Turbosmart

TS-0811-1212 ProOPR Turbo Oil Pressure Regulator - Instructions

Product Name:	OPR
Product Description:	ProOPR Turbo Oil Pressure Regulator
Product Number:	TS-0811-1212

Important Notes on Your Oil Pressure Regulator

- Turbosmart accepts no responsibility whatsoever for the incorrect installation of this product which is potentially hazardous and can cause serious engine damage or personal injury.
- *FLOW DIRECTION IS IMPORTANT.* Incorrect plumbing will not allow oil to flow through the OPR.
- This is an adjustable regulator that is increased as positive pressure is applied to the reference port.
- The internal filter should be cleaned at regular oil change intervals. Failure to clear the filter of particulates may restrict oil flow and change the regulated pressure.
- The internal filter should be kept in the same orientation after cleaning to minimise that left-over particles aren’t dislodged during normal operation.
- Ensure that all plumbing is appropriately secured.
- Your turbo oil pressure regulator should be mounted at least 100mm from any significant heat source.
- Gauge port is 1/8” NPT.
- Reference port is 1/8” NPT.
- Turbo Oil Feed Outputs are 1/8” NPT.
- Preinstalled restrictors on turbochargers should remain intact.

Recommendations

- Turbosmart recommends that an appropriately qualified technician fits your turbo oil pressure regulator (OPR)
- Turbosmart recommends that your engine oil pressure is checked after fitment to ensure engine oil and turbo oil pressure is satisfactory.
- Turbosmart recommends that the oil pressures are monitored closely.

- Turbosmart recommends that in the event of an engine failure, the filter and O Rings be replaced with the rebuild kit (TS-0801-3001) and thoroughly clean the internals inspecting for any damage before reassembly.

ⓘ Kit Contents

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

Quantity	Description	Use
1	Turbosmart Pro OPR	Main Unit
1	Turbosmart Sticker	Turbosmart Sticker

How to Install Your Oil Pressure Regulator

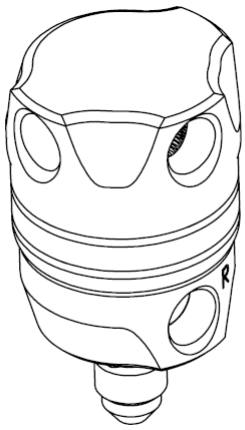


Figure 1 - Kit Contents

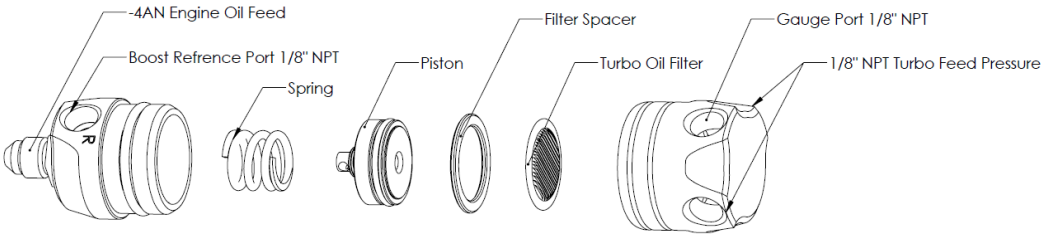


Figure 2 - OPR Overview

Tools Required

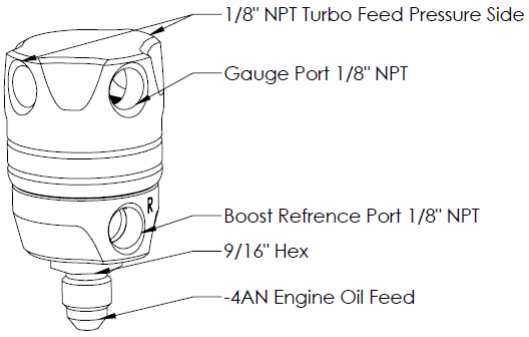
No	Description
1	Non-marking spanners to tighten fittings.
2	Allen key set

Fitting Your OPR

Locate the Turbo Oil Pressure Feed Line and Determine the Mounting Location

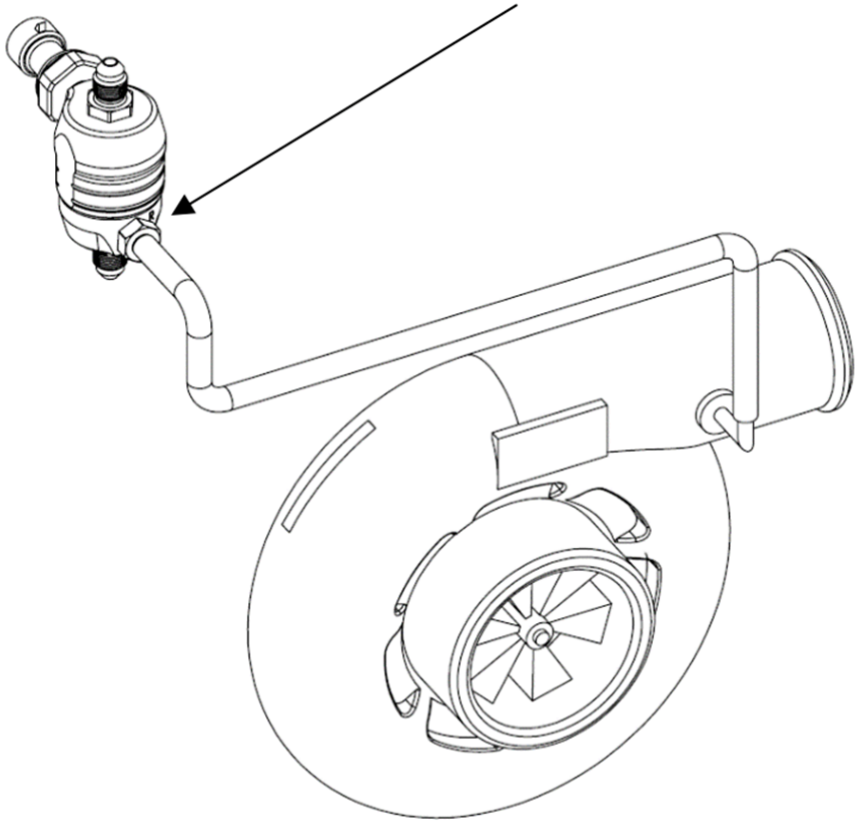
This line is usually found on the top of the turbo centre housing rotating assembly (CHRA) that feeds the turbo for lubrication and cooling. Take time to determine where you wish to mount the OPR in the engine bay.

Note: Direction is important. The Turbo side must be plumbed to the Turbo.



Fitting Boost Reference

The Boost reference port takes the OPR from 20PSI up following a rising rate of 1 PSI of Boost pressure to 0.8 PSI Oil Pressure. The Reference port **MUST** be positive pressure only. Higher boost pressure is an indicator of higher shaft speed which require more oil pressure. The 1/8 NPT is plumbed up to the **“R”** Boost reference port.



Fit Gauge or Sensor Port (*STRONGLY* Recommended)

Note! - Oil Pressure should be verified with a mechanical gauge minimum.

This step is optional but highly recommended. Before mounting the OPR, install a 1/8” NPT gauge or sensor. Unscrew the existing 1/8” NPT blank anti-clockwise with a 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.

Troubleshooting

- OPR Leaking – Check fittings are tight and O-rings are present or not damaged.
- OPR regulating below 20psi (137kPa) – Ensure engine oil pressure is above 20psi. If engine oil pressure is below 20psi, the OPR will not regulate until inlet pressure exceeds 25psi.
- OPR not regulating above at correct regulation pressure – Ensure boost reference is free from leaks and allows enough flow to boost reference port.
- Failing the above, submit a Technical Request Form with information about your engine, oil type and photos of the installation and one our expert technicians will respond as soon as possible.