Warning: Caution must be observed when installing any product involving fuel system parts or gas tank modifications. Work in a well ventilated area with an approved fire extinguisher readily available. Eye protection and other safety apparel should be worn to protect against debris and sprayed gasoline. We recommend having this installation performed by an experienced, qualified, and FiTech approved automotive technician. The finished installation must be thoroughly checked for any fuel system leaks. The fuel system is under pressure, so be sure to relieve the pressure before opening the fuel system. All safety precautions must be observed when working with fuel.

Caution: Before starting this installation be sure the negative terminal is disconnected from the battery, you have proper eye protection, a fire extinguisher handy, and that you are working with a clean and free of combustible fumes fuel tank. The installation of fuel related components should be done in a well ventilated area free of any possible fire hazards. Gasoline fumes are toxic and highly flammable. Drilling and grinding can be a potential ignition source. Smoking is prohibited and extinguish any open flames. Start with a new fuel tank or have the fuel tank professionally cleaned for the safest install. Failure to comply with these warnings could result in injury or death.

Unpack the #40015 Hy-Fuel Kit
Carefully unpack the components of your #40015 Hy-Fuel Kit. Lay the components out on a table and compare to Figure #1 above and the parts list and confirm that you have all the parts. Take the (#4) Foam Gasket and punch out all of the holes. The holes are already die cut but must be punched out with a small Phillips screwdriver or dowel rod.

RECOMMENDED TOOLS

- Slow speed Drill Motor
- 2-1/8" diameter hole saw
- Round fine file
- Shop vacuum
- Screwdriver: Phillips
- Screwdriver: Small Straight Blade
- 3/8" Socket and 1/4" Drive ratchet
- 5/16" Diameter Drill Bit (Optional)
Features

The Hy-Fuel In-Tank Retrofit Kit is designed for almost any fuel tank depending on depth. By mounting the fuel pump in the appropriate position on the return tube, it can be installed in tanks ranging from 6 to 12 inches in depth. Note that these instructions and this kit address installation in stock fuel tanks (Version #1) as well as Tanks Inc. fuel tanks (Version #2). The FiTech Hy-Fuel low profile design allows for maximum clearance from the floorpan of the vehicle. The system comes with a high quality 255 LPH fuel pump for engines producing up to 600 HP naturally aspirated. It also comes with a 35 square inch OEM style sock filter (Version #1) to ensure clean fuel, extended fuel pump life, and a steady pickup to the pump. If necessary, replacement parts are available from: www.FiTechEFI.com

Version #1 (Stock Tank)

Caution: Wear eye protection and ensure tank is free of combustible fumes!! Have a radiator shop boil out the tank.

Drilling the hole:
1. The HyFuel assembly must be installed into the fuel tank.
2. Before beginning to cut the 2-1/8” diameter hole, align the red C-Ring (#3) in a central position on the fuel tank positioned far enough from edge of tank for clearance for the filter sock (#11). Try to find a flat area of the tank to make the 2-1/8” diameter hole. If this is not possible due to ribs in the tank, the supplied thick foam gasket will allow installation over ribbed areas.
3. In selecting your hole location, be sure to avoid the stock fuel level sending unit assembly and stock fuel pump pickup. See Figure 1.
4. With the red ring in position, mark a spot in the center of the ring. Using a scribe, you can scribe a circle around the outside of the red ring and then measure from the scribed line to find the center.
5. Now, you are ready to begin your cut, drill a 1/4" pilot hole in the center of the X spot. See Figure #2.
6. Then using a slow speed drill with a 2-1/8" hole saw, cut a hole in the tank. See Figure #3.
Caution edges will be sharp once hole is cut through the fuel tank. 7. Remove the cut piece and use a file to deburr the sharp edges.

Installing the Red C-Ring

1. Using the Red C-Ring as a template, drill (6) 1/4" holes in the tank. See Figure #4. Deburr the holes.
2. Thoroughly clean the tank to remove all of the metal chips and debris inside and outside of the tank. Prior to final installation, it is important that the inside of the tank is totally clean.
3. Screw the M5 Flat Head screws into the Red C-Ring and tighten.
4. Slide the Red C-Ring into the 2-1/8” diameter hole (see Figure #5) inserting the screws back up through the (6) drilled holes. Then install the Foam Gasket (Item #4) as shown in Figure #6. See Figure #16 on page 5 for proper assembly of these parts.
5. Snap the Filter Sock (Item #11) onto the end of the Fuel Pump.
6. Measure depth of tank and determine where pump needs to be positioned vertically. Once you have determined proper pump location so that filter sock will be within an 1/8” of the bottom of the tank when installed, cut a length of Hose (Item #8) to the desired length. Using a heat gun, heat the end of the hose that will go onto the fuel pump. (Figure #7). Push the heated hose onto the outlet nipple of the pump. (Figure #8) Secure with a hose clamp. Then push the other end onto the barbed Push-Lok fitting in the center of the main assembly. (Item #1) (Figure #9) There is no need to heat the other end of the hose. Secure the hose onto the Push-Lok fitting with a hose clamp.
7. Determine the correct length of the return hose. (Item #2) It should be long enough to be about 1/8” to 1/4” off the bottom of the tank. Then push the hose onto the barbed Push-Lok return fitting (marked “A” in Figure #12). Secure with a hose clamp.
7. Then locate the pump against the Return Hose (Item #2) and secure into position with two Tie Wraps (Items #9). Make sure Tie Wraps are pulled tight. See Figure #10. Plug the electrical connector onto the Fuel Pump.
8. Insert Pump Assembly into tank. Lower down over extended M5 machine screws. See Figure #6 and Figure #11.
9. Thread the (6) Nuts (Item #7) onto the exposed bolts and tighten securely using a criss-cross pattern to tighten them down evenly.
Installing the Pump Unit

Because you are installing the FiTech Mini In-Tank Fuel Pump Assembly into a fuel tank that already has an access hole and tapped holes to thread into (see Figure 13), no cutting or drilling is required.

1. Snap the Filter Sock (Item #12) onto the end of the Fuel Pump.

2. Measure depth of tank and determine where pump needs to be positioned vertically. Once you have determined proper pump location so that filter sock will be within an 1/8” of the bottom of the tank when installed, cut a length of Hose (Item #8) to the desired length. Using a heat gun, heat the end of the hose that will go onto the fuel pump. (Figure #7). Push the heated hose onto the outlet nipple of the pump. (Figure #8) Secure with a hose clamp. Then push the other end onto the barbed Push-Lok fitting in the center of the main assembly. (Item #1) There is no need to heat the other end of the hose. Secure the hose onto the Push-Lok fitting with a hose clamp.

3. Determine the correct length of the return hose. (Item #2) It should be long enough to be about 1/8” to 1/4” off the bottom of the tank. Then push the hose onto the barbed Push-Lok return fitting (marked “A” in Figure #12). Secure with a hose clamp.

4. Then locate the pump against the Return Hose (Item #2) and secure into position with two Tie Wraps (Items #9). Make sure Tie Wraps are pulled tight. See Figure #10. Plug the electrical connector onto the Fuel Pump.

5. Place the Foam Gasket (Item #4) over the (6) holes in the Tanks Inc. fuel tank. Align the holes. See Figure #10.

6. Insert Pump Assembly into tank. See Figure #11. Align holes in the black top cap of the Main Assembly (Item #1) with the holes in the gasket and tank. Thread the (6) Machine Screws (Item #6) through the Main Assembly and the gasket and into the threaded holes in the tank. Tighten securely using a criss cross pattern to assure they are tightened evenly.

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**Version #2 (Tanks Inc. Fuel Tank)**

**Installing the Pump Unit**

Because you are installing the FiTech Mini In-Tank Fuel Pump Assembly into a fuel tank that already has an access hole and tapped holes to thread into (see Figure 13), no cutting or drilling is required.

1. Snap the Filter Sock (Item #12) onto the end of the Fuel Pump.

2. Measure depth of tank and determine where pump needs to be positioned vertically. Once you have determined proper pump location so that filter sock will be within an 1/8” of the bottom of the tank when installed, cut a length of Hose (Item #8) to the desired length. Using a heat gun, heat the end of the hose that will go onto the fuel pump. (Figure #7). Push the heated hose onto the outlet nipple of the pump. (Figure #8) Secure with a hose clamp. Then push the other end onto the barbed Push-Lok fitting in the center of the main assembly. (Item #1) (Figure #9) There is no need to heat the other end of the hose. Secure the hose onto the Push-Lok fitting with a hose clamp.

3. Determine the correct length of the return hose. (Item #2) It should be long enough to be about 1/8” to 1/4” off the bottom of the tank. Then push the hose onto the barbed Push-Lok return fitting (marked “A” in Figure #12). Secure with a hose clamp.

4. Then locate the pump against the Return Hose (Item #2) and secure into position with two Tie Wraps (Items #9). Make sure Tie Wraps are pulled tight. See Figure #10. Plug the electrical connector onto the Fuel Pump.

5. Place the Foam Gasket (Item #4) over the (6) holes in the Tanks Inc. fuel tank. Align the holes. See Figure #10.

6. Insert Pump Assembly into tank. See Figure #11. Align holes in the black top cap of the Main Assembly (Item #1) with the holes in the gasket and tank. Thread the (6) Machine Screws (Item #6) through the Main Assembly and the gasket and into the threaded holes in the tank. Tighten securely using a criss cross pattern to assure they are tightened evenly.
Installing the Fuel Tank back in Vehicle
1. Install the fuel tank into the vehicle and attach the fuel lines.
2. Attach the fuel pump power wire to the positive terminal and cover the terminal with the provided insulation boot. See Figure #19.
3. Next attach one side of a ground wire to the negative terminal and the other end to a good ground on the chassis. See Figure #19. Make sure the positive terminal has clearance and/or insulation to avoid the possibility of hitting the bottom of the car floorpan. One option is to lay a piece of foam over the top of the pump to insure the pump will not short out against any metal. The foam can be purchased from any home improvement store.
4. Run a return line from the return fitting on the throttle body to the return port on the Hy-Fuel unit if applicable. See Figure #18. See below for more complete information on plumbing the system.
5. Make sure there is gas in the tank.
6. Reconnect your battery.
7. Turn your key to the “On” position, don’t crank.
8. Thoroughly check for any leaks.
9. If no leaks are present then you are ready to start your vehicle.

Plumbing for a Return Style System
The Hy-Fuel In-tank Retrofit Kit must be run with a return fuel line. Note that the center red-6 ORB fitting (marked P) is always the pressure out port. The Port marked “B” in Figure 12 is always the Vent Port and the Port marked “A” in Figure 12 is always the Return Port. Do not attempt to use the Vent port for the Return line. If the fuel tank is not vented, use the “B” port as a vent. See Figure #18 for plumbing a Return style.
When using a Go Street or Mean Street EFI system, these systems contain an internal fuel pressure regulator inside the throttle body. If you are using this Hy-Fuel Mini In-Tank Retrofit Fuel Pump with any other EFI system, an external fuel pressure regulator will be required as the supplied pump in the Hy-Fuel system exceeds 60 PSI. In a case where the pump and fuel tank are mounted inside the car, we recommend routing a vent hose from the vent port on the FiTech Hy-Fuel Kit routed to the outside of the vehicle.

Wiring the 40015 Kit
See the Wiring Schematic (Figure #19) on the next page (Page 6). Use recommended wire sizes.
LIMITED WARRANTY

Limited Warranty: FiTech EFI warranty is limited to repair or replacement (at our discretion) of any FiTech part that fails because of a defect in workmanship or materials.

Implied warranty: Any warranties implied by law are limited to the duration of this warranty (except in those states where prohibited by law).

How Long It Is Covered: All FiTech products are warranted for a period of one year from date of original retail purchase with an original receipt showing proof of purchase. Certain components of the EFI systems are limited to a 90 day warranty period. See separate complete Limited Warranty document for a list of specific components.

Who We Cover: All FiTech warranties apply to the original purchasing consumer.

What We Do Not Cover: Failure of a product due to misapplication, improper installation or maintenance, misuse, abuse, unauthorized repairs, accidents, or modifications to the original design. Removal or replacement costs, shipping costs, damage to related components, and costs incurred due to downtime of vehicle. Any product used in marine applications unless specifically stated for marine usage. Any parts used in racing applications or subject to excessive wear.

Warranty Service Procedure: In the event a problem develops with one of our products, contact our customer service department at 951-340-2624 or fax to 951-340-2648. It may be determined that the product will have to be returned for inspection and/or repair. A Return Merchandise Authorization (RMA) number will be assigned to you. This number must be on the box shipped back to FiTech Customer Service. The product must be returned via freight prepaid. It must be accompanied by a clear description of what the problem is with the product. The product is determined to be defective within the warranty period, FiTech will repair, replace, or issue credit to the original consumer at our discretion. Any repaired or replaced product will be returned to the sender via prepaid FedEx or other ground carrier.

Return Policy: FiTech guarantees its parts and is confident that our products will meet with your complete satisfaction. If the product does not meet your expectations, return it within 60 days for a refund or exchange. You can return the new, unused part within 60 days from the purchase date. To make a return, call our Customer Service Dept. at 951-340-2624 to receive a Return Merchandise Authorization (RMA) number. You must include the RMA number and a copy of the product purchase receipt with the return. The product must be sent back freight prepaid, in the original manufacturer’s box to FiTech Customer Service/12370 Doherty St. Suite A, Riverside, CA 92503. Returns may be subject to a 15% restocking fee. No refunds will be issued without a copy of the receipt.

California Proposition 65 Warning: This product may contain one or more substances or chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

FiTech EFI • 12370 Doherty Street • Suite A • Riverside, CA 92503
Phone: 951-340-2624 • Email: sales@FiTechEFI.com • Website: www.FiTechEFI.com

Figure #18
With Return Line
FiTech Throttle Body
R
V
Vent
If Req’d
Post Filter
Connect to any one of three inlet ports
Alternately connect to a Fuel Rail
Fuel Rail on a Port Injection System

FiTech Hy-Fuel Mini In-Tank Fuel Pump Main Assembly
A suitable external Fuel Pressure Regulator will be required for any EFI system that does not include a built-in regulator. FiTech EFI Throttle Bodies include a regulator.

To Return Port on Pump Assembly

Notes:
1. Mount fuse close to power source.
2. Mount relay close to pump.
3. If a mechanical feeder pump is used, connect ECU orange wire directly to Relay Terminal 86.
4. Relay shown is typical of Bosch 12V/40A SPSP Relay.

Figure #19
Wiring Schematic for 40015 FiTech Hy-Fuel Mini Retrofit Fuel Pump