

Carb2EFI Fuel System Conversion Kit Inline Low Pressure Fuel Pump

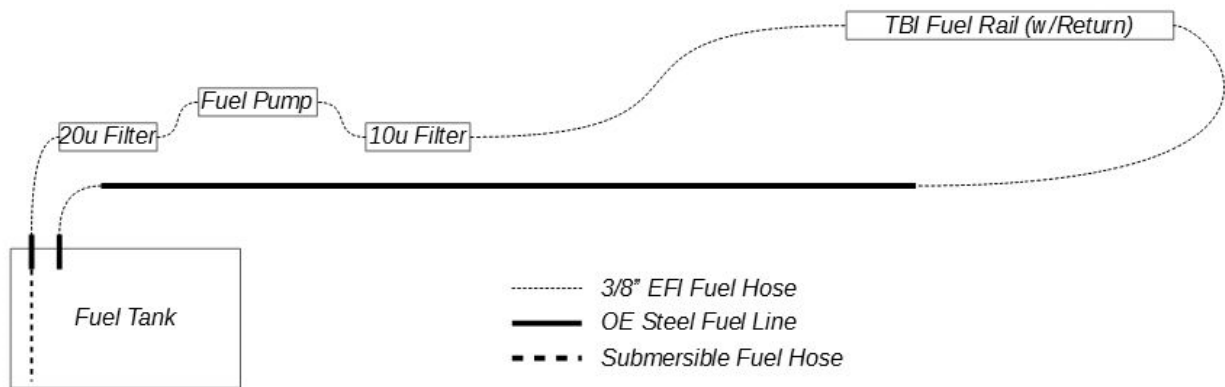
Thanks for your purchase of this kit. We have worked hard to provide kits that contain exactly what you need—No more (meaning you don't pay for something you don't need) and no less (meaning you don't find yourself on Sunday afternoon needing 4 more hose clamps.) Further, we have engineered these kits to give great performance without the excessive costs normally associated with AN-style plumbing. That said, let's get started!

DISCLAIMER: *This kit is offered without guarantee of suitability for any application. Buyer/Installer/User accepts all responsibility for safe installation and operation, as well as property damage, physical injury or death that might occur from the installation/use of this product. While we believe this to be a high-quality product that is safe to install (when installed by experienced professionals) and safe to use (when used in a manner consistent with all applicable laws and regulations), it is the sole responsibility of the buyer/installer/user to make this determination on their own. This product is only for non-emissions controlled vehicles which will never be used on the street.*

Component Listing and Images

Walbro / TI Automotive Fuel Pump	1
Pump Installation Kit	1
20 Micron Inlet Filter	1
10 Micron Outlet Filter	1
Hose Clamps, 3/8 inch	13
Adapter, 16x1.5mm to -6 AN	1
Adapter, 14x1.5mm to -6 AN	1
Fitting, -6 AN to 3/8-Inch HB	2

Begin With The End In Mind



Converting your carbureted fuel system to support a low-pressure EFI system such as GM's Throttle Body Injection (TBI) are the easiest and most cost-effective possible. Because GM TBI systems include a fuel

pressure regulator in the TBI unit itself, all you need to provide the engine is a low pressure fuel source (such as the Walbro GSL395 included in this kit) and then return the unused fuel back to the fuel tank. The drawing above shows the major components.

A few comments are appropriate:

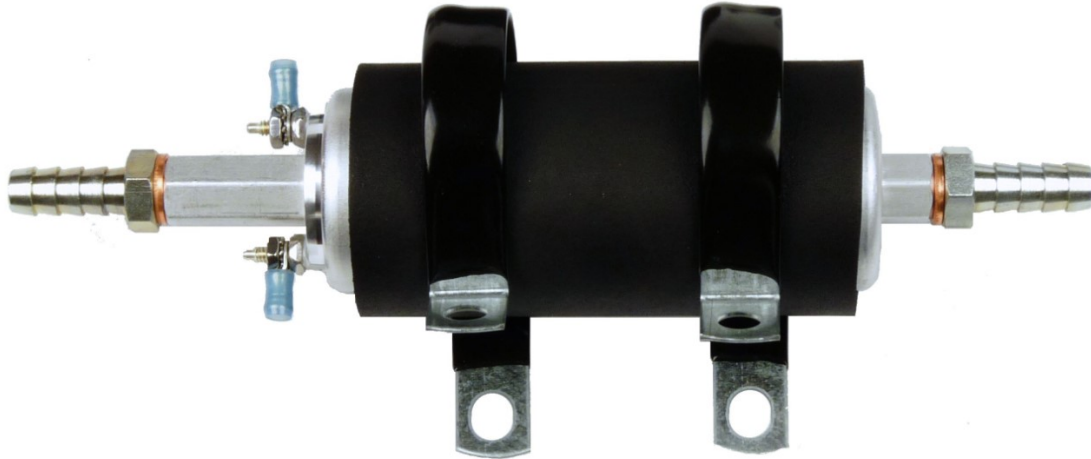
1. We recommend using the existing steel fuel line running from the tank to the engine compartment as a **return** line. This line is likely 5/16-Inch or 1/4-Inch but everything in the kit is 3/8-inch. The existing smaller line is adequate for return line but we prefer 3/8-inch feed lines to ensure maximum flow.
2. We do not include fuel line, though we do offer it for purchase. Be sure to buy only EFI fuel line, not just “fuel hose”. There is a difference. Absolutely never re-use any of the existing fuel hose.
3. We do not include the fuel pickup line, though we do offer it for purchase. Be sure to only use fuel line that is rated as “submersible” in your tank.

Here are some steps for completing the plumbing:

Feed Line: We recommend that you add a 3/8-inch feed port if your tank doesn't already have one and use the original metal fuel line as the return. We recommend using rigid 3/8-inch tubing for the bulk of the under-car run. Where using rubber hose, use only EFI-rated fuel line, not common fuel hose. Ensure it is well secured, protected from debris, snags, or pinches, has no kinks and is not affected by suspension travel. Only connect hose to rigid line where a barb or bead exists. Start by connecting to the feed port and then connect each component in series, using one of the EFI-rated 3/8-inch hose clamps included in the kit.

Fuel Filters: Two fuel filters are provided with this kit: a 20-micron pre-filter (goes before the pump) and a 10-micron post-filter (goes after the pump.) Both have 3/8-inch barbed fittings for inlet and outlet. When installing, be sure to note the direction of flow and install in the proper direction.

Fuel Pump: The Walbro / TI Automotive GSL fuel pump in your kit comes with a complete installation kit, including 3/8-inch hose-barb fittings and copper washers. Since the washers seal the fittings against the pump there is no need for thread tape. Simply assemble the pump as shown below. Use of the insulating sleeve is optional but recommended. Use the included clamps to mount the pump as low and as close to the tank as possible. Be sure to mount it in a location where it will not be subject to damage from road debris, nor will it be affected by suspension movement.



Wiring Connectors are included but it is left to the installer to determine the best method of wiring. It is always recommended to use a 30-amp relay, a 20-amp fuse, and use the ECU fuel pump output to switch the fuel pump on/off. Never use the ignition power to switch the fuel pump on. The ECU will always shut off the fuel pump when the engine is not running and that is vital in the event the fuel line is cut.

Fuel Rail Fittings: This kit includes adapters that allow you to connect directly to the fuel ports on the GM TBI throttle body. The feed port is a 16mm x 1.5mm and the return port is a 14mm x 1.5mm. The kit includes adapters and hose-barb fittings (see image) but it is necessary to re-use the flat seal that is inside the TBI feed ports. In the event these are not serviceable you should be able to source replacement seals at your local auto parts store. Ensure that you plumb the feed from the fuel pump to the larger 16mm fitting and the line that drains back to the tank into the smaller 14mm fitting.

Here is another optional component to consider purchasing with your kit:

3/8-Inch Fuel Port (Available, Not Included)

Your new EFI fuel system is different from your original fuel system in that it requires you to run a return-style regulator. This regulator maintains pressure by returning to the tank whatever fuel is not required to keep the intended PSI. While fuel tanks in carbureted vehicles normally don't have accommodation for a return line, they usually come with some sort of a vent and we know many have utilized that vent as a return. Certainly that can work but it's not the best practice. The biggest reason is that the feed line on the tank is probably less than 3/8-inch. Since you have purchased a new fuel system that uses larger 3/8-inch plumbing, why restrict yourself coming out of the tank?



Instead, use the OE feed line for the return. But what to do about a feed line? We offer a 3/8-inch fuel port fitting (shown.) It requires that a hole be drilled in the top of the tank, only in the cover plate through which the fuel pump will be accessed, and only after the cover has been removed and thoroughly washed and dried. **WE DO NOT RECOMMEND DRILLING YOUR FUEL TANK, ONLY THE COVER PLATE.**