

Yamaha RMAX

ICCH-UD-C-RMAX

1x 55mm Hole Saw

236



1x 3" Hole Saw

234



233



1x Hole Saw Arbor

4x #16 Hose Clamp



226

6x #10 Hose Clamp



228

2x 1" Brass Y



243

2x - 5/16" x 5" Carriage Bolts



314

2x - 5/16" Serrated Flange Nuts



421

4x - #8 Sheet metal screws



334

2x - #10 Sheet Metal Screws



335

2x - 1/4" x 2 1/4" Serrated Flange Bolt



354

2x - 1/4" Serrated Flange Nuts



420

1x - 1/4" x 3/4" Self Drilling Bolt



411

2x - Insulation Displacement Crimp



400

1x - Shutoff Valve



216

1x - High/Low Dash Switch



682

1x - CUSTOM Dash Switch Loom



683

30x - 11" Zip Ties



214

Optional MaxStat 204.1





#504

12' 5/8" Hose (2 Seat)
16' 5/8" Hose (4 Seat)



620

1x Standard Heater



505

42" - 2" Duct Hose



507

7" - 3" Duct Hose



1005P

Plastic Face Plate with ports

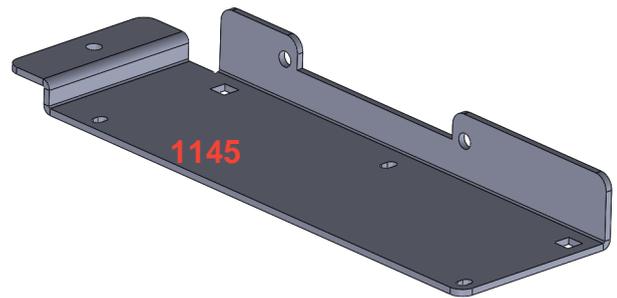


501

4 x 2" Vents



503



1145



502

1 x 3" Vent



601

3" Grill

602

3" Grill Port

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Please read all instructions before beginning installation. It is easiest to physically split the instructions in two halves, one the text portion and the other the picture portion. It makes referring back and forth between the two much simpler.

When working on cooling systems always allow vehicles to cool to avoid being burned or scalded by hot coolant.

Always disconnect vehicles negative battery lead before working on electrical systems.

Please note: *Before drilling* any holes check area behind firewall/dash panels to make sure no damage or interference with equipment will occur by drilling holes and fitting of vents.

1. Pre-Installation

- a. Remove driver and passenger side doors for best access.
- b. Remove Hood, Window and Top Channel Cover as shown in Figure 1
- c. Remove Driver and Passenger Seat by lifting up on the front of the seat cushions.
- d. Remove the seat back from both seats as shown in Figure 2
- e. Remove the Driver Seat adjustment rails as shown in Figure 3
- f. Remove Driver Side Seat Plastic Cover, Exterior Side Panel, Interior Side Panel and Rear Side Panel as shown in Figure 4, Figure 5, Figure 6, Figure 7 and Figure 8.
- g. Remove the Shift knob, Center Tunnel screws, Center Tunnel Bezel plate, Center Dash Bezel as shown in Figure 9 and Figure 10.
- h. Remove Center Tunnel by lifting it up from the back and tipping it toward the front, it may be necessary to reposition the shifter rod to lift the Tunnel out.

2. Panel Modification for Vents

- a. Cut out the Defrost Vent Templates and position them on the top dash as shown in Figure 11. Mark the hole centers, **VERIFY NOTHING IS BEHIND THE LOCATION** and drill using the 54mm Hole Saw included in the kit. Debur as necessary. **Installation Tip: After cutting the 2" vent holes, use a razor blade to cut a small "V" shaped notch anywhere along the hole. Each 2" Vent has an anti-rotation notch molded into it, fit the notch into the 'V' groove for easier install,** as shown in Figure 12.
- b. Temporarily reinstall the Top Channel Cover. Use a sharpie to transfer the circular cutout to the exposed plastic as shown in Figure 13. Also transfer a line at the straight edge that runs the length of the round arc drawn earlier. Complete a rectangular shape

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and cut it out using a razor blade as shown in Figure 14 and Figure 15. Set Top Channel Cover aside for later use.

- c. Cut out the Driver and Passenger Side Center Console Templates and position them as shown in Figure 16. Mark the hole centers and drill using the 54mm Hole Saw included in the kit. Debur as necessary and cut the “V” shaped notch as mentioned before.
- d. Cut out the Driver Foot Vent and Air Intake Template and position around the warning label shown in Figure 17. Transfer the hole centers and drill using the 3” Hole Saw. Debur as necessary. Add the “V” Notch to the hole closest to the center tunnel but there is no need to add one to the 3” Hole nearest the door.

3. Duct Hose and Electrical Routing

- a. Insert the Air Intake Flange through the 3” hole drilled under the driver seat as shown in Figure 18. Install four of the #8 x 1/2” screws to secure the flange. Press the Intake Cover on to the flange until it snaps into place as shown in Figure 18.
- b. Insert the 3” vent in the hole drilled under the driver seat as shown in Figure 18.
- c. For the following steps refer to the hose routing guide in Figure 19. Using the 2” flexible duct hose, measure out (2) 11” pieces of compressed hose. **NOTE: It's critical these measurements are taken in a compressed state.** Route the hoses from the center tunnel to the driver seat area as shown in Figure 20.
- d. Attach 2” Y Fittings to each hose in the center tunnel and secure using a zip tie as shown in Figure 21.
- e. Cut a 5” piece of compressed 2” Duct Hose as well as a 2” piece of Compressed 2” Duct Hose. Attach the hose to the Y fittings on the Driver Side as shown in Figure 22. Secure using zip ties and repeat on the Passenger Side.
- f. Route the (2) 2” pieces of compressed duct hoses through the front dash openings on both driver and passenger sides as shown in Figure 23. Route the (2) 5” pieces of compressed duct hose through the defrost openings as shown in Figure 24.
- g. Insert the 2” Vents into all four hoses and secure using a zip tie. Cut the excess zip tie tail as close to the head as possible. Rotate the vent to align the anti-rotation notch with the “V” shaped cutout in each hole. Tip the Zip Tie head into the hole, once it's under the plastic rotate the 2” vent into the hole and press into the place as shown in Figure 25.
- h. Use the remaining 4” piece of compressed 2” Duct Hose and attach it to the 3” vent mounted under the driver's seat as shown in Figure 26. Secure using a zip tie.
- i. Attach the 7” piece of 3” Duct Hose to the air intake port under the driver seat and secure using a zip tie as shown in Figure 26.
- j. Route the wiring harness from the Driver seat area through the center tunnel and up through the opening where Dash Switches can be mounted as shown in Figure 27

4. Heater Mounting & Coolant Plumbing

- a. Cut an 8’ piece of the 5/8” coolant hose. Route the coolant hose to the passenger side front wheel well starting from the driver seat area. Loop the hose as shown in Figure 28. Route the remaining 5/8” coolant hose as shown in Figure 29.

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- b.
- c. Attach the #1145 Main Heater Bracket to the heater unit using the (2) 5/16" x 5" Carriage bolts, 5/16" Serrated Flange Nuts and (2) #10 x 1/2" Screws as shown in Figure 31.
- d. If the copper ports of the heater have black plugs in the end, remove them with a pliers. Be sure not to pinch the copper ports as they will dent.
- e. Position the heater under the driver seat as shown in Figure 32, secure the heater in place using the two 1/4" x 2 1/4" Serrated Flange Bolts and 1/4" Serrated Flange Nuts as shown.
- f. Place a #10 Hose clamp over each 5/8" Coolant Hose near the heater, attach the shorter of the two hoses to the Upper Copper Port on the heater. Secure using an 8mm socket and #10 Hose Clamp. Attach the longer 5/8" Coolant Hose to the Lower Copper Port and secure with a #10 Hose Clamp as shown in Figure 33.
- g. **INSTALLATION NOTE: Before proceeding, ensure the vehicle engine is completely cold. Drain coolant or if Hose Clamp Off tools are available, clamp off the areas in front of and behind the locations where cuts will be made in the coolant system. Never cut into the vehicles cooling system if the vehicle is warm.**
- h. If the optional MaxStat (Thermostat Bypass) is not ordered, position one of the Aluminum Y's as shown in Figure 34 so that the Brass fitting does not interfere with the clutch air intake. Mark a 1"-1.5" piece of the hose approximately the size of the Aluminum Y body, use a knife to cut the abrasion guard back and cut the 1"-1.5" section out. If the coolant system has been drained it's easiest to loosen the hose clamp that connects the main radiator hose to the aluminum coolant lines in the center tunnel and pulling the hose up and out of the center tunnel for better access, see Figure 35. Insert the Aluminum Y and secure using #16 Hose Clamps.
- i. If The MaxStat is ordered, refer to Figure 36. Using #16 Hose Clamps to secure the MaxStat.
- j. Attach the Shorter 5/8" Coolant Hose to the Brass Fitting and secure using a #10 Hose Clamp.
- k. Perform a similar operation on the Radiator Hose found from inside the Passenger Side Wheel Well as shown in Figure 37. Cut out a 1"-1.5" chunk of the hose. Insert the remaining Aluminum Y as shown in Figure 38. Secure using #16 Hose Clamps. Insert the Longer 5/8" Coolant Hose over the Brass fitting and secure using a #10 Hose Clamp.
- l. Make one final cut in the 5/8" Coolant Hose above the Aluminum Y on the Passenger Side and insert the Plastic Shutoff Valve as shown in Figure 39. Secure using two #10 Hose Clamps.

5. Final Wiring Connections

- a. Insert the White Four Pin Connector into the Four Pin Connector on the Heater Unit. Zip tie the harness to the frame.

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- c. Use the Blue Insulation Displacement Crimps to connect the Blue power wire from the Dash Switch to the Brown Wire of the Auxiliary Plug found behind the top dash. Connect the Black Wire from the Dash Switch to the Black wire of the Auxiliary Plug as shown in Figure 41.
- d. Reconnect the vehicle battery and test that each speed of the heater fan is working.

6. Final Duct Hose Hookup

- a. Connect the 2" Duct hose that leads to the Passenger Side Center Console and Defrost to the right most Heater Port as shown in Figure 42. Secure Using a zip tie.
- b. Connect the 2" Duct hose that leads to the Driver Side Center Console and Defrost to the middle Heater Port. Secure using a zip tie.
- c. Connect the 2" Duct hose that leads to the Driver Side Foot Vent to the left most Heater Port. Secure using a zip tie
- d. Connect the 7" of 3" Duct Hose to Heater Fan Intake as shown Figure 43. Secure using a zip tie.

7. Reassembly

- a. Secure duct hoses, wires and 5/8" Heater Hoses away from sharp, moving or hot parts of the vehicle using the remaining zip ties.
- b. Reinstall the Bench Seat, Doors, Skid Plate, and Hood.

8. Coolant Bleeding

- a. Refill the reservoir at the front of the vehicle using manufacturer approved coolant. Open the radiator cap and fill the radiator completely. Start the vehicle and let it run at idle. Use a wrench to open the Bleeder Screw located on the top of the engine thermostat housing, See Figure 44. Open the screw several turns until air bubbles or coolant come out. Keep the screw open until a continuous stream of coolant comes out and no more air bubbles come out. Tighten it back down snug. Check the fluid level in the radiator and fill as needed. Replace the radiator cap. Run the vehicle at a fast idle. Monitor the vehicle temperature, do not allow the vehicle temperature to exceed 210 degree Fahrenheit. Run the vehicle until the radiator fan has turned on and cooled the vehicle to normal operating temperature. Turn off vehicle and check for leaks at all connection points.
- b. Allow vehicle to cool completely (this can take several hours), recheck cooling system level, fill as required. Refill cooling system as per manufacturer's procedure. Start and run the vehicle at a fast idle and run up to normal operating temperature. Check heater operation while running the vehicle. Run the vehicle until the radiator fan has turned on and off, then turn the vehicle off and check for leaks. Allow vehicle to cool and recheck cooling system level, fill as required.
- c. If the heater fails to blow hot/warm air once the vehicle is up to operating temperature, there is likely an air lock in the heater unit. Temporarily block off the top/inlet radiator

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hose at the radiator. Start and run vehicle up to operating temperature. Feel the outlet/lower hose from heater until it feels hot. The heater now should be blowing hot/warm air. Remove clamp from radiator hose. The heater should continue to blow hot/warm air. This procedure may have to be repeated a few times to remove air from system. Allow vehicle to cool, restart the vehicle and run up to operating temperature, recheck heater operation. **Please note:** Heater output will be limited at idle, all testing should be done at a fast idle.

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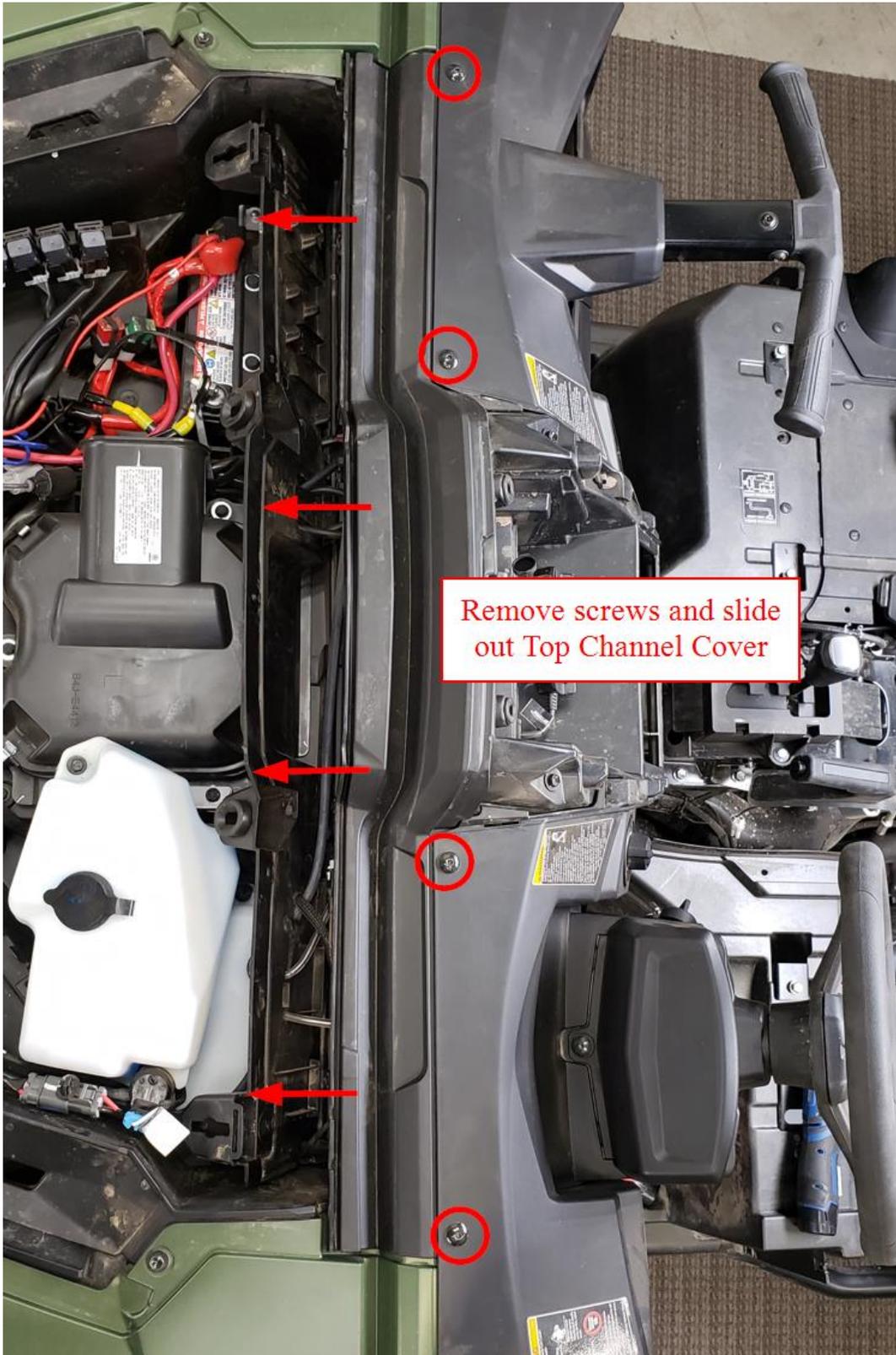


Figure 1

Yamaha RMAX Ice Crusher Heater

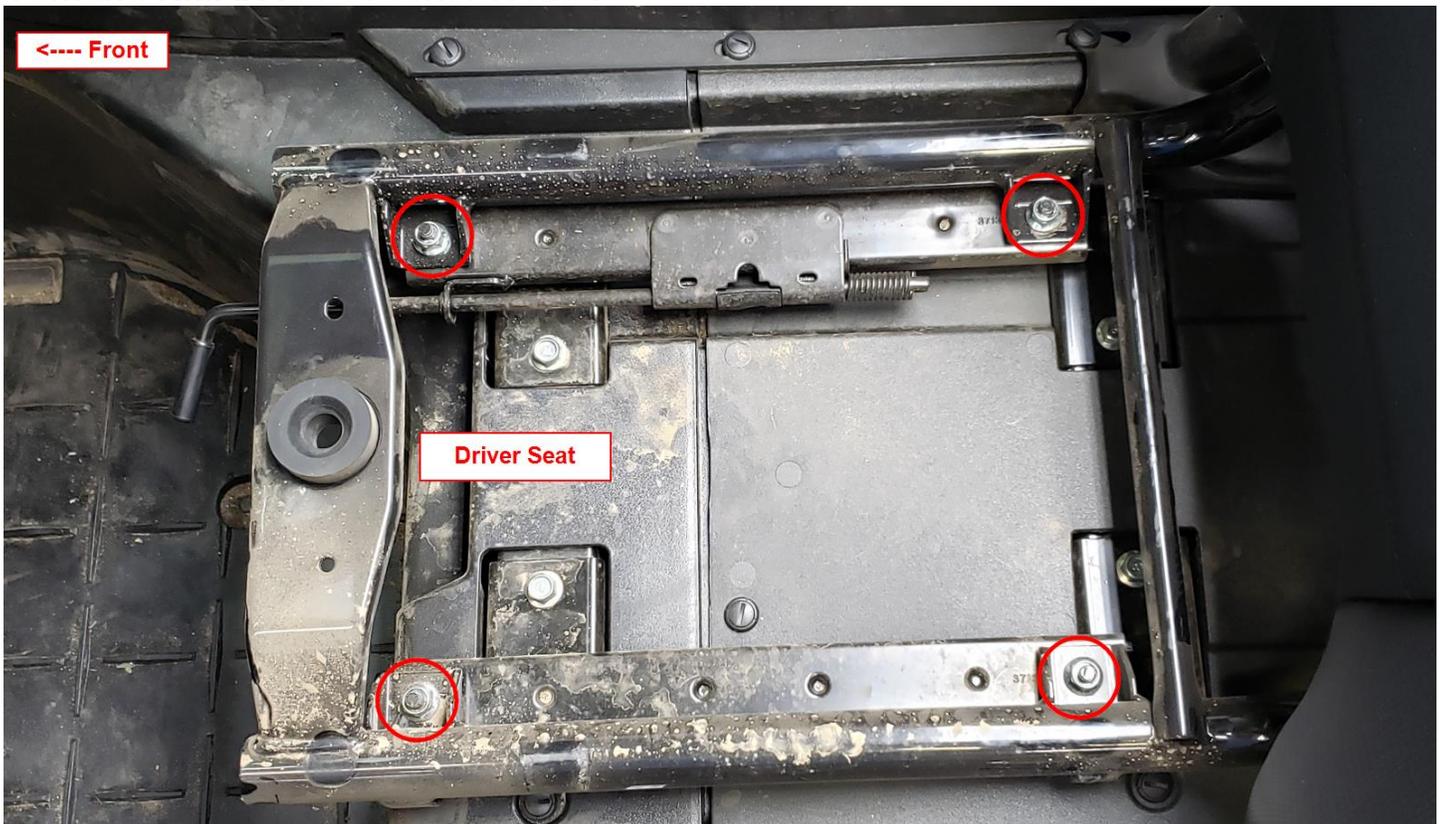


Figure 2



Figure 3

Yamaha RMAX Ice Crusher Heater

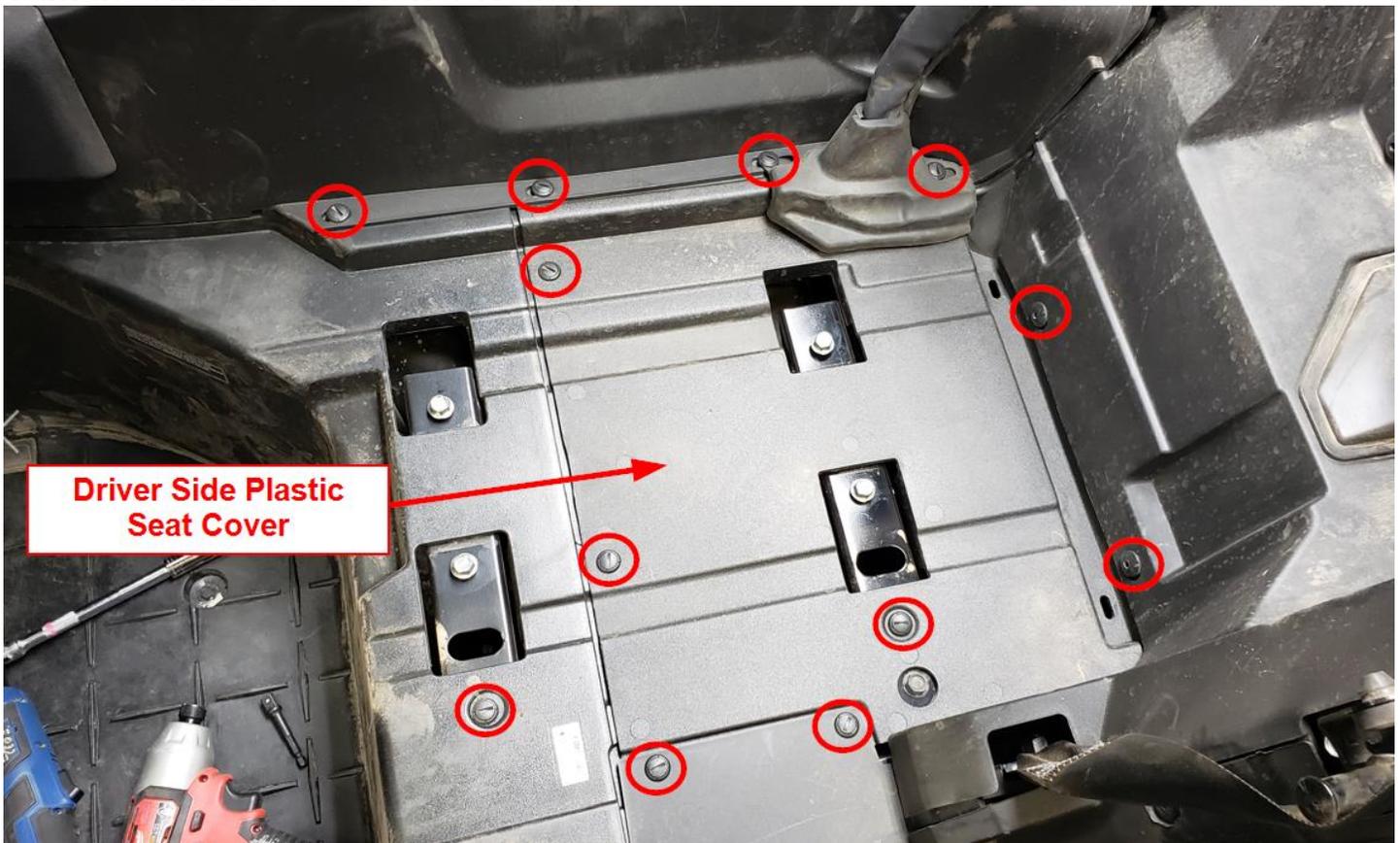


Figure 4

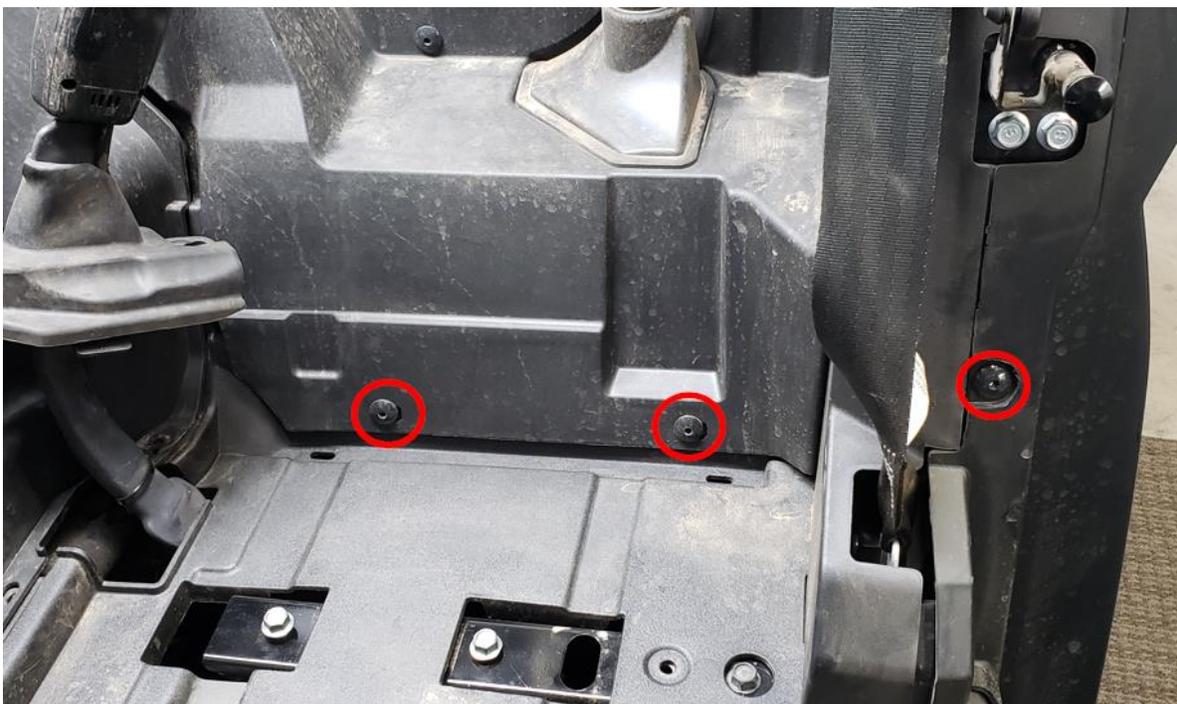


Figure 5

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Figure 6



Figure 7

Yamaha RMAX Ice Crusher Heater

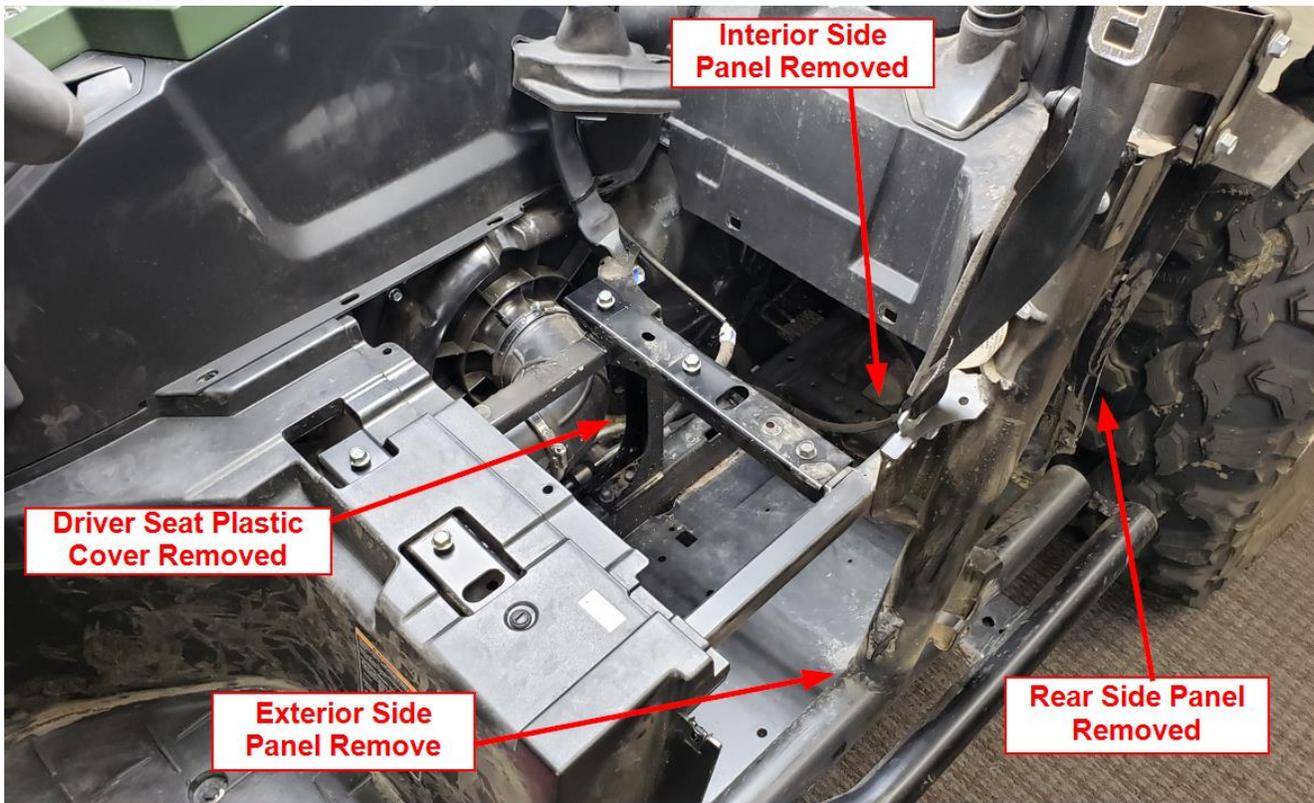


Figure 8

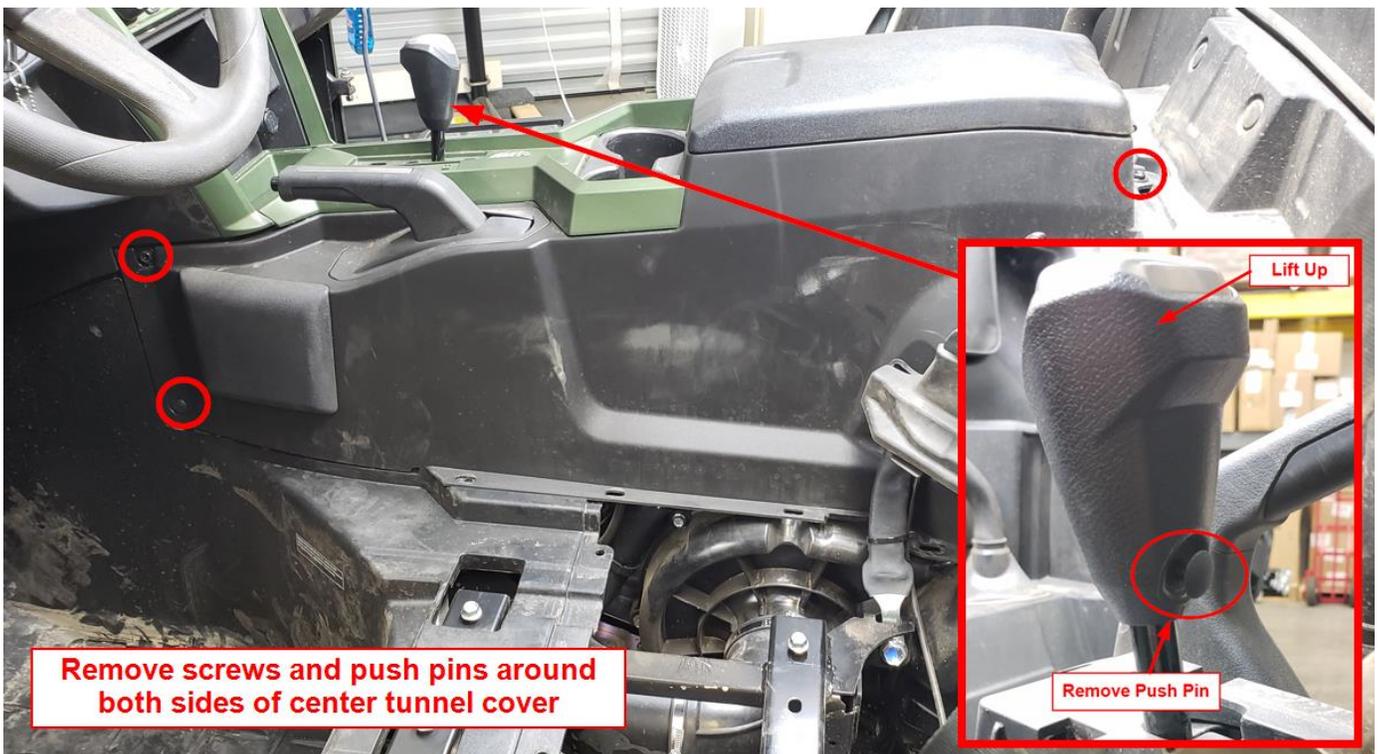


Figure 9

Yamaha RMAX Ice Crusher Heater

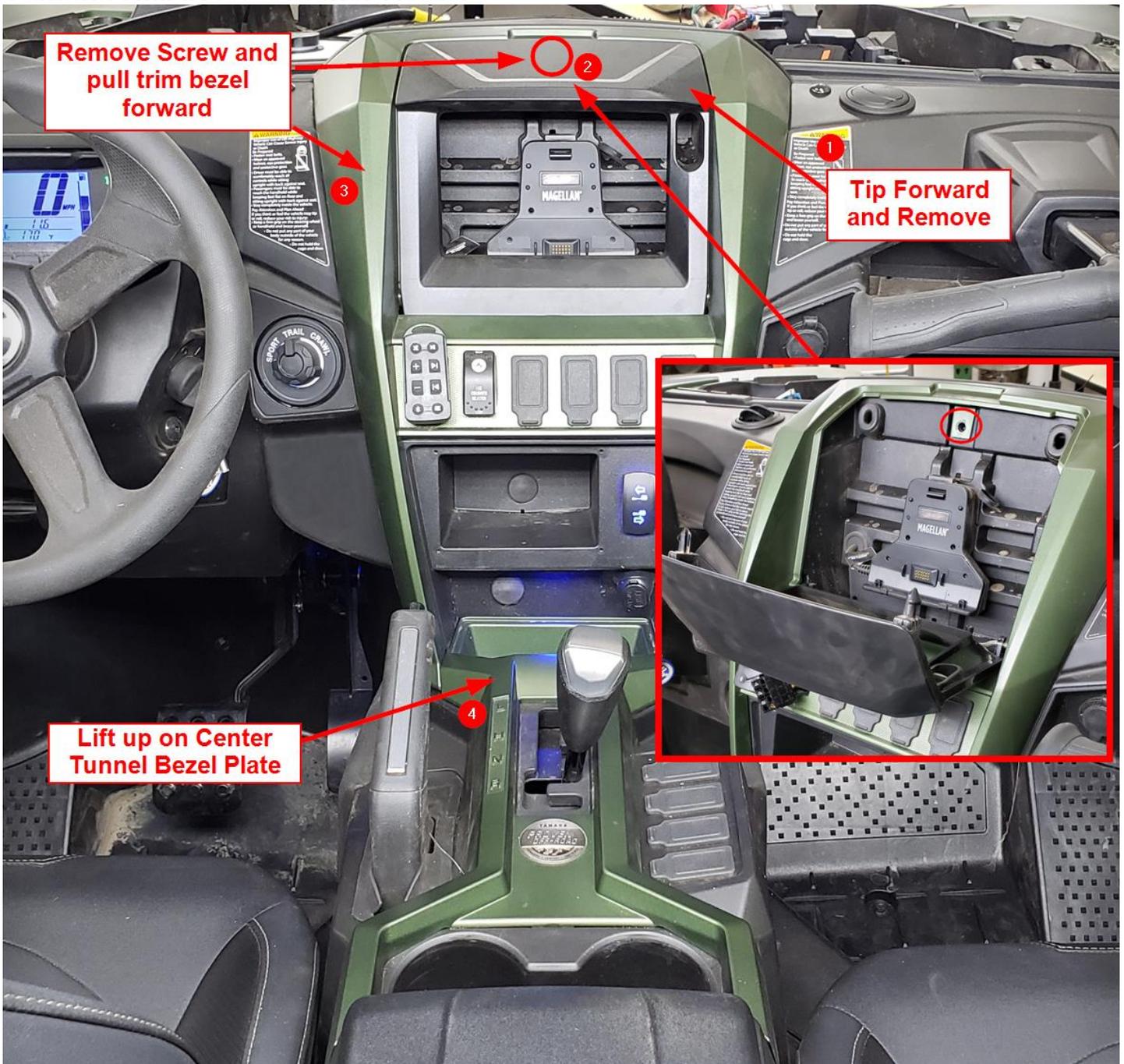


Figure 10

Yamaha RMAX Ice Crusher Heater

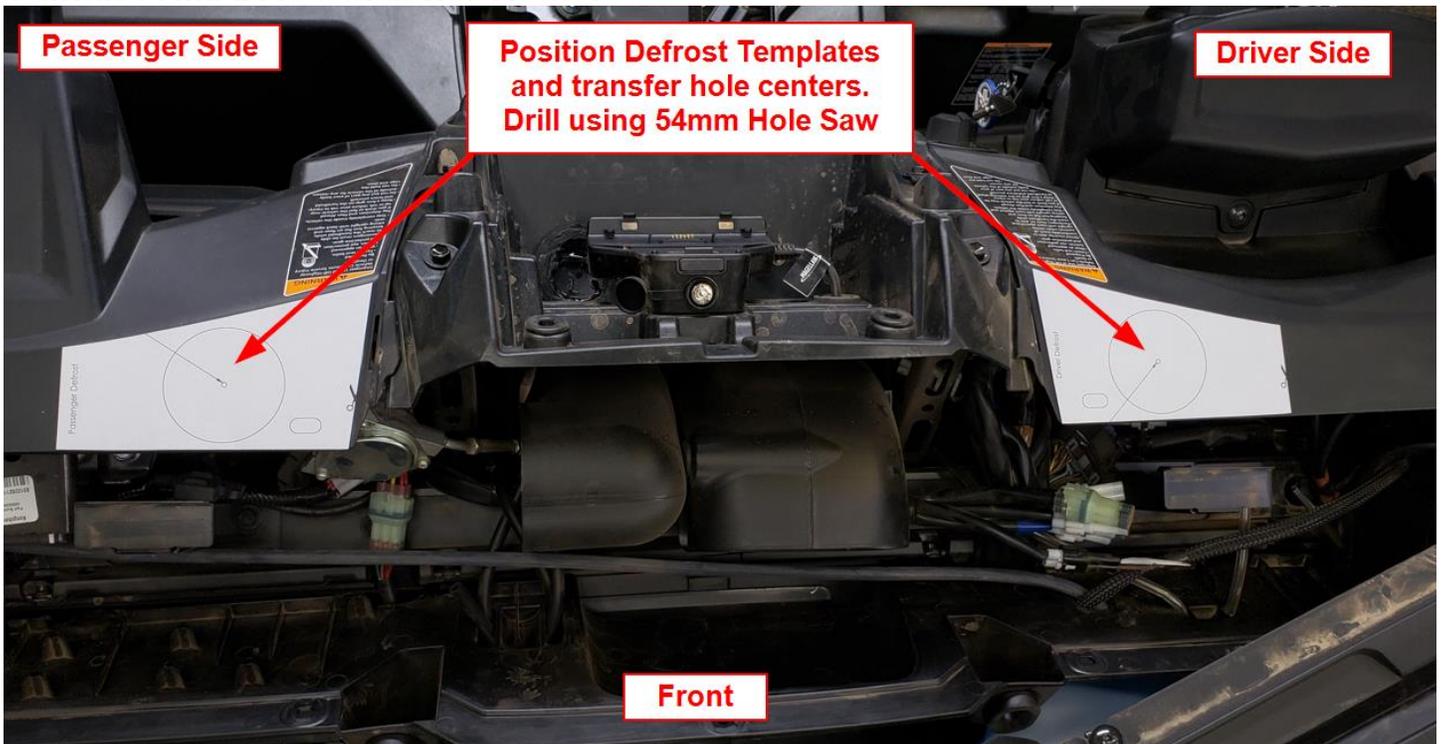


Figure 11

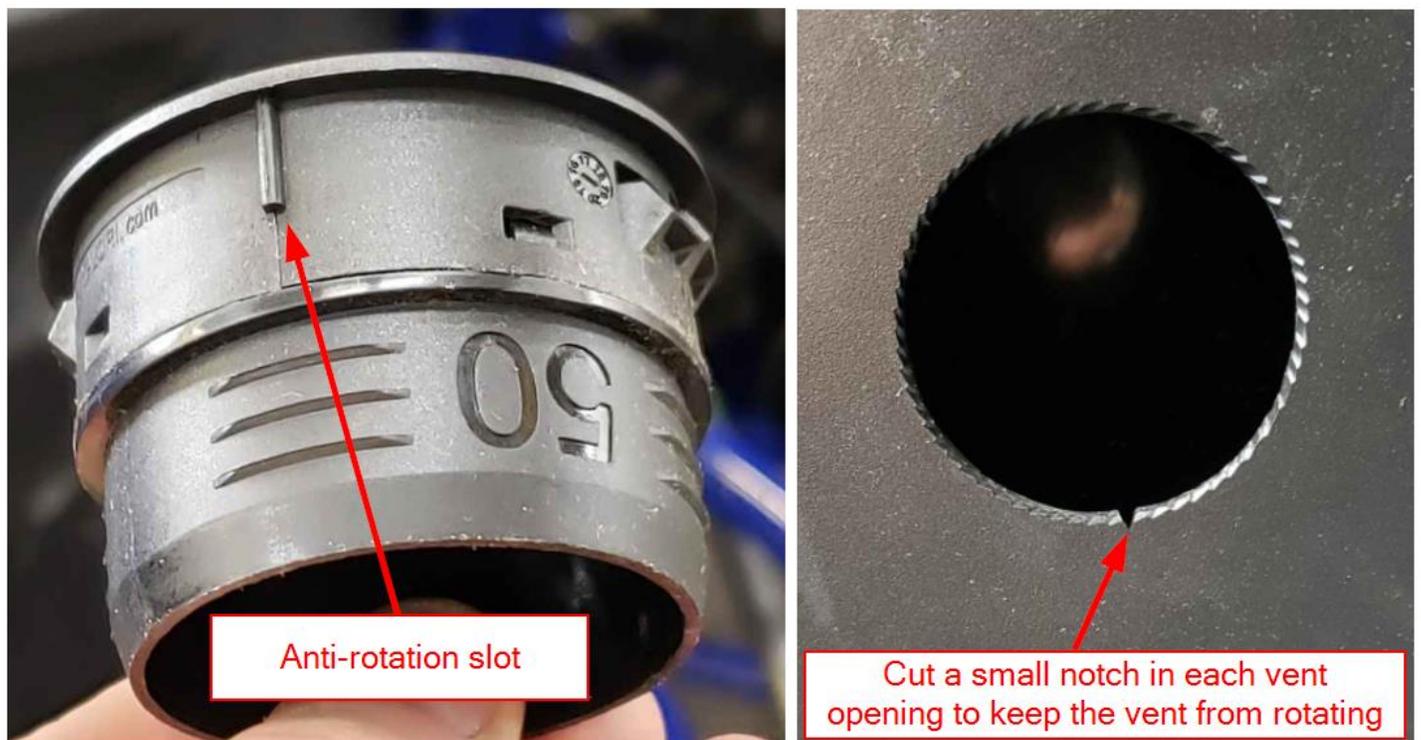


Figure 12

Yamaha RMAX Ice Crusher Heater

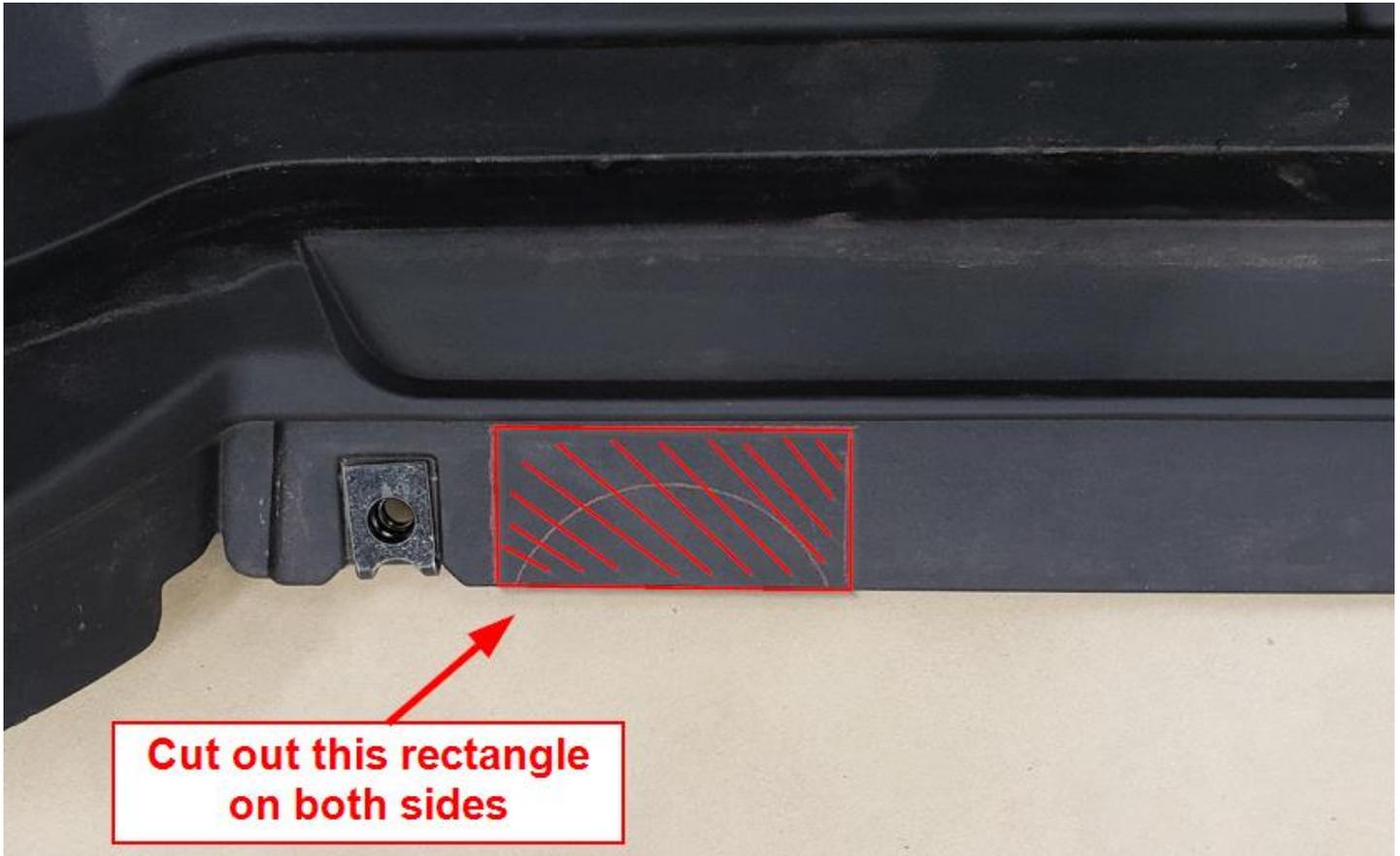
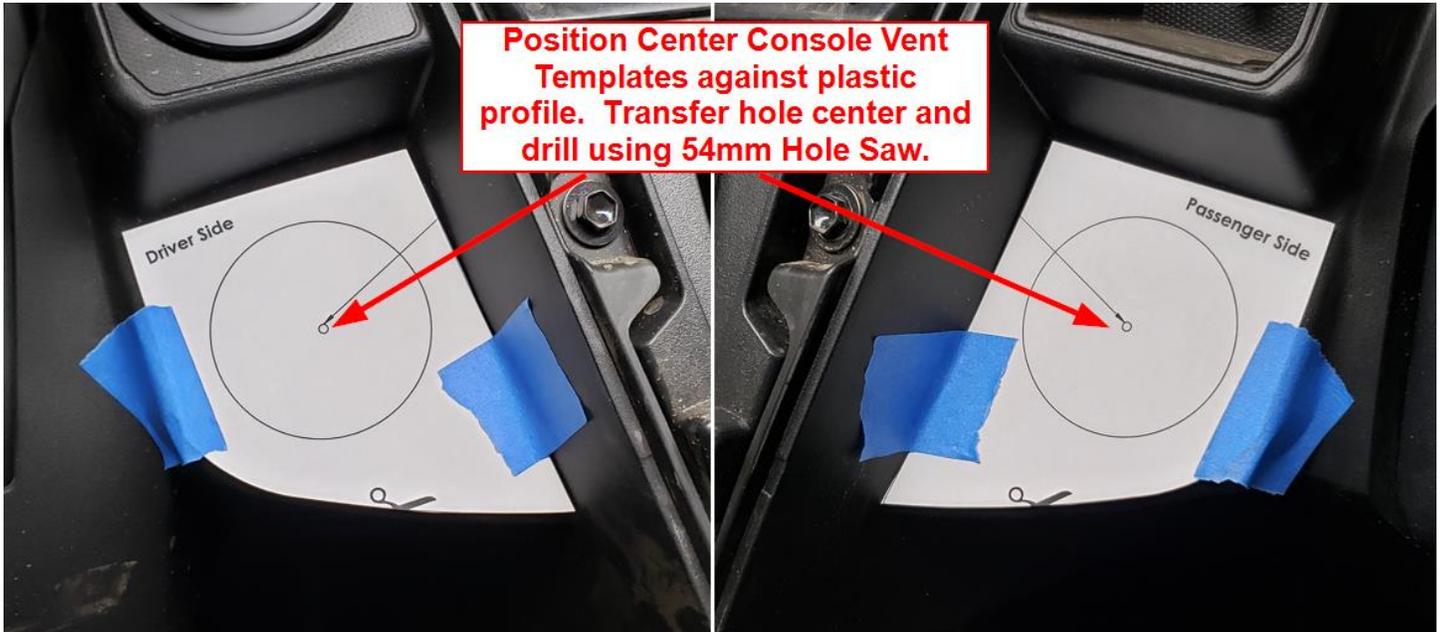


Figure 14



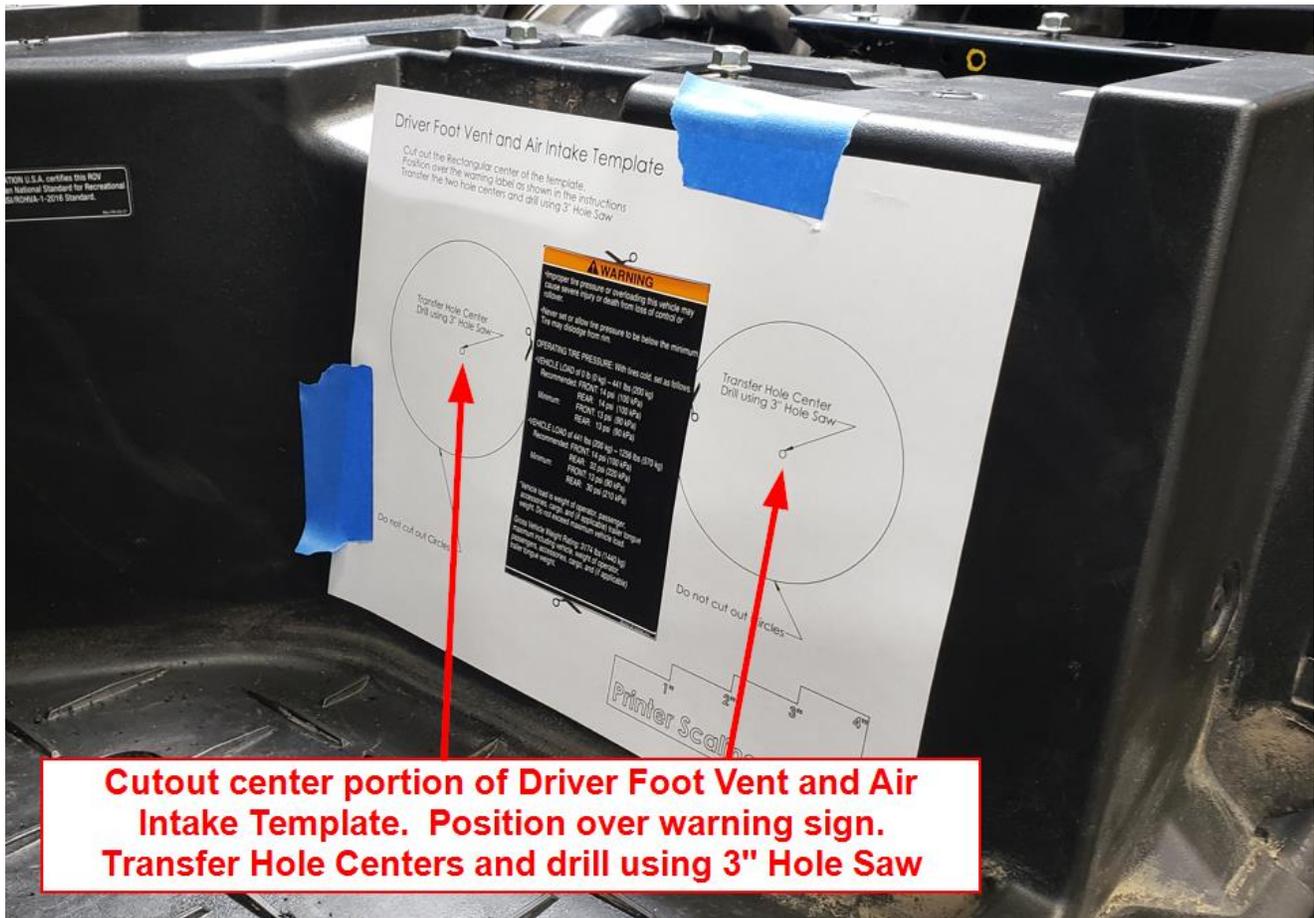
Figure 15

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Position Center Console Vent Templates against plastic profile. Transfer hole center and drill using 54mm Hole Saw.

Figure 16



Cutout center portion of Driver Foot Vent and Air Intake Template. Position over warning sign. Transfer Hole Centers and drill using 3" Hole Saw

Figure 17

Yamaha RMAX Ice Crusher Heater

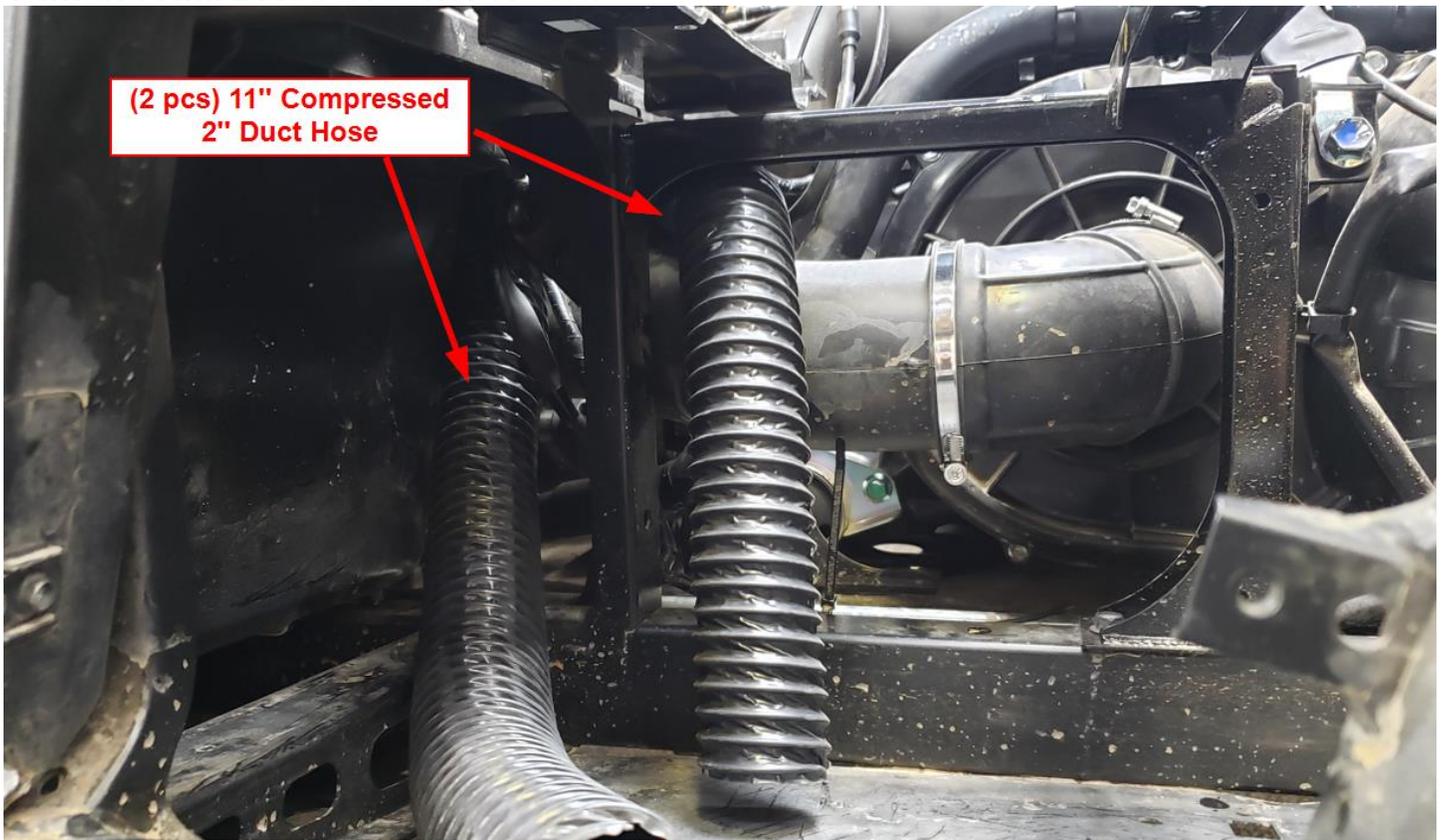


Figure 20

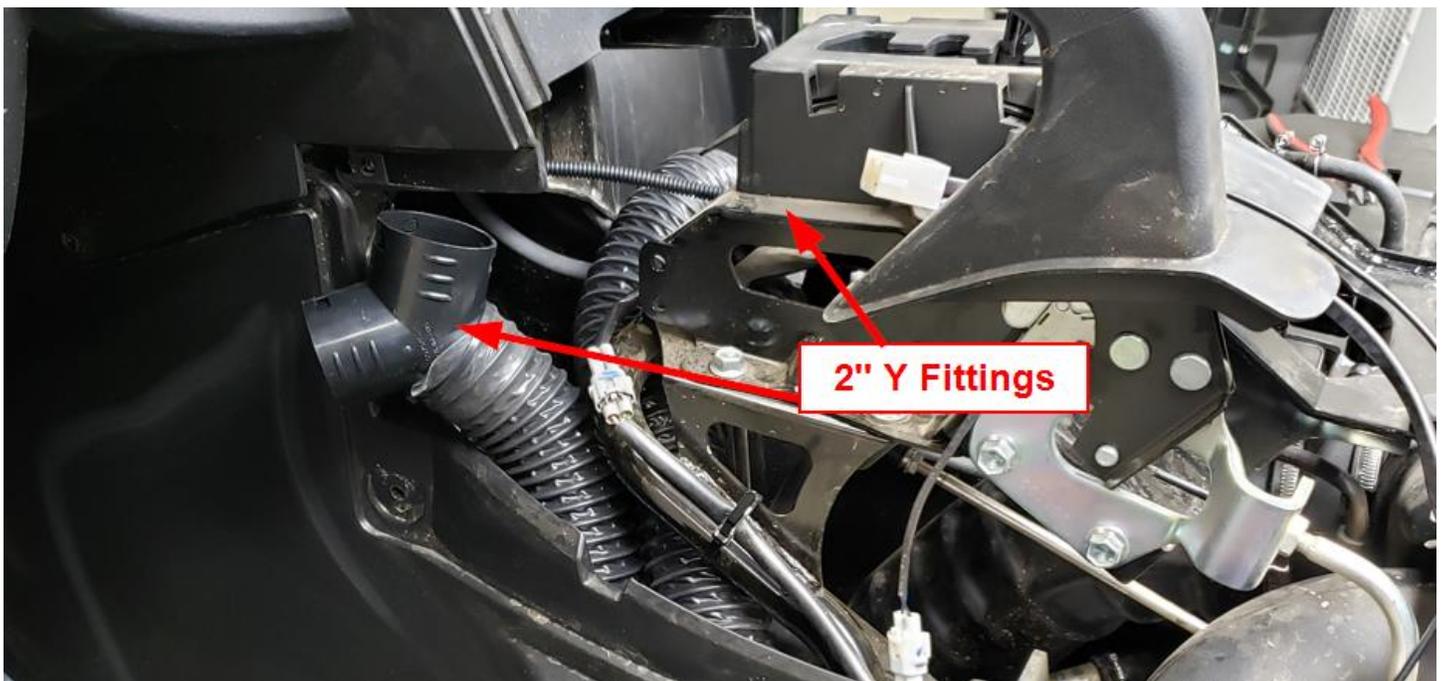


Figure 21

Yamaha RMAX Ice Crusher Heater

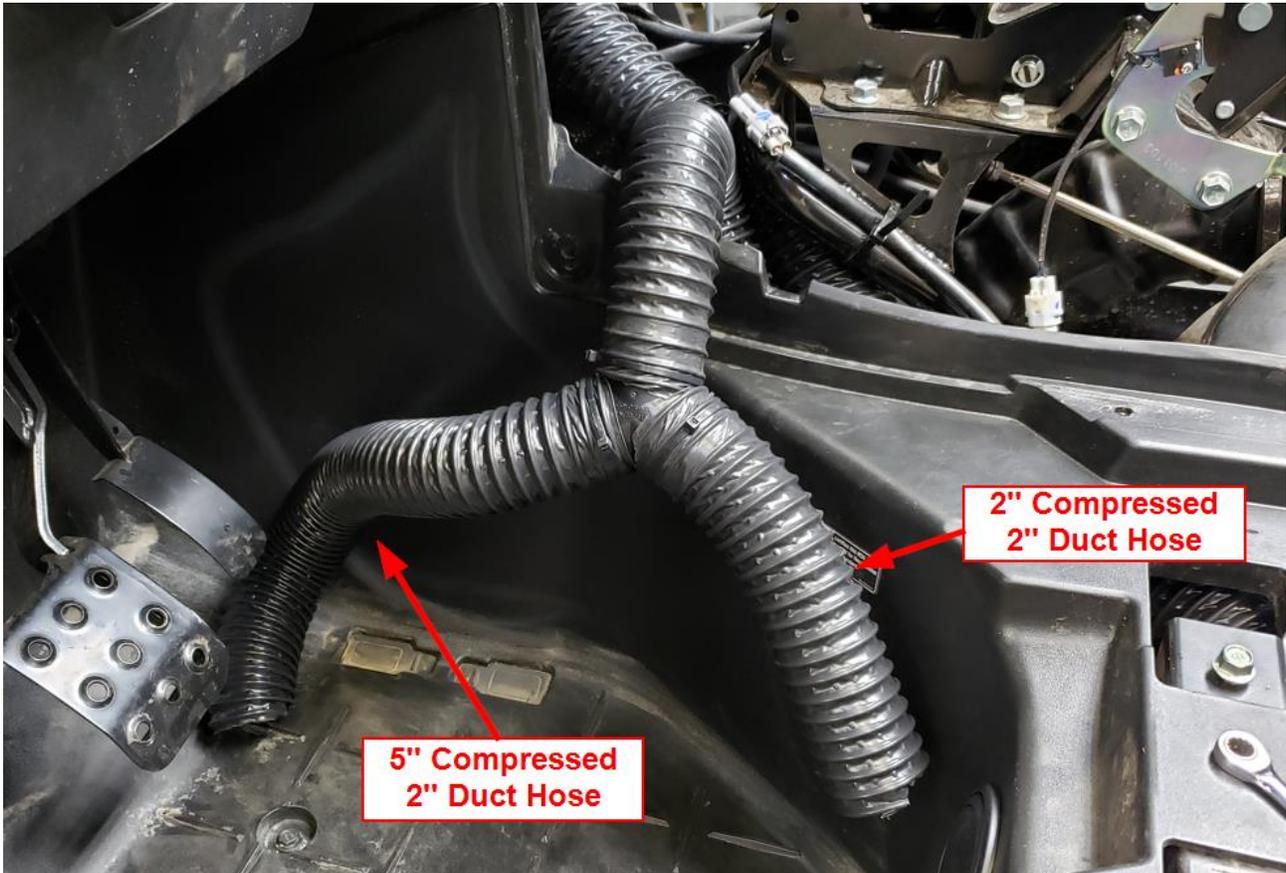


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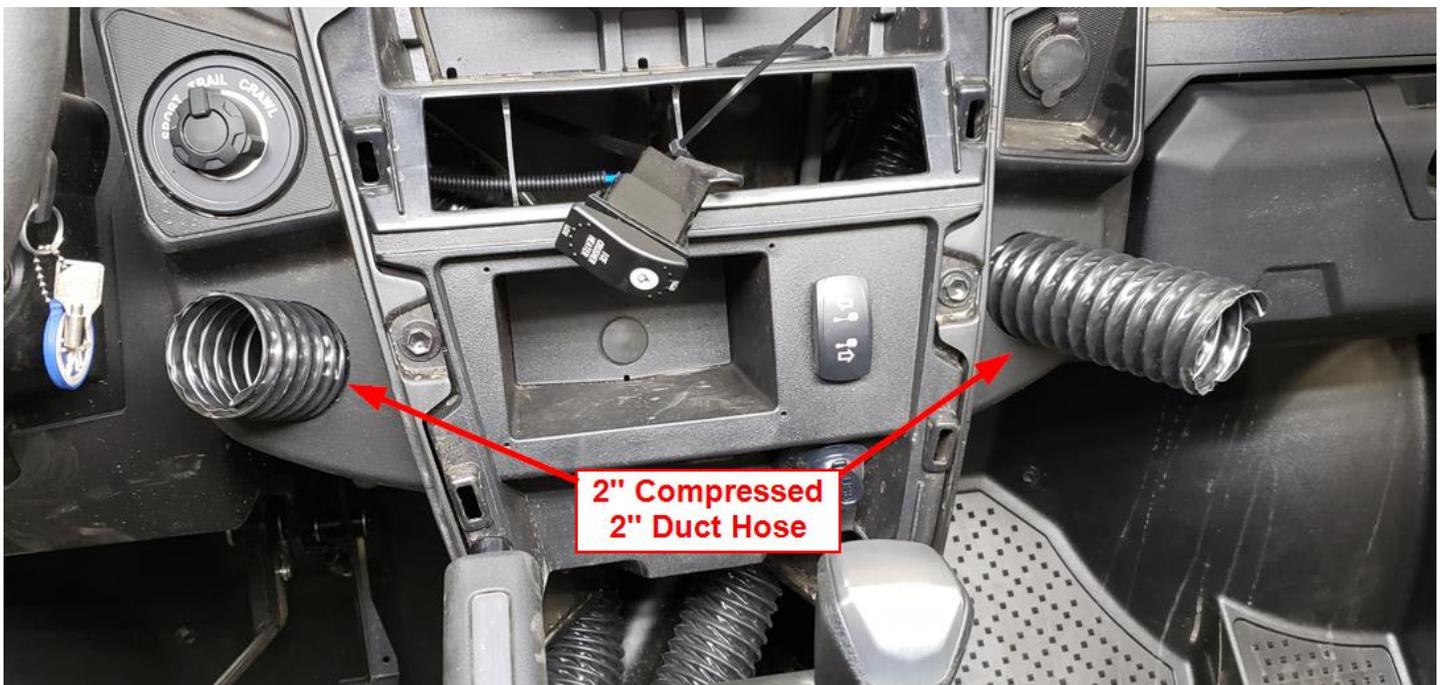


Figure 23

Yamaha RMAX Ice Crusher Heater

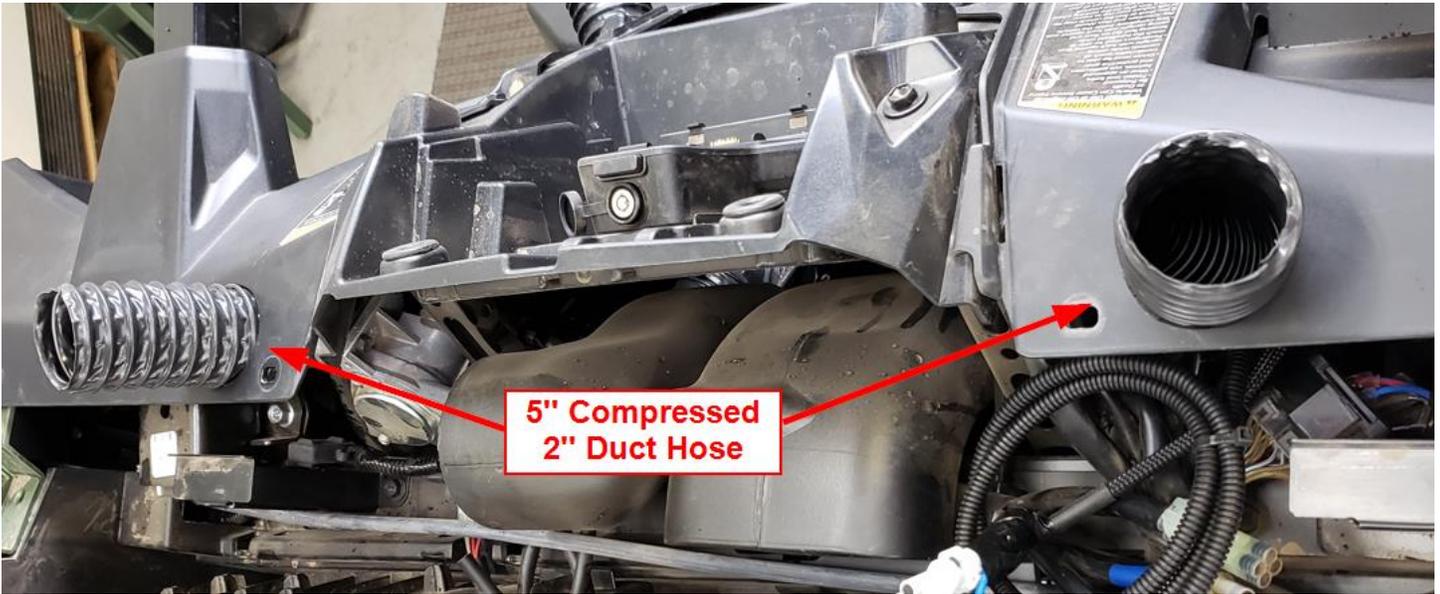


Figure 24



Figure 25

Yamaha RMAX Ice Crusher Heater

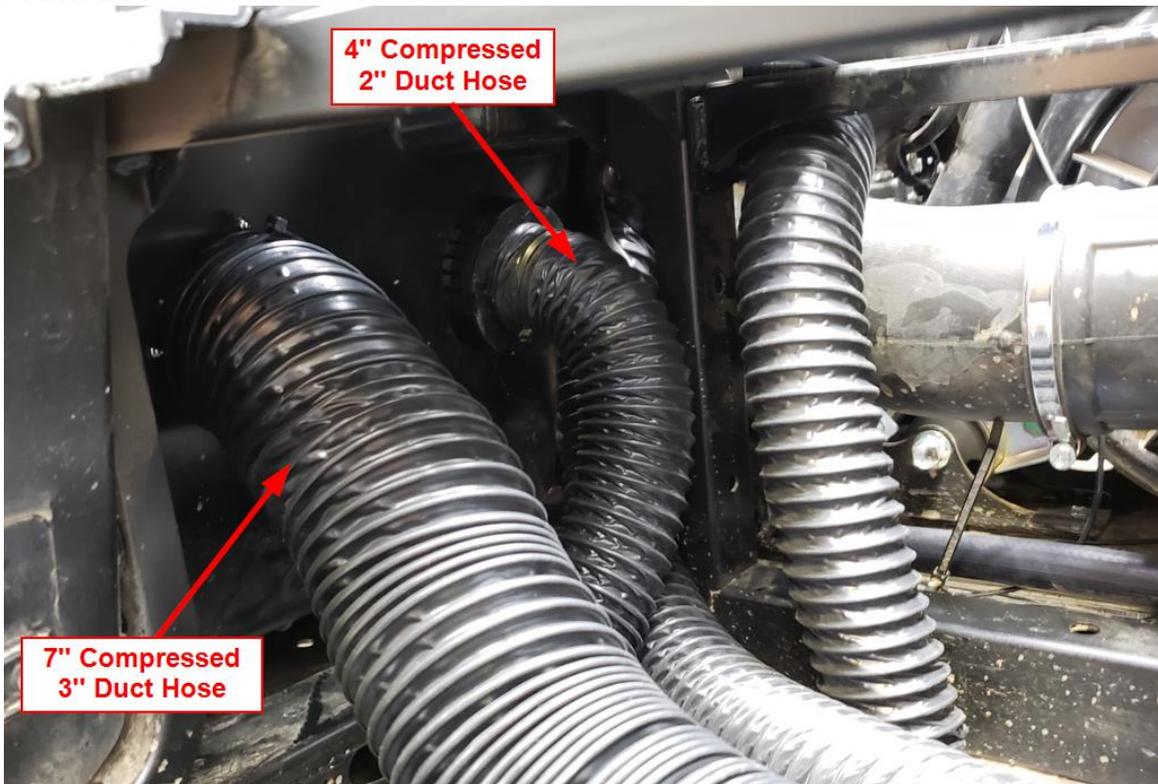


Figure 26



Figure 27

Yamaha RMAX Ice Crusher Heater

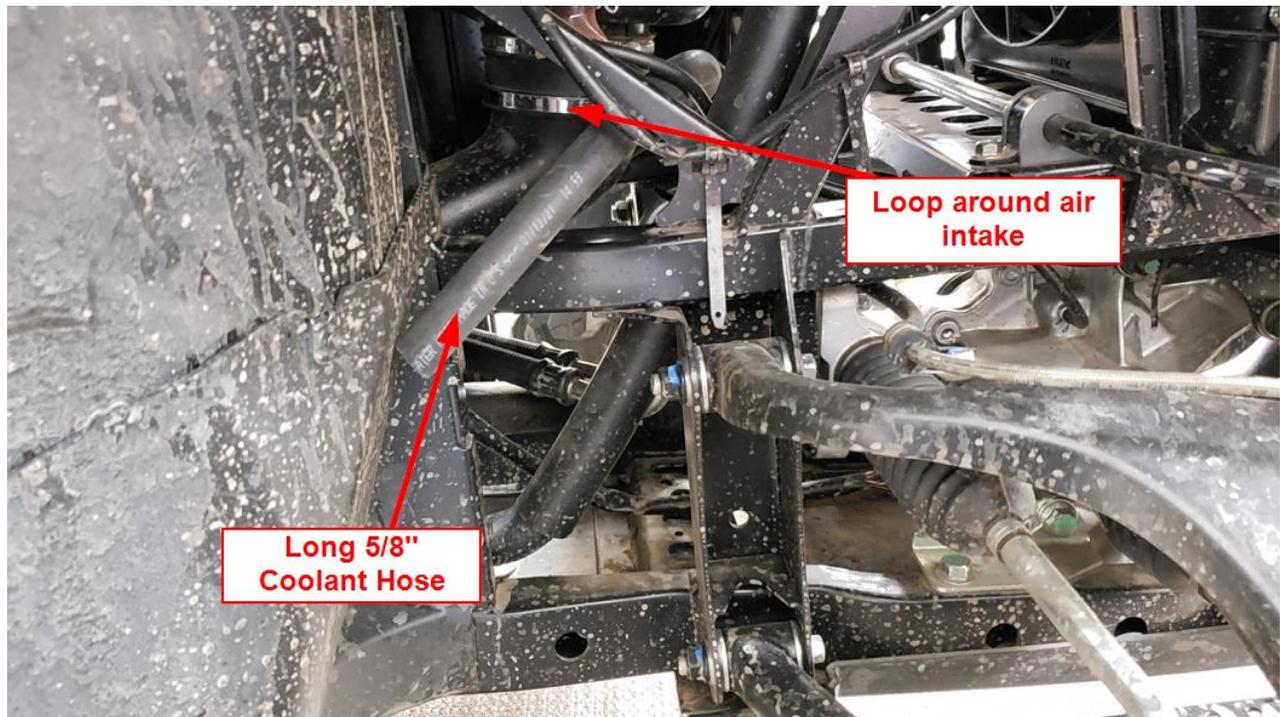


Figure 28

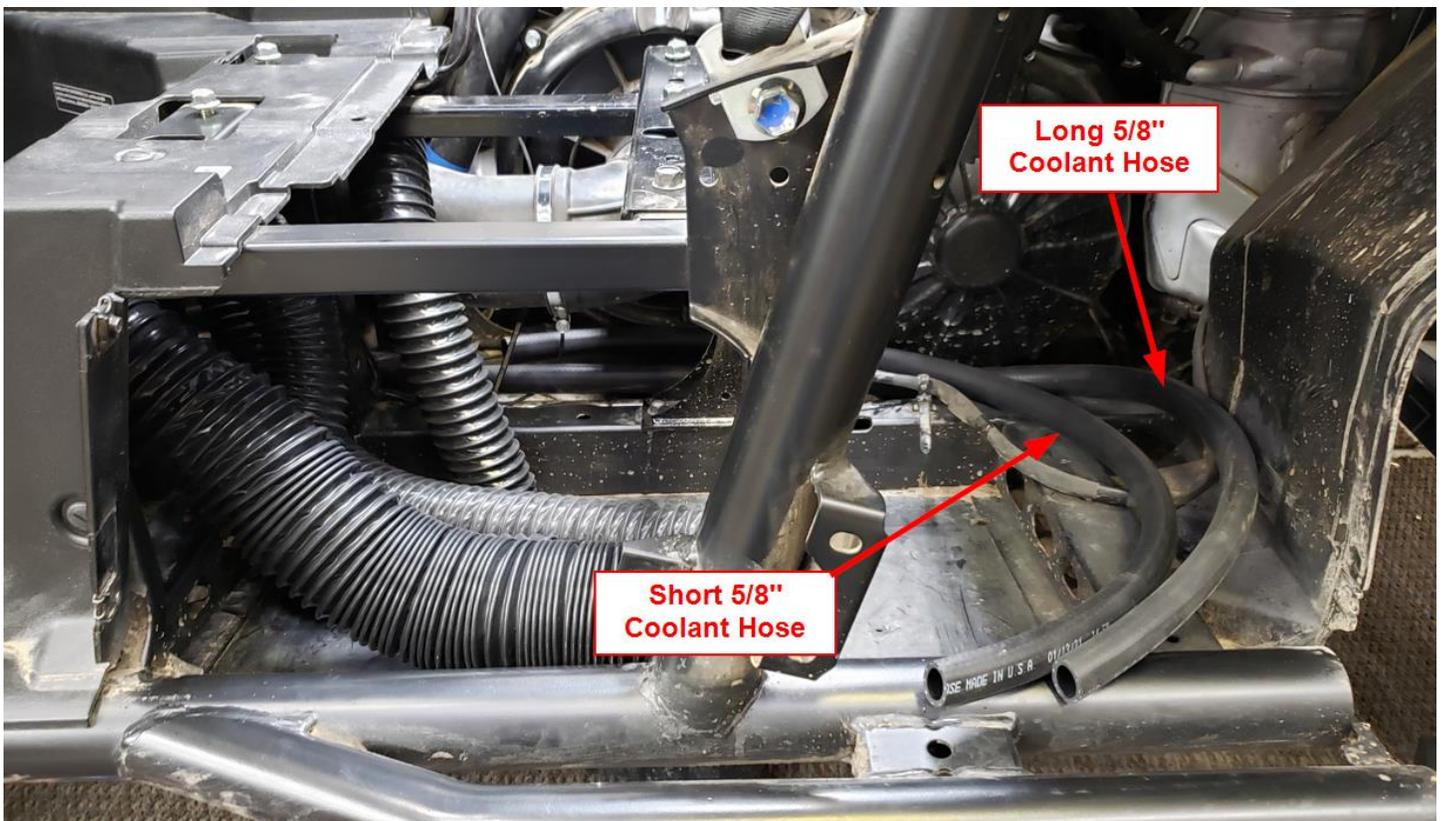


Figure 29

Yamaha RMAX Ice Crusher Heater

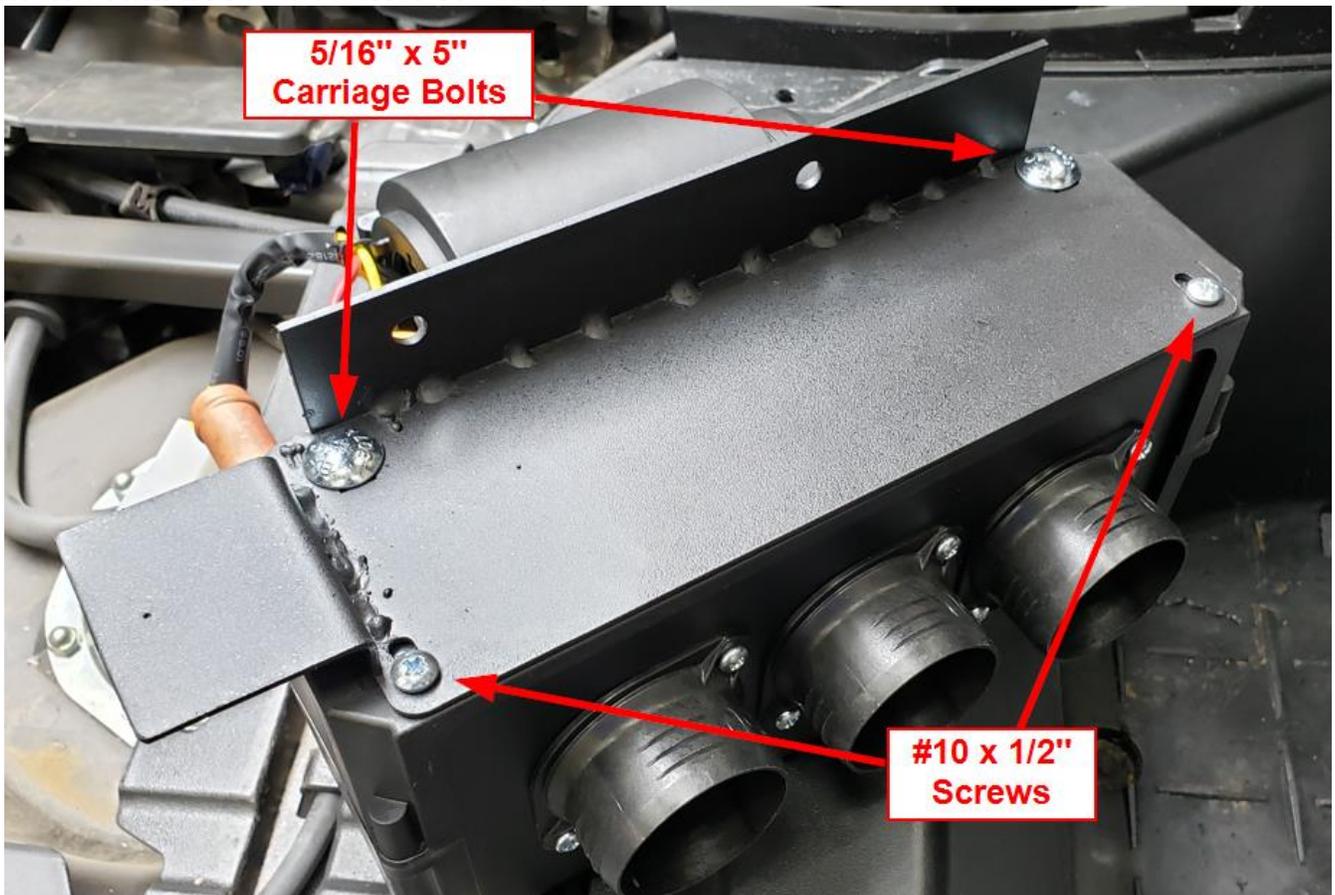


Figure 31

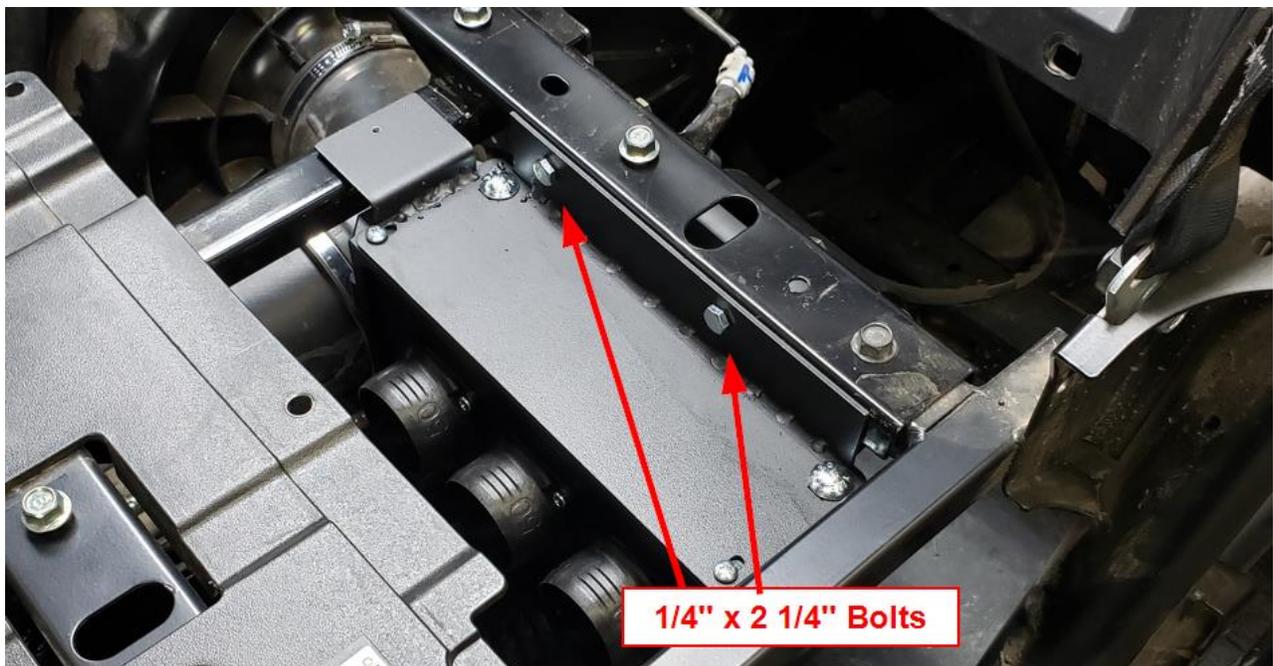


Figure 32

Yamaha RMAX Ice Crusher Heater

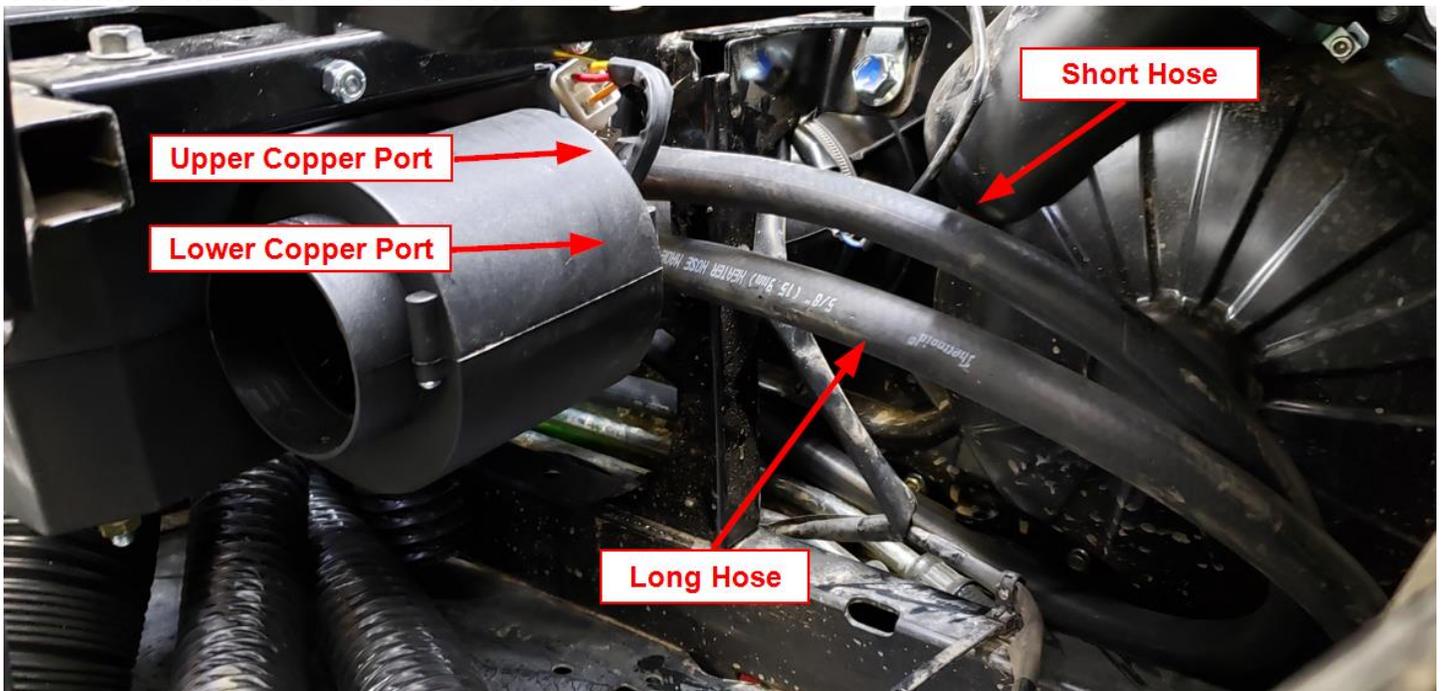


Figure 33

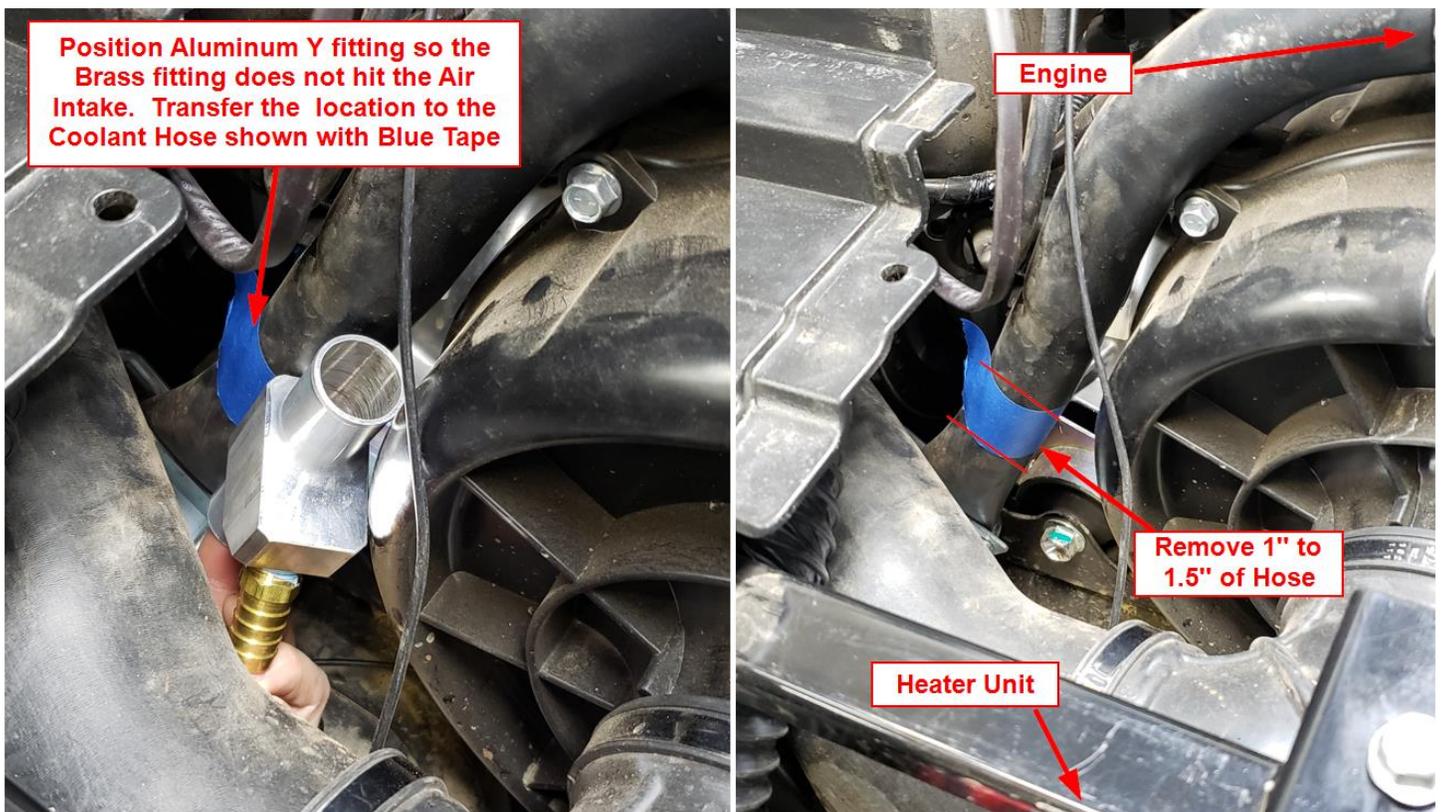


Figure 34

Yamaha RMAX Ice Crusher Heater

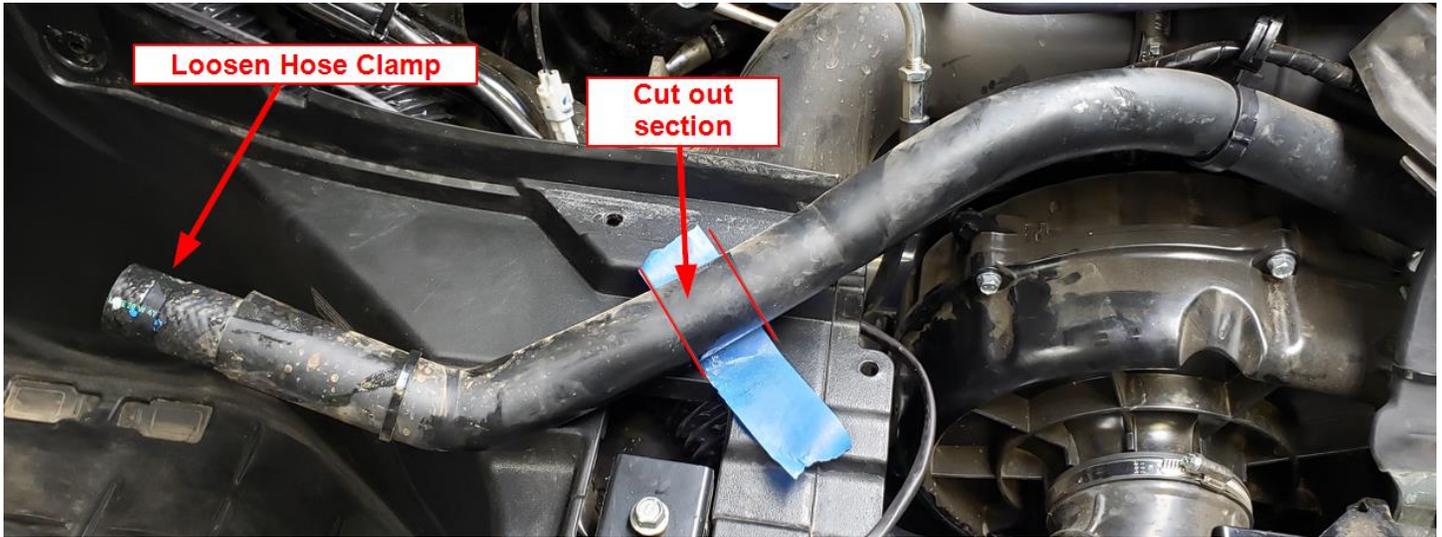


Figure 35

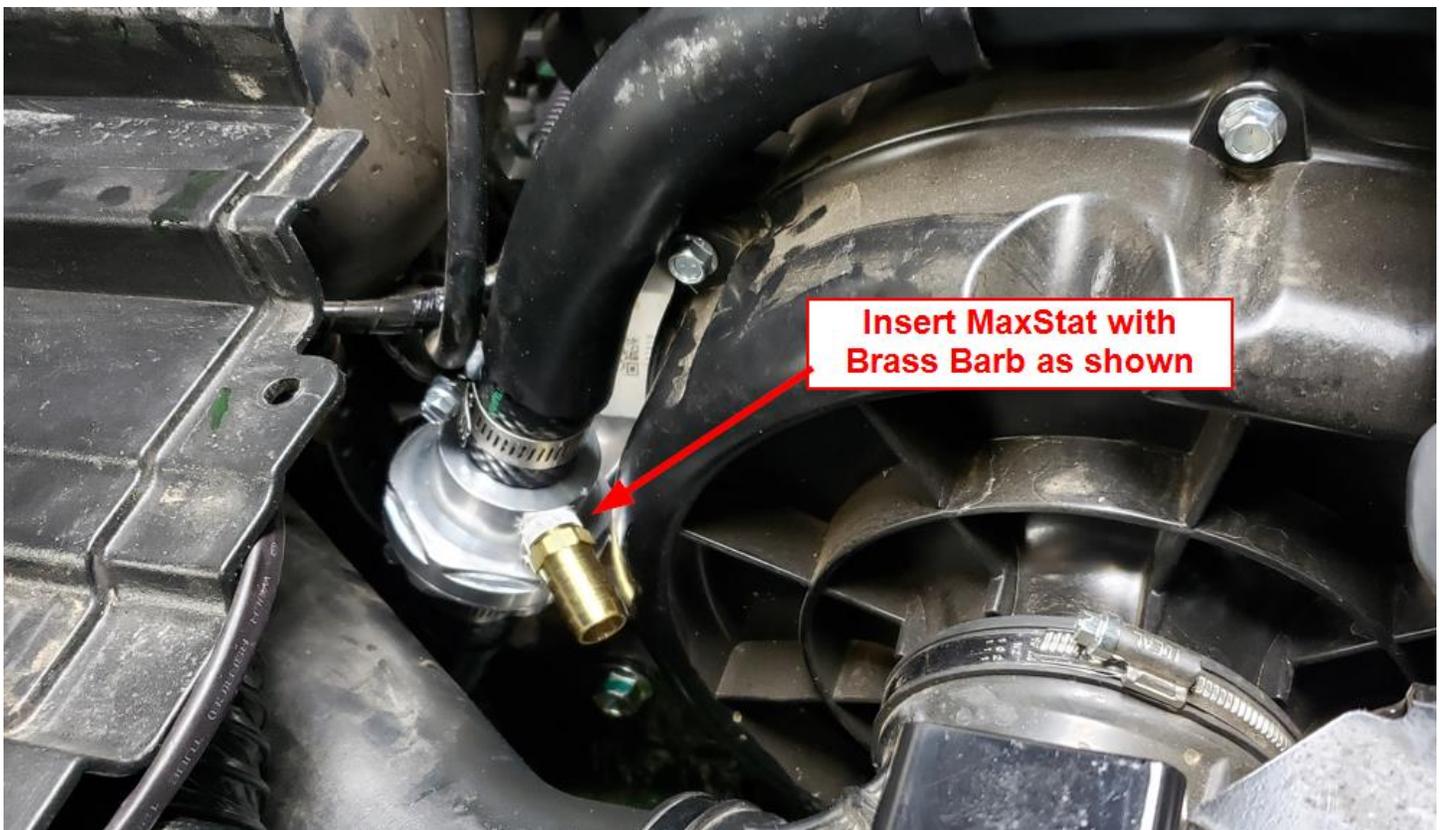


Figure 36

Yamaha RMAX Ice Crusher Heater

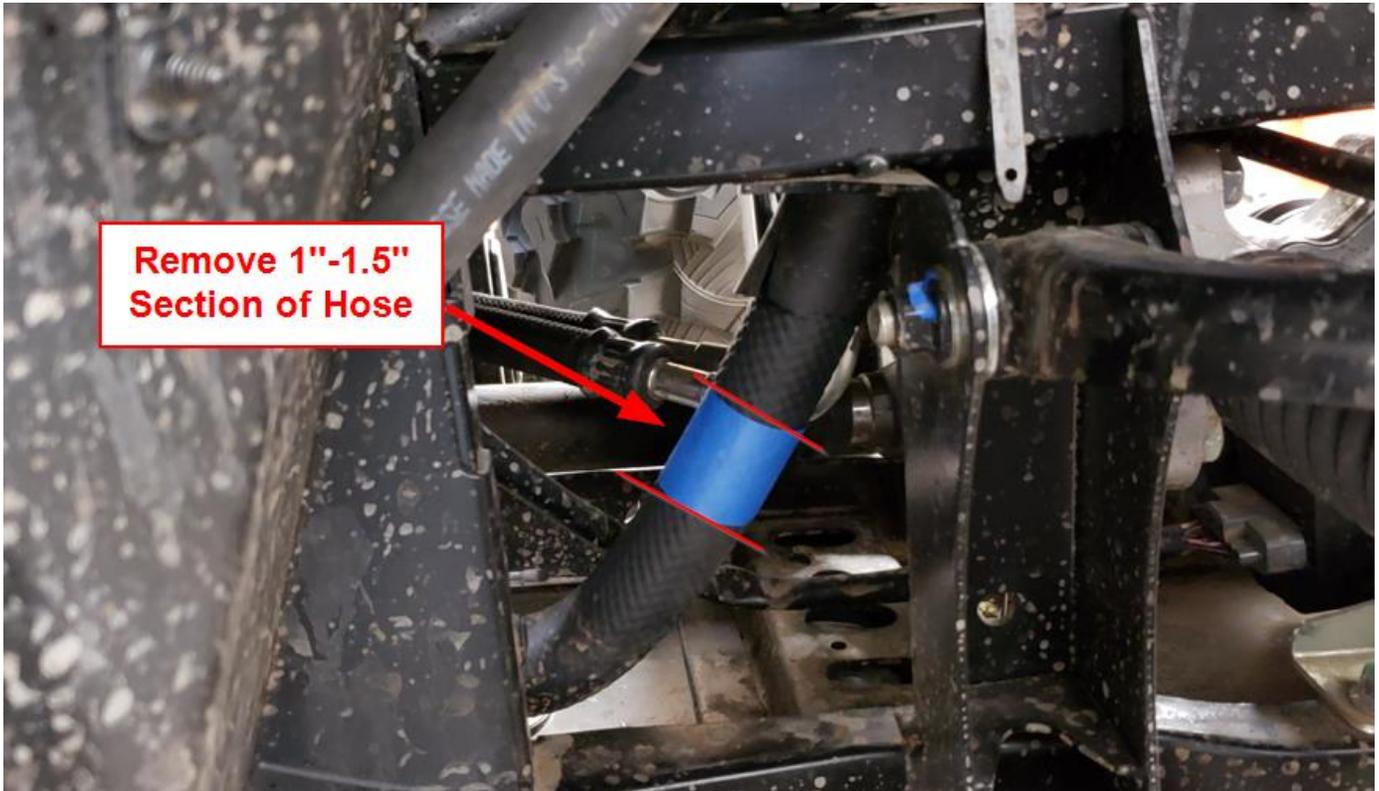


Figure 37

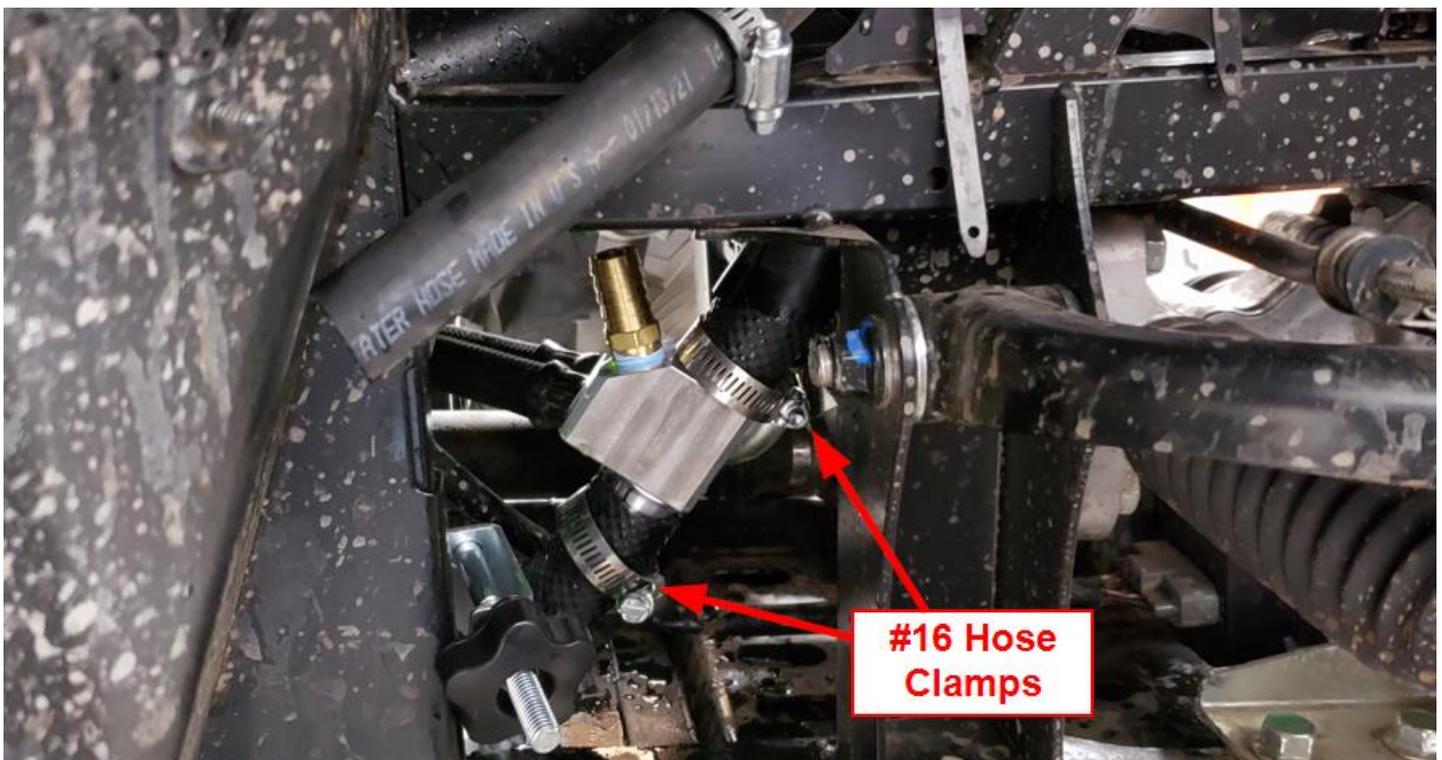


Figure 38

Yamaha RMAX Ice Crusher Heater

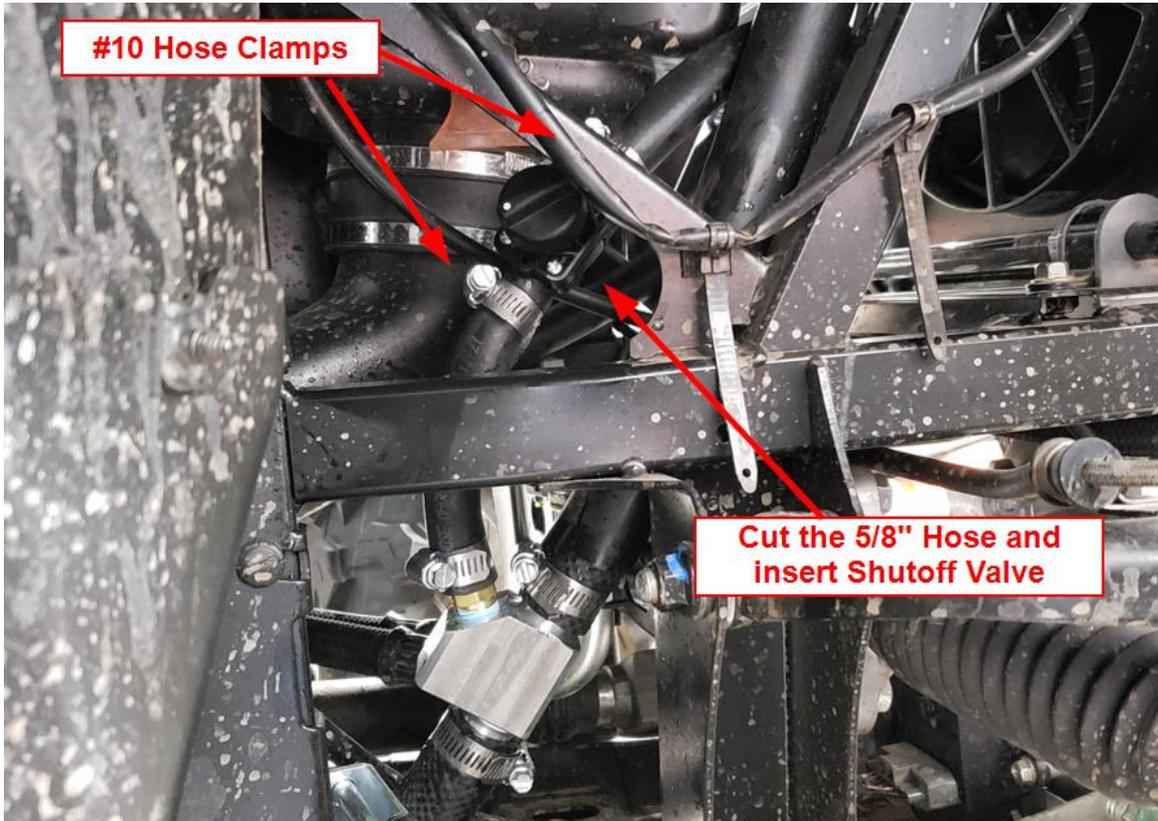


Figure 39

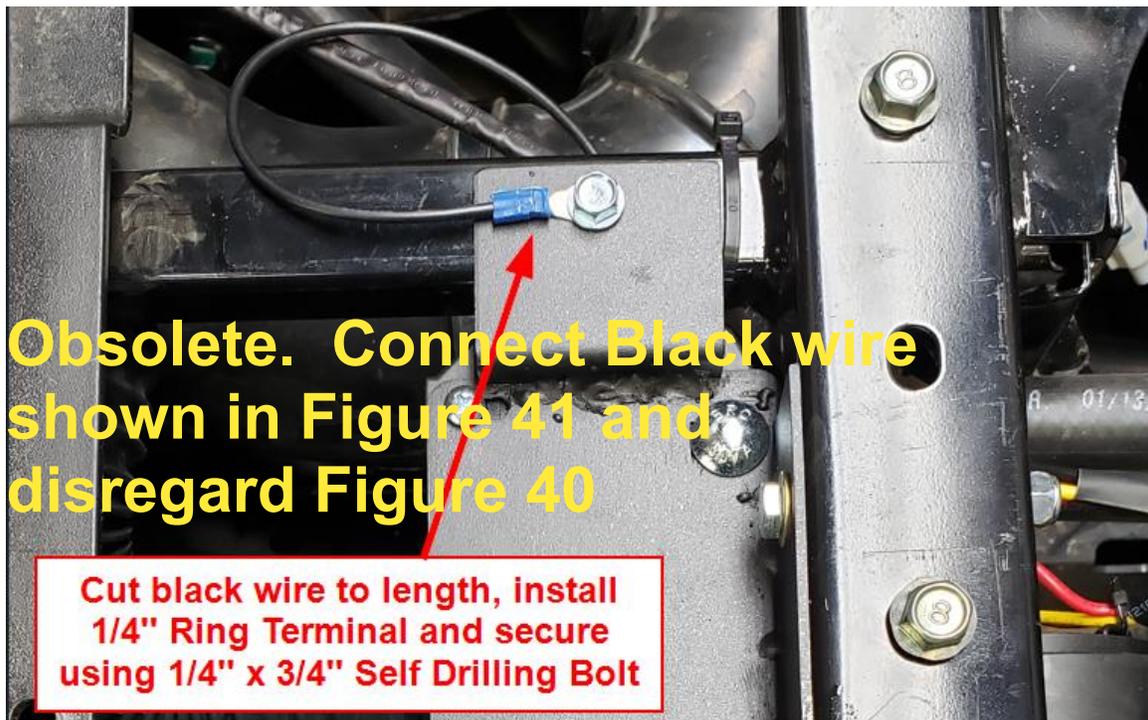


Figure 40

Yamaha RMAX Ice Crusher Heater

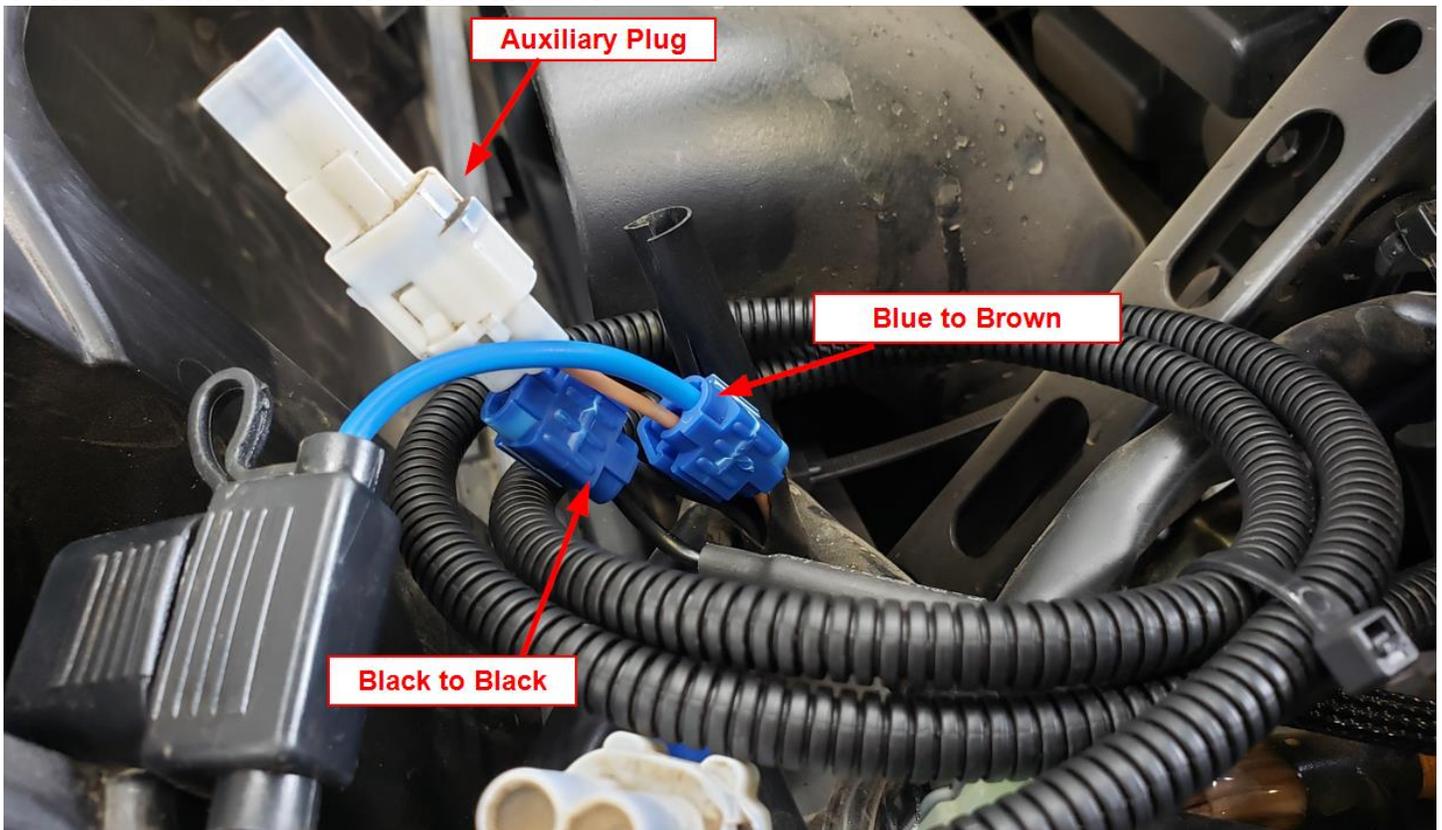


Figure 41

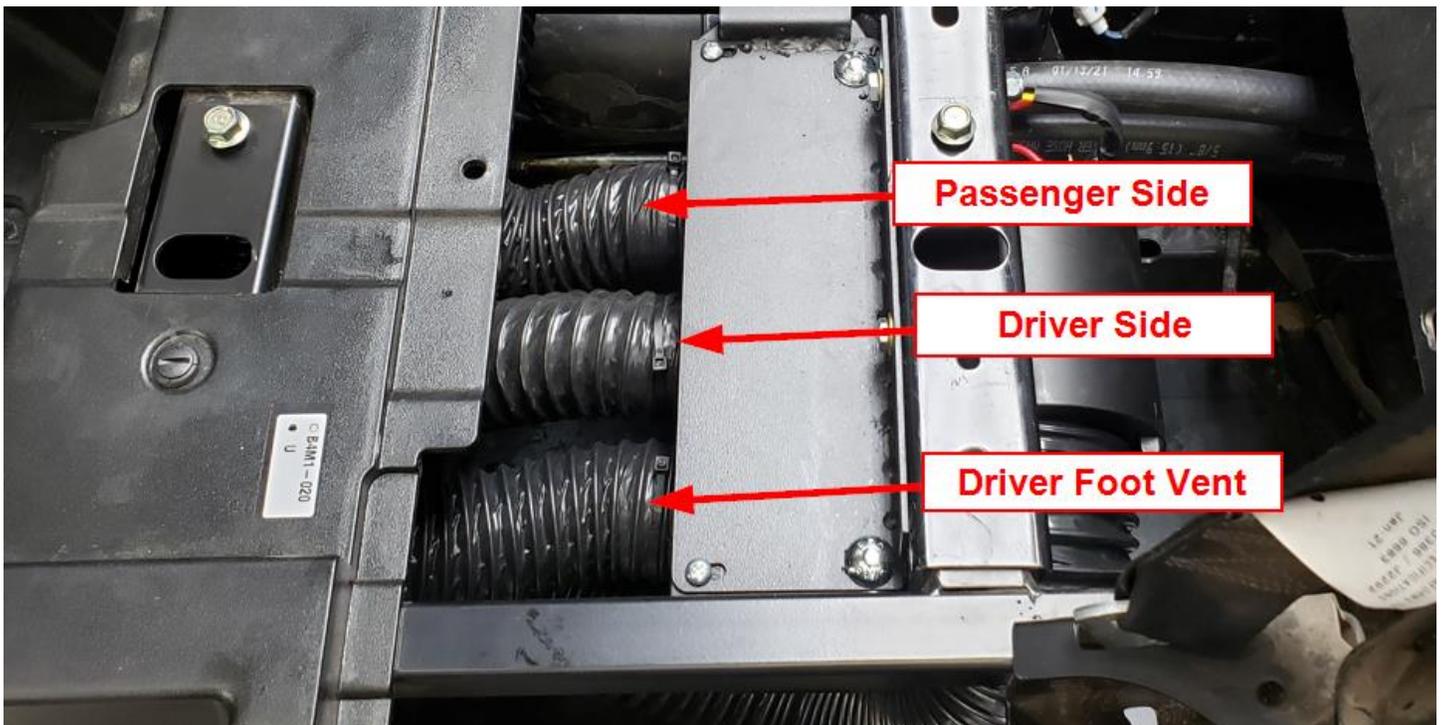


Figure 42

Yamaha RMAX Ice Crusher Heater

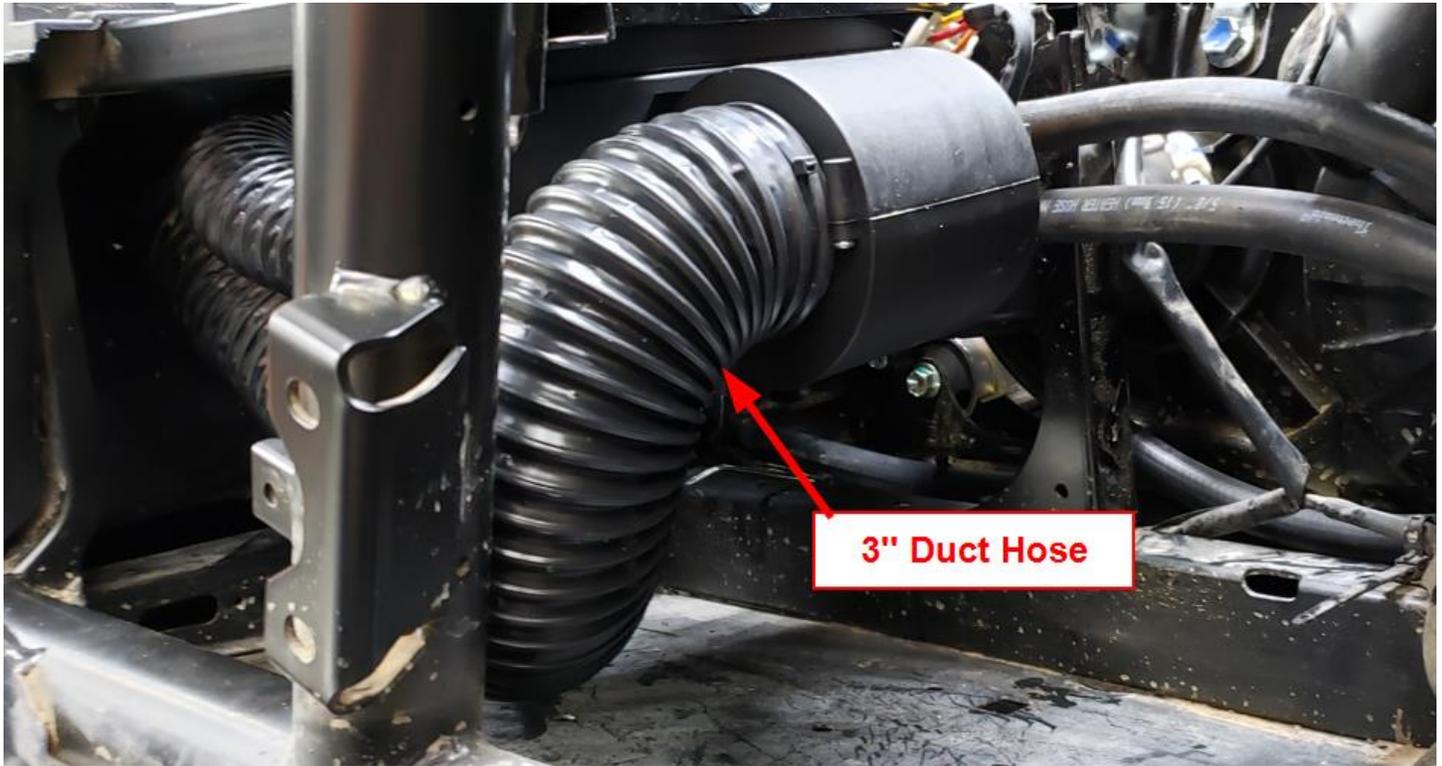


Figure 43

Yamaha RMAX Ice Crusher Heater

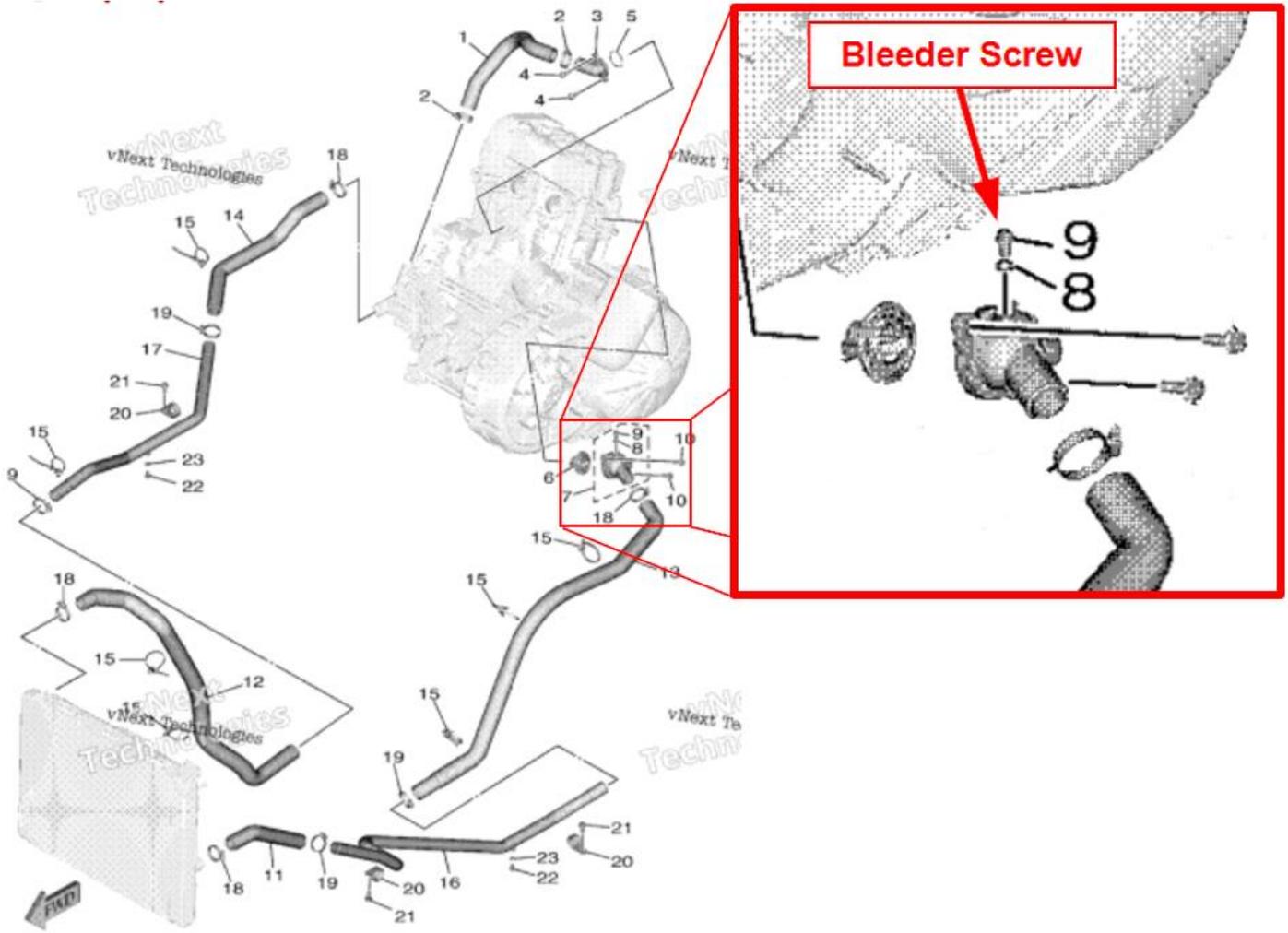


Figure 44

Yamaha RMAX Ice Crusher Heater

HEATER WARRANTY – icecrusherheaters.com and coupersproducts.com

***Coutersproducts.com/Icecrusherheaters.com Heater Warranty. 3 Year/36 Month Limited Warranty**

Ice Crusher Heaters warrants your Ice Crusher UTV Heater System to be free from defects in material and craftsmanship under normal use and service by the original consumer purchaser (end user) for a period of Three (3) year from the date of purchase on all components including electrical components. The warranty is null and void if the system has been damaged by accident, improper installation, unreasonable use, lack of proper maintenance, unauthorized repairs or modifications, or causes not arising from defects in materials and craftsmanship.

Ice Crusher Heaters obligation under this warranty are limited to repair of the product at Ice Crusher Heaters production facility, or the replacement of the product at Ice Crusher Heaters option and at Ice Crusher Heaters expense. Any expense involved *in the removal, reinstallation, or transportation of the product is **not** covered by this warranty.* Prior to return of any product to Ice Crusher Heaters, customer must contact Ice Crusher Heaters customer service, (888)-964-0135, info@utvheaters.com, and obtain a Return Authorization Number. This number must be marked on exterior of carton for easy identification. Warranty product received at Ice Crusher Heaters without a Return Authorization Number may be returned at expense of sender.

Postage must be prepaid, and the original dated proof-of-purchase must be confirmed or provided. Ice Crusher Heaters will not be liable for any damages sustained in transport due to improper packaging or handling. The acceptance by UTV HEATER WARRANTY – utvheaters.com and coupersproducts.com

This warranty is Couper's Products only express warranty of this product. We reserve the right to make changes to products and policy that are in the best interest of Couper's Products. No implied warranty shall extend beyond One (1) or Three (3) year period from the date of the original consumer (end user) purchase. Couper's Products will not be liable for any damages, for loss of use of this product, nor for any consequential damages, costs or expenses.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights not mentioned here that vary from state to state.

After receiving a Return Authorization Number send defective product to:

Ice Crusher Heaters

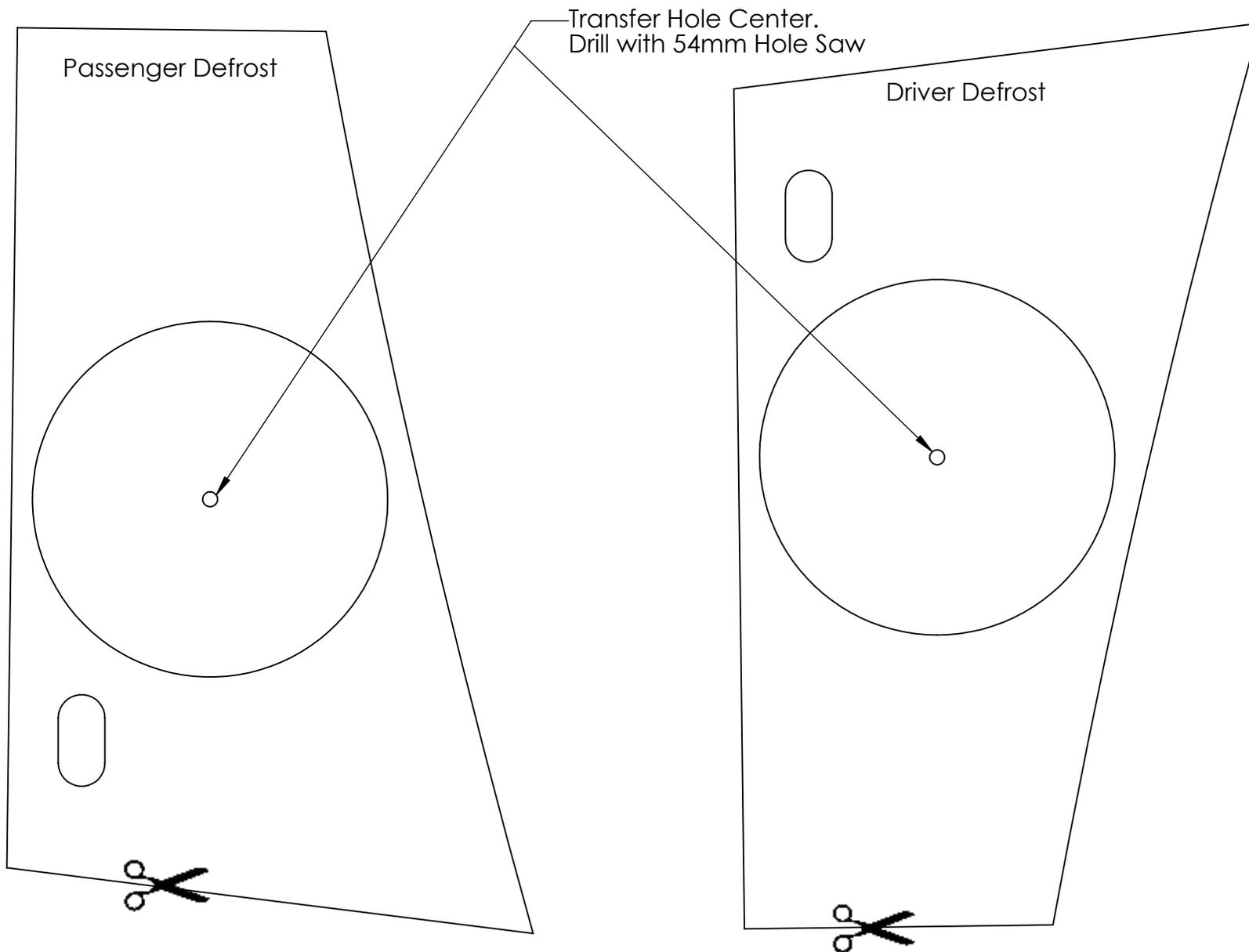
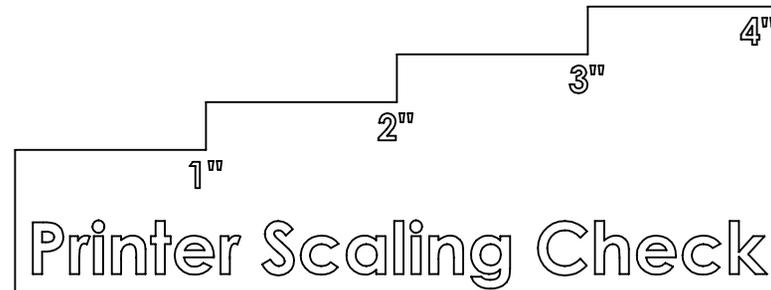
Attn: Warranty

23001 Industrial Blvd

Rogers, Minnesota, 55374

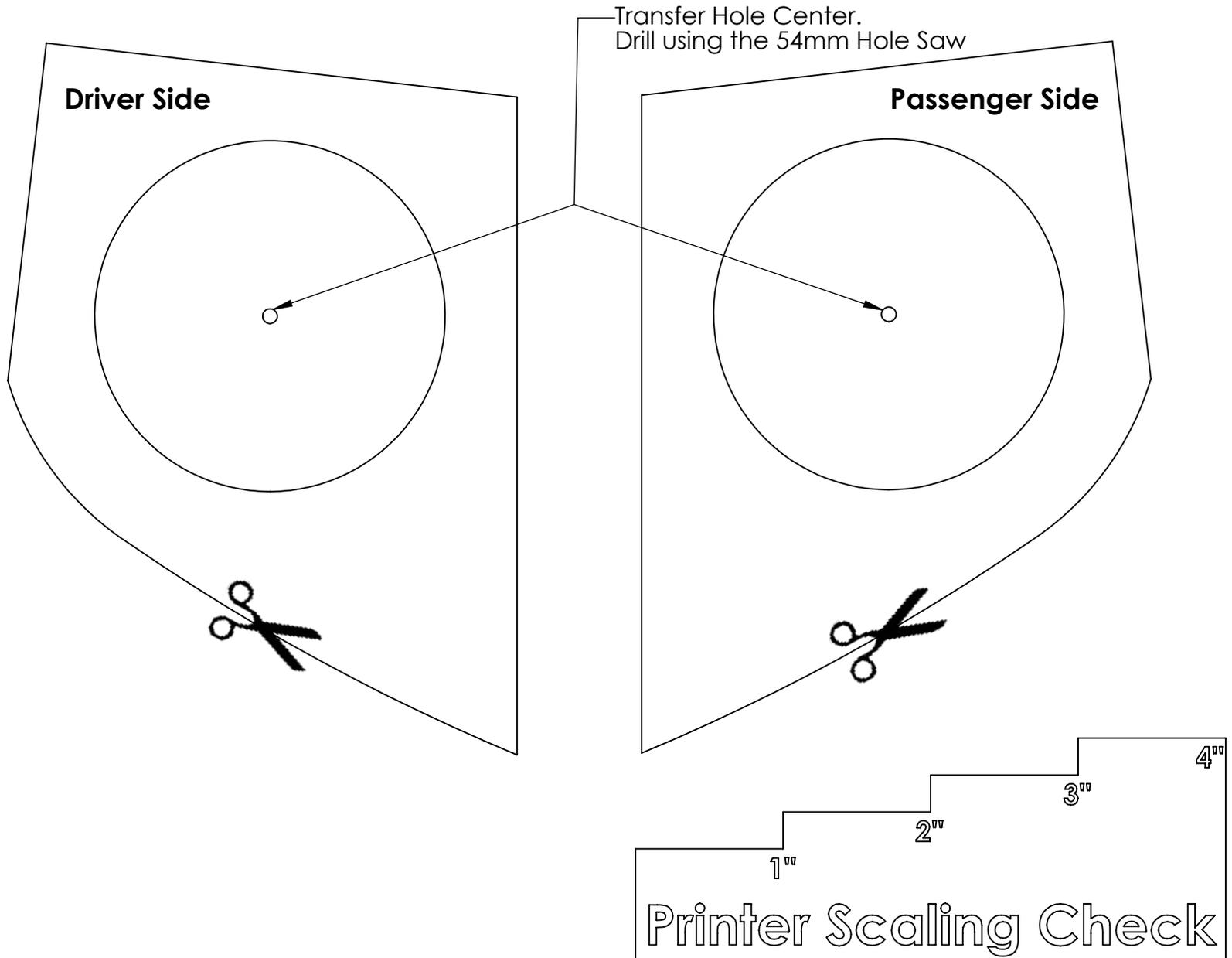
Defrost Templates

Cut templates and place on dash as shown in the instructions.
Transfer the hole center and drill using 54mm Hole Saw



Hand Vent Template

Cut out templates and position on center console as shown in instructions
Transfer hole centers and drill using 54mm Hole Saw



Driver Foot Vent and Air Intake Template

Cut out the Rectangular center of the template.
Position over the warning label as shown in the instructions
Transfer the two hole centers and drill using 3" Hole Saw

