



# MANUAL

## FUEL PRESSURE

### REGULATOR KIT 2023-V2

#### Presentation of the kit

The fuel pressure regulator kit consists of:

- 1 fuel pressure regulator kit
  - 1 regulator
  - 3 spare O-rings
  - 1 stainless steel fixing bracket
  - 3 stainless steel screws (CHC, imperial pitch and head)
  - 3 lock washers
  - 1 stainless steel adjustment screw (imperial pitch and Allen head)
  - 1 stainless steel washer
  - 1 stainless steel locknut
  - 1 barb brass fitting
  - 1 brass plug
- 3 male/male dash-6 adaptors with o-ring
- 1 dash-6 stainless steel braided fuel hose
- 1 dash-6 equal male/male adapter
- 2 stainless steel fixing half-shells
- 2 Jubilee clamps
- 1 pressure gauge
- 1 male/female adapter for the manometer
- 1 copper washer diam. 5mm
- 1 small Allen key 9/64"
- 1 large Allen key 3/16"
- 2 CHC M5x12 screws
- 4 M5 Schnorr washers
- 2 M5 Nylock nuts
- 1 stainless steel blanking chip



## Regulator assembly

1. Screw the 3 male/male O-ring adapters into the 3 female ports of the regulator, thread with O-ring in the regulator and thread with convex seat on the hose side, 2 on each side, 1 at the bottom. **DO NOT** use Teflon or thread sealant on these threads, as this can cause leakage. Use light oil to lubricate O-rings just prior to installation.



2. Using Teflon tape or thread sealant, screw the barb fitting into the side of the regulator.



3. Apply light oil onto the threads of the adjustment screw.
4. Screw the adjustment screw by hand until a slight tension is felt, this position is the minimum pressure setting. Do not tighten screw any further.
  - *Warning, if you had to use a key for this operation, which is not recommended, take care to use the supplied Allen key, the screw being imperial (fractions of an inch), you risk messing up the Allen head if you use a metric key.*
5. Then put the washer and the locknut. No need to tighten the locknut at this stage.



6. Mount the stainless-steel support on the regulator using the screws provided with the regulator, and the small 9/64" Allen key provided in the kit.
  - *Be careful, use the small 9/64" Allen key provided, the screws being imperial (fractions of an inch), you risk damaging the heads of the screws if you use a metric key.*
  - *Be careful not to confuse the screws supplied with the regulator (stainless steel, lock washer, imperial thread) which are used to mount the mounting bracket on the regulator, with the screws supplied in the kit (black steel, steel washers and Nylock nut, metric thread) which will be used to fix the mounting bracket on the half-shells around the frame tube.*



Note that you still have the brass plug.

7. If you have opted for the kit with an analogue pressure gauge, there is no need to put the plug on because you will put the pressure gauge in its place to adjust the fuel pressure once the regulator is installed. Proceed directly to the installation of the regulator on the next page.
8. If you have opted for the fuel pressure acquisition kit with dash display (ES242), then with the supplied 3/16" Allen key, put the small brass plug right now, with Teflon tape or sealant on the threads, in the only free inlet of the regulator, on the side of the regulator.
  - *Be careful, use the Allen key provided, the screw being imperial (fractions of an inch), you risk damaging the head if you use a metric key.*



# Regulator Installation

## Presentation

The regulator will be fitted in place of the original 3-way tee piece, on the upper left tube of the front frame.



## Extraction of the original regulator

**VERY IMPORTANT:** You must first remove the small original regulator crimped into the fuel pump well. With a flat screwdriver or pliers, gently separate the 4 metal tabs of the regulator maintaining clip until you can remove the regulator from the pump well.



Be very careful with the maintaining clip and make sure you don't damage it because it will be re-used.

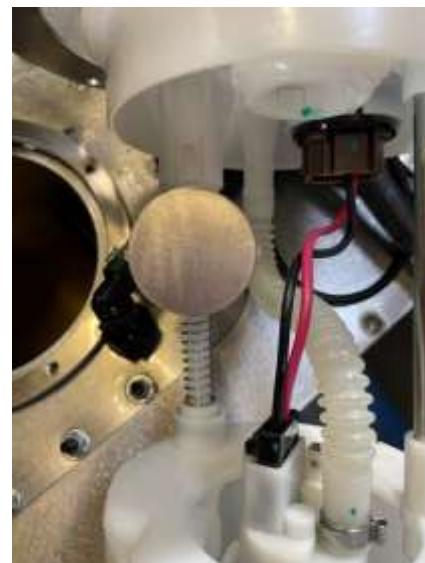
In order to avoid fuel starvation, it is indeed preferable to blank the fuel regulator hole. Fuel return will then flow directly at the bottom of the fuel pump well to be directly re-scavenged by the fuel pump, and not anywhere in the fuel tank.



A stainless-steel blanking chip is supplied in the kit.



The blanking chip will be fitted in place of the former fuel regulator.



Fit the blanking chip into the former fuel regulator clip, and fit back this assembly on the fuel pump well, by Correctly and carefully fold back the clip tabs in order to correctly secure the assembly.



1. Disconnect the ground terminal of the battery.
2. Allow the engine and exhaust system to cool.
3. Being cautious of the fuel that can squirt because the fuel circuit might still be under pressure, disassemble the original 3-way tee piece and remove the lower cap, it will be reused.  
NB: Keep the tee with the small regulator that you removed from the pump just in case, the assembly being entirely reversible.



4. Unscrew the return hose from the rear outlet of the injection rail, and screw the cap that you have recovered from the original tee onto this rear outlet of the rail to block it.



5. Using the dash-6 equal male/male adapter (2 convex seats), connect this return hose with the hose provided in the kit.



6. Screw the other end of this extended return hose to the bottom outlet of the regulator (wait before attaching the regulator to the chassis until all the hoses are connected to the regulator).
7. The supply hose coming from the pump is connected, as on the original tee, to the rear inlet of the regulator.
8. The supply hose that goes to the front inlet of the ramp connects, as on the original tee, to the front outlet of the regulator.



9. Now fix the regulator on the chassis tube, by screwing the small stainless-steel bracket to the two stainless-steel half-shells supplied in the kit, with the 2 black steel M5x12 CHC screws, the 4 M5 Schnorr washers and the 2 M5 Nylock nuts. Use metric keys for this operation. The flat tabs of the half-shells must be positioned on the regulator side of the stainless-steel bracket.



10. Attach the half-shells to the rollbar using the Jubilee clamps provided by passing them through the slots cut in the half-shells for this purpose. A small piece of heat-shrink sheath on the Jubilee clamps will make a good anti-slip.



Your regulator is now installed.



## Fuel pressure acquisition option

If you have opted for fuel pressure acquisition with dash display

1. In place of the cap at the rear outlet of the injection rail, connect the hose from the fuel pressure kit.
2. Connect the sensor to the other end of the hose.
3. Connect the connector to your harness (EVO harness only).



## Fuel pressure adjustment (with analogue pressure gauge)

1. Taking care to fit the small copper seal, mount the male / female adapter on the manometer.



2. Using Teflon tape or thread sealant on the tapered threads of the adapter, screw the gauge into the only free inlet on the side of the regulator.



3. Start the engine. On the upper regulator screw, loosen the locknut.
4. Fuel pressure is adjusted by screwing in and out this top regulator screw, and fuel pressure is read on the gauge.
 

*Be careful, use the supplied Allen key, the screw being imperial (fractions of an inch), you risk damaging the Allen head if you use a metric key.*
5. Once the correct pressure has been reached (it must be between 3.6 and 3.8 bars by regulation), tighten the locknut.
6. Switch off the engine.
7. The gauge should only be used to adjust the fuel pressure. Under no circumstances should the car be driven with the pressure gauge fitted. Unscrew the manometer and its adapter. Watch out for the gasoline that will escape.
8. Now place the small brass plug, with Teflon tape or thread sealant, into the only remaining regulator inlet on the side of the regulator.

*Be careful, use the supplied Allen key, the screw being imperial (fractions of an inch), you risk damaging the Allen head if you use a metric key.*



(with the dash fuel pressure acquisition kit)

1. If not already done, install the fuel pressure acquisition kit (see above).
2. Make sure the brass flush plug is in place on the side of the regulator (see page 3).
3. Start the engine.
4. On the upper regulator screw, loosen the locknut.
5. Fuel pressure is adjusted by screwing and unscrewing this upper regulator screw, and the fuel pressure is displayed on the dash of the car.

*Be careful, use the Allen key provided, the screw being imperial (fractions of an inch), you risk damaging the Allen head if you use a metric key.*

6. Once the correct pressure has been reached (it must be between 3.6 and 3.8 bars by regulation), retighten the locknut.