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Honda 500 Foreman and Honda 420 Rancher 420 Snorkel Kit

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 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)

Datey Brand Medium Black ABS Pipe Cement



Flex Heat Tape (5ft)



SK-CPL-202 (1ea)



SK-CPL-203 (1ea)



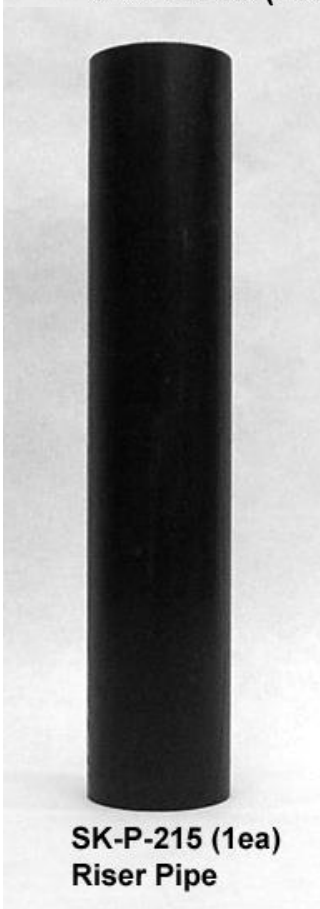
SK-EL-206 (1ea)



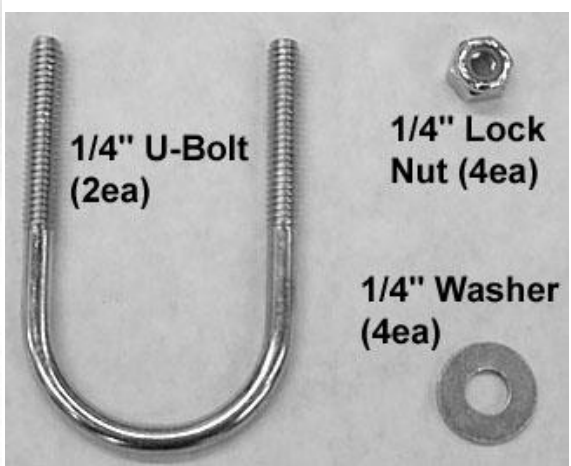
Riser Cap (1ea) 43R



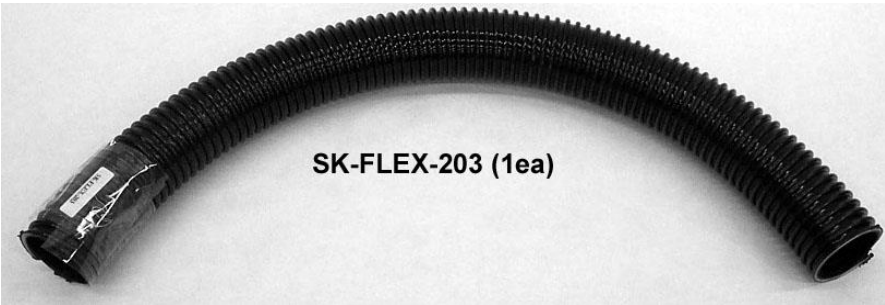
SK-EL-202 (3ea)



SK-P-215 (1ea)
Riser Pipe



VB01 (1ea)



SK-FLEX-203 (1ea)



31H - Washer (1ea)



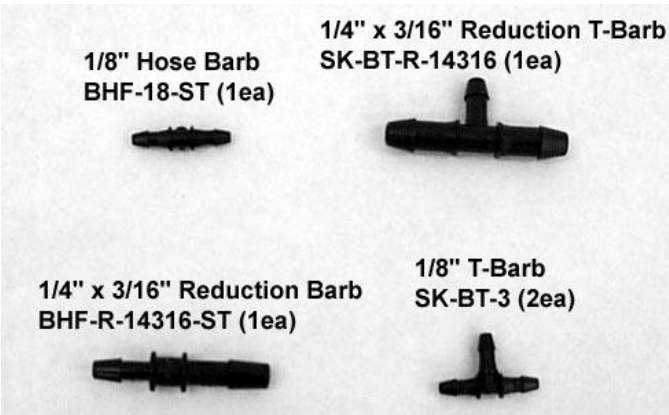
32L Mounting Plate (1ea)



HC36 (3ea)



SK-CPL-204 (2ea)



1/8" Hose Barb
BHF-18-ST (1ea)

1/4" x 3/16" Reduction T-Barb
SK-BT-R-14316 (1ea)

1/4" x 3/16" Reduction Barb
BHF-R-14316-ST (1ea)

1/8" T-Barb
SK-BT-3 (2ea)

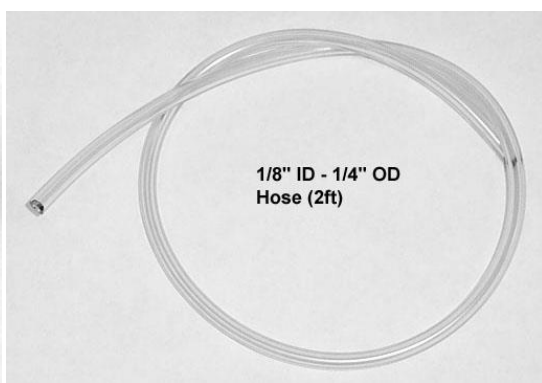


SK-VT-1

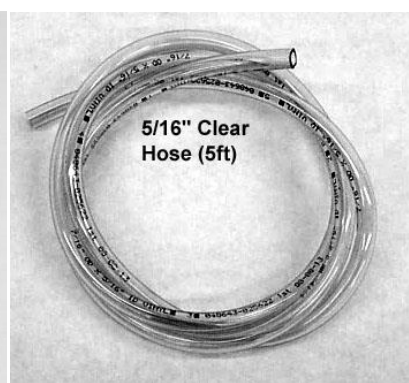
1/4" ID - 3/8" OD (1.5ft)



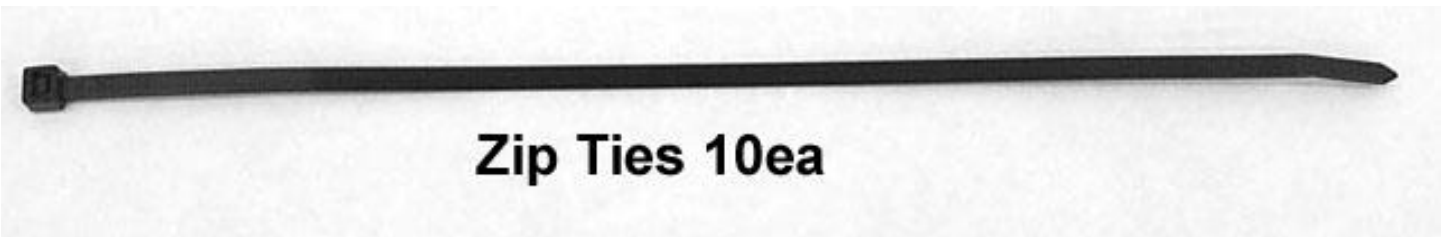
3/16" Hose
ABH32101 (6ft)



1/8" ID - 1/4" OD
Hose (2ft)



5/16" Clear
Hose (5ft)



Zip Ties 10ea

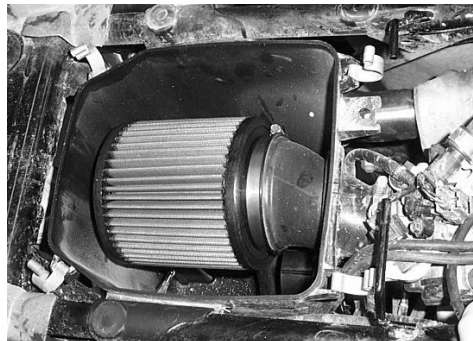
Installation Instructions

At some point before you complete the installation process and before you glue all the fittings make sure that you have sealed the air box with silicone where it attaches to the intake boot and any other penetrations into the air box. You may want to use Dielectric Grease on the air box cover. If you use silicone you may damage the air box cover if you need to clean your filter. We recommend either, just be aware of the potential for damage if you use silicone on the air box cover.

1. You will need to loosely attach all the pipe and fittings first. Do not start gluing pipe and fittings until you have drilled the holes in the front fender for the riser plate. You need to make sure that your snorkel pipe lines up to the riser plate.
2. Remove the seat, side panels, and plastic over the fuel tank.



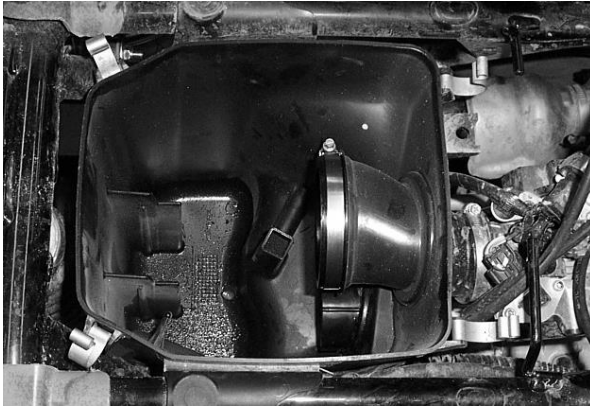
3. Take the lid off the top of the air box.



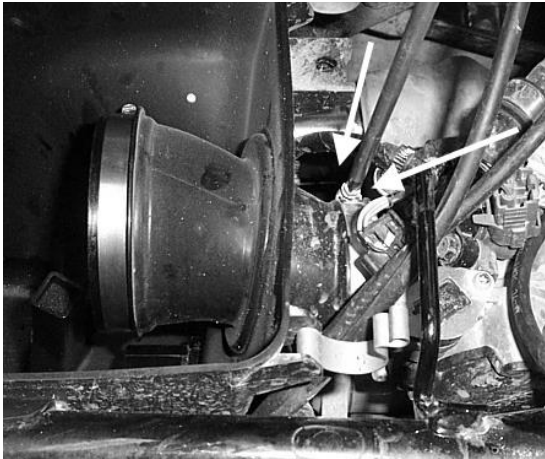
4. Locate where the factory snorkel duct is connected to the air box. Disconnect the duct from the air box and atv.



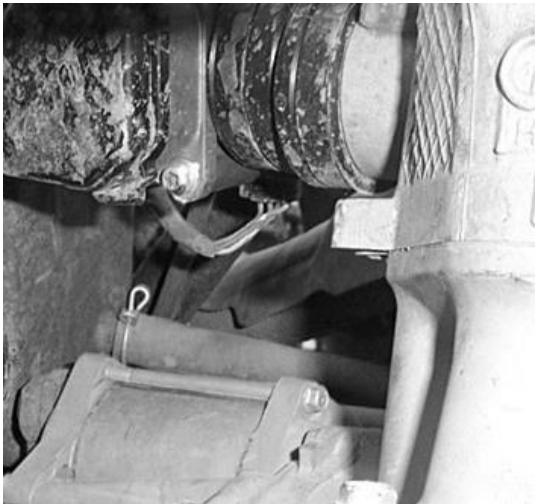
5. Now remove the filter from the air box.



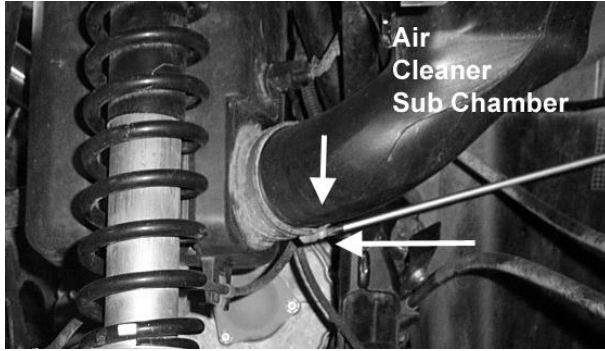
6. Disconnect the air box from the engine air intake.



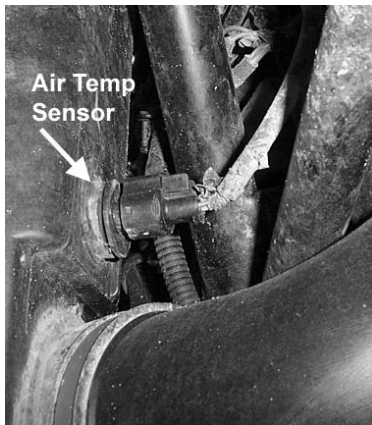
7. Disconnect the vacuum hose from the air box.



8. Only on the Honda 500 Foreman disconnect the air cleaner sub chamber from the air box. This is located on the right rear of the ATV. The Honda 420 does not have a air cleaner sub chamber.



9. Disconnect the air temp sensor from the air box. On the Honda 500 it is located near the air cleaner sub chamber.



10. Remove the push pins that secure the air box to the frame.



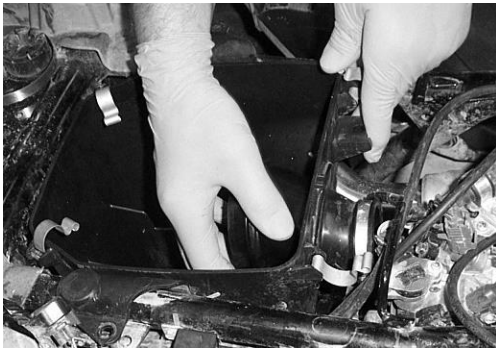
11. Remove the air box from the ATV.



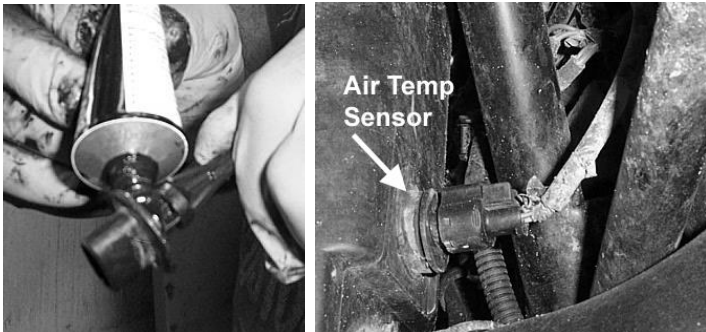
12. At this time you need to inspect the air box for cracks and damage. Also if it is dirty, take the time to clean it.
13. You need to reseal all rubber fittings in the box. Where the air temp sensor, air cleaner sub chamber, engine air intake, and snorkel duct connect to the air box are potential leak points. The factory silicone is not sufficient enough to remain sealed. You need to remove these connecting points, clean off factory silicone and reseal with a quality Ultra Black or Medium Silicone. **We recommend that you let this cure for several hours!**



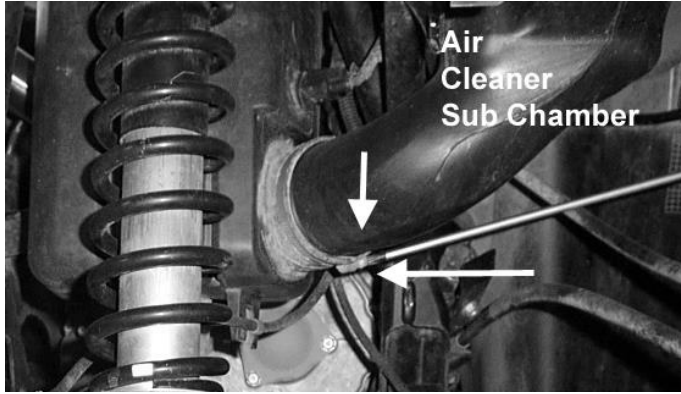
14. Once you have resealed the key points on the air box, reinstall the air box back into the ATV.



15. Reconnect the air temp sensor placing silicon around the sensor to ensure a water tight seal.



16. Reconnect the air cleaner sub chamber. We recommend that you place a bead of silicon around the duct and clamp using factory clamp. The silicon will be added protection against water intrusion.



17. Reconnect the box to the engine air intake.

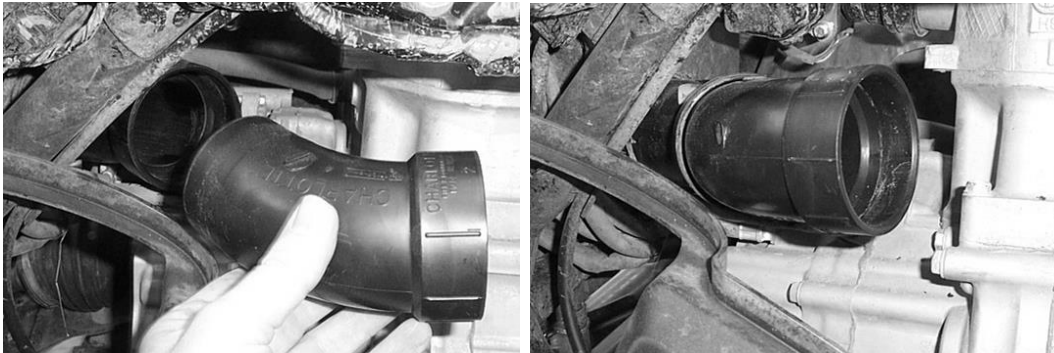


18. Do not start gluing pipe and fittings until you have drilled the holes in the front fender for the riser plate. You need to make sure that your snorkel pipe lines up to the riser plate.

19. Insert a SK-EL-202 fitting into the opening for the factory snorkel duct. Do not fasten tight with HC36 #36 hose clamp at this time. Only use clamp at final point when you have wrapped pipe with heat flex tape.



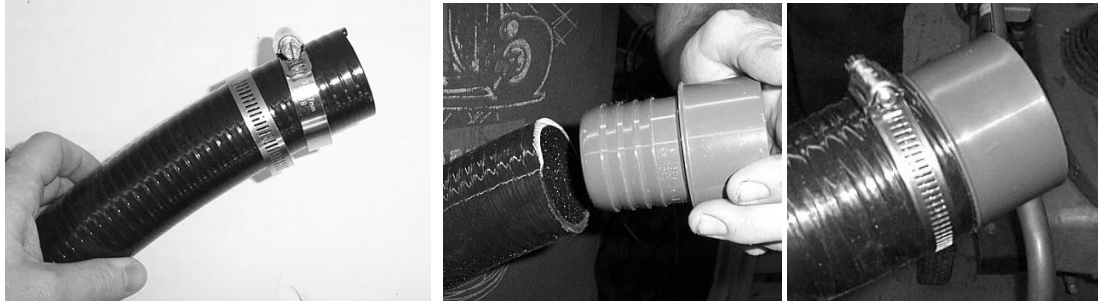
20. Connect another SK-EL-202 fitting into the fitting.



21. Next you need to assemble the flex pipe and hose barbs. Provided in the kit is 30" of flex pipe, 2 each hose barbs and 2 ea #36 hose clamps.



22. Place two HC36 #36 hose clamp onto the pipe. Now insert into each end of the flex pipe the **SK-CPL-204** hose barbs. Finally fasten the hose to the hose bars with the hose clamps.



23. Insert one end of the flex hose into the front fender area under the front rack and the other end into the **SK-EL-202** fitting.



24. Now you will need to temporarily attach the riser plate to the front rack to mark the area where you will cut a hole in the factory plastic for the snorkel riser.

25. Provided in the kit is a riser plate, u-bolts, 1/4" washers, and 1/4" lock nuts. Attach these to the front rack.



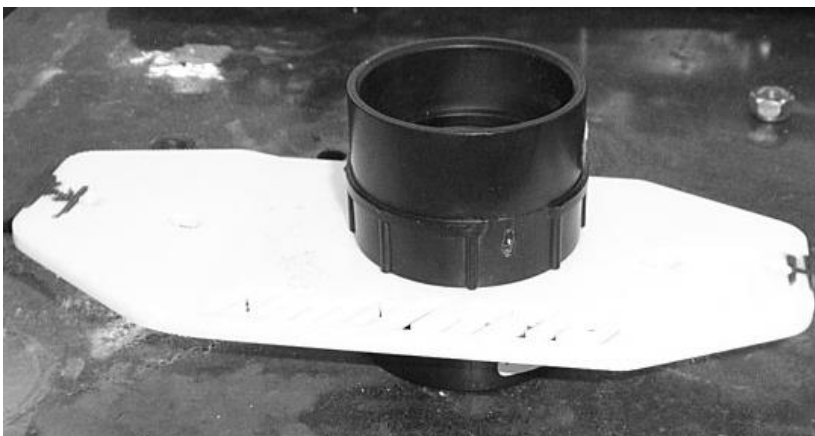
26. Once you have attached the bracket to the front rack, use a marker and trace out the hole you will need to cut in the plastic.



27. Remove the riser plate from the front rack.
28. Using a 2-3/8" hole saw, cut a hole in plastic.



29. Next, you will need to assemble the fittings onto the riser plate. Locate the threaded male fitting **SK-CPL-202** and place on the threaded end the washer **31H** provided in the kit. Next place the riser plate over the washer and fasten it tight using the female pipe fitting **SK-CPL-203**. Seal these fittings at this time using medium black abs pipe glue.



30. Now reconnect the plate to the front rack.



31. Under the fender, beneath where you cut the hole in the plastic, insert fitting through the hole and glue it to the base of the riser plate. **Honda 500 Foreman use SK-EL-206 and for Honda 420 use SK-EL-202**



32. **For Honda 500 Foreman --** Now connect the flex hose to the **SK-EL-206** fitting.



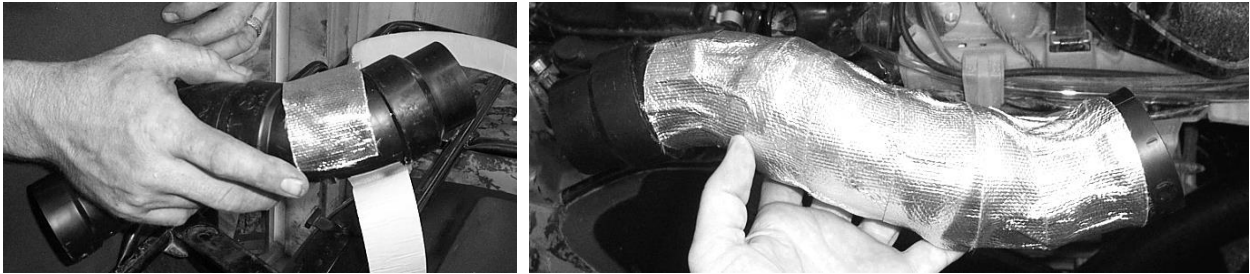
33. **For Honda 420 Rancher –** Now connect the flex hose to the **SK-EL-202** fitting



34. At this point you will need to verify that all fittings and the flex hose is not rubbing or touching the engine.
35. Use a marker to mark each fitting and pipe in the location where they join together. Now you need to disassemble the fitting and pipe and glue them together. Carefully align the fittings and pipe with the marks you placed on each piece. Seal these fittings at this time using a medium black abs pipe glue.



36. Once the glue has cured, take the flex heat tape provided and wrap the joints and pipe closest to the engine.

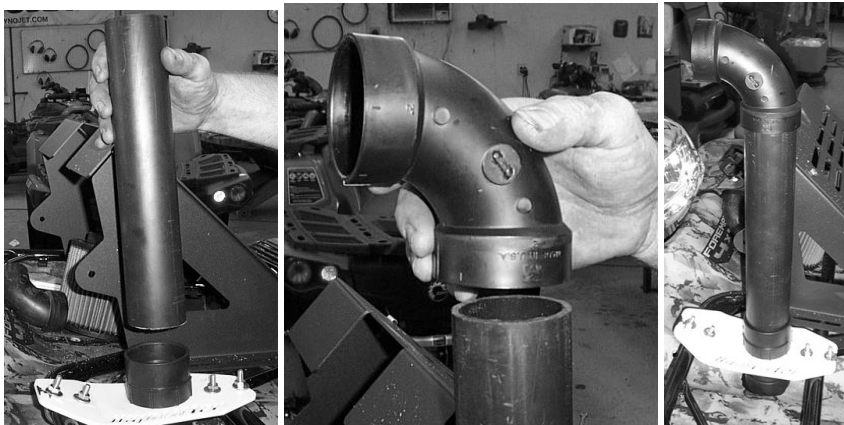


37. Reinstall the snorkel pieces to the ATV and fasten tight using the **HC36 #36** clamp at the air box.

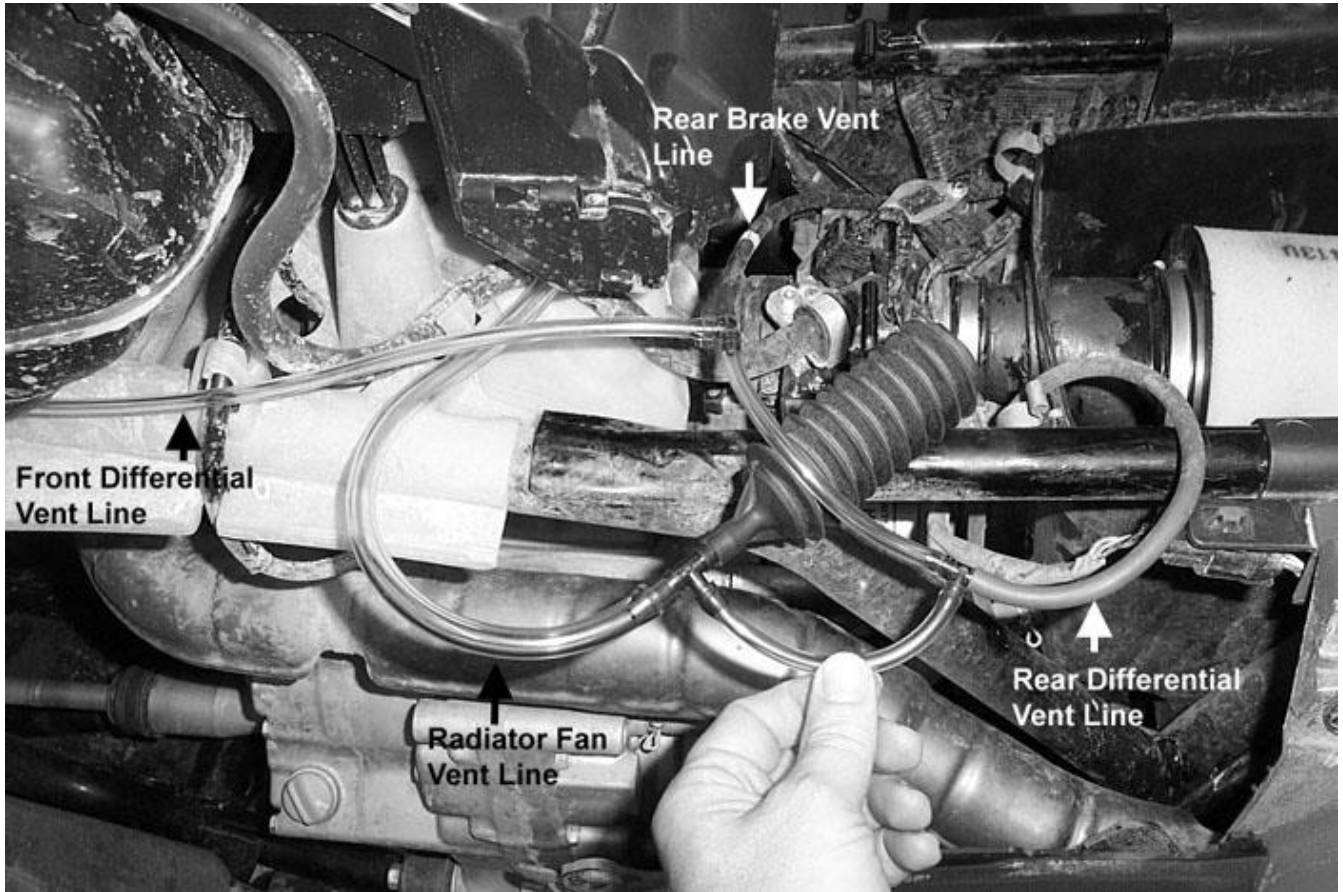


After you have reattached the all fittings and flex pipe, install the riser on the front rack. Insert the 24" pipe into the riser bracket and top it with the **43R Riser Cap** fitting. **MAKE SURE YOU SECURE THE CAP WITH SILICONE TO THE RISER PIPE!!!**

NOTE: The HL Riser Cap was added later after the kit was developed. Images do not show the new cap.



38. Next you will need to take the rear differential vent line, rear brake vent line, front differential vent line, and fan vent line and join them together and vent into the bellow provided. **Note: The photo below is what it will look like when it is complete.**



39. These will all need to join together under the seat near the fuel tank.

40. First locate the fan vent line and insert the BHF-R-14316-ST fitting into the end. The 3/16" barb goes in to the end of the fan vent line.



41. Next connect to the barb the 1/4" ID – 3/8" OD (1.5ft) hose. Run the hose to the top of the frame.



42. Locate the bellow and insert into it the 1/4" x 3/16" reduction barb. Insert the larger barb into the bellow.



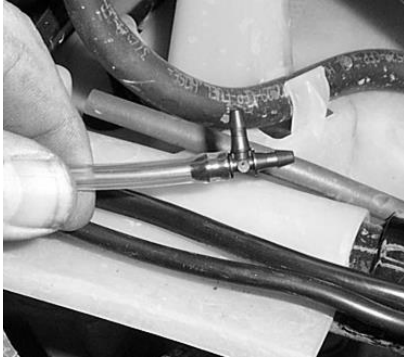
43. Connect to the end of the fan vent line the other end of the barb.



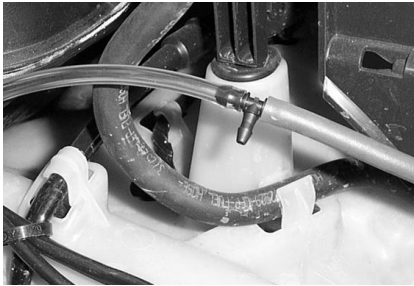
44. Now disconnect the front differential vent line from where it is connect to the frame. Insert into the end the 1/8" hose barb and connect the 1/8" ID - 1/4" OD hose to the barb. Now run the hose up along the frame near the gas take coming out on the top of the frame near the seat.



45. Once you have routed the line there, cut two 3" pieces off the line to use later.
46. Next route the rear brake vent line and the rear differential vent line up to the top of the frame near the seat.
47. Insert one of the 1/8"-T barbs into the front differential vent line.



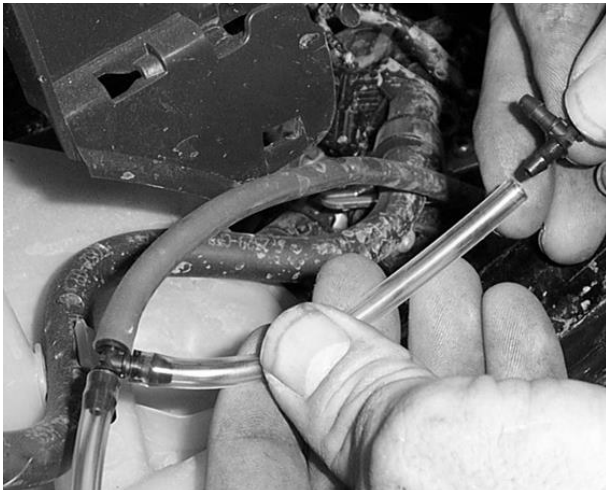
48. Connect to that T-barb the rear differential vent line.



49. Now connect one of the 3" pieces of 1/8" line to the barb.



50. Insert into the end of that 3" line the other 1/8"-T barb.



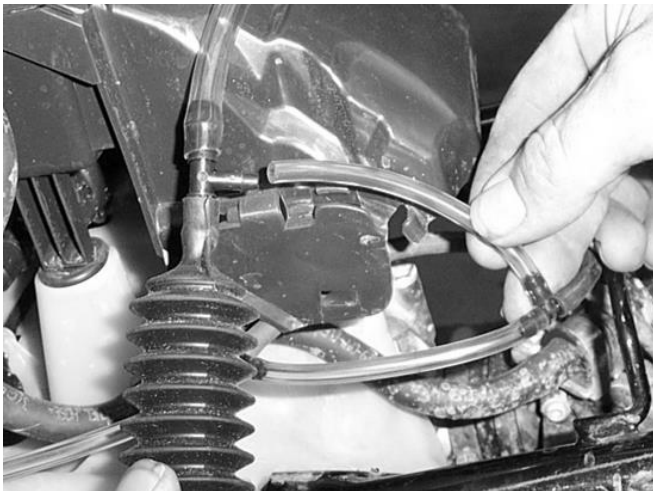
51. Next connect the rear brake vent line to the barb.



52. Connect the other 3" 1/8" line to the barb.

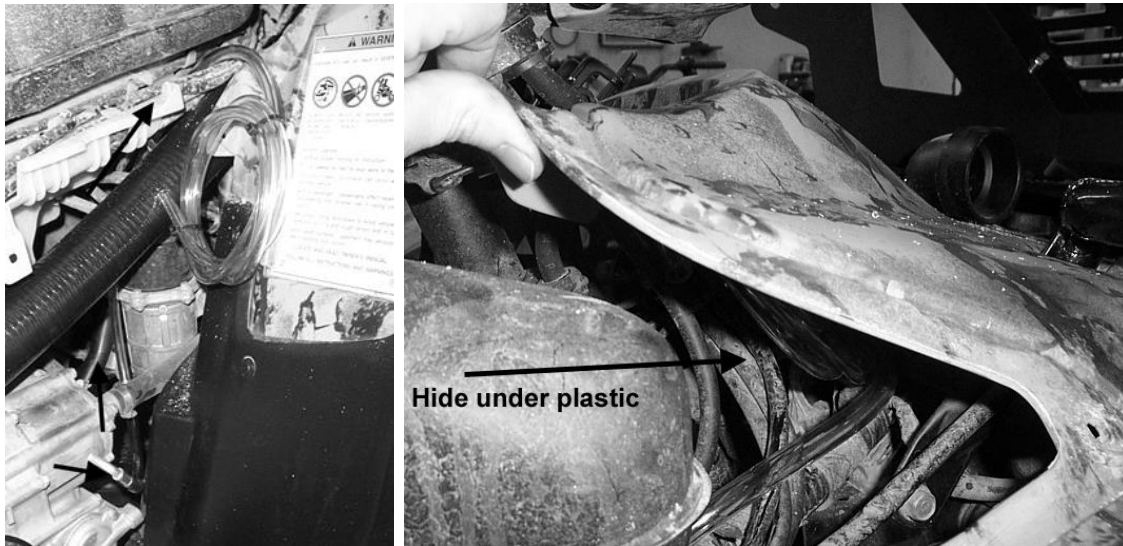
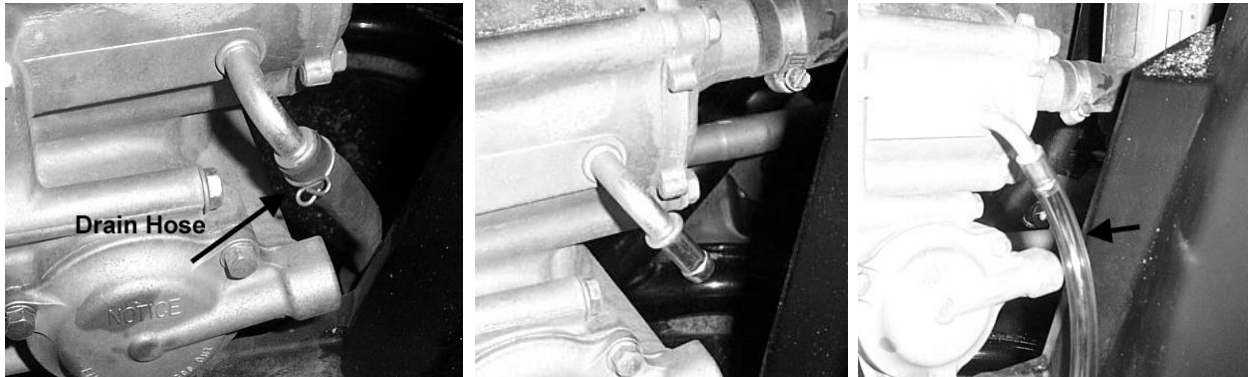


53. Now connect it to the barb that is connected to the bellows.

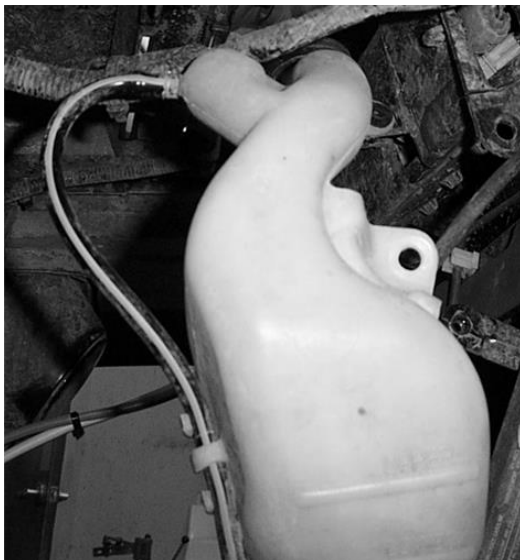


54. Locate the water pump drain hose located near the water pump on the front of the crank case cover. You need to remove the factory hose and replace it with the 5/16" hose provided in the kit. You need to roll the hose in a coil manner. Leave enough slack in the line so that you can insert it under the plastic beneath the handle bars. Secure the coils together with the zip ties and under plastic with the zip ties provided.

Maintenance Note: If this line gets water in it, uncoil and drain then recoil and place back under plastic



55. In the front of the ATV there is the radiator over flow bottle and overflow vent hose. You will need to extend this hose up to the top of the ATV.



56. Remove the factory hose and replace it with the 3/16" hose provided in the kit. Secure the line to frame with zip ties. Coil the hose, secure the coil with zip ties, but this time leave about 8" of the end of the line hanging loose. Place the coil hose under the front fender beneath the handle bars. Make sure that the 8" of line you left loose is pulled down below the coil. Secure the coils under plastic with the zip ties provided.

Note: The hose in the photos is clear and was changed to black for final production.

Maintenance Note: If this line gets water in it, uncoil and drain then recoil and place back under plastic.



57. On the top of the gas tank there is a vent line that you will need to relocate. Disconnect the vent line from where it is vented into the frame. Roll the vent line into a coil.

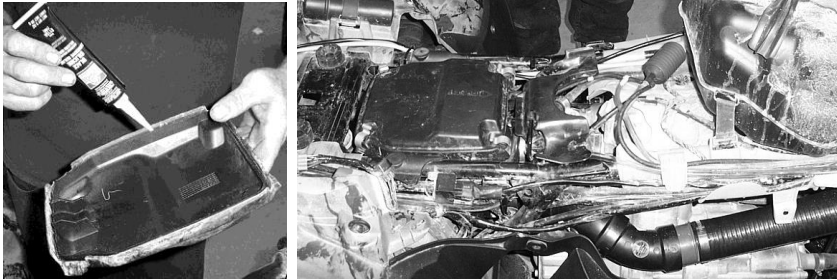


58. Disconnect the plastic pod cover on the handle bars and place the coiled vent line under the pod cover and secure it to the steering stem with zip ties. Make sure that you point about 4 inches of the vent line down.



59. The air box lid can be sealed in two ways. Silicone or Dielectric Grease. If you use silicone you may damage the air box cover if you need to clean your filter. We recommend either, just be aware of the potential for damage if you use silicone on the air box cover.

NOTE: If you use grease it will need to be checked often and resealed. The grease will thin as it gets hot from riding.



60. Make sure you have sealed everything and glued all fittings to include the flex hose ends to the black fittings.

61. Reattach all plastic covers and seat.

Thank You
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