



Instruction Manual

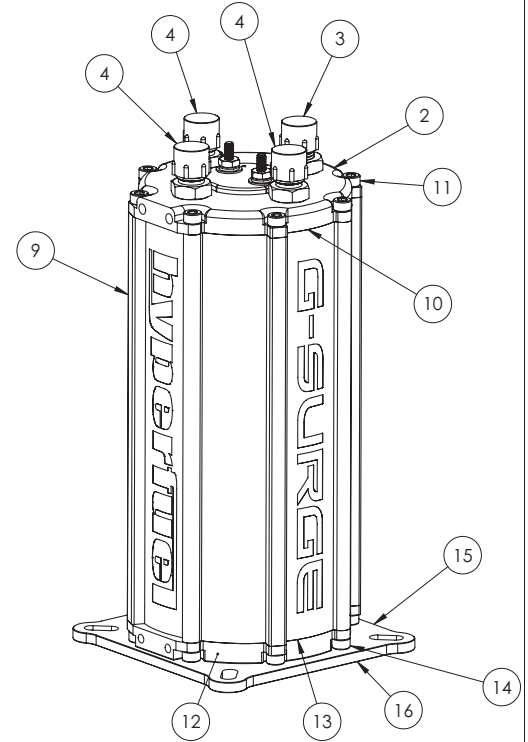
for the following
G-Surge Tank
40007 & 40008

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. All safety precautions must be observed when working with fuel.

The FiTech G-Surge tank is designed to prevent starving the fuel pump by increasing the fueling capability of the system. It is typically installed in vehicles that potentially can experience fuel starvation due to fuel sloshing around in an inadequately baffled tank. While this can occur in any vehicle when the tank is not fully filled, it is more frequent in vehicles subject to violent changes in directions such as autocross, off-road, drag racing and other types of racing that involve high g-force.

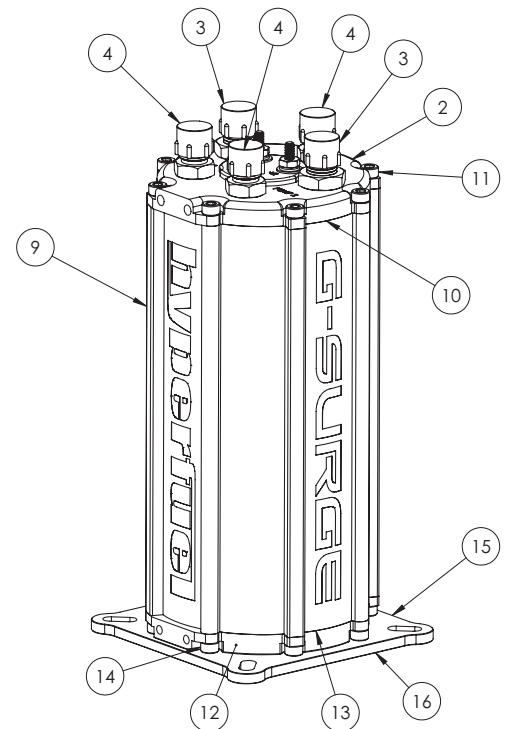
G-Surge Single Pump Surge Tank Kit Contents

ITEM	PART NO.	DESCRIPTION	QTY
1	HFS-50007	G-SURGE, SINGLE PUMP	
2		TOP CAP ASSEMBLY, SINGLE, G-SURGE	1
3		PLASTIC CAP, -6AN, RED	1
4		PLASTIC CAP, -6AN, BLACK	3
9	HFS-50007-4	TANK HOUSING, G-SURGE	1
10		O-RING, 1.5W X 93ID X 96OD	1
11		CAPSCREW, M6-1.0 X 13, 18-8 S/S	8
12	HFS-50007-5	TANK BASE, G-SURGE	1
13		O-RING, 1.5W X 93ID X 96OD	1
14		CAPSCREW, M6-1.0 X 13, 18-8 S/S	8
15	HFS-50007-6	MOUNTING PLATE, G-SURGE	1
16		CAPSCREW, FLATHEAD, M6-1.0 X 10	4



G-Surge Dual Pump Surge Tank Kit Content

ITEM	PART NO.	DESCRIPTION
1	HFS-50008	G-SURGE, DUAL PUMP
2		TOP CAP ASSEMBLY, DUAL, G-SURGE
3		PLASTIC CAP, -6AN, RED
4		PLASTIC CAP, -6AN, BLACK
9	HFS-50007-4	TANK HOUSING, G-SURGE
10		O-RING, 1.5W X 93ID X 96OD
11		CAPSCREW, M6-1.0 X 13, 18-8 S/S
12	HFS-50007-5	TANK BASE, G-SURGE
13		O-RING, 1.5W X 93ID X 96OD
14		CAPSCREW, M6-1.0 X 13, 18-8 S/S
15	HFS-50007-6	MOUNTING PLATE, G-SURGE
16		CAPSCREW, FLATHEAD, M6-1.0 X 10



Tools Needed

- -6AN wrench
- 5mm Allen wrench
- Misc. tools to facilitate mounting

Instruction Content

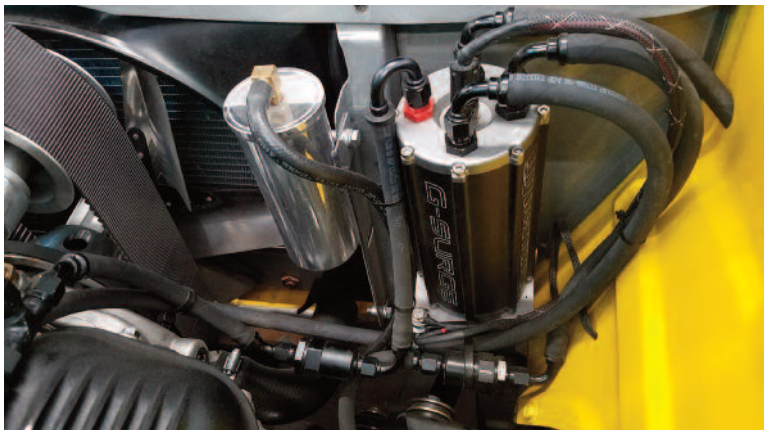
About Your G-Surge System.....	1
Single Pump Kit Contents.....	2
Dual Pump Kit Contents.....	2
Tools Needed.....	3
Features.....	3
Mounting.....	3
Single Pump Plumbing.....	4
Single Pump Wiring.....	4
Dual Pump Plumbing.....	4
Dual Pump Wiring.....	5
Initial Startup.....	5
Waranty.....	6

Features

The G-Surge can be easily mounted under the hood and is fed by the existing fuel system. It will maintain a 1.5 liter reservoir of fuel at all time to prevent starvation to the fuel pump. The G-Surge has a high volume 340 LPH pump inside the module which feeds any EFI system and supplies enough fuel for 800 HP naturally aspirated. It is precisely machined from billet aluminum with a fitted o-ring seal on the top cover of the module and AN -06 fittings at the top.

Mounting

- 1 Mount the G-Surge firmly to a stable component of the vehicle.
- 2 It must remain away from excessive heat, moving components, and collision prone areas.
- 3 Angling the G-Surge in the downward fashion will lead to premature fuel starvation.
- 4 If mounting the surge horizontally insure the inlet ports are at the lowest points possible.
- 5 Mounting the fuel pump surge vertically with the single or dual pump will provide maximum starvation protection.
- 6 Use medium strength thread locker on the fasteners that thread into the mounting bosses to secure the G-Surge.



Single Pump Plumbing

- 1 There are many plumbing options on the G-Surge.
- 2 Out of the four -6AN fittings the red fitting is used for high pressure outlet. This feeds the fuel injection system.
- 3 After installation the fitting receiving the highest fluid level should be plumbed to the main fuel tank. This will stop air being trapped inside the pump and allows it to escape back to the fuel tank.
- 4 The other two ports can be used as returns. A return from the fuel injection system and the other would be used as a feed from the existing fuel system.

Option one: traditional return fuel system

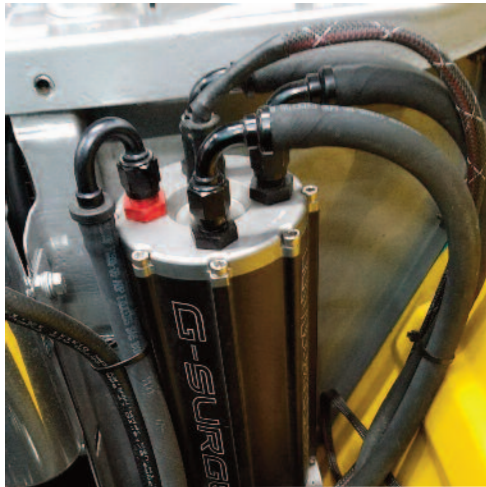
- If the engine has a fuel pressure regulator on the fuel rail.

Option two: dead-head fuel system

- No return line from the fuel rails, keeps fuel temperature down.

Option three:

- No return line from the injector fuel, better for high powered application that demands a lot of fuel flow by preventing any restriction that the fuel pressure regulator may present.

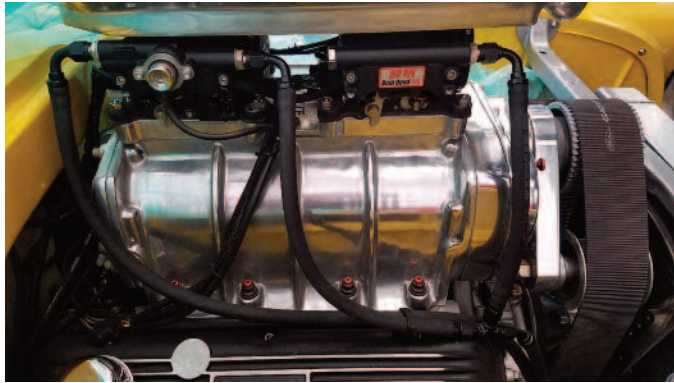


Single Pump Wiring

- 1 The surge tank pump must be wired to a 12V source capable of providing 20 amps.
- 2 The standard 24" flying lead wiring harness is color coded for easy identification.
- 3 The orange wire from the EFI goes to the red plus terminal on the G-Surge.
- 4 The black wire is ground and goes to negative terminal on the G-Surge.
- 5 A 20 amp fuse should be used along with at least 12 AWG wire for both contacts (10 AWG for long runs).
- 6 It is highly recommended to activate the FST pump with a relay that is triggered by the same signal as the primary fuel pump.

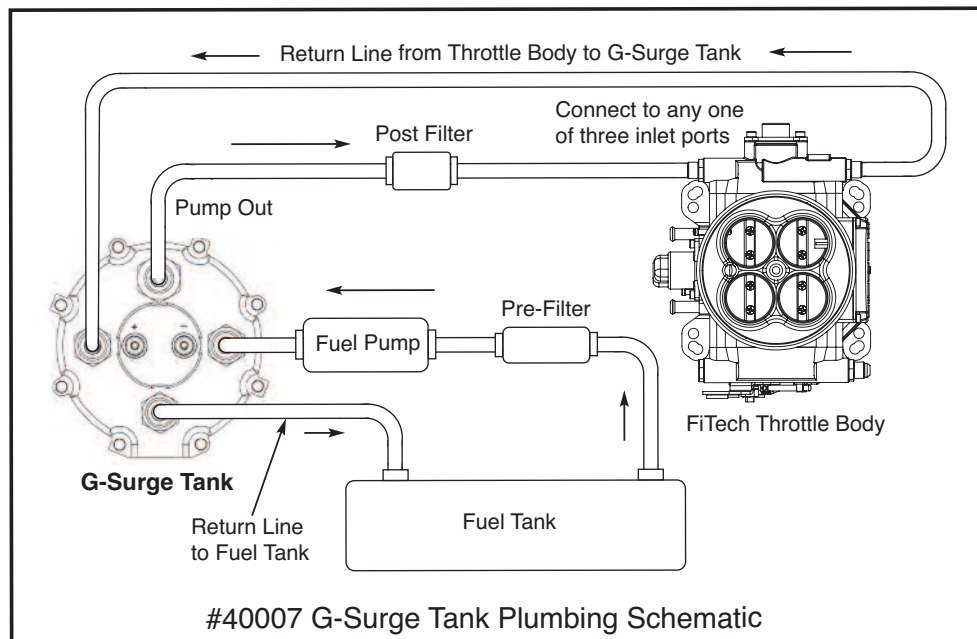
Dual Pump Plumbing

- 1 There are many different plumbing options.
- 2 The only requirement is that the fuel entering the lift pump must be filtered.
- 3 On the dual pump set up there are five -6 AN fittings.
- 4 The two red fittings are used for the internal pumps high pressure outlets that will feed the engine's fuel rails.
- 5 After the G-Surge has been mounted determine which fitting is receiving the highest fluid level and plumb that to the main fuel tank.
- 6 Plumbing back to the main fuel tank reduces the amount of air trapped in the system.
- 7 There are four fittings on the system: the red fitting is the high pressure outlet and the other fittings can be used as a return.



Dual Pump Wiring

- 1 The surge tank pump must be wired to a 12V source capable of providing 20 amps. The G-Surge can be wired to run both pumps at the same time, one pump can be run to be a backup, or one pump can be wired to be turned on with a switch.
- 2 The standard 24" flying lead wiring harness is color coded for easy identification.
- 3 The orange wire from the EFI goes to the red plus terminal on the G-Surge.
- 4 The black wire is ground and goes to negative terminal on the G-Surge.
- 5 A 20 amp fuse should be used along with at least 12 AWG wire for both contacts (10 AWG for long runs).
- 6 It is highly recommended to activate the FST pump with a relay that is triggered by the same signal as the primary fuel pump.



Initial Start Up

- 1 Before starting the car ensure that the G-Surge is fully primed with fuel. This can be done by removing the pump fuse and cycling the vehicle's ignition power, several times. This process activates the primary fuel pump a few seconds at a time. This process should be done 3-4 times before cranking.

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.