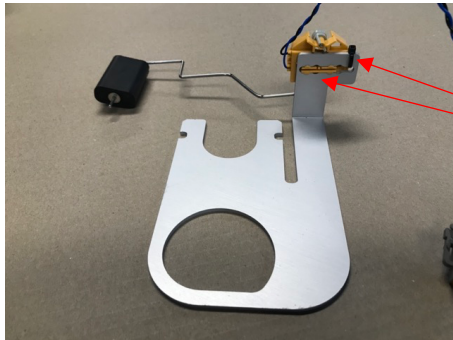




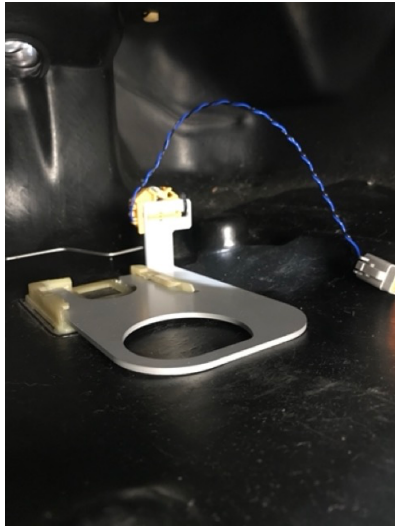
R32GT-R Fuel System Installation Guide (Also fits C34 Stagea). Kit part numbers FPG-082 and FPG-085. Note: FPG-086 kit can be used to convert FPG-082 into FPG-085. (This is a guide and installation should only be carried out by qualified and competent motorsport personnel.).



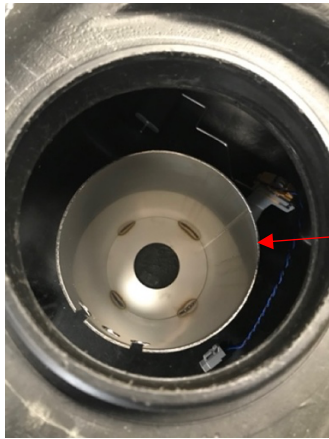
Step 1: Install fuel level sender on base plate as shown. Use cable tie to stop sender from coming out.



Step 2: Install fuel level sender and base plate inside the fuel tank, and slide into the factory holder. Make sure it is all the way in, and locked in position.



Note: The base plate provides a stable mounting location for the cylinder baffle and creates a path for the fuel to enter the cylinder.



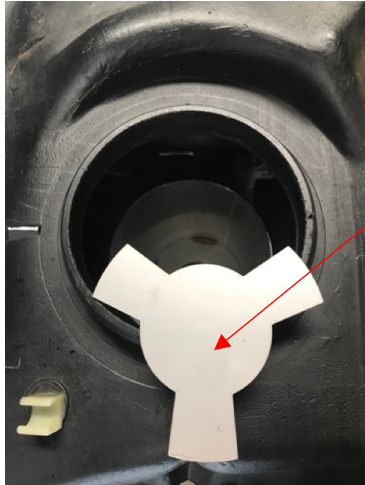
Step 3: Install the cylinder in the fuel tank. Make sure it is sitting on the base plate and clear of obstructions.



Step 4: Measure the distance between the bottom of the cylinder and the top lip of the tank opening. Record this measurement. Here we have 283mm on one side and 285mm on the other. Every tank will be slightly different. Average measurement. Here we will write down 284mm.



The next steps (5,6 and 7) only apply to “in-tank surge tank configuration”. Skip to Step 8 if your kit is a “baffled kit”.



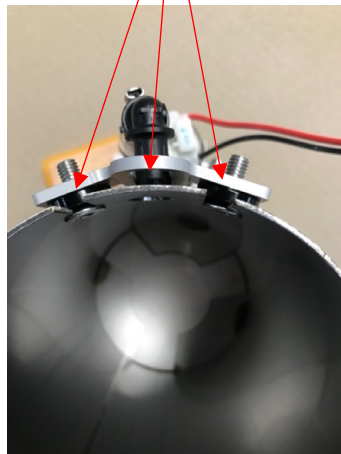
Step 5:

Install tri-spoke blanking plate in the cylinder.



Step 6:

Install lift pump and set pump height and orientation on the bench. The bracket can hold a variety of pump models. Cut the tube to the desired length. The fitting should align with the port in the cylinder. The spacers go between the cylinder and the bracket so the bolt heads can be as flush as possible.



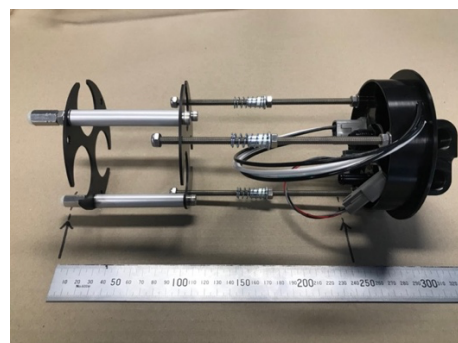
Step 7:

Remove lift pump assembly from the cylinder. Install the cylinder back into the tank, move the cylinder to the side so the lift pump assembly can be installed. Make sure the spacers go between the cylinder and the bracket and tighten the bolts. The pump should sit as per the last picture (taken from a cut-away tank).



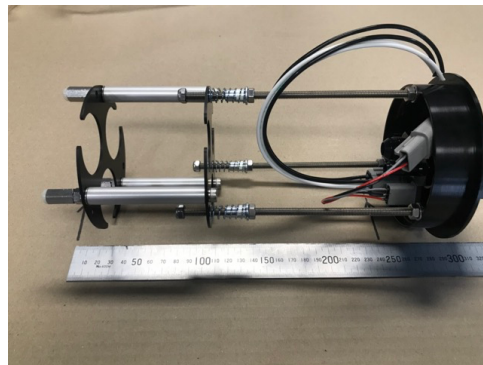
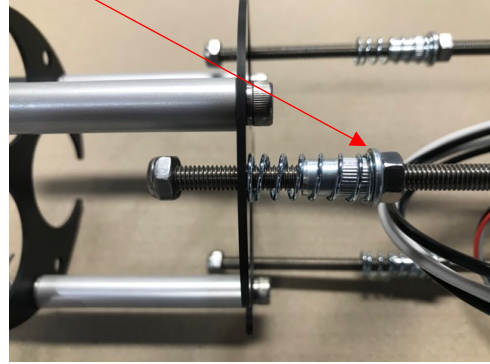
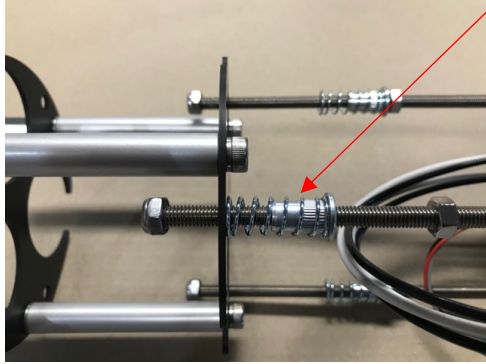
Step 8:

Set the hanger height. The hangers are shortened for packaging and will need to be set to the correct height to suit your vehicle. Here you can see that the distance between the underside of the hat seal face and the nylon feet is roughly 245mm. You will need to adjust it to the distance recorded in Step 4 plus 8mm. (The extra 8mm will allow for the seal thickness and some spring tension to hold the cylinder in place). We had 284mm in Step 4, so we will need to adjust our hanger to 292mm.



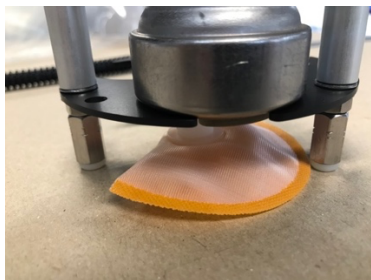
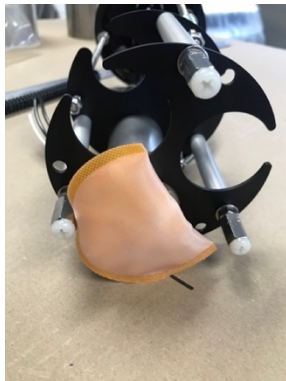
Step 9:

Set the hanger to the desired height (without compressing the springs) and tighten the nuts against the spring holders as pictured. Repeat for the 3 spring holders and check your hanger height.



Step 10:

Install the hoses on the pumps first. Secure with the clamps provided. Install the pump(s) in the hanger. You can install 1, 2 or 3 main pumps. The FPG hanger can fit a variety of pump models. You will notice an extra plate and washers in the kit. Use the plate that suits your pumps and the washers to achieve the correct spacing. The pictures below use a Walbro 460 pump. The pumps need to be held and located within the plates, but do not need to be overly tight. Some movement is acceptable. Rotate the pumps so the strainer is somewhat aligned with the shape of the plate. The feet are designed to hold the cylinder without squashing the strainers (see last picture). Connect the pump wires to the desired hat wires. Each configuration will be different depending on the number of pumps, lift pump or not etc. Wiring information can be found at the end of this manual.



Step 11:

Install the hanger into the cylinder/fuel tank. You can install it without the seal first if you would like to check that your height is correct. Connect the fuel sender wiring (3 pin plug) on the way in. The hanger should go in easily and spring tension should be felt for the last 5-8mm. Install seal, push hanger all the way in and install factory locking ring.



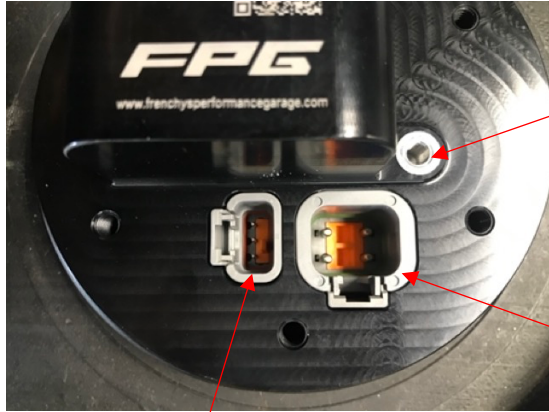
Note: The threads in the hat are M18x1.5. The center port is the feed from the pumps, and the side port is the fuel return from the fuel rail/regulator.

Important Wiring Information: Ensure that you know the current draw specifications of the fuel pumps you are using. You will need to make sure you are using adequate wiring size and relays to power the hat. Speak to your tuner if you are unsure.

The FPG hats have 2 built-in connectors. A 3 pin DTM (fuel level sender) and a 4 pin DTP (pump power). You will also notice a grounding point on the top and underside of the hat. This allows the connection of the pump negatives when more than 4 DTP pins are required.



Wiring Information:



Grounding point

DTM3: Fuel level sender.
Connect the 3 factory wires in the same order as the OEM connector.
Pin 1 Green/Blue
Pin 2 Red
Pin 3 Black

DTP4: Pump Power Supply.

Depending on the number of pumps you are using, select and allocate Pins 1 to 4 to the desired Positive/Negative. When more than 4 wires are required (more than 2 pumps), use the grounding points on the hat to connect the negatives. This will allow you to have up to 4 positives in the DTP connector.

Troubleshooting:

My fuel level doesn't work!

Check that the float is free to move up and down. Resistance values between pin 1 and 3 should be around 0-5ohm when full, and 80-90ohm when empty. If you are using an aftermarket dash/display, you will need to set it up as per the manufacturer's instructions.

The low fuel light will no longer work as these kits are aimed at performance vehicles.

The R32GT-R tank is quite wide and shallow. The first 15L of fuel poured into an empty tank should still be considered as "empty" as the pumps will be barely submerged and cavitation will occur.