



Overkill Water/Methanol Injection Kit Installation Guide

Thank you for purchase of the Overkill system. This will help guide you through the installation on a 2010-2015 Camaro5 3.6 model.

A quick overview again on what the system is and will do. The idea of water/methanol injection is to improve the octane level and cooling of the supercharger boost to allow you to suppress existing spark knock retard, and/or run more boost than you currently are. It also provides some supplemental fueling to the direct injection system, since we're injecting a secondary fluid into the engine.

The system will only activate above 2-3psi of boost pressure, which typically will be above 3500rpm at full throttle, it will not run under normal driving situations or cause any issues in this regard, so if you encounter drivability issues check over your installation carefully!

The system is designed to work with 50/50 water/methanol but can be run all the way up to 100% methanol, just like hand sanitizer, a 2/3 or 70% mixture of methanol to water seems to perform the best. You can get premixed 50/50 water/methanol from suppliers like Devil's Own or Snow Performance, if you live in northern climates you can also get washer fluid that's heavily formulated with methanol such as Turbo Boost -40°C washer fluid which has 40-50% methanol according to the manufacturer (commonly found at Home Depot here in Canada). If purchasing washer fluid, you should check the manufacturer's safety datasheet (SDS or MSDS) which will often tell you the methanol % content. Pure methanol can be purchased from local chemical supply stores, check your area. My suggestion is keep it simple, find what works best for you and stick with it!

If you run out of fluid in the reservoir and the pump stops spraying, you do risk engine damage, so don't take running out of fluid lightly, check its level constantly until you get a gauge on what interval you need to top up the fluid. If you're out of fluid, don't drive hard on the throttle until you can refill.

Step1: Mount the Pump

Refer to your Overkill Supercharger installation instructions on how to remove the front bumper, or at least just move it out of the way on the driver's side.

The pump is going to mount where the horn on the driver's side is located.



Remove horn and its bracket, unplug and set aside for now. The U shaped bracket will mount to the frame securing the clamp inside it, while the pump slips through the clamp itself; there's adjustability there to slide the pump up and down to get the pump in the position you want it.

Few things to keep in mind while installing:

- 1) The pump will need install with the fittings at the top, the straight fitting faces towards the middle of the vehicle and needs clearance over the frame rail, so mount it high enough to clear its fitting but low enough for clearance from the headlight
- 2) Contrary to the prototyping photos, the horn is going to mount to the threads on the clamp once the pump is tightened down, so you'll want to orient the clamp that secures the pump so that the horn fits nice with clearance.

Test fit and determine where the pump best fits, and note/mark the position of the U bracket. Remove the U bracket and clamp from the pump, place the U bracket on the frame and mark the holes to make; use the included M6 drill bit and tap to make two holes, then ensuring the clamp is slipped into the U bracket first you can use the two included M6 bolts to secure the U bracket to the frame. The clamp will be secured inbehind the U clamp.



Now slide the pump into the clamp to the position you had test fit and secure the clamp, the pump should now be safely secured.

Remove the horn from its black steel bracket by loosening its mounting nut. Look for the hex shaped long spacer/nut in the kit, thread this onto the stud on the back of the horn and secure, then thread the other end of the nut onto the threads of clamp that have been exposed by tightening down to secure the pump. Plug the horn back in.

Step 2: Connect the tubing from washer reservoir to the pump inlet

Remove the washer reservoir used in the Overkill kit. The self-sealing fitting included needs a 7/8" hole drilled in the reservoir, and included is a 7/8" spade bit which works well on plastic. Locate the nice flat spot on the underside of the tank directly below where you see through the cap opening; drill straight and true to make a clean 7/8" hole, deburr and clean up any stray plastic on the edges as needed. Some WD40 or jelly on the rubber is a good idea while you insert the fitting through the hole and use a crescent wrench to snug and secure the fitting. Put some water in the reservoir and ensure no leaks before reinstalling on the vehicle.



Reinstall the washer bottle loosely as you'll be using its mounting points for the wiring in Step 5. Use the included nylon line to measure up how long a piece you need to connect to the pump inlet; the right angle fitting on the pump is the inlet and this will go to the tank fitting you just installed. Use a sharp razor blade or a sharp box cutter to cut the nylon hose, do not use scissors which will flatten the end while you cut, the idea is to cut the hose cleanly without compressing it. Push into each end into its fittings to secure.



Step 3: Mount the pressure switch

The pressure switch activates the system using boost pressure reference and is designed to mount on the passenger's side of the engine over an ignition coil. Remove a 10mm bolt from one of the ignition coils, middle or front suggested. The rubber round clamp goes around the body of the pressure switch; grab the included longer bolt, slide it through the clamp's holes, and then through the included standoff spacer which will space the pressure switch up above the coil, and with the vacuum fitting facing forward you can secure to the ignition coil's mounting bolt location.

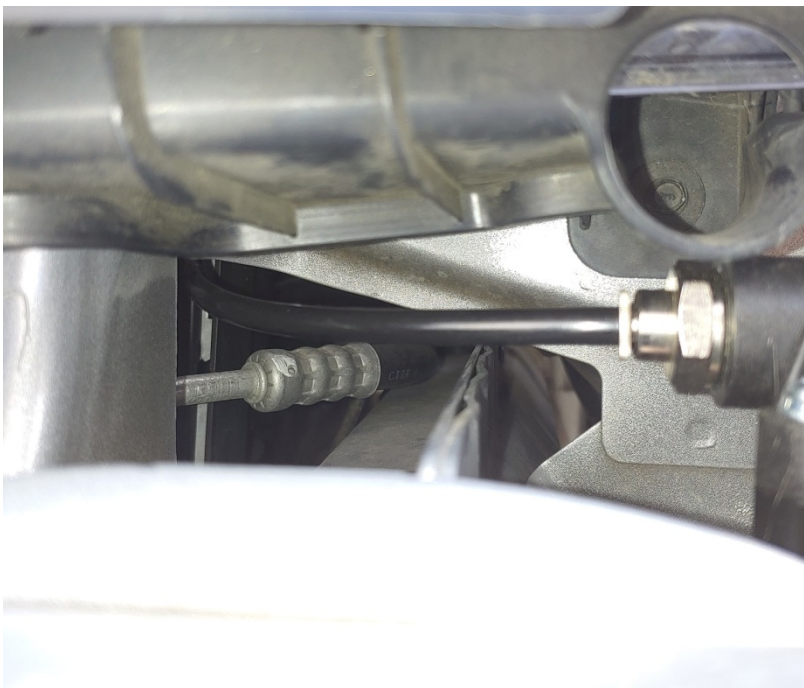
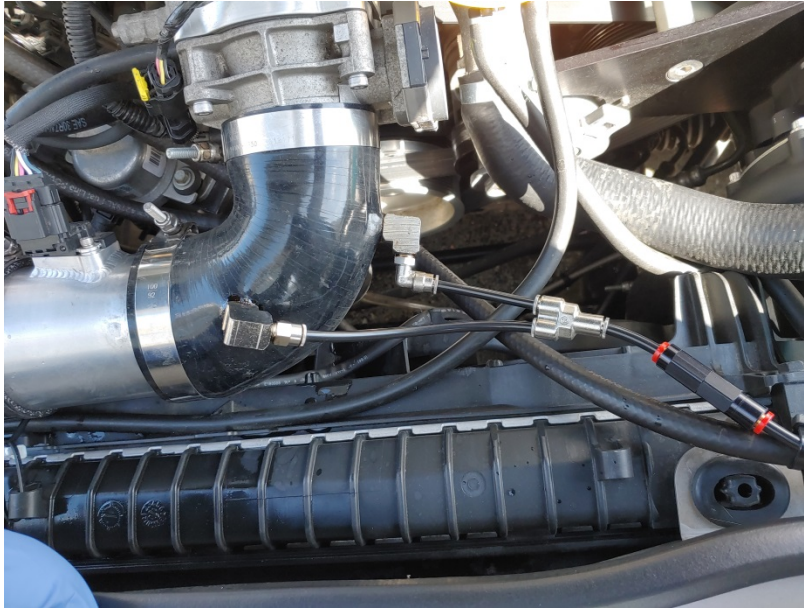


Tie the pressure switch into the BOV vacuum line. Use the included T fitting and hosing to tee into the BOV line and run to the barb fitting on the pressure switch.



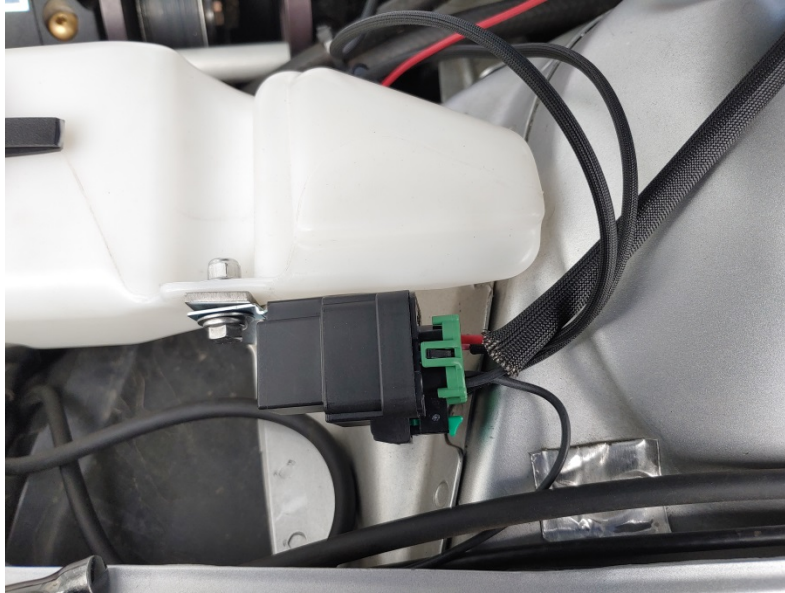
Step 4: Install the new nozzled elbow

This is the easiest part of the installation. All the nozzles come preinstalled into a new elbow that replaces the elbow from the MAF sensor to the throttle body. Simply remove the old elbow, and install the new one in its place; don't clamp it down yet, you'll be temporarily removing it for Step 6. Take the included nylon line again, and measure what you need to connect the nozzle assembly to the pump outlet, use the sharp razor to cut to length and make the connections.



Step 5: Make electrical connections

The relay harness included is designed to mount where the air filter box mounted and connect to existing power and grounds. First loosely mount the relay over the stud that the small 90° washer bottle bracket mounts to, you can also connect it higher up on the bottle as pictured.



Connect the ground black wire to where the Z-angled reservoir bracket attaches to the fender above the headlight (remember there used to be a ground stud there from factory).



Connect the power wire beneath the nut on the power cable terminal on the driver's side strut tower.



Back in the fenderwell, plug in the pump. The longest section of wire, run it over the engine in a neat fashion to the pressure switch; unplug the coil terminal closest to the pressure switch you mounted, plug the inline connection but leave the connector for the pressure switch unplugged for the moment, you'll plug it in to complete the install after we prime the system.



Step 6: Prime and test the system

Reconnect your main battery. You're going to prime the system first and test to ensure it all works. I suggest you grab yourself a bucket to place the nozzled elbow in as the nozzles will be spraying water/methanol that you don't want sprayed in your direction, however for test purposes only you could put just a little bit of water only in the system and the spray won't be harmful. Remove the nozzled elbow and have it somewhere that you can see the nozzles spraying. Have the reservoir filled with either the methanol mixture or a little bit of water only for reasons described. Turn the ignition on, do NOT start the engine. Use a paperclip or some wire to jump the pressure switch pump connector terminals to power the pump, and you should hear the pump faintly run. It may take a little time of pump running to pressurize the system, you can hold for 15 seconds and then release for 15 if you wish so as not to run the pump continuous, but the end result is you'll want to see the fluid spray from the nozzled elbow and no nylon lines blown off their connections. The system will now be primed and you can be assured that it's working. Again be safe with this and don't spray yourself with methanol.



Step 7. Complete the install

With the system primed and tested, you can now install the nozzled elbow for good. Plug the pressure switch electrical connection in. Fully secure the washer fluid reservoir with your injection fluid if you haven't yet. Reinstall the front bumper and finish up the installation. Install the Overkill tune that works with this methanol system.

