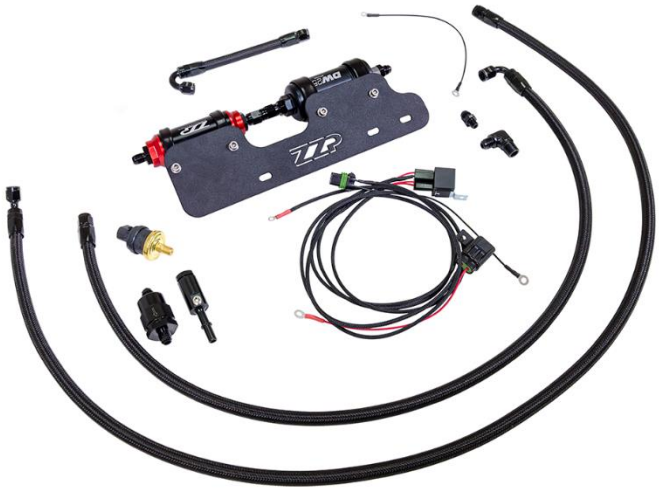
ZZPERFORMANCE

Installation Instructions

ZZP Auxiliary Fuel Pump Kit

LTG 2.0 Cadillac ATS/Chevy Camaro/Cadillac CTS



Estimated Installation Time: 2 hours

Installation Difficulty: 2/5

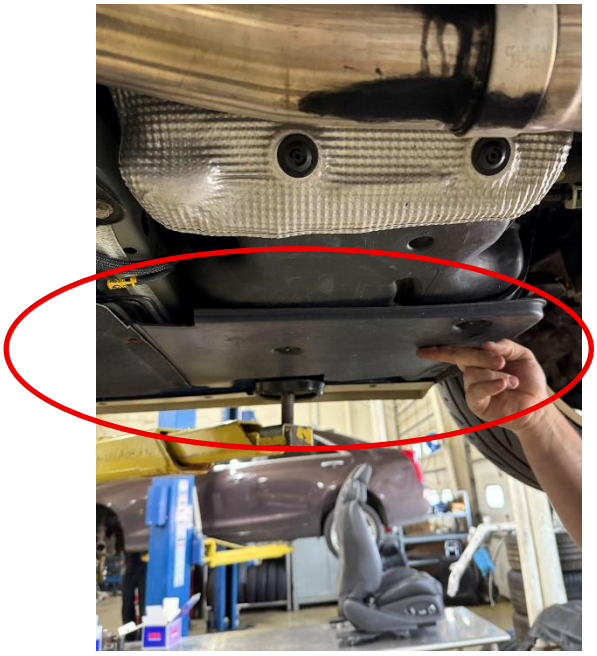
Kit Contents:

- Aux pump mounting bracket
- AN fittings
- In line fuel pump
- In line fuel filter
- Check valve assembly
- AN fuel lines
- AN fittings and adapters
- Hardware
- Fuel pump harness
- Hobbs boost switch

Tools Needed:

- Socket set
- Ratchet
- Drill
- 9/16” or 15mm drill bit
- Step bit
- Adjustable wrench or AN wrench set
- Allen keys or sockets

Before starting installation, please read instructions fully and thoroughly to understand each step.



STEP ONE: Prepare for installation

- Since we are working with fuel system components it is always a great idea to disconnect your negative battery terminal before starting install.
- Move underneath the car, as this is where we'll be beginning the auxiliary pump installation and gas tank modification.
- Jack up the car and place on jack stands or properly rack the car on a lift.
- Once up in the air remove the plastic undertray and fabric/plastic dust shield on the passenger side of the car that runs towards the engine. These are undone by pop clips and a few 10mm bolts.
- Pull the silver heat shield down slightly to view the mounting holes.

STEP TWO: Prepare for installation

- Our filter and pump bracket will be mounting to the frame rail up towards the engine bay.
- You will be using the first and second threaded holes (counting from the engine bay back towards the fuel tank) to mount the bracket.
- Using scrotchbrite or a grinding wheel clean up the paint on the rail by the second threaded hole, our pump will be grounded here later on.

STEP THREE: Mount bracket assembly and attach first line

- Using the hole you cleaned in step two, and the provided bolt, mount the bracket assembly to the frame. The pump and filter are fitted to the bracket at ZZP, but it is never a bad idea to double check that everything is tightened and oriented correctly. No need to fully tighten as we will be loosening the bracket later on.
- Make sure to line up bracket with secondary bolt hole.
- Once you have the bracket assembly mounted you'll attach the short AN line with the check valve to the pump outlet (as pictured). Verify the arrow on the check valve is pointing towards the fuel tank.
- Tighten fitting at pump outlet.

STEP FOUR: Begin installation of fuel line adapter

- We will be removing the stock plastic line that runs from the tank to the main metal fuel line (marked with the yellow fuel tag). This line should have a blue quick connect but color may vary by year/model.
- Remove clip on the quick connect.
- Using a pick tool or small screwdriver depress the button on the opposite side of the connector and fully disconnect plastic line from metal line.
- Fuel will leak.

STEP FIVE: Install fuel line adapter

- Our fuel line adapter is the AN quick connect with the threadable screw on the end and the AN fitting on the side.
- Remove end cap and slide fitting onto the line. Reinstall end cap and tighten.
- Clip stock fuel line onto the end.
- Fully tighten end cap onto adapter.

STEP SIX: Run fuel line #2

- Our second fuel line is the longer AN line with the 90° fitting on one end and the straight fitting on the other.
- This line will run from the check valve on the pump outlet to the fuel line adapter we just installed.
- Attach line to adapter, then attach to the check valve assembly.
- Fully tighten both fittings.

STEP SEVEN: Drill and install fuel tank fitting

- We now have to drill into the fuel tank to install our NPT 90° fitting.
- We recommend running the tank down as low as you're comfortable beforehand to avoid excess fuel loss.
- A **9/16"** or **15mm** drill bit is required to drill the tank. You may find having a step bit on hand to slightly enlarge the opening can be handy.
- There is a low and flat casting mark on the passenger side corner of the tank, this is our preferred location.
- Mark the spot and use a punch if desired
- Drill your hole, it is a dual layered tank.
- Start to thread your 90° NPT fitting into the tank, if you cannot get it started this is where the step bit may handy.
- **Use caution to not drill the hole too large.**

STEP EIGHT: Install tank fitting continued.

- Thread the NPT fitting fully into the tank. Since it is pipe thread you will feel it get tight.
- Cadillac ATS: You will want the fitting to be facing 90° towards the driver side of the car (pictured to the right).
- Chevy Camaro: You will want the fitting to be facing 90° towards the passenger side of the car.
- The fitting should seal on it's own, however a small layer of GM grey adhesive around the opening and on the threads is a great extra layer of protection. Clean application area, apply, then let fully dry.

STEP NINE: Install fuel line #3

- Our last fuel line will be the longer line with the 45° fitting on one end and a straight fitting on the other.
- Connect the 45° fitting to the fuel tank fitting and the other to the fuel filter.
- Tighten both fittings. Make sure to use 2 wrenches on tank fitting to fuel line connection (one on each fitting).

STEP TEN: Route and tuck lines

- Double check all fittings are tight and secure.
- Once done you can now route your lines as desired and zip tie away.
- The lines and assemblies will be mostly, if not all, completely covered by the dust shields/undertrays. See photos for placement (ATS pictured). **Camaro line routing/tuck shown in step 24.**

STEP ELEVEN: Route and tuck lines cont.

STEP TWELVE: Begin topside installation

- We'll now move up top for the wiring harness and boost switch installation.
- As stated our Aux fueling kit or throttle body spacer is required for installation.
- The throttle body will need to be installed upside down (if not done already).
- **Follow the next few steps to extend your TB wires. If not needed, skip to step 17.**

- Remove stock charge pipe or ZZP IC coupler from throttle body.

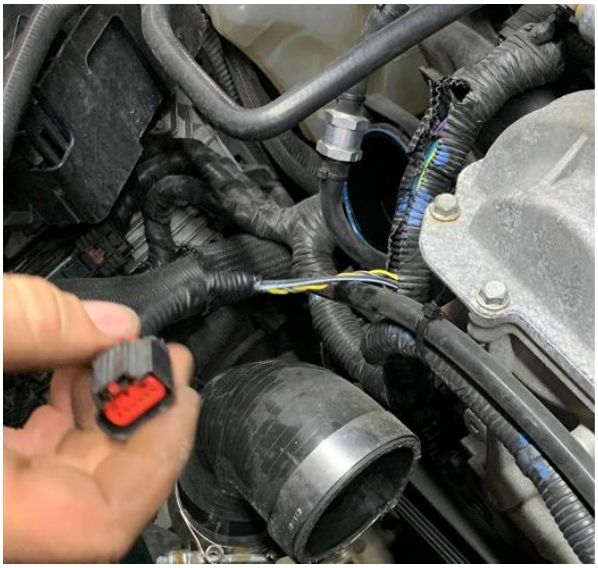
- Unplug and remove throttle body from intake manifold.

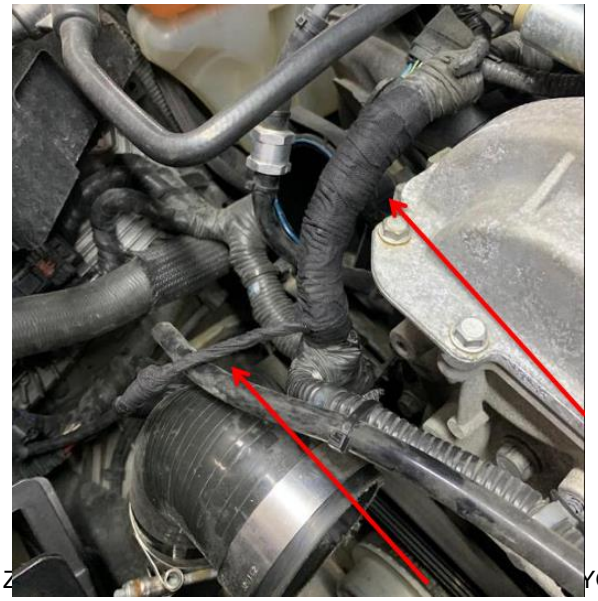
STEP THIRTEEN: TB wiring

You will next need to carefully cut and pull the throttle body wires out of the loom shown. You can do this by gently cutting the loom straight down and pulling the TB wires out. BE CAREFUL not to cut any wires.

STEP FOURTEEN: TB wiring cont.

Pull the throttle body wiring out enough to expose about 6” of the exposed wiring. You will then want to wrap these wires with tape to protect them and to close up the loom you cut. We suggest using automotive tape or hockey tape.





STEP FIFTEEN: TB wiring cont.

Your wires should now look like the ones pictured.

STEP SIXTEEN: TB wiring cont.

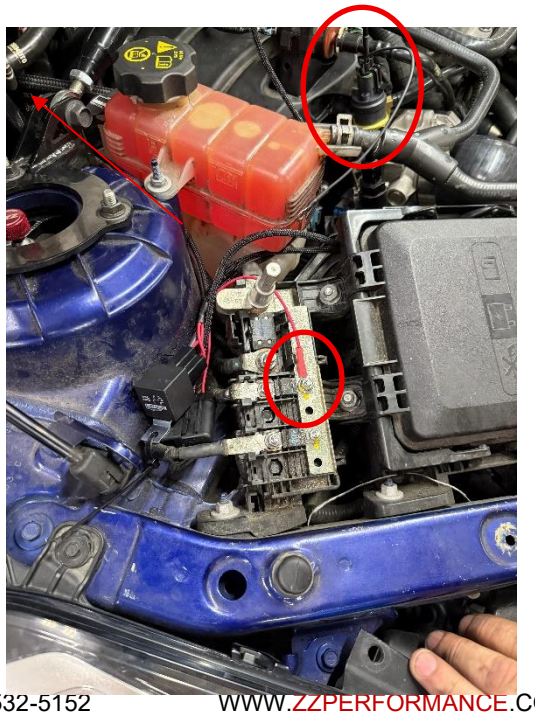
The throttle body will attach to the TB spacer upside down with the plug on the bottom. Attach the throttle body and spacer to the engine using the (4) M6 bolts. You can now plug back in the TB harness. Reattach and tighten the coupler (or charge pipe) and clamp.

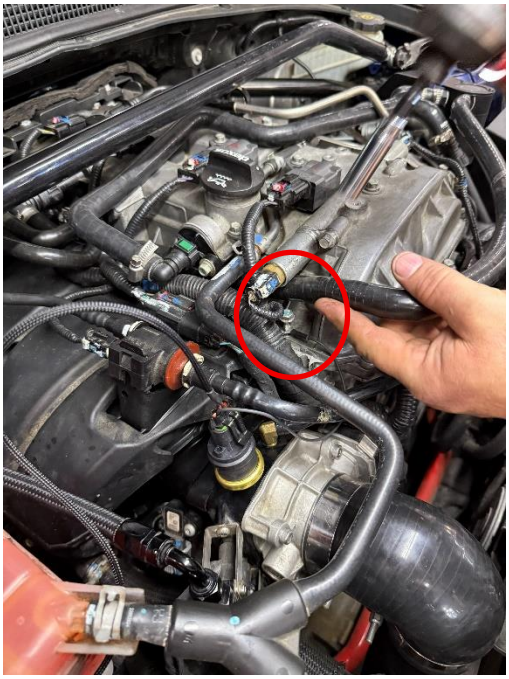
STEP SEVENTEEN: Install boost Hobbs switch

- We will need to use one of the two NPT fittings on our throttle body spacer or Aux fueling spacer to install the boost switch. Choose whichever is open or more convienant. Remove NPT plug.
- Thread in boost switch, using teflon tape or loctite to secure, and tighten down.

STEP EIGHTEEN: Install wiring harness

- Remove the small secondary fuse/power distribution block cover behind the main box.
- The main wiring harness will connect as such:
    - Long power (red) lead will run down to the pump. Route it down the firewall towards the bottom of the car.
    - Plug with green gasket will run over to the hobbs switch and plug in.
    - Small power (red) lead can be connected to the distribution block (shown to the right).
    - Ground wire can be grounded to valve cover/engine (shown in step 19).
    - Once all plugged in/connected you can tuck it out of the way behind the distribution block.





STEP NINETEEN: Wiring harness cont.

- Ground location pictured.
- Going back underneath the car retreive the power lead and feed it down towards the pump. We like to drill a small hole (pictured) and run the wire through the pad with two large holes to secure it.

STEP TWENTY: Connect power to pump

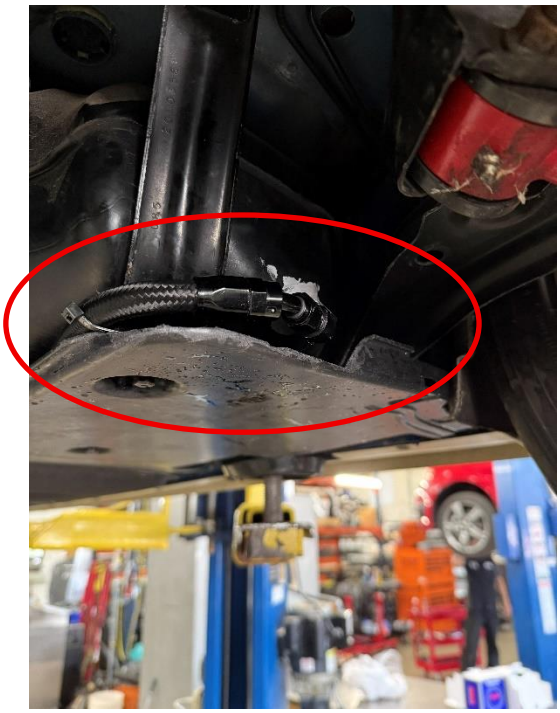
- Connect and tighten the power lead to the positive terminal on the fuel pump.

STEP TWENTY-ONE: Install pump ground wire

- We will now use the bolt hole we scuffed/cleaned up earlier for the pump ground wire. The wire has two different sized eyelets. The smaller will connect to the negative terminal on the pump. The large will run under our bracket and connect to the frame using the bolt we installed earlier.
- Fully tighten bolt with ground under it.

STEP TWENTY-TWO: Reinstall lower trays/plastics

- We can now reinstall the undertrays. Start with the fabric longer tray which will sandwich the metal exhaust shield and bolt the bracket fully down.
- When reinstalling the rear plastic tray take note of it's fitment against your fuel tank fitting. You may need to trim it slightly to make sure there is no pressure on the fitting (pictured on the right).



STEP TWENTY-THREE: Tune and enjoy

- Reconnect your negative battery terminal
- Before first start up you can verify your pump wiring, and harness is correct by removing the connector from the boost/hobbs switch and jumping the pins in that connector with a paper clip and you should be able to hear the auxiliary fuel pump run.
- A PCM tune/update is required, consult your tuner for further instructions.
- Enjoy and Go Fast Not Broke.

STEP TWENTY-FOUR: Camaro line routing

- Below are a few photos showing the differences in line routing on the Camaro vs. the ATS.