

NOTE: These kits are not legal for use on pollution controlled vehicles



Instruction Manual

For the

Hy-Fuel In-tank Retrofit Kit

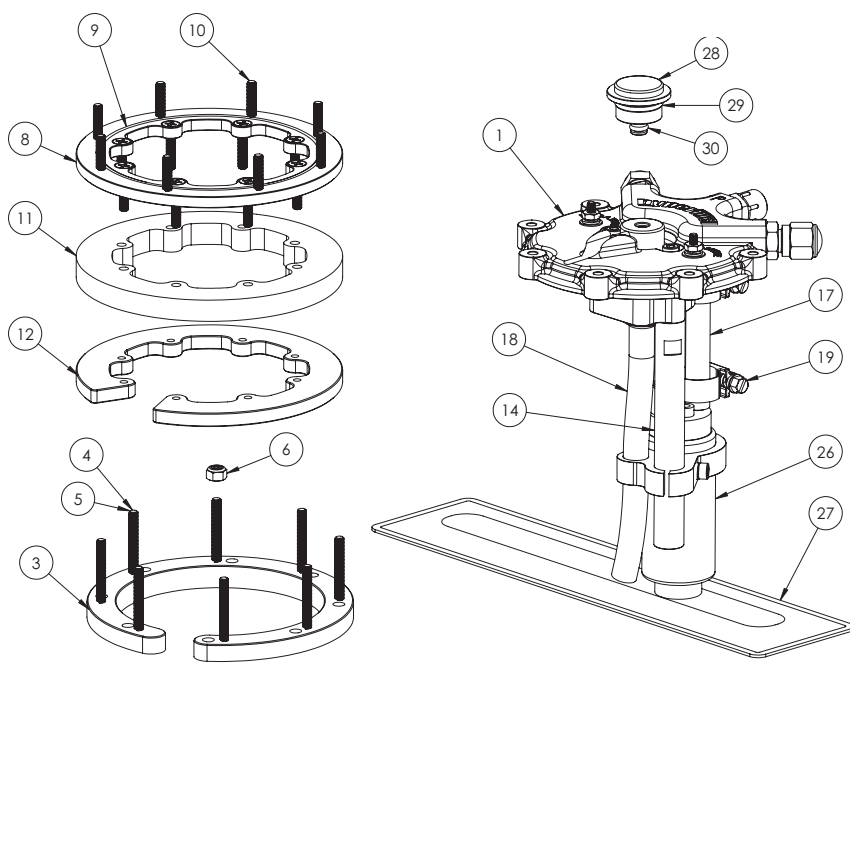
40019

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 ensure to relieve the pressure before opening the fuel system. All safety precautions must be observed when working with fuel.

Caution: Before starting this installation ensure 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 the following warnings could result in injury and or death.

This quick start manual is designed to get you up and running with your Hy-Fuel In-tank Retrofit Kit. The FiTech Hy-Fuel In-tank Retrofit Kit is the industry's most innovative fuel delivery system. It has two install options, one for ease of serviceability and one for maximum clearance. Please read the full instruction manual before beginning your installation. For technical assistance with your Hy-Fuel In-tank Retrofit Kit, call 951-340-2624 or go online to www.fitechefi.com under "tech center".

NO.	PART NO.	DESCRIPTION	QTY
1	FST07-1	TOP CAP, IN-TANK SINGLE PUMP (PRE-ASSEMBLED)	1
2		BASIC INSTALLATION GROUP	1
3	FST07-2	INNER CLAMP RING - BLACK	1
4		#10-32 X 1.50" FLAT HEAD PHILLIPS CAPSCREW, 18-8 S/S	8
5		#10-32 X 1.75" FLAT HEAD PHILLIPS CAPSCREW, 18-8 S/S	8
6		NUT, NYLOCK, #10-32, 18-8 S/S	8
7		BASE RING INSTALLATION GROUP	1
8	FST07-6	BASE RING - RED	1
9		O-RING, 1.78 W X 117.10 ID X 120.66 OD, BUNA-N	1
10		#10-32 X 1.00" FLAT HEAD PHILLIPS CAPSCREW, 18-8 S/S	16
11	FST07-3	TOP CAP GASKET	1
12	FST07-4	INNER CLAMP RING - RED	1
13		FUEL PUMP MOUNTING GROUP	1
14	FST07-12	PUMP POST, 3 INCH	1
15		M8-1.25 x 25 CUP POINT SET SCREW, 18-8 S/S	1
16		HOSE GROUP	1
17		FUEL HOSE, 8MM X 190MM	1
18		PLASTIC FLEX HOSE, 200MM	1
19		HOSE CLAMP, 8MM	3
20		ELECTRIC TERMINAL KIT	1
21		ELECTRIC TERMINAL KIT	1
22		INSULATOR BOOT	2
23		RING TERMINAL, INSULATED CRIMP-ON, #8 X 14-16GA	2
24		LOCKWASHER, SPLIT, #8, 18-8 S/S	2
25		HEX NUT, #8-32, 18-8 S/S	2
26	40102	FUEL PUMP	1
27	FST07-10	FUEL FILTER, 75 X 300	1
28	FST-	FRP PLUG	1
29		O-RING, 2.5 W X 21.0 ID X 26.0 OD, BUNA-N	1
30		O-RING, 2.5 W X 5.0 ID X 10.0 OD, BUNA-N	1



Recommended tools

- Slow speed Drill
- 4 1/2" hole saw
- File
- Shop vac
- Screwdriver: phillips
- 3/8" Socket and 1/4" Drive ratchet

Instruction contents:

Kit Contents.....	2
Recommended Tools.....	2
Special Instructions.....	3
Features.....	4
Drilling The Hole.....	4
Install the Center Ring.....	5
First Install Option.....	5
Install Tank in Vehicle.....	6
Optional O-ring kit Install.....	6
Install Pump Assembly.....	7
Running a Return.....	8
Warranty.....	9

Special Instructions

- For extended fuel pump life never let car go below 1/8th tank of gas.
- If using hard fuel lines make sure to use high pressure EFI rated lines and flared fittings.
- Make sure that you remove ALL low pressure flex joints on factory fuel lines and replace them with EFI rated fuel hose and use proper flared connections and clamps. Be careful not to mix 45° SAE fitting and 37° AN fittings, they look similar but will not work together. 45° SAE fittings usually come from a hardware store or auto parts store while 37° AN fittings are the ones supplied by FiTech and most speed shops.
- If using a returnline use atleast a 3/8" line.
- FiTech does not recommend aluminum fuel lines EVER! Use the supplied EFI high pressure fuel hose supplied in your Fuel Delivery Kit.
- Use the supplied push lock style hose ends only with the supplied hose and vice versa. Interchanging hose ends and hose with other brands could cause leaks.
- Our Go EFI systems are intended for use with unleaded pump gas up to 15% ethanol content.
- Relieve the pressure from within the system before opening the fuel system.

Very important note: Your fuel tank must have a vent or use a vented cap to prevent pressure building up inside the tank!

Features:

The Hy-Fuel In-tank Retrofit Kit is designed for almost any fuel tank. With the included adjustable fuel pump mount it can be installed in tanks ranging from 6 to 14 inches in depth. If the tank is deeper than 14 inches additional fuel pump mounts are available from the FiTech website. The Hy-Fuel low profile design allows for maximum clearance from the floorpan of the vehicle. The system also uses a unique 360 degree o-ring mounting flange for easy removal, servicing, and re-use. The Hy-Fuel In-tank Retrofit Kit contains a built in regulator and block-off plate so it can run returnless or return style. The system comes with a high quality 340 LPH fuel pump for engines producing up to 800 HP naturally aspirated. It also comes with a 35 square inch OEM sock style filter 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.

Drilling the hole:

Caution: Wear eye protection and ensure tank is free of combustible fumes!!

- 1 The high pressure fuel pump must be installed into the fuel tank.
- 2 Before beginning to cut the hole align the retaining ring in a central position on the fuel tank leaving an edge from the retainer to the fuel filter.
- 3 During install be sure to avoid the fuel level sending unit assembly and fuel pump pickup
- 4 Next mark the inside shape of the retaining ring, then remove the retainer.
- 5 Measure the distance from the front of the tank to the edge of the retainer and find the center of the retainer, mark with an X.



6 Now, you are ready to begin your cut, drill a 1/4" pilot hole in the center of the x spot.



7 Then cut a 4 1/2" hole using a 4 1/2" hole saw with a slow speed drill.



Caution edges will be sharp once hole is cut through the fuel tank.

9 Remove the cut piece and using a file to debur the sharp edges.

10 Thoroughly clean the tank to remove all of the debris inside and outside of the tank.

Install the centering ring

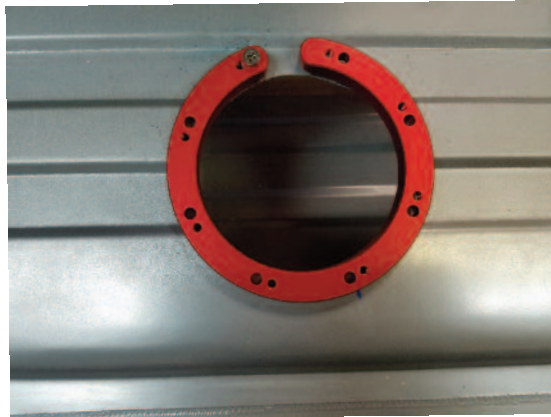
There are two different center ring option so there are two different install options.

Traditional Option 1 install (Black Ring)

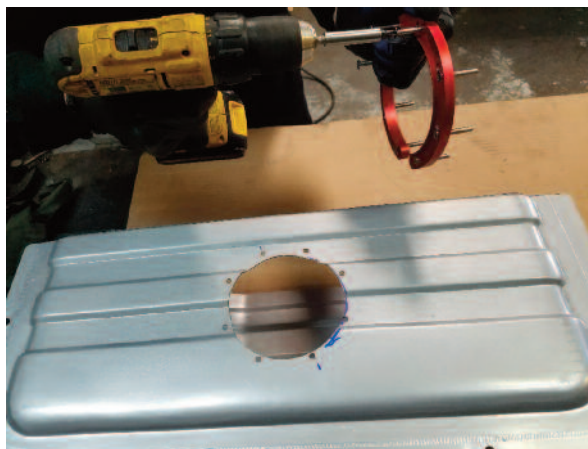
- 1 The first install option has a smaller gap in the bottom ring and will require drilling more holes into the tank. This option is used when there is a height restriction between the trunk and tank. It will ensure the Hy-fuel sits flush with the tank. If the Hy-Fuel is removed for any reason a new gasket will need to be purchased.
- 2 Mark where you want to drill your holes by placing the pump in the center hole.
- 3 Then lining the bottom ring up with the marks. Using the the bottom lip of the ring to hold the ring in place when marking the holes.
- 4 Remove the bottom ring and drill a 6mm pilot hole then to finish drilling the hole with a 1/4 drill bit.



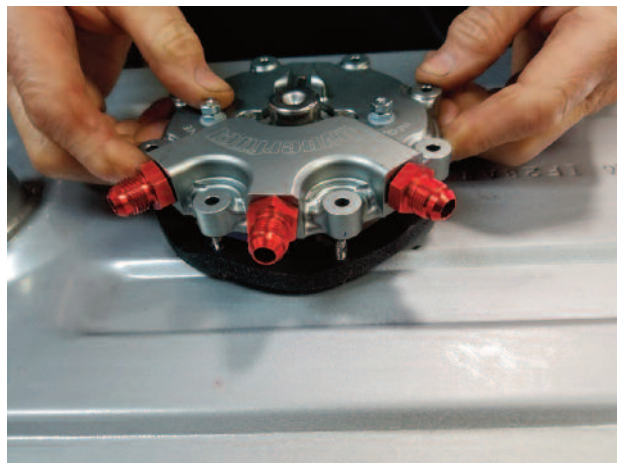
- 5 Make a second mark on the other side of the ring to ensure it is lined up properly.
- 6 Once you drill the holes the component is no longer clockable.
- 7 Now continue drilling the remaining holes.



- 8 Use a shop vac to clean the leftover debris.
- 9 Install all long bolts into the bottom ring before installing the ring into the tank. If you need to, ream a hole no larger than 5/16".



- 10 Apply the gasket on top of the tank and align the holes.
- 11 Install the pump into the center of the hole and line up the bolts and the 10/32" nylock nuts, tightening until snug in a cross pattern.

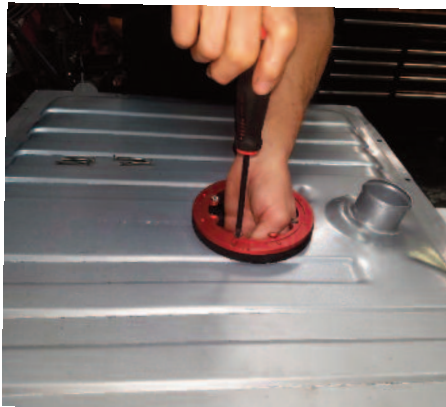


Install tank in vehicle (Black Ring)

- 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 installation boot.
- 3 Next attach one side of the ground wire to the negative terminal and the other end to a good ground on the chassis. Make sure the positive terminal has clearance and or insulation to avoid the possibility of hitting the bottom of the car. 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. If running returnless, simply plumb A-6 feed line from the Hy-Fuel unit to feed on that fuel injection system.
- 5 Reconnect your battery.
- 6 Turn your key to the on position, but do not crank.
- 7 Thoroughly check for any leaks.
- 8 If no leaks are present then you are ready to start your vehicle.

Optional o-ring mount kit install (Red Ring)

- 1 The optional o-ring mount kit contains the sure seal mount ring that is red and has the o-ring groove. This install option comes with two options for screws, short screws when installing the fuel pump to a flat surface, or longer screws when installing the pump to a ribbed fuel tank. This system is also fully clockable at anytime because there are no excess holes. This option may cause a 1/4" height clearance interference. The o-ring groove allows the system to be serviced at any time. This allows easy access to change the filter, inspect, or ease in accessing the pump.
- 2 To start put the ring with the gap into the tank.
- 3 Next, apply the gasket and the center ring with the groove on top of the tank. When installing the gasket and top ring start with 4 bolts just to ensure the component will be secure in the tank before installing the rest of the screws.
- 4 Once the rings are secure insert the remaining screws through the center ring, gasket, and into the bottom ring to attach it to the fuel tank.
- 5 Using a #2 phillips head screwdriver evenly tighten all 8 mounting screws in a cross pattern until the rings and gasket are securely attached to the fuel tank.



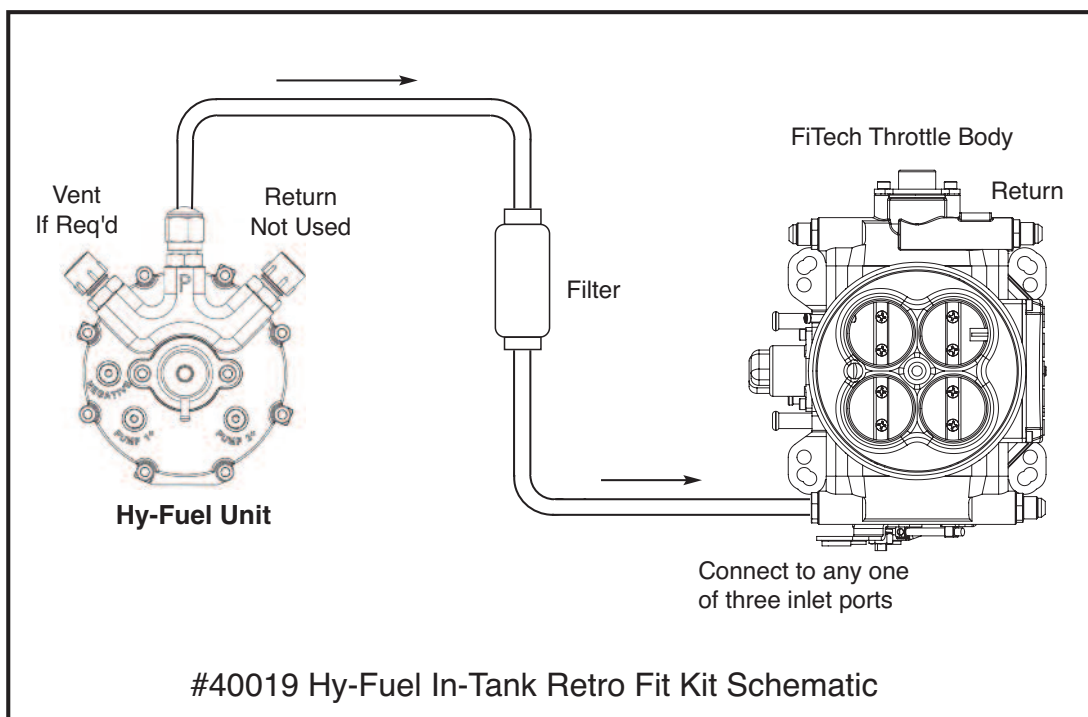
Install the pump assembly

- 1 Start by measuring the depth of your fuel tank and compare it to the length of the pump assembly. In our install our tank measured 7 3/4" deep. We recommend that The filter should be no more than 1/8 " off the bottom, preferably lightly touching the bottom. To shorten the length of the pump loosen the clamps on the fuel pump feed hose and cut the hose to desired length.
- 2 Re-measure to verify depth of the tank. Remember, " measure twice and cut once."
- 3 Tighten clamps backup and install the o-ring into the centering ring. For our install the final length of the pump was 7 1/2".
- 4 Attach the filter to bottom of pump and position it away from fuel tank sending unit float.
- 5 Next, Slide the Hy-Fuel In-tank Retrofit Kit into tank and align the hole.
- 6 Attach the components with the supplied nylock nuts.
- 7 Tighten by hand until snug evenly in a cross pattern.



Running a return:

The Hy-Fuel In-tank Retrofit Kit can be run with a return or without. If running a returnless system the center -6 ORB fitting becomes the pressure out. The side two fittings can then be blocked off when using a vented fuel tank. If the fuel tank is not vented use one of the fittings as a vent. When using a Go Street or Mean Street throttle body kit, take the regulator off the throttle body and block it off and use the regulator from the throttle body on the fuel pump enable for the fuel pump to regulate at the correct pressure. When using a return style system the center fitting remains the pressure out but now one of the side fittings is the inlet and the other is the return. If running the return on the driver side use the driver side fitting as the return and the passenger side fitting as the inlet, and vice versa. In a case where the pump is mounted inside the car we recommend routing venting the fuel pressure regulator nipple venting to outside of the vehicle in case of regulator failure.



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. If 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.