SYA **SNORKEL KIT** POLARIS RZR 1000XP

71-11353

sales@highlifter.com

800-372-1137 | 8:00am - 6:00pm CST

7455 Atkinson Drive, Shreveport, LA 71129

www.highlifter.com

Parts Available For These Popular Brands and Others

READ BEFORE INSTALLATION

This snorkel kit is intended to provide clean, dry air to the engine, belt housing if equipped, and other parts needing venting on ATVs/UTVs, but does not necessarily mean the ATV/UTV can exceed the OE manufacturer's stated maximum rated water line depth. The snorkel kit is intended only as an additional margin of protection in the event that the ATV/UTV is inadvertently driven into water deeper than the OE manufacturer's air intakes will tolerate. There are many considerations to make when increasing water line depth and a snorkel is just one component.

This snorkel kit is NOT intended for riding in water deeper than what the OE manufacturer of your ATV/UTV recommends. Riding in water deeper than stated by the OE manufacturer is dangerous possibly causing the driver of the ATV/UTV to ride unexpectedly into deeper water subjecting the driver and/or passengers to serious injury or death. Riding in water deeper than stated by the OE manufacturer can also cause complete failure of the ATV/UTVs engine. OE manufacturers will almost certainly void any warranty on the ATV/UTV if a snorkel is or has been installed at the time warranty service is sought.

It is the installer's responsibility to verify all components and particularly that any templates are correct before starting any part of the snorkel installation. The snorkel should be installed by a professional mechanic or one who is by experience fully competent with snorkel installation. Please note this is a custom installation and you may want/need to modify for your particular installation and additional items may be needed to install. Any snorkel, even those properly installed can and possibly leak under certain conditions causing catastrophic engine failure. The ATV/UTV owner should frequently check components for wear and tear and look for any signs of leaking at the joints. **THERE IS NO WARRANTY OR RETURN OF THIS SNORKEL, NOR IS THERE ANY WARRANTY ON DAMAGE DONE TO AN ATV/UTV AS A RESULT OF THE INSTALLED SNORKEL REGARDLESS OF WHOM PURCHASED OR INSTALLED THE SNORKEL.**
If you are the dealer or installer, it is your responsibility to inform the user of this warranty and dangers of riding in water deeper than the OE recommends.

When using this product, your vehicle will be modified to increase performance. Whenever a modification is done to an ATV/UTV, you change the performance of the vehicle including fuel system, handling, braking, and steering. You should always drive safely and avoid any maneuvers that would cause harm, serious injury or death to the driver or passengers. This product is manufactured only for off-road use.

When installing the snorkel kit, you are altering the airflow to the carburetor/throttle body and a jet kit or EFI programmer may or may not be required once the kit is installed.

ALL SALES OF SNORKEL KITS ARE FINAL – NO RETURNS, NO EXCEPTIONS.

NOTE: Make sure that you seal your air box & clutch cover with dielectric grease or silicone. This is very important in preventing water from getting into the air intake system.

BEFORE STARTING YOU WILL NEED THE FOLLOWING:

ULTRA BLACK BRAND SILICONE OR MEDIUM SILICONE

DIELECTRIC GREASE (optional)

PARTS DIAGRAM

PARTS

CALLOUT	PART NUMBER	DESCRIPTION	QTY
1	71-11523	Reducing Rubber Boot	3
2	71-11458	2" Coupling	2
3	71-10840	SK-P-226 2" Pipe	1
4	71-10872	SK-P-305 3" Pipe	3
5	71-10022	Rubber Grommet	2
6	54-96447	P Clamp	3
7	71-10218	Hose Clamp	2
8	71-10147	Reducing Barb	1

CALLOUT	PART NUMBER	DESCRIPTION	QTY
9	71-10143	Straight Barb	2
10	54-61336	Self Tapping Screw	3
11	71-12311	Clutch Exhaust Hose	1
12	71-12310	Clutch Exhaust Boot	1
13	71-12295	2" Warrior Riser	3
14	71-10912	Vent Line	15Ft
15	54-61338	Zip Tie	6

BEFORE YOU BEGIN

KEEP ALL FACTORY HARDWARE

ENSURE VEHICLE IS SET TO **PARK**

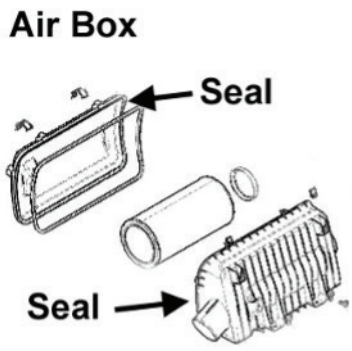
TURN KEY TO **OFF** POSITION

REMOVE KEY FROM VEHICLE

1. Seal the air box and belt housing with silicone. Water can intrude behind the belt housing, so make sure you seal the illustrated areas. You must remove the clutches and belt housing backing plate to seal behind them.

2. You may also want to use Wheel Bearing Grease or Dielectric Grease on the Clutch Cover and the Air Box Cover. If you use silicone in these key areas you may damage them if you need to clean your filter or replace the belt. We recommend either, just be aware of the potential for damage if you use silicone on the Air Box Cover and the Clutch Cover.

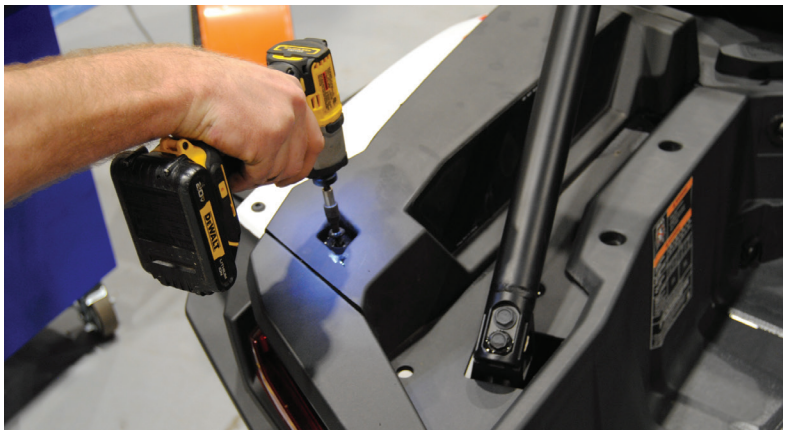
3. It is required that you pull the clutch from your RZR to seal several areas on the outer clutch cover and the inner clutch cover. Seal where the clutch air outlet duct and clutch air inlet duct connect to the inner clutch cover. Also seal the area behind the inner clutch cover where the input and output shafts come through the inner clutch cover. **THIS IS VERY IMPORTANT!!! If you do not seal these areas water WILL leak into the clutch system.**



REMOVE BEZELS

1

Remove bezels on both sides of the rear cargo box by unscrewing one bolt from the top and loosening the hose clamps under each side.



REMOVE CARGO BED

2

Remove the cargo bed by unscrewing four bolts.

REMOVE SEATS AND ACCESS PANEL

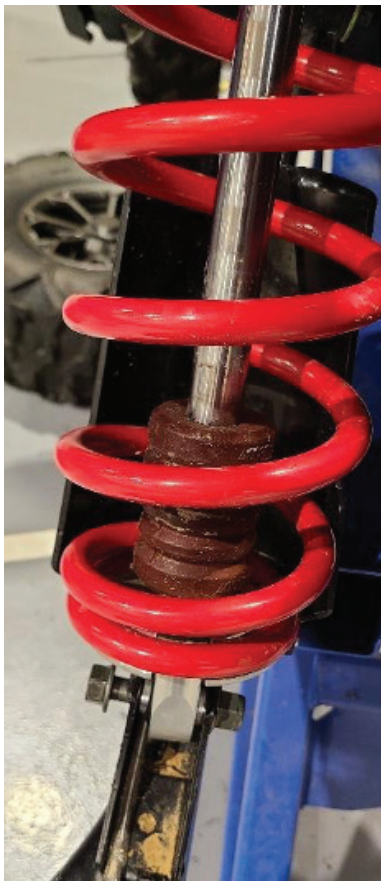
3

Remove the seats and access panel. At the driver side of the air box, loosen the hose clamp from the intake hose.

REMOVE WHEEL AND SHOCK

4

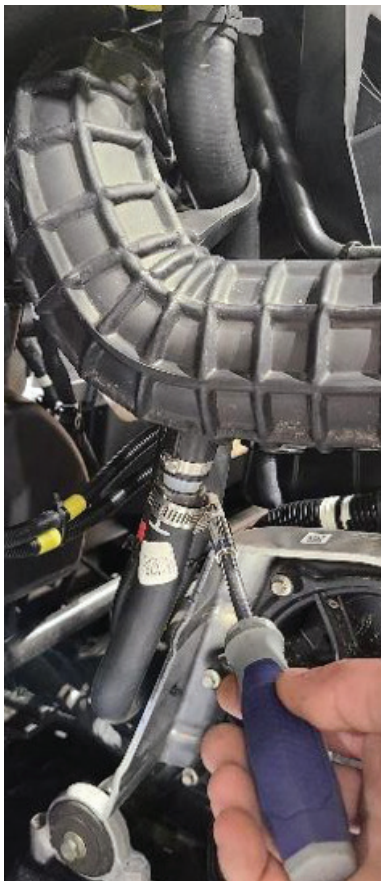
Securely lift the machine. Remove the rear left (driver) wheel. Remove the shock by removing bolts at the top and bottom. Keep all hardware.



REMOVE INTAKE HOSE

5

Loosen the hose clamp on the crank case vent and the final clamp on the intake hose. Remove the hose. Place something in the open air box hose to prevent debris from getting in, such as a large rag that will not fall in.



REMOVE EXHAUST HOSE

6

Loosen the hose clamp on the exhaust hose and remove it from the belt box.

DETACH WIRES

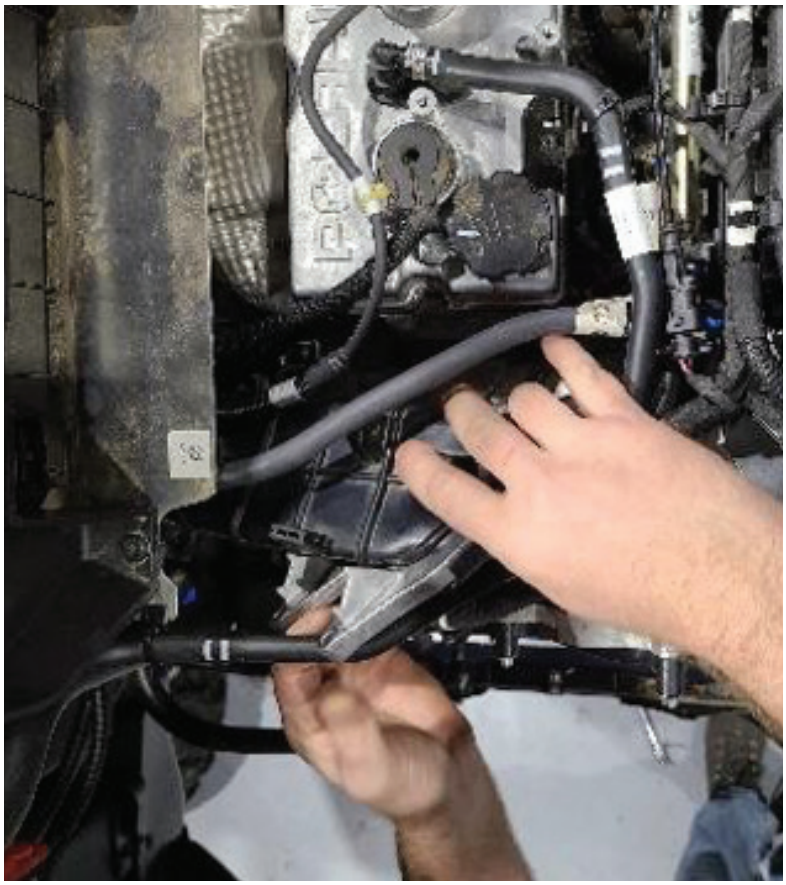
7

Detach all wires attached to the clutch exhaust boot and push them aside.

REMOVE CLUTCH BOOT

8

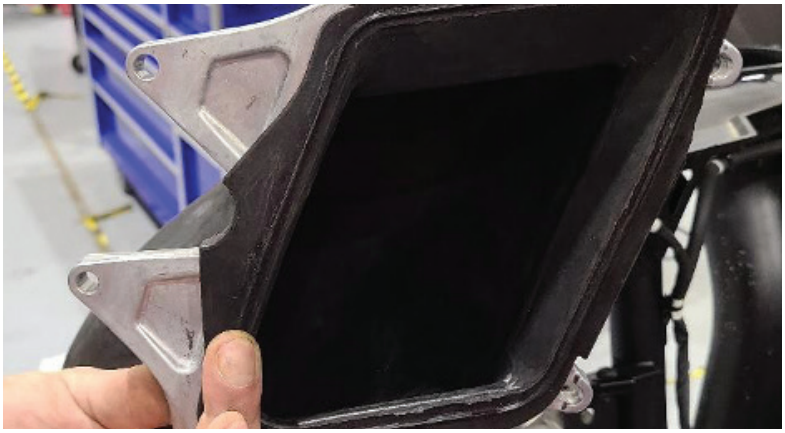
Remove the four 10mm bolts attaching the clutch boot clamp. These can be difficult to get to. Remove the entire clutch boot and clamp.



MOVE METAL CLAMP

9

Remove the metal clamp from the rubber boot. Slide the metal clamp onto the new clutch boot, **(71-12310)** matching up the lip.



SECURE ABS

10

Slide the ABS pipe (71-10872) to the opposite end of the boot and secure it with a **#64** hose clamp **(71-10218)**.

INSTALL BOOT

11

Slide the boot back into place over the clutch cover, being sure to get a good flat seal.

Reattach the metal clamp into place with the factory bolts.

Note: *Pay special attention that the u-shaped cut- out lays flat.*

SECURE COIL PACK LINES

12

Zip tie the (2) coil pack lines to the fuel line to keep them in place.

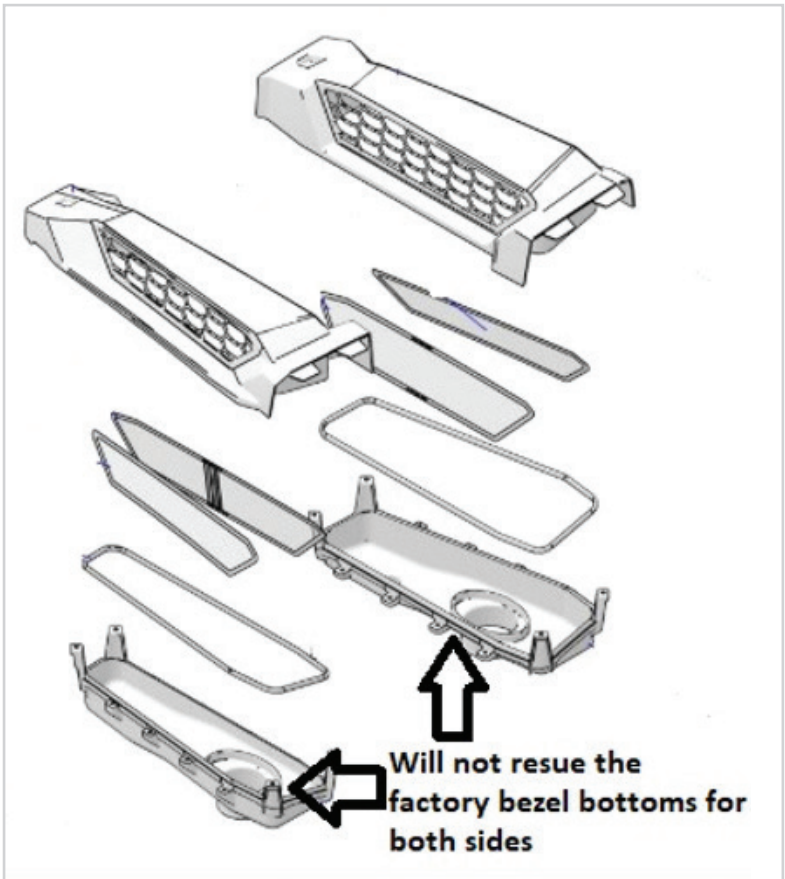
SILICONE EXHAUST HOSE

13

After you have connected the new clutch exhaust duct to the clutch, connect the new silicone hose the duct. Secure it to the duct using the #64 hose clamp **(71-10218)**.

BEZEL COVERS OUTER AND INNER

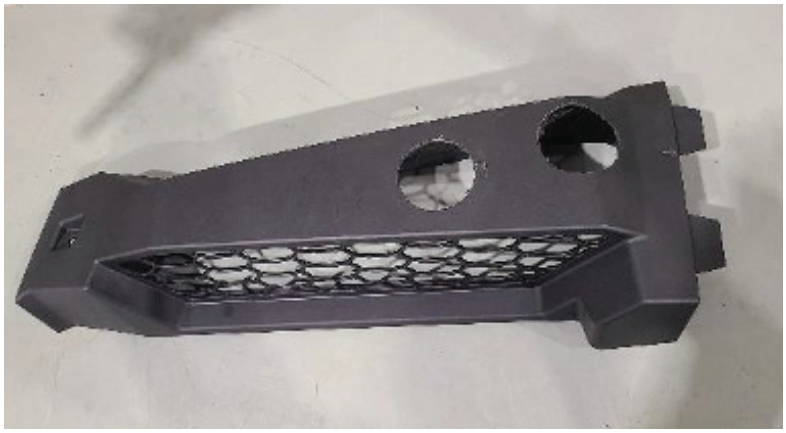
14



DRIVER'S SIDE BEZEL

15

Cut two holes on the top piece of the bezel. Using the rear edge left/outside tab as your guide point (see the silver arrow for reference), measure 3.5" from the back and 1.75" from the outside edge and mark your first pilot hole. Measure 8.375" from your guide point and 2.25" from the outside edge to mark your second pilot hole. Cut both holes using a 2.75" hole saw.



PASSENGER'S SIDE BEZEL

16

In the top piece of the bezel, you will cut one hole. Using the rear edge right/outside tab as your guide point (see the silver arrow for reference), measure 7.25" from the back and mark your pilot hole centered in the space. Cut out the hole.

REATTACH BEZEL

17

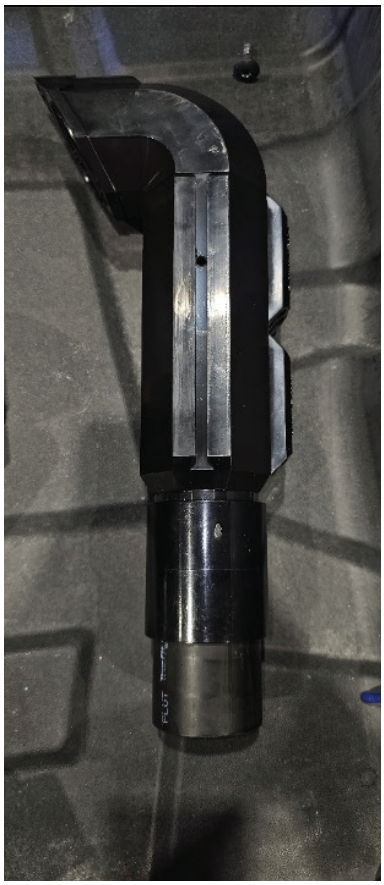
Reattach the driver's side top bezel. Do not attach the lower, it is no longer needed.

Attach the new exhaust hose **(71-12311)** to the hole in the top bezel closest to the front of the RZR. Place the XXX clamp onto the silicone hose. Next, insert the 3" pipe **(71-10872)** into the silicon hose. Fasten the silicon hose to the pipe with the clamp. Top the pipe with the 3" x 2" reducer and clamp tight. Now insert the 2" pipe into the rubber reducer coupling. Fasten with the clamp.

ATTACH EXHAUST HOUSE

18

Now connect two 2" couplings to the base of the riser, then insert the 2" pipe into the coupling. Then from the top of the bezel insert it into the reducer coupling. Fasten with the clamp.



ROUTE EXHAUST HOSE

19

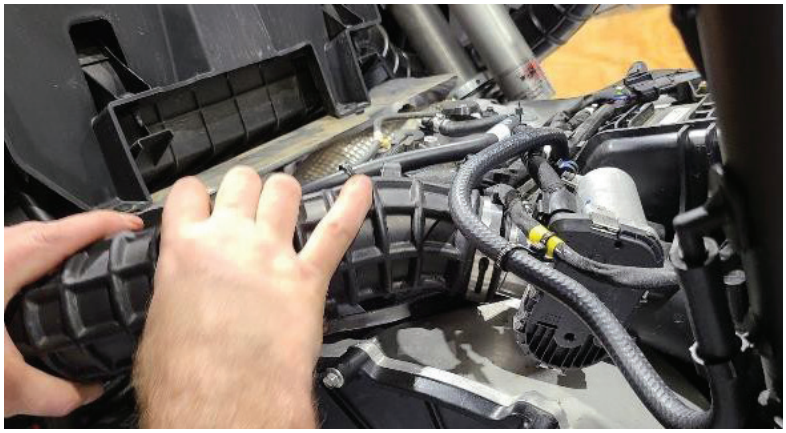
Route the exhaust hose to the back of the exhaust boot installed earlier and attach it to the ABS connector using a provided hose clamp.

REATTACH INTAKE HOSE

20

Reattach the engine intake hose using the factory hose clamp(s).

Note: *Be sure to remove the rag or cover you placed to block debris.*



REATTACH CRANK CASE

21

Reattach the crank case vent and secure it using the factory hose clamp.

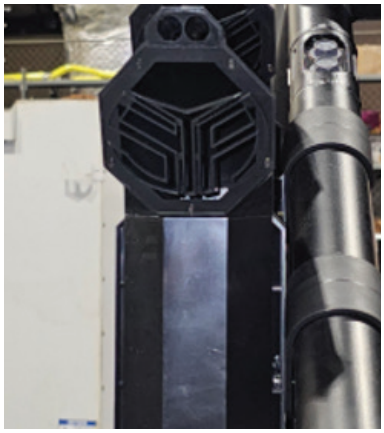
REATTACH CLUTCH AIR INTAKE HOSE

22

Reattach the clutch air intake hose to the housing using the factory hose clamps.

At the top of the clutch intake duct, insert the 3" pipe **(71-10872)** and fasten it with the factory clamp. Then connect the 3" x 2" reducer. Secure with clamps already connected on the reducer.

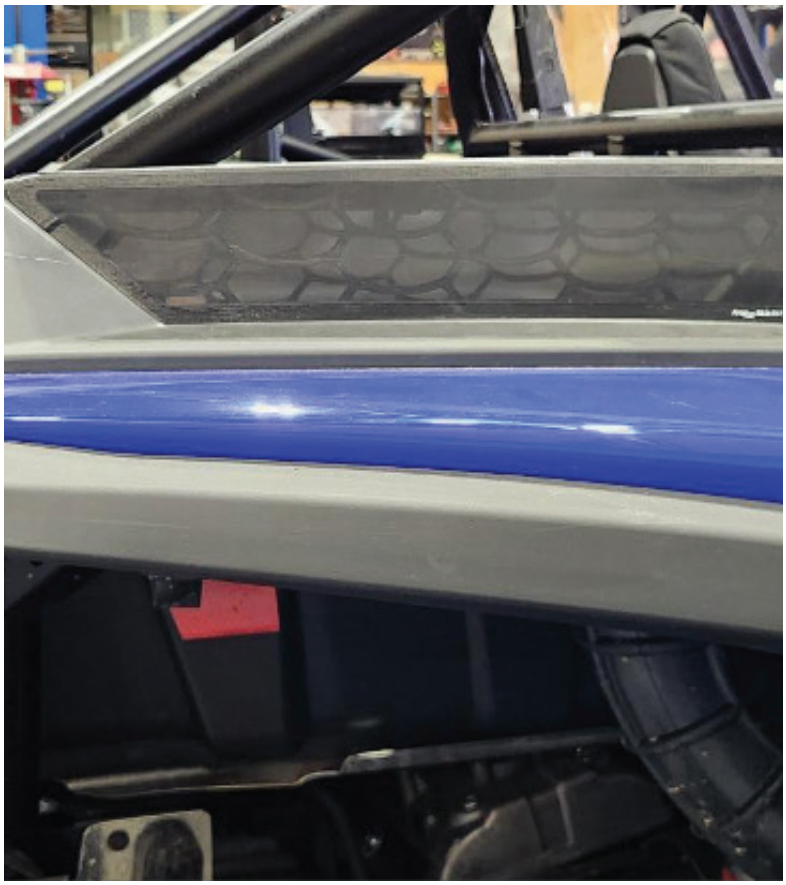
Place a rubber grommet on the top bezel opening and then insert the riser into the rubber reducer and secure with the clamp.



REATTACH PASSENGER BEZEL

23

If you have not done so already, reattach the passenger side bezel to its original position using the factory bolt.



REATTACH ENGINE INTAKE HOSE

24

Insert into the engine air intake hose a 3" pipe. Then connect the 3" x 2" rubber coupling and secure with the claps already on the coupling.

ENGINE AIR INTAKE RISER

25

Insert the rubber grommet into the top bezel then insert the riser into the grommet and into the coupling. Secure with the clam already on the coupling.

VENT LINES

26

There are three lines to vent: the fuel tank, the transmission, and the front differential.

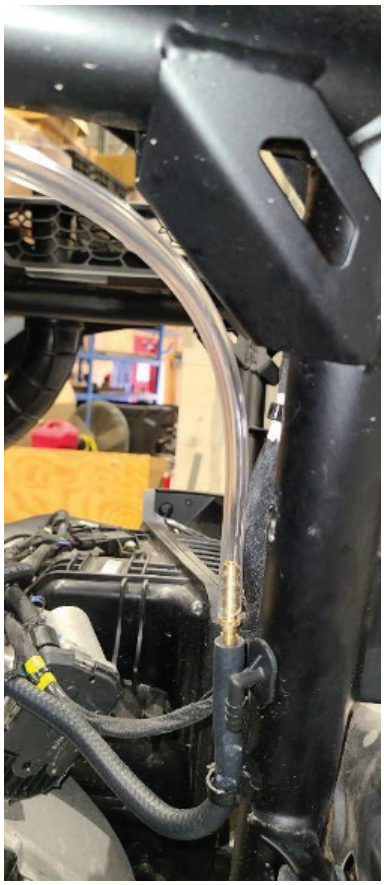
27

On the driver side, the fuel tank vent line runs behind the front of the fender. Remove the factory zip ties holding it line in place and cut the line a few inches behind the fender.

Place a brass barb into the end of the supplied clear tubing then into the fuel vent line. Run the tubing up through the hole created by the plastic fender and roll cage and through the riser guides. This will use approximately three feet of tubing.

Next remove the transmission line from it's barb in the frame. Insert a brass barb into this line, then into the clear tubing and run the tubing with the fuel tubing into the other guide on the riser. This will use approximately five feet of tubing.

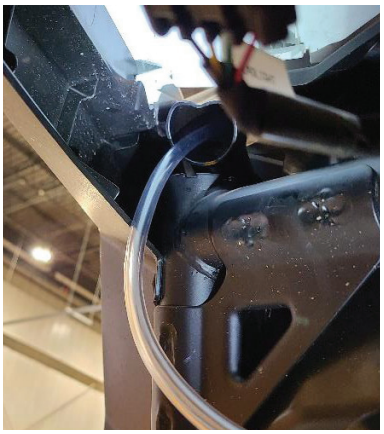
Zip tie this new piece of vent line along the cage using the factory clamps along the path where the fuel vent line was located.



VENT LINES

28

The front differential vent line is located at the front passenger corner behind the frame. Insert the barb reducer into this line, then into the provided clear tubing. Run the tubing up into the roll cage opening under the fender. Push the line up into the bar as far as it will go, using approximately five feet total. Extra vent line has been provided in your kit, so you may have leftover line. Zip tie any slack against the frame, using caution not to pinch the clear tubing.



SECURING RISERS TO CAGE

29

Once you have completed your vent line routing, adjust riser to your desired height and secure them to the cage with the claps and self-tapping screws provided. Place the clamp onto the cage and then using a self-tapping screw secure it to the riser. Follow these steps for all risers.

WATER TESTING CLUTCH/BELT HOUSING SNORKEL

Here are some steps for water testing your clutch/belt housing snorkel to ensure you have a watertight seal and there are no leaks in your system.

If you used silicone to seal your housing cover and backing plates, make sure you have followed the curing time instructions listed on the silicone that you used. Some silicones require that you wait up to 48 hours for a proper cure time. Just make sure you are following the manufacturer's directions before you use or test.

STEPS FOR TESTING YOUR CLUTCH/BELT HOUSING

1. Verify the engine is off.
2. Locate the drain plug in the Clutch/Belt housing and ensure that it is tightly secured.
3. Insert a water hose into the intake port on the clutch/belt housing snorkel. Make sure you are filling the correct inlet as severe damage could occur if you fill the engine air intake inlet.
4. Turn on the clean water supply and allow it to fill the housing up to the point when it is just about to come out the opening of the snorkel. Fill slowly as leaks are easier to find if you splash water during the fill process.
5. Turn off the water and allow the water to settle in the housing.
6. Look for leaks or wicking of water from bolt holes, sealed areas, backing plates and all hose connections.
7. If single or multiple leaks are present, then you will need to reseal the system and start the testing again. Don't assume there is just one leak if you find one.
8. If there are no leaks, then open the drain plug and allow the water to drain from the housing.
9. There will be some water left in the housing even after you drain. AFTER the water has completely drained out, start the engine and allow it to run for a short period. Rap the throttle a couple of times to race the engine to expel the last traces of water and to dry the system. When no water is present and after a short period, kill the engine.
10. Reinstall the drain plug and ensure a tight fit.
11. There could still be some water in the housing, when driving for the first time after this test, feel for belt slip. If there is belt slip, redo the drying process. If there isn't any belt slip, drive slower for a short time as that will dry the remaining water from the system.
12. Always inspect your snorkel system before and after rides for damage or leaks. Parts can vibrate or become damaged from riding.
13. **DO NOT USE WATER FOR TESTING THE AIR BOX OR AIR INTAKE TO THE ENGINE!**