






HIGH FLOW SUCTION TUBE

Before beginning the installation, review the parts below to make sure you have all the parts needed. If you are missing any of the parts you need, give our tech department a call at 317-421-3180.

PARTS LIST

| QTY | DESCRIPTION | PART NUMBER | IMAGE |
|-----|--------------------------------|----------------|--|
| 1 | 5/8 SUCTION TUBE | WAP109 |  |
| 2 | 1/2" FEMALE QC FITTING | FQC12S |  |
| 1 | 7ft 1/2" FUEL LINE | HS07 |  |
| 2 | 3/4-16 ORB to 1/2" QC FITTING | 08J2044-3/4UNF |  |
| 1 | 9/16-18 ORB to 1/2" QC FITTING | 08J2044916UNF |  |



SAFETY INSTRUCTIONS

LEARN TO RECOGNIZE SAFETY INFORMATION

This is the safety alert symbol. When you see this symbol in this manual, **BE ALERT TO THE POTENTIAL FOR PERSONAL INJURY!**

Follow recommended precautions and safe operating practices.



UNDERSTANDING SIGNAL WORDS

A signal word-**DANGER**, **WARNING**, or **CAUTION** is used with the safety alert symbol.

DANGER indicates a hazardous situation which, if not avoided, **WILL** result in death or serious injury.



WARNING indicates a hazardous situation which, if not avoided, **COULD** result in death or serious injury.



CAUTION indicates a hazardous situation which, if not avoided, **COULD** result in minor or moderate injury.



PRE-INSTALLATION CHECKS



WARNING: SUFFOCATION HAZARD! Immediately discard any plastic bags and packing materials to eliminate **CHOKING HAZARDS TO CHILDREN AND ANIMALS.**

The installation of your **high flow suction tube** can be made relatively easy by following the steps outlined in this manual, and:

1. Inventory the package components completely. Notify *PureFlow AirDog®* immediately of any parts missing or damaged.
2. Read the installation manual completely. Understand how the system operates and installation recommendations before beginning installation.
3. The installation recommendations contained herein are suggested installation guidelines only. Individual installations may vary.
4. If any installation procedure is uncertain, contact *PureFlow AirDog®* for technical assistance.
5. [When installing the PureFlow AirDog® high flow suction tube, be sure to keep the ORIGINAL ENGINE RETURN LINE connected as it is from the factory!](#)

SAFETY GUIDELINES!



WARNING

Please be sure to chock the vehicle's tires to prevent rolling.



WARNING

Please use proper supports when working beneath an elevated vehicle.



WARNING

Vehicle frame rails should not be drilled into or welded upon.



CAUTION

Wear safety glasses or shield when operating power tools such as drills and grinders or when using a punch or chisel.



CAUTION

Prolonged exposure to loud noise can cause impairment or loss of hearing. Wear suitable hearing protective devices such as ear muffs or earplugs to protect against objectionable or uncomfortable loud noises.



CAUTION

Use common sense when routing fuel lines. Keep them away from hot exhaust components and/or moving parts. Properly secure lines to prevent chaffing.

STEP 1. Either remove the bed or drop the tank for access to the collection basket.

This kit includes a *High Flow* suction tube (P/N WAP109) to accommodate the high flows of aftermarket fuel systems. To install the suction tube, it is necessary to either drop the fuel tank or to lift the truck bed.

NOTICE Should you choose to drop the fuel tank, support the tank as it is when it is installed on the truck. If you let it rest flat on the floor, the tank may squash out and the suction tube will be too short after the tank is re-installed in the truck. A suction tube cut too short may suck air as the fuel drops below 1/4 tank level.

WARNING: Failure to use proper jack stands while working under a vehicle may result in **SERIOUS INJURY OR DEATH!**

CAUTION: Failure to properly support the fuel tank upon removal/installation, may result in **INJURY!**



Figure 1



Figure 2



Figure 3

NOTICE

Should you choose to pull the pickup bed to access the tank. Be sure to disconnect the tail light wires, fuel tank filler tube, and any other accessories or components that may be secured to the frame and bed.



WARNING: Failure to use proper jack stands while working under a vehicle may result in **SERIOUS INJURY OR DEATH!**



WARNING: Failure to properly secure the bed while being removed/installed, may result in **SERIOUS INJURY OR DEATH!**



Figure 4



Figure 5

NOTICE

The fuel tank and truck bed used for the pictures are examples only and may not be exactly the same as your tank.

STEP 2. Once either the tank has been dropped or the bed removed, remove the collection basket as shown in figures 6 and 7.



Figure 6



Figure 7

NOTICE **IMPORTANT!** Select a location for the suction tube that has adequate clearance below the bed. Also consider that under hard acceleration, fuel will migrate toward the back of the fuel tank.

STEP 3. Select a spot to install the WAP109 draw straw. Be sure no bed supports or any cross members will contact the bulkhead fitting once the bed or tank is reinstalled. Drill a 1" hole using a step bit or hole saw in your selected location (Figure 8). Hold a container below the drill point to catch debris as shown in figure 9.

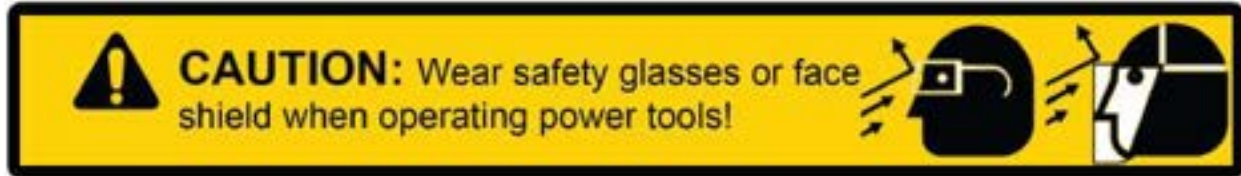


Figure 8



Figure 9

STEP 4. Remove all burrs from the edge of the hole as shown in figure 10.



Figure 10

STEP 5. Mock the suction tube in the fuel tank and measure from the top of the fuel tank to the bottom of the green seal (Figure 11). Take this measurement and add a 1/4 inch. Measure from the bottom of the tube and mark the previous measurement as shown (Figure 12). The added 1/4" will ensure the bottom of the straw is against the bottom of the tank once reinstalled.



Figure 11



Figure 12

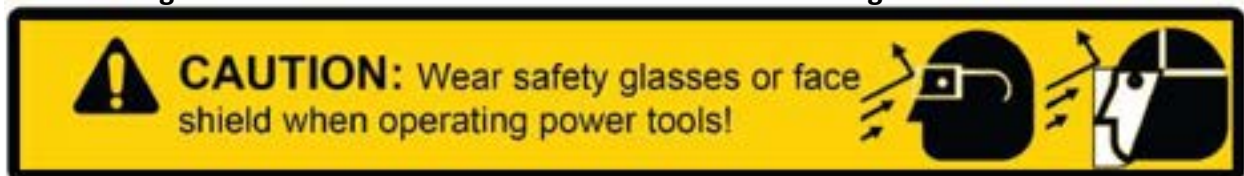
STEP 6. Drill crossing pilot holes through the nylon tube, centered on the marked line, as shown (Figure 13). Use a larger bit (1/2" MAX) to open the holes up (Figure 14).



Figure 13



Figure 14



STEP 7. Cut the fuel tube to the measured length (Figure 15). Deburr the tube (Figure 16) to ensure no debris is pulled into the fuel pump.



Figure 15



Figure 16

STEP 8. Install the trimmed WAP109 into the previously drilled hole in the tank and orient it in the desired direction (Figure 17). Make sure the bottom of the straw is contacting the bottom of the fuel tank. Install the hardware in this order: washer, lock washer, nut. Tighten the nut with a 1.5" wrench or adjustable wrench till snug (Figure 19). (Tank Cutaway is for reference. Access to straw is through module hole.)



Figure 17



Figure 18



Figure 19

STEP 9. Re-install the fuel module. Re-install the factory return line (The smaller of the two lines) to the proper port of the fuel module before the tank or bed is fully re-installed.

NOTICE

The factory engine return line **MUST** be reconnected to the fuel module! The factory engine feed port can be capped off with a vacuum cap.



Figure 20

STEP 10. This kit comes with a quick connect fitting that is already installed in the suction tube. Take one FQC12S, lubricate the barbs with oil, and press it into one end of the HS07. When properly assembled, none of the barbs should be visible. Once this end is assembled, push the quick connect fitting on the fitting in the draw straw until a "CLICK" is heard. This indicates the fitting is properly installed.

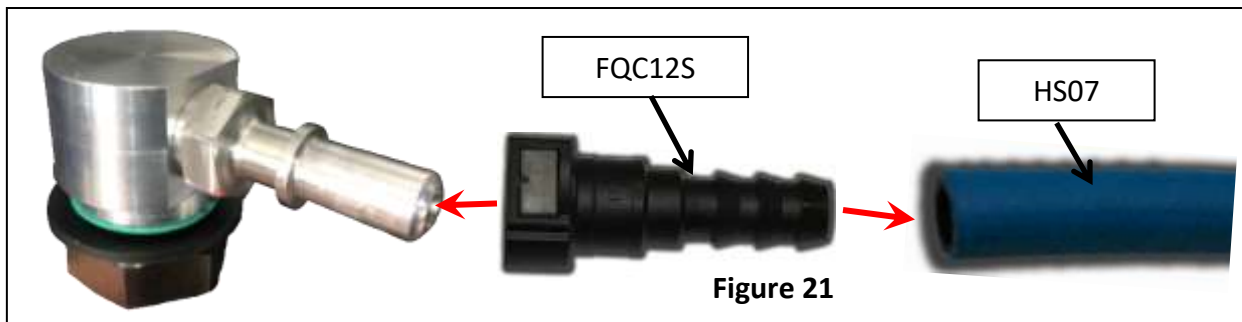


Figure 21

STEP 11. If the fuel tank was dropped to install the suction tube, re-install the fuel tank. If the truck bed was removed, reinstall the bed. Be sure the fuel line is not pinched or rubbing on any “sharp” edges.

STEP 12. Once the tank is installed, route the other end of the fuel line along the frame. **Keep the fuel line away from any moving or hot parts such as drive shafts or exhaust.** Once the line is routed, cut the fuel line to length. Use the other FQC12S, lubricate the barbs, and press it into the end of the fuel line. Same as before, make sure the barbs are not visible.

NOTE: This kit comes with two different 1/2" make quick connect fittings to be installed in your fuel pump. Choose the correct fitting for your pump. If it is an O-ring fitting, make sure the O-ring is not visible once threaded.

Once the fitting is installed in the pump, press the female quick connect fitting onto the male end until a “CLICK” is heard. This indicates the fitting has been properly installed.

This concludes the installation of PureFlow AirDog’s High Flow Suction Tube Kit. If you have any questions or concerns, please give us a call at **317-421-3180** and speak with our tech support.

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