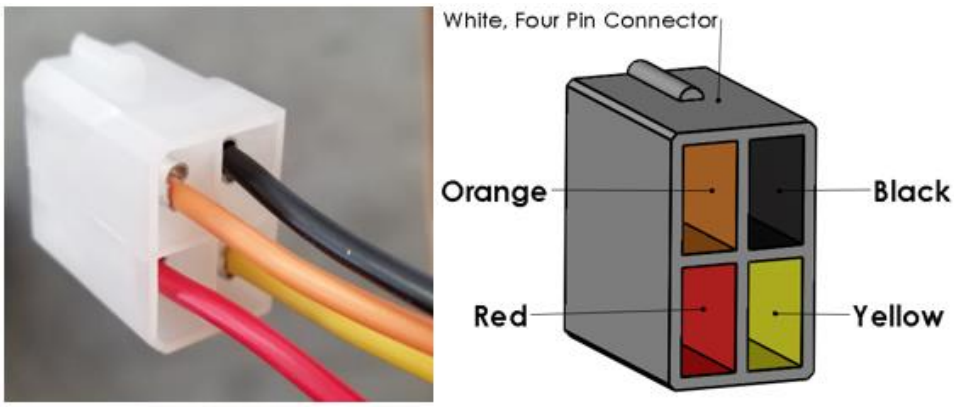

Figure 15

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29. Connect the ring terminal from the 36'' Red single conductor wire to accessory power located on the fuse block that attaches to the replacement cross support bracket.

30. Connect the ring terminal from the 36'' Black single conductor wire to the heater's black wire and connect the ring terminal to the ground terminal of the accessory fuse block.

31. Test that the switch controls the fan speed in all three positions.

Coolant Hook Up

32. Follow the vehicle coolant lines from the radiator, through the center tunnel and toward the passenger side where they enter the engine block. Position the 1'' Aluminum Y's as shown in Figure 16, with a pen make a mark at the center of both aluminum Y's and then set them aside. Approximately ½'' to both sides of the marks, make another marking. The two outer marks indicate the cut lines.

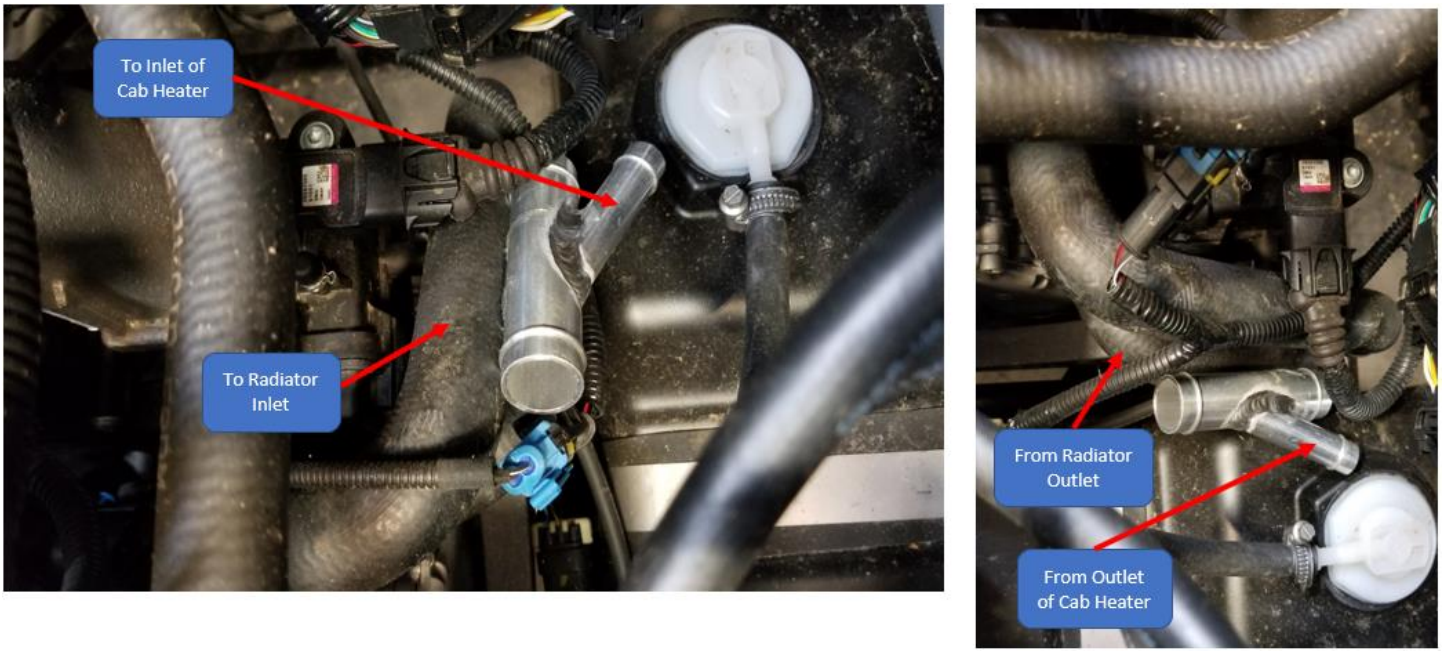

Figure 16

Important Note: DO NOT cut into the vehicle cooling system unless the vehicle is completely cold.

33. With a bucket positioned underneath the markings, cut the 1'' Coolant Hose following the outer markings to eliminate a 1'' section of hose.

34. Insert the 1'' Aluminum Y's as shown in Figure 16. Secure the 1'' ends of hose to the Aluminum Y using the #16 hose clamps.

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Note: The Cab Heater System has air trapped inside and will need to be removed to produce heat for the vehicle. The following steps are important to perform prior to the bleeding process.

35. Attach the Garden Hose Adapter to a garden hose.

36. Remove the yellow cover plates (2 screws) from the Garden Hose Adapter.

37. Insert the barbed end of the Garden Hose Adapter into one of the 5/8'' Heater Hoses located by the Aluminum Y's

38. Place a bucket under the opposite end of 5/8'' Heater Hose.

39. Verify that the 5/8'' Shutoff Valve installed earlier is in the open position. The valve should be turned such that the handle is parallel to the 5/8'' hose. See Figure 17.

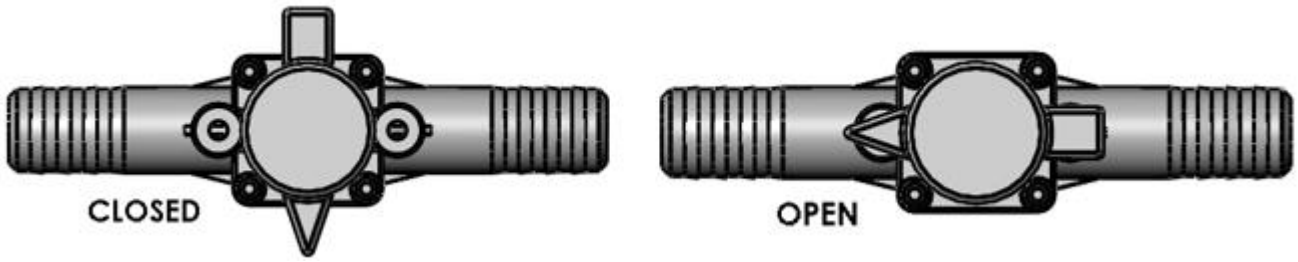

Figure 17

40. Fully turn on the garden hose and run water through the cab heater system for at least 1 minute. Empty the bucket as necessary. By running water through the system the inner walls are wetted and will make bleeding air out of the system much easier.

41. Turn off the Garden Hose, remove the Garden Hose Adapter and allow any residual water to drain from the hoses.

42. Connect the 5/8'' Heater Hoses to the 5/8'' Ports of the 1'' Aluminum Y's. Secure using #10 hose clamps.

43. To keep the 5/8'' Heater hose from vibrating, secure it to the main 1'' Aluminum Radiator lines using the included zip ties.

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.

44. Move the vehicle to an area where it can be run. If possible, place the front end of the vehicle on ramps.

45. 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).

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46. 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.

47. 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.

48. Close the radiator cap securely. Fill the coolant overflow reservoir to the full line.

49. 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.

50. 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.

51. 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.

52. Verify there are no coolant leaks.

Before Your Next Ride:

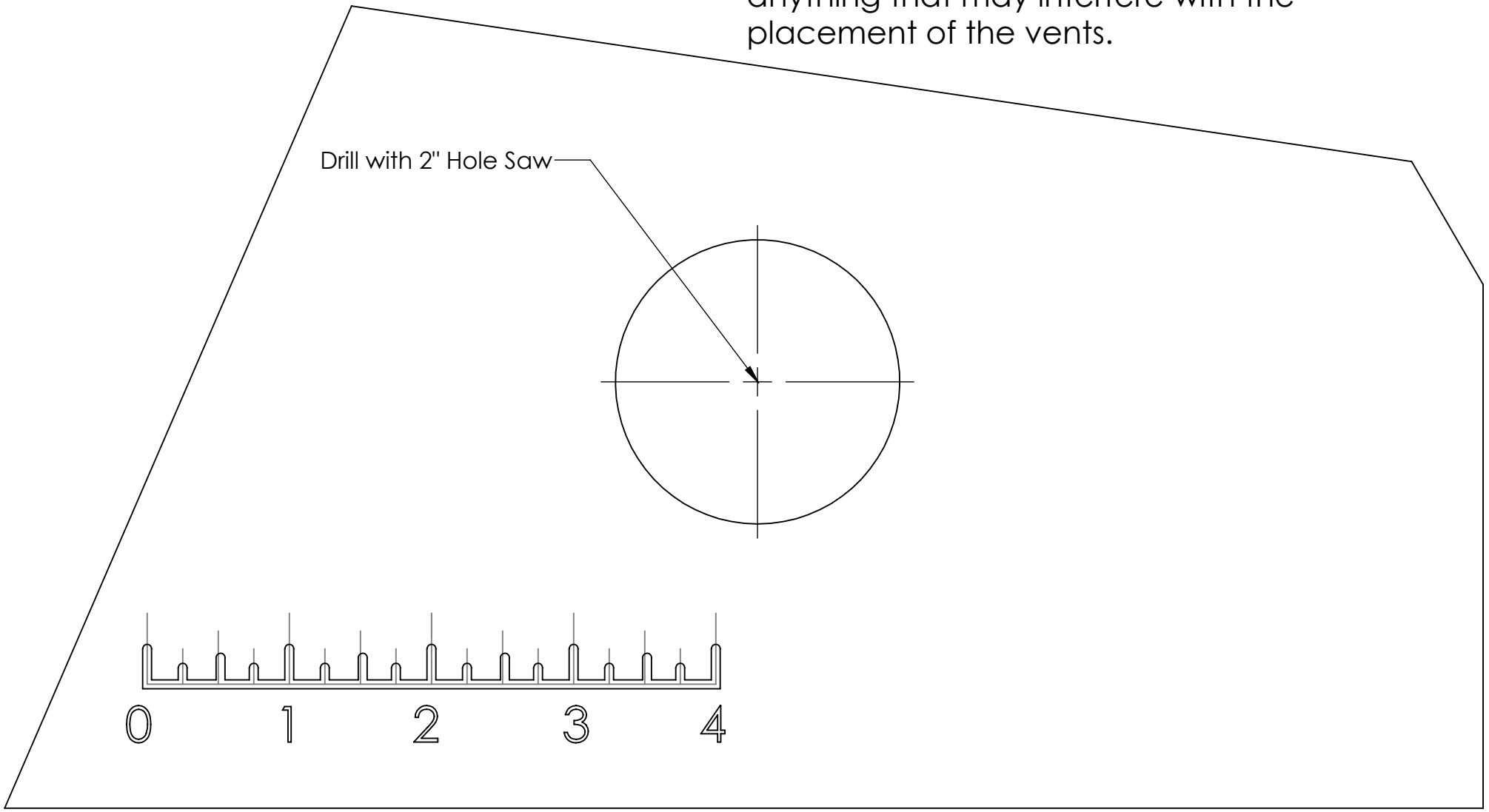
Verify that no leaks have occurred and that the radiator fluid level is per the manufacturer's specifications.

Template #1
Center Defrost Template

Verify the templates are printed to scale using a tape measure and the template below.

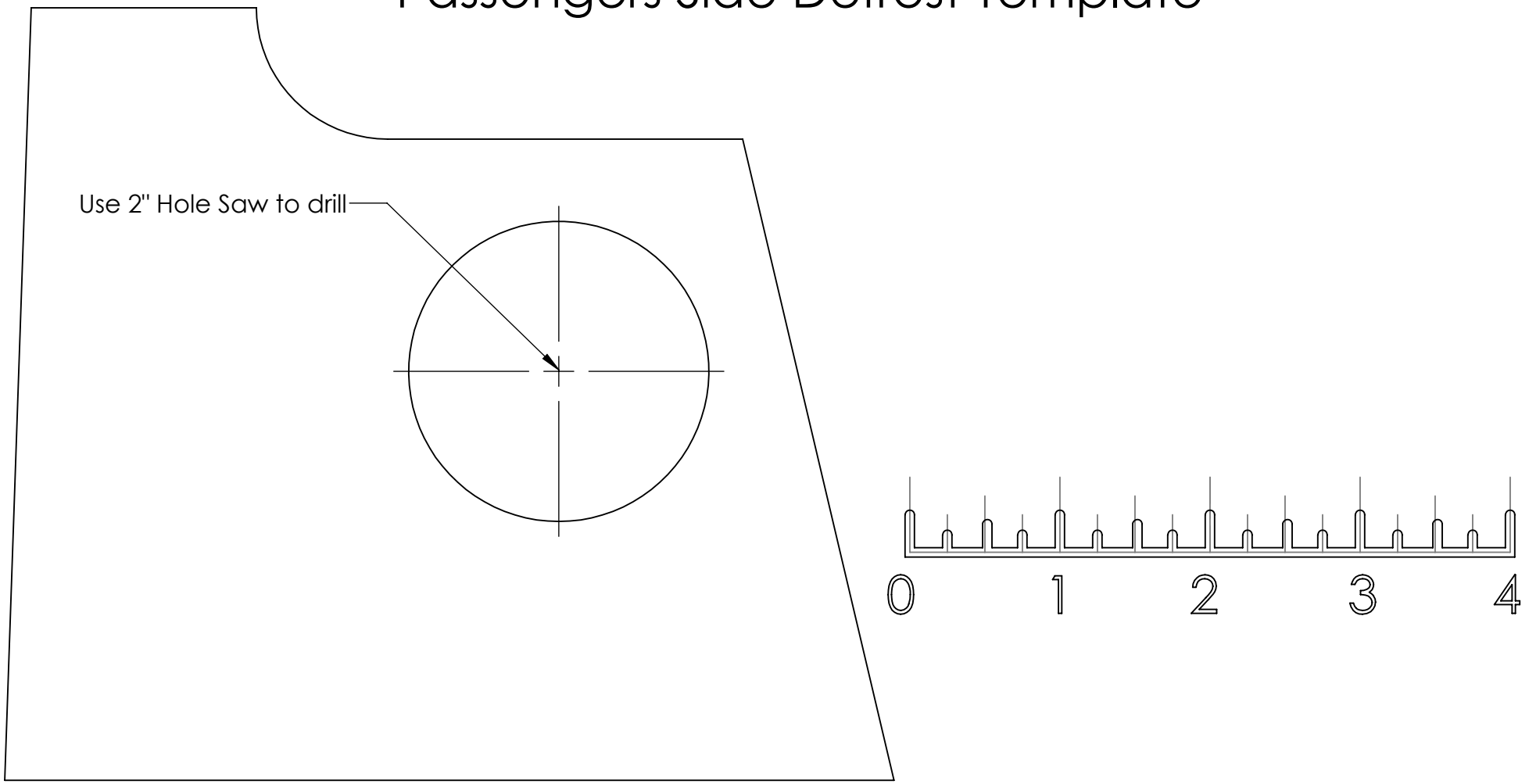
Cut out template, place against the top of the dash and drill using a 2" hole saw.

Note: Before drilling, check the underside of the dash direcly below the template for anything that may interfere with the placement of the vents.



Template #2

Passengers Side Defrost Template

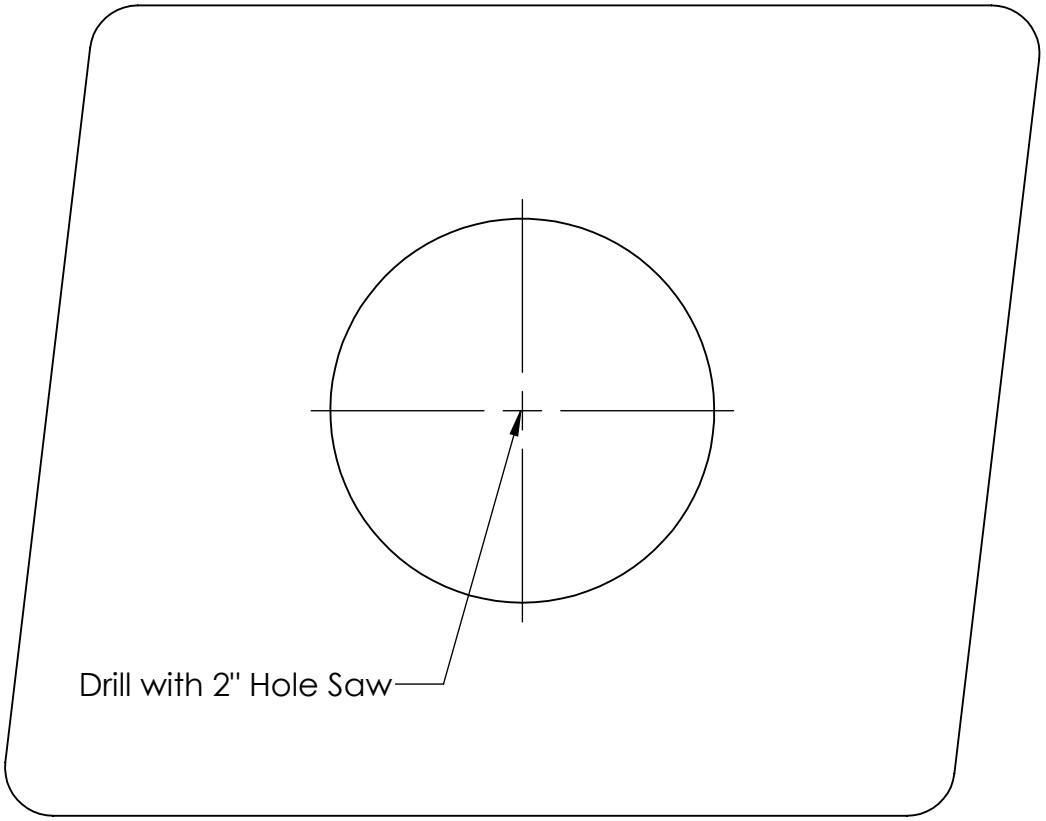


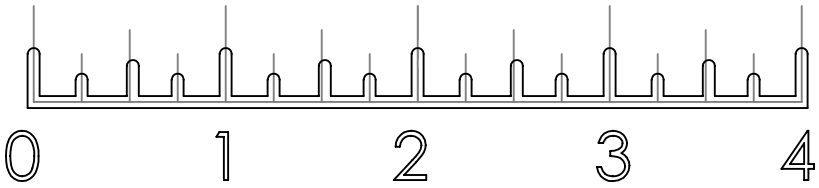
Verify the templates are printed to scale using a tape measure and the template above.

Cut out template, place against the top of the dash and drill using a 2" hole saw.

Note: Before drilling, check the underside of the dash direcly below the template for anything that may interfere with the placement of the vents.

Template #3
Drivers Side Cab Vent





Verify the templates are printed to scale using a tape measure and the template above.

Cut out template, place against the front of the dash and drill using a 2" hole saw.

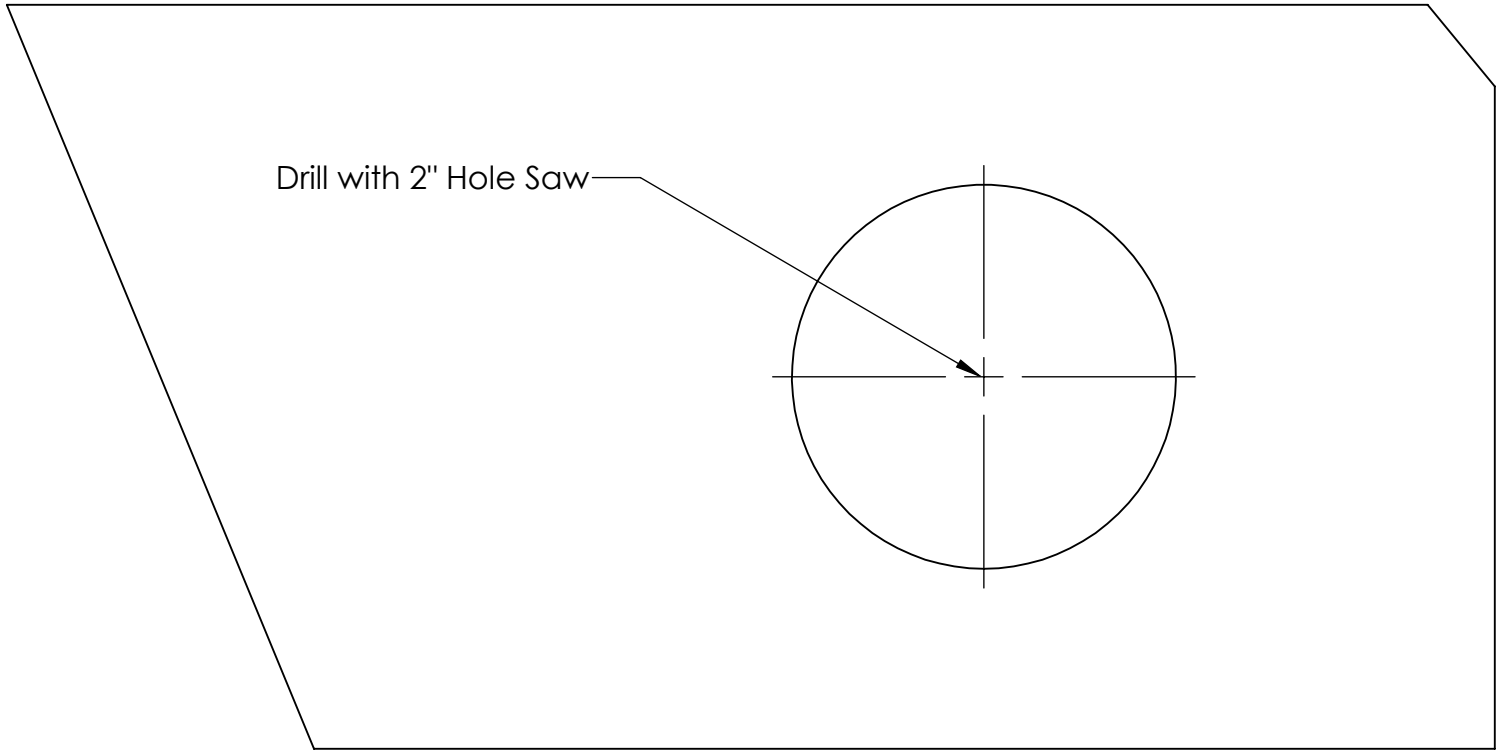
Note: Before drilling, check the underside of the dash direcly below the template for anything that may interfere with the placement of the vents.

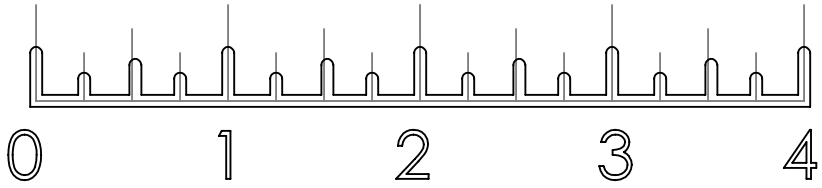
Template #4
Passenger's Side Vent Template

Verify the templates are printed to scale using a tape measure and the template below.

Cut out template, place against the inside of the cubby and drill using a 2" hole saw.

Note: Before drilling, check the underside of the dash direcly below the template for anything that may interfere with the placement of the vents.





Template #5
3 Position Switch

Verify the templates are printed to scale using a tape measure and the template below.

Cut out template, place against the top of the dash and drill using a 7/16" drill bit.

Note: Before drilling, check the underside of the dash direcly below the template for anything that may interfere with the placement of the vents.