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AEROFLOW PERFORMANCE

EFI SURGE TANK

WARNING!

BEFORE PROCEEDING WITH INSTALLATION PLEASE READ INSTRUCTIONS CAREFULLY. THIS PRODUCT REQUIRES DETAILED KNOWLEDGE OF AUTOMOTIVE SYSTEMS. WE RECOMMEND THAT THIS INSTALLATION BE CARRIED OUT BY A QUALIFIED AUTOMOTIVE TECHNICIAN.

THE INSTALLATION OF THIS PRODUCT REQUIRES THE HANDLING OF FUEL. WE RECOMMEND TO WORK IN A WELL VENTILATED AND WEAR APPROPRIATE SAFETY WEAR FOR PROTECTION.

KEEP ALL IGNITION SOURCES AND OPEN FLAMES AWAY FROM VEHICLE AT ALL TIMES WHILE INSTALLING THIS PRODUCT.

THESE SURGE TANKS UTILIZE O-RING SEALED AN STYLE PORTS AND DO NOT REQUIRE THREAD SEALANT ONLY AN APPROPRIATE LUBRICATE SHOULD BE USED

Item list included in this kit:

1x Single/double/triple pump 7 Litre compact EFI surge tank (Dimensions: Length= 185mm (7-1/4") Width 185mm (7-1/4") Height 260mm (10-1/4").)

INTRODUCTION

Congratulations on your purchase of Aeroflow Performance Single/Double/Triple efi compact surge tank kit. Aeroflow Performance products cannot and will not be responsible for any damage, or other conditions resulting from misapplication of the parts described herein. However, it is our intention to provide the best possible products for our customer, products that perform properly and satisfy your expectations. Should you have any questions? Please call technical support at +61 2 8825 1900 and have the product part number on hand when calling.

This Aeroflow Performance Surge Tank is designed to prevent starving the fuel pump by increasing the fuelling capability of the system. It is usually 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.

Using this surge will require new internal fuel pump/s to be installed into surge tank itself. These surge tanks only fit AF49-1041 or any internal fuel pump with 40mm diameter.

The primary fuel pump in the vehicle's main fuel tank will no longer directly feed the engine. This pump will now be used to fill and maintain the level of fuel in the surge tank. In turn with the aftermarket external fuel pump will require an aftermarket fuel pressure regulator to be installed. Also recommended when upgrading fuel pumps to also upgrade wiring and add relays/fuses where required. Refer to individual pump instructions for further details.

This surge tank is only one component of your vehicles complete fuel system. Please ensure the vehicles complete fuel system is up to the task of supplying the right amount of fuel to your engine. Failure to do so may result in severe engine damage and damage to other related components.

MOUNTING

- When mounting this surge tank ensure it is on a stable and structural location.
- We recommend to mount this surge tank vertically.
- Ensure to mount surge tank on level surface.
- Recommended to mount away from excessive heat, moving components and collision prone areas
- Surge tank has mounting plates welded to tank, utilize all mounting holes provided to ensure tank is secure. 6x mounting holes in total (7.50mm hole size).
- Two M6 x 1mm mounting holes located in side of tank to attach a filter or secure hoses. Bolt holes are 82mm (3.22") centre to centre. Bolts included in kit. These are internally welded so if they are not being used they can be left empty if desired.

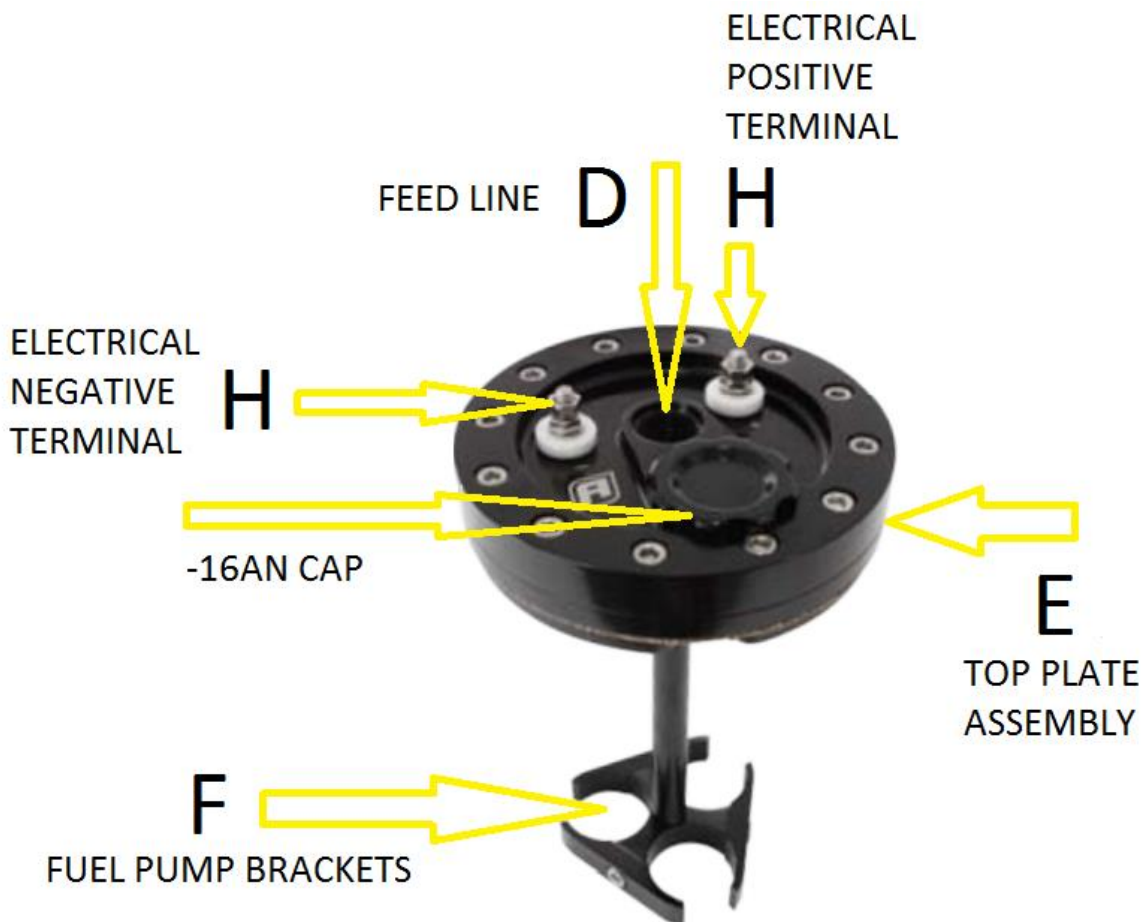
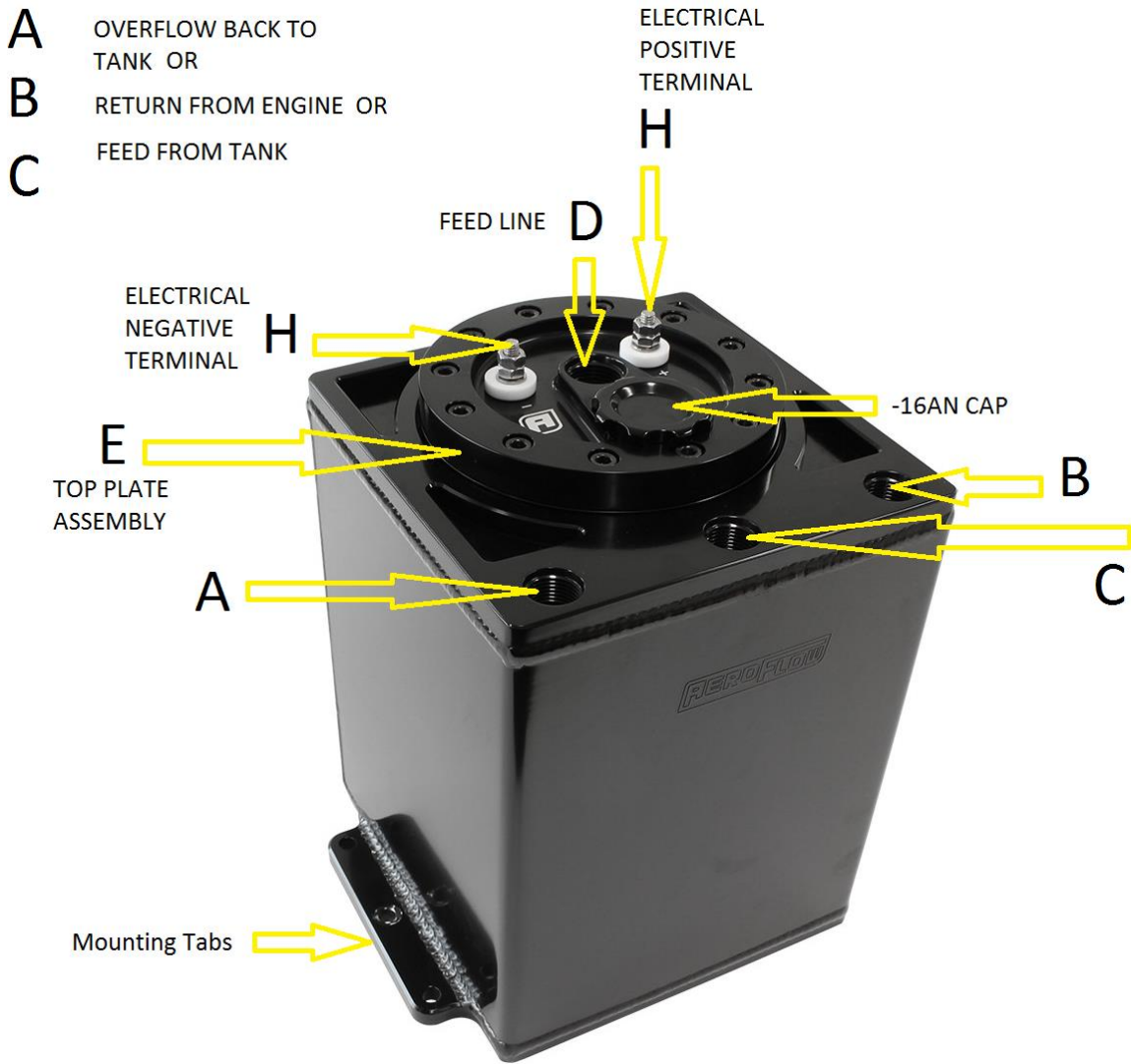
ASSEMBLY / PLUMBING

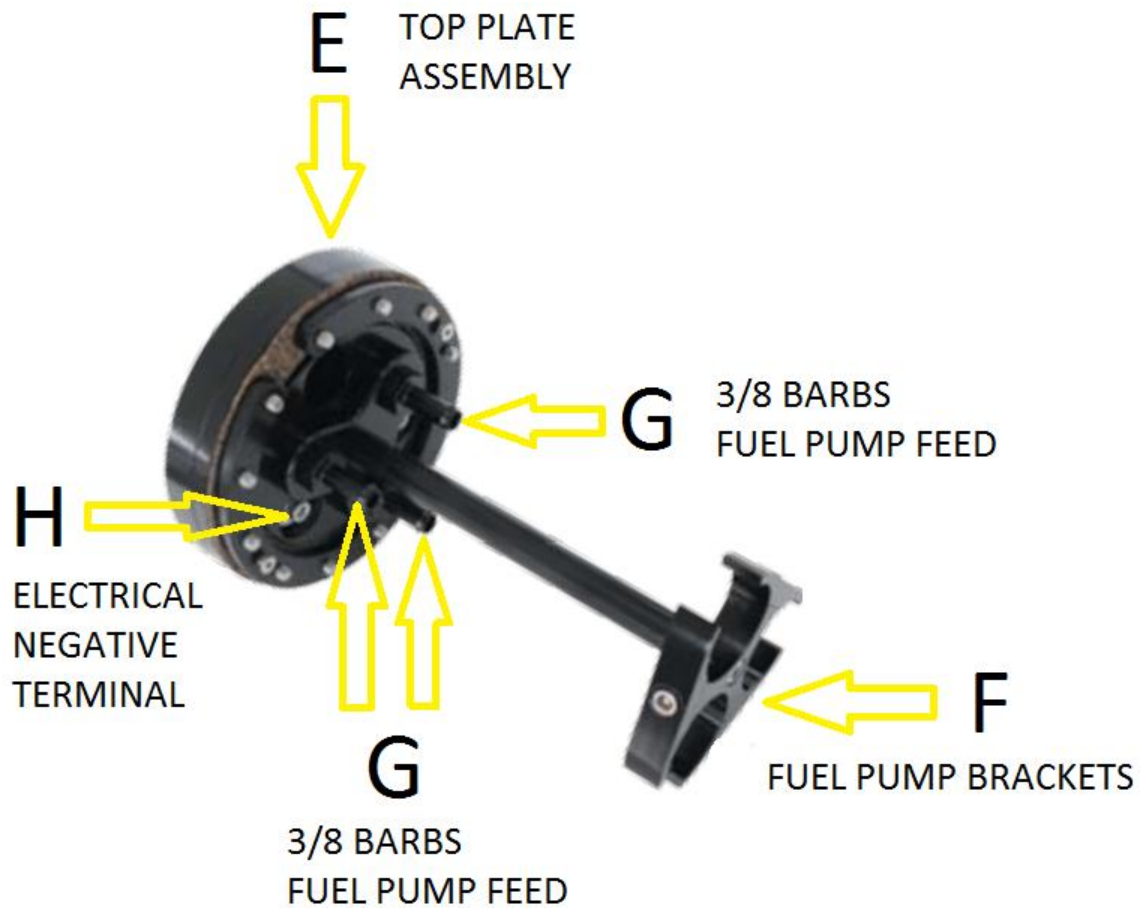
- This surge tank features:
 - Three female -8AN bungs welded to it
 - One female -10AN O-ring bung
 - One female -16AN O-ring bung with low profile cap included
 - Two M6 electrical terminals bulk heads.
 - Three -6AN O-ring to 3/8 barb
- To install fuel pumps remove all 12 socket cap screws from top plate (**E**) of surge tank. Remove top plate assembly from surge tank, loosen bottom fuel pump individual brackets (**F**) and install either one, two or three fuel pumps and tighten socket cap screws until pumps are secure and do not move. If not utilizing all pump holders ensure socket cap screws are tight and will not come loose when surge tank is in use.
- Once pumps are in place attach an appropriate hose from 3/8 barb (**G**) pre-installed underneath top plate assembly to outlet of fuel pump. Ensure each hose is secured and not too short or too long to put pressure on the fuel pumps.
- If only using one or two fuel pumps, you must remove the barbs not in use. Once removed barbs from underneath top plate, install -6AN O-ring port plug/s (AF813-06 or AF814-06) not included in this kit to top plate. This will ensure the manifold design is allowed to flow fuel correctly.
- Using the M6 electrical terminal bulkheads (**H**) pre-installed in top plate assembly wire in fuel pump/s using appropriate connections and wiring suitable for use in fuel. Ensure to wire all positive wires to the positive terminal and all negative wires to the negative terminal, which are marked on the top plate assembly from above.
- Once pump/s are secured and wired in correctly to top plate assembly. Install top plate assembly back onto surge tank ensure to use the cork gasket included. Torque all socket cap screws on the top plate to 8-9 ft-lb, ensure all socket cap screws have the nylon washer installed on each screw.
- -16AN with low profile cap that is pre-installed onto top plate assembly only needs to be used if this product is being used as a standalone fuel tank. If using as a surge tank ensure that the cap is tight before using this product.
- Three holes on the top of the tank (**A**), (**B**) & (**C**) are designed for overflow from surge tank back to the fuel tank and/or return from the engine/fuel regulator and/or the feed from fuel tank.
- Once fuel pumps are installed run your desired hose from -10AN O-ring port feed line (**D**)

INITIAL START UP

- Before starting the car ensure that the surge tank is fully primed with fuel. This can be done by cycling the vehicle's ignition power (accessories) on & off 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 or starting engine.

Failure to follow any of the above may result in fuel leakage, bursting of fuel lines, poor vehicle performance and/or decreased fuel pump life.





For more information or technical enquires

Contact: Aeroflow Performance on

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