

Product Name: **FPR Range**  
 Product Description: **FPR**  
 Product Number: **TS-0404-10XX/11XX**  
 Document Version: **V1.00 Rev B**



**IMPORTANT NOTES ON YOUR FUEL PRESSURE REGULATOR**

- **Do NOT remove or adjust the collar.**
- Turbosmart accepts no responsibility whatsoever for incorrect installation of this product which is potentially hazardous and can cause serious engine damage or personal injury. Ensure there are no leaks in your fuel system after installation and you have checked fuel suitability.
- Use only high-quality fittings ensuring maximum sealing reliability. Optional Turbosmart fitting kit available.
- Ensure that all plumbing is appropriately secured. Is the correct size and chemical rating for your application when fitting your FPR.
- Ensure to relieve fuel pressure before removing OEM Fuel Pressure Regulator
- Your fuel pressure regulator should be mounted at least 100mm from any significant heat source.
- Gauge port is 1/8" NPT. **Make sure to use thread sealant.**
- **Make sure that manifold reference port is sealed with thread sealant.**

**RECOMMENDATIONS**

- Turbosmart recommends that your fuel pressure regulator (FPR) is fitted by an appropriately qualified technician
- Turbosmart recommends that the engine Air-Fuel ratio checked once fuel pressure is set.
- Optional Turbosmart fuel rail adaptor kits: TS-0402-10XX (Honda, Nissan, Toyota, Mitsubishi, Subaru, Ford, Audi and more supported)
- Optional Turbosmart fuel filter kits: TS-0402-113X (6 to -10 AN)
- Optional Turbosmart fuel fitting kits: TS-0402-11XX (NPT, -6 to -10 AN)
- Turbosmart recommends using a fuel safe thread sealant.

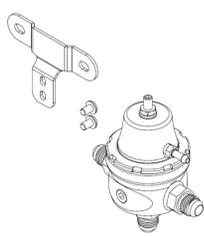
**HOW TO INSTALL YOUR FUEL PRESSURE REGULATOR**

**TOOLS REQUIRED**  
 Non-marking spanners to tighten fittings.  
 Allen Key Set

**KIT CONTENTS**

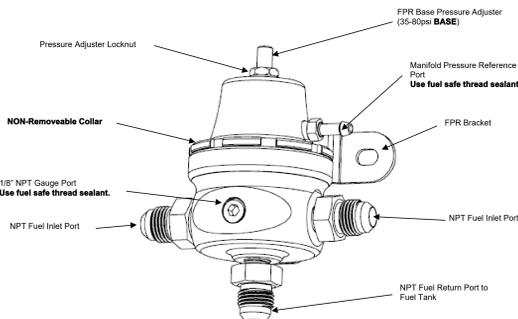
Please check that the following items have been provided in your FPR kit.

Quantity	Description	Use
1	Turbosmart FPR	Main unit
2	M5 Mounting Screws	Secures the mounting bracket to the main unit
1	Mounting Bracket	Mounting bracket used for remote mounting the FPR
1	Turbosmart Sticker	Turbosmart sticker

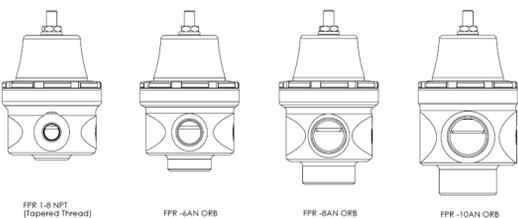


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**FPR OVERVIEW 1-8NPT(Pictured)**



**FPR OVERVIEW**



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**FITTING YOUR FPR**

**1 Locate fuel pressure feed line, base pressure and determine mounting location**

This line is usually found by identifying your injectors, the fuel rail the injectors are mounted to and then the line that is feeding the fuel rail. Turbosmart recommends determining your current base fuel pressure with your existing regulator to identify a reference for the base pressure you set the new regulator to. This can be done with any reputable pressure gauge at idle and with the vacuum hose disconnected from the regulator. Take time to determine where you wish to mount the FPR in the engine bay. Some examples of placement for your FPR are:

- Mounted against chassis
- Mounted onto fuel rail
- Mounted into intake manifold

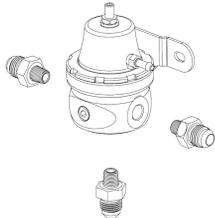
**CAUTION!**  
 Do not place the FPR near a significant heat source as this may lead to severe engine fires.

**CAUTION!**  
 Ensure to relieve fuel pressure before removing OEM Fuel Pressure Regulator

**2 Prepare FPR for installation**

Prior to mounting the FPR, install fittings into FPR with high quality AN ORB fittings ensuring the O-Ring is present. Optional Turbosmart fitting kits available – TS-0402-11XX (NPT, -6 to -10 AN)

**Note!**  
 O rings are not used in the FPR Kompact (1/8" NPT) due to the tapered thread. A fuel safe thread lubricant should be used.



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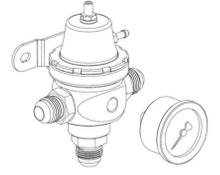
**CAUTION!**

Ensure correct installation of fittings to prevent high pressure and temperature fuel leaks which can lead to extremely dangerous fires. See across for example of ORB fitting – note the O-ring.



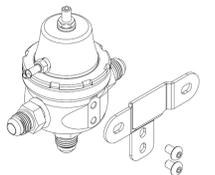
**3 Fit Gauge or Sensor Port (OPTIONAL)**

This step is optional. Prior to mounting the FPR, install 1/8" NPT gauge or sensor. Unscrew existing 1/8" NPT blank anti-clockwise with 3/16" hex key. Apply thread lubricant and screw in clockwise until finger tight, then tighten further 1-2 turns for seal. Turbosmart gauge kit optional – TS-0402-2023.



**4 Mounting your FPR**

With all fittings installed onto the FPR, the FPR can now be mounted. The mounting bracket is held on with two M5 Allen key screws. A 3mm Allen key is required to mount these to the back of the FPR. The mounting bracket is now successfully installed, and you can now mount your FPR in your specified



**5 Start engine and check for leaks**

Congratulations, your FPR is installed and ready for use. Double check all fittings, lines and mountings then proceed to activate fuel pumps and check for leaks.

**CAUTION!**  
 Engine may run rough with incorrect base fuel pressure.

**CAUTION!**  
 If fuel leaks are present – switch off engine immediately and rectify leaks. See over for troubleshooting steps.

**CAUTION!**  
 An incorrect setting of fuel pressure may cause your engine to run lean with the potential for detonation. Turbosmart recommends air-fuel ratios are checked immediately after base pressure adjustments.

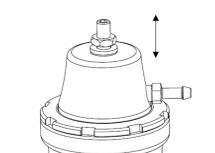
**ADJUSTING YOUR FPR**

**1 Remove signal reference hose and loosen 10mm locking nut**

Remove vacuum/pressure signal reference hose from nipple and loosen 10mm locking nut on top of FPR anti-clockwise to allow for free movement of the adjuster screw.

**2 Adjust base pressure**

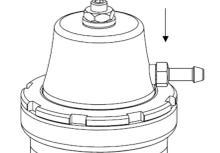
Ensure battery voltage is sufficient and idle engine. Observe the base pressure on the gauge or your data logging device, turn the adjuster with a 3mm hex tool clockwise to increase fuel pressure and anti-clockwise to decrease fuel pressure. The example below is an increase in fuel base pressure.



**CAUTION!**  
 Avoid screwing adjuster in forcefully as this will not allow for the device to regulate fuel pressure and can cause damage to your fuel pumps

**3 Tighten 10mm locking nut and reconnect signal reference hose**

Once base pressure has been successfully set, reconnect the signal reference hose and tighten the 10mm locking nut preventing the adjuster screw from s



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**TROUBLE SHOOTING**

- FPR Leaking – Check fittings are tight and O-Rings are present or not damaged
- FPR regulating below 35psi (240kPa) – Ensure fuel pump pressure is above 35psi with no regulator. If fuel pressure is below 35psi, the FPR will not regulate until inlet pressure exceeds 35psi. Possible faulty fuel pump/electrical connection.
- FPR regulating above 80psi (550kPa) – Ensure fuel return line is not restricted causing a pressure build up for the regulator.
- FPR not holding base pressure – Check for blockages, leaks in the system and that fuel pumps are active.
- Failing the above, submit a technical request to [tech@turbosmart.com.au](mailto:tech@turbosmart.com.au) with information of your engine, fuel type and photos of installation

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