

Installation instructions: Standard Trunkmount kits Gasoline and Diesel Engines

150 PSI pump version and 250 PSI pump version



Contents

Components	2:1
Overview	2:2
Tools Required	2:3
Tank/Pump/ assembly	3:1
Mounting Tank Assembly	4:1
Boost switch details	4:2
Boost switch wiring	5:1
Wiring the fuse	6:1
Injector Installation	7:1
Installing The Hose	7:2
Maintenance	8:1
Status Monitor Option	8:2
Testing the System	8:3
Priming The system.	8:4
Contact Us	8:5
Disclaimer	8:6

NOTICE:

Read entire instructions before beginning your installation. Failure to properly install your kit could result in damage to the parts or your vehicle. If any of these instructions are unclear, contact us at <u>info@coolingmist.com</u> so we can address your questions.

2:1 Components List: 2:3 Required Tools: 1 1.5 Gallon Trunkmount tank - Drill (Electric) - 11/32 drill bit 4 1 and $\frac{1}{4}$ inch 10/32 screws 1/8th drill bit 5/16th drill bit 2 90 DEGREE plastic QUICK FITTING Coolingmist pump 1 - Wrench (adjustable) Metal Checkvalve ¹/₄ NPT F ports 1 - Wire Cutter - Phillips Screw driver 2 ¹/₄ male to ¹/₄ Hose checkvalve Quick Connects 1 $1/8^{\text{th}}$ NPT male to $\frac{1}{4}$ Hose Quick connect 1 15 foot NYLON WHITE hose (FLUID LINE) 1 90 degree injector holder $1/8^{\text{th}}$ F ports 1 Sized Injector 1 Boost Switch 1 vacuum tee with 1 foot of vacuum hose 4 die cut aluminum base plates for the tank 4 #14 flat head $\frac{3}{4}$ inch sheet metal screws 1 15 foot 16 gauge red or black wiring. fuse holder 1 fuse. 1 Note: THE 150 PSI PUMP version and 250 psi pump version may have slightly different fittings.

2:1 Overview:

The Standard Trunkmount Kit is a very special kit from Coolingmist. This kit has become so popular due to its ultra compact design, super ease of install, portability and performance. The pump is bolted to the tank which makes install and removal easy

We appreciate your purchase. Please read these instructions completely to understand the installation.

3:1 Tank Assembly

Set the pump on the tank aligned with the 4 screw holes in the tank. Install the fittings as shown. The pump below is our 150 psi pump. Notice how the fittings go together. Place the small barb fitting directly below the inlet fitting from the pump and mark this area. This area you will drill



You can use a drill to screw the tank tap in.



After you install the barb fitting into the tank with the drill, remove the fitting by reversing the drill and cut a 7 inch section of hose and insert into the bottom of the fitting just as shown. No glue or tape is required. Now install the fitting by inserting the hose in the tank and tightening the fitting by hand. Once its hand tighten you can use a wrench to completely tighten. This hose is a pickup tap that keeps the system from drawing in air and allows you to use almost the entire tank before filling up.



This shows the 250 psi pump and shows the final installation. You must cut about a 1 inch section of the clear hose and put in the black 90 degree fitting and then connect to the barb as shown. Placement of the barb differs based on the pump.



Insert the screws into the 4 bushings on the pump. The screws should stick out the bottom about $\frac{1}{4}$ inch.



Install the pump to the tank, Very simple, just put the screws over the taps on the tank and tighten with a screwdriver

Installing the checkvalve is simple, you can put it at the injector or near the pump. If you choose to install at the pump, make sure the arrow points toward the injector and install like this:



4:1 Mounting the 1.5 Gallon Tank.

Step 1: Find the location that you will mount the tank. On the side of the tank you will see an indentation for the straps. Take your 4 anchor plates and place them with the shorter Slotted side down, they will be UNDER the indentation where the straps go. Mark this area with a marker. Do this for all 4 anchor plates. This picture shows you 1 side of the tank. Once you have marked the area, drill with a small drill bit ($1/8^{th}$ or $\frac{1}{4}$). Using the #14 pan head screw, you can now secure the anchor plate to your vehicle. Do this for all 4 anchor plates.



Step 2: You can now connect the straps. The "hook" on the strap goes into the round cut out on the anchor plate. The straps will stretch. Caution: Make sure you have the hook securely attached to the anchor plate and the anchor plate is securely attached to your vehicle before you stretch the cord.



4:2 Boost Switch Details

There are 3 ports on this Boost switch. NO (Normally Open), NO (Normally Closed) and COM.

WARNING: the port that is labeled "NOT USED" is the NC or normally closed. You will not use this under normal operations. When the key to the vehicles is turned on, this pin has 12V power (until you hit boost). That is the pin used for testing only. We will discuss the testing later.

In the picture below, the NC port (bottom port) is the Normally Closed port. DO not use that port. The RED wire with the fuse holder will be connected to the COM Port. You must crimp one of our blue connectors onto the end of the fuse holder wire and connect to the COM port. That wire connects to your switched ignition (KEY ON POWER).

The port directly below that is our NO or Normally Open port. This port only gets power when your adjustment threshold has been met (10 psi from default, adjustable from 1-25 psi). There is a red wire that comes off the side of the pump that has no connector on it. That wire connects to the NO (Normally open port). See the picture in 5:1 for details on the of the pump.



Adjusting the boost switch is simple. Use a 5/64 hex wrench on the top of the pump. From us the switch is set to activate at 10 PSI. You can adjust the system to inject between 1 and 25 PSI. Turn clockwise to make the unit come on later, counter clockwise for the unit to come on sooner. The boost switch is not labeled, so you don't know the PSI you are setting. To be sure, you can either install an LED into your vehicle and see the PSI its activating, OR you can take the boost switch and tee in a pump and a simple tire pressure gauge. When you use the pump the boost switch will click, when you hear that click look at the tire pressure gauge and you will see the PSI its set at. While the switch is adjustable from 1-25, once you go past 25 PSI, the unit will be activated (It does not turn off when you pass 25 psi)

5:1 Wiring the pump/boost switch

Please note the wiring diagram below. We show a picture of a regular tank, but the rest of this diagram is accurate.



6:1 INSTALLING THE FUSE

Kits sold after oct 1, 2010 have our new style fuse holder. This fuse holder is the most robust choice. Due to its sturdy construction its not going to come apart or crack or break. Installation is easy. For this kit follow steps 1 to 6. In step 1 we put the metal clips in each side of the fuse holder, step 2 does nothing more than show you how they go together. In step 3 shows you the fuse inserted. In step 4 once you align the glass fuse press the 2 ends together (this takes some strengh). Once they are pressed together, you crimp the wire on each side like in step 5. When done, it will look like step 6. Step 7 is not applicable to this kit. To replace the fuse later, just pull apart. You will not need to re-crimp the wiring.



7:1 INSTALLING THE INJECTOR

Pictured below Coolingmist Outside thread Injector and quick disconnect fitting



The injector is 1/8th NPT. If you have an intercooler we recommend to place between the intercooler and throttle body. Never place prior to the turbo. If you have a roots style supercharger its acceptable to place prior.

Drill your intake with 11/32 drill bit and then tap with $1/8^{\text{th}}$ NPT (27 threads per inch). The injector will then screw in. If you run multiple injectors space the injectors a minimum of 6 inches apart for best performance.

The picture above shows the quick connect fitting connected to the injector. You get only 1 quick connect fitting unless you ordered the dual nozzle upgrade. Unless you have dual carbs, dual throttlebodys or more than 1000 HP you should not need multiple nozzles.

The Standard Trunkmount System comes with 1 nozzle unless you ordered a dual nozzle system.

For Stage I Diesel Kits you are provided with 1 tee and 4 nozzles. The larger nozzles are 12.2 GPH each, the smaller nozzles are 6.2 GPH each. You will most likely need to use 2 of these nozzles.

We provide different sizes due the different power levels that certain vehicles have.

7:2 Installing the Hose

Nylon Hose Installation

You will need to route your hose from the checkvalve to your injector. The $\frac{1}{4}$ NPT to $\frac{1}{4}$ Hose connects to the end of the checkvalve. Just and tighten and then $\frac{1}{2}$ turn with a wrench. The fitting has a rubber o-ring that prevents leakage. The hose just pushes into the fittings. Make sure the hose is cut straight. To remove the hose, just push in on THE METAL clip and then pull the hose at the same time. Please note the hose is our new clear hose.

Route the water hose from the checkvalve to to the engine bay. You will need to route the vacuum hose (discussed in 5:1) to your vacuum source as well. You will need a tee to connect to your vacuum hose unless your engine has a free vacuum port, in which case you can put the hose directly over that port.



Stainless Steel hose Installation

You will need to route your hose from the checkvalve to your injector. The $\frac{1}{4}$ NPT to $\frac{1}{4}$ Hose connects to the end of the checkvalve. Use the provided Teflon tape for all the threads on the stainless fittings

Route the water hose from the checkvalve to to the engine bay. You will need to route the vacuum hose (discussed in 5:1) to your vacuum source as well. You will need a tee to connect to your vacuum hose unless your engine has a free vacuum port, in which case you can put the hose directly over that port.

Cut the hose as shown in the picture below. Notice the hose is cut very clean and the Teflon hose sticks out about $\frac{1}{4}$ inch around the stainless.



Next, put the bottom part of the fitting on the hose and the small tapered part over the Teflon. It should look like the picture below



Finally, take the last part and insert the brass tube into the hose. Be careful to make sure the small tapered part is still sealed over the Teflon. Screw the two fittings together, making sure the bottom fitting does not dislodge the small tapered piece. Once you are done it looks like below. Try to pull apart, it should not come apart.



8:1 System Maintenance and Fluid

Checking for clogged nozzles and keeping the tank full are the only real maintenance requirements for the Standard Trunkmount systems. Do you use any type of lubricant. Our systems are compatible with Methanol, Denatured Alcohol and water. Use caution when using a flammable mixture. Coolingmist is not responsible for engine fire or damage caused by the use of a flammable mixture.

8:2 Optional Status Monitor

The Status Monitor is an optional component that can tell you if your jet is clogged (single jet systems only) and tell you if the system is flowing. This system does not come with an LED, but wiring is simple. One end of your LED gets 12V power, the other end goes to the NO port of the status monitor. The COM port gets a ground. When you start spraying the led will light up. If the led is lit up and you are not in boost, you have a clog. The setting on this device should be left at default. If you moved it, move the setting to the 20 mark as close as possible.

8:3 Testing the system

Testing your Standard Trunkmount kit is simple. Once everything is installed do the following:

- 1) Make sure you are running 100% water and remove the injector from the vehicle, but make sure its connected to the hose.
- 2) Turn the key to the ON position
- 3) Looking at sections 4:2 and 5:1 you will see the NC port. Take the red wire that is connected to the NO port (middle port) and move that to the bottom port (NC). Once you make contact the system will begin to inject. The first time it may take 10-15 seconds to prime. After it primes, injection should be instant with no delay.

8:4 Priming the system

To Prime the system the first time follow procedures in 7:1.

We recommend not running out of water with this kit. A 1.5 Gallon tank will last a long time, you should check water level from time to time. Running out of water will not hurt the system, however in some situations it could cause a loss of prime. If you have a loss of prime, simply unscrew the checkvalve from the 90 degree adapter and screw it back on. This will allow the system to reprime.

Please note: The above instructions are only to be followed if there is an actual loss of prime due to running out of fluid. Its rare that running out of fluid would cause a loss of prime, but it is possible.

8:5 Contact US

On the web: <u>www.coolingmist.com</u> Phone 888-MORE-HPW.

8:6 Disclaimer

All kits are covered for a period of 1 year under coolingmists limited warranty.

Not covered under warranty are:

- · abuse
- neglect
- · opening electronic enclosures
- Removing original labels
- · clogged nozzles
- · cracked tanks due to freezing (and not Using alcohol)

7:5 Warranty

Coolingmist is not responsible for damage to your vehicle as a result of failed component or improper installation. Always check to make sure your system is operating correctly. Double check all the wiring and installation prior to starting the system.