OPR t40 Turbo Oil Pressure Regulator TS-0801-100X V1.00 Rev A PATENT PENDING



IMPORTANT NOTES ON YOUR TURBO OIL PRESSURE REGULATOR

- Do NOT remove or adjust the cap. This is NOT an adjustable regulator.
- Use only high quality fittings ensuring maximum sealing reliability. Optional Turbosmart fitting kit TS-0802-1001.
- 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.

RECOMMENDATIONS

- Turbosmart recommends that your turbo oil pressure regulator (OPR) is fitted by an appropriately qualified technician
- Turbosmart recommends that you remove all removeable turbo oil restrictors prior to fitting your OPR.
- Turbosmart recommends that your engine oil pressure is checked after fitment to ensure engine oil pressure is satisfactory.
- Optional Turbosmart fitting kit TS-0802-1001

HOW TO INSTALL YOUR TURBO OIL PRESSURE REGULATOR

TOOLS REQUIRED

External circlip pliers to suit 27mm circlip, Non-marking spanners to tighten fittings.

KIT CONTENTS

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

Quantity	Description	Use
1	Turbosmart OPR t40	Main unit
1	27mm External Circlip	Secures the mounting bracket to the main unit
1	Mounting Bracket	Mounting bracket used for remote mounting the OPR
1	Turbosmart Sticker	Turbosmart sticker

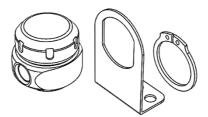


Figure 1 - Kit Contents

OPR OVERVIEW

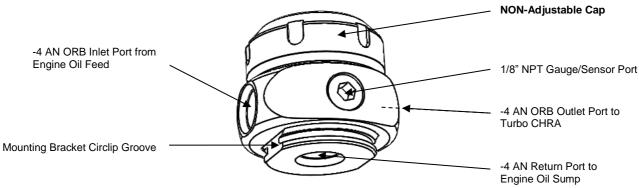


Figure 2 - OPR Overview

FITTING YOUR OPR t40



Locate turbo oil pressure feed line and determine mounting location

This line is usually found on the top of the turbo center 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. Some examples of placement for your OPR are:

- Mounted against chassis
- Mounted onto oil filler cap
- Mounted onto breather return line
- Mounted onto breather tank

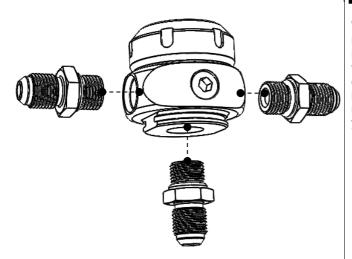
CAUTION!

Do not place the OPR return together with the turbo drain line as this will interfere with the function of the turbo drain and may cause issues with the turbocharger oil system.



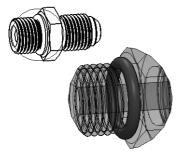
Prepare OPR for installation

Prior to mounting the OPR, install fittings into OPR with high quality AN ORB fittings ensuring the O-Ring is present. Optional Turbosmart fitting kit available – TS-0802-1001.



CAUTION!

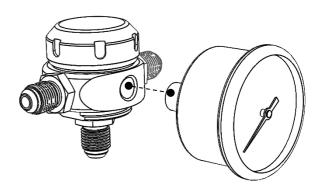
Ensure correct installation of fittings to prevent high pressure and temperature oil leaks which can lead to extremely dangerous fires. See below for example of ORB fitting – note the O-ring.





Fit Gauge or Sensor Port (OPTIONAL)

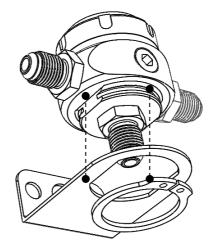
This step is optional. Prior to mounting the OPR, install 1/8" NPT gauge or sensor. Unscrew existing 1/8" NPT blank anticlockwise with 3/16" hex key. Apply thread lubricant and screw in clockwise until finger tight, then tighten further 1-2 turns for seal. Turbosmart gauge kit optional – TS-0402-2023.





Mounting your OPR

With all fittings installed onto the OPR, the OPR can now be mounted. Place the mounting bracket over the base of the OPR in the orientation of your choice, place the circlip over the top of the mounting bracket and with external circlip pliers expand the circlip and push down until the circlip clicks into place. Your mounting bracket is now successfully installed and you can now mount your OPR in your specified location. Proceed to connect your oil lines.





Start engine and check for leaks

Congratulations, your OPR is installed and ready for use. Double check all fittings, lines and mountings then proceed to start engine and check for leaks. No adjustment is required.

CAUTION! If oil leaks are present – switch off engine immediately and rectify leaks.

See over for troubleshooting steps.

TROUBLE SHOOTING

- OPR Leaking Check fittings are tight and o-rings are present or not damaged.
- OPR regulating below 40psi (275kPa) Ensure engine oil pressure is above 40psi, if engine oil pressure is below 40psi, the OPR will not
 regulate until inlet pressure exceeds 40psi.
- OPR regulating above 50psi (345kPa) Ensure oil return line is not restricted causing a pressure build up for the regulator.
- Failing the above, submit a technical request to tech@turbosmart.com.au with information of your engine, oil type and photos of installation

