



# Installation Instructions

## Twin Pump Fuel Surge Tank (649000 & 649340)

Thank you for your purchase! Follow these instructions for a hassle-free installation. If you are unsure about installing your new fuel surge tank, please consult a qualified technician at your preferred repair shop.

The 649000 and 649340 surge tanks use -6AN fittings for inlets and outlets. Ensure you have the fittings to complete your installation before starting.

The 649000 & 649340 are designed for EFI (not carbureted) fuel systems. They eliminate fuel starvation from fuel sloshing, low fuel level in tank and hard cornering or acceleration.

The surge tank can be supplied by an OE in-tank or in-line (lift) fuel pump maintains the fuel level. Since the feed (lift) pump will not be regulated, the volume is substantially increased. (Flow is inversely proportionate to pressure)

The surge tanks are available with or without fuel pumps. If you purchased the #649340, the pumps included are FLOW-EFI 340LPH (2ea. #643402) and combined will support up to 1500HP.

Note: They are not for use with E85 fuel. Other similar design pumps may be used but minor electrical connections and/or hose length modifications may be required.

The surge tank must be mounted vertically as the fuel pick up is at the base of the tank. Mount in an area away from exhaust heat and vibration, and out of any area that would be subject to collision.

There are five (5) ports on the top of the tank. Three (3) are marked IN/OUT and can be used for fuel entering or leaving the tank. One (1) will be used for filtered fuel entering from the lift pump (OE in-tank pump), one (1) will be used for fuel returning to the vehicles fuel tank, and the other for fuel returning from the regulator or fuel rail at the engine. It does not matter which one is used for each purpose.

The other two (2) are marked "PUMP1 OUT" and "PUMP2 OUT". They can be configured however you wish. They have independent wiring, but can be run in tandem (Tee'd together) or staged. ie. Second pump can be boost or RPM activated for example. These will be plumbed to the fuel rails or regulator depending on your application. See diagrams.

There are four (4) wires entering the surge tank. 2 black, 1 red and 1 blue. The black wires are individual grounds to each pump, and the red and blue are power (+) to each fuel pump. Check continuity (Pump1 vs Pump2) if you are running a staged system to ensure which pump will be the "boost" or secondary pump. Always use relays (one for each pump) to supply power to the fuel pumps as draws can run upwards to 20A.

After all connections (electrical and plumbing) have been made, cycle the OE in-tank (lift) pump a few times (with the surge tank pumps electrically disconnected - fuses out) to fill the surge tank with fuel and check for any leaks.

## Plumbing examples:

