

Product Name: Kompact Universal DP BOV
 Product Description: Universal fit Dual Port BOV
 Product Number: TS-0203-10XX



IMPORTANT NOTES:

- Please thoroughly read and understand these instructions before commencing this installation.
- The thread on the cap for the vacuum source is AN#3. The standard swivel nipple can be changed to a AN#3 fitting if desired.

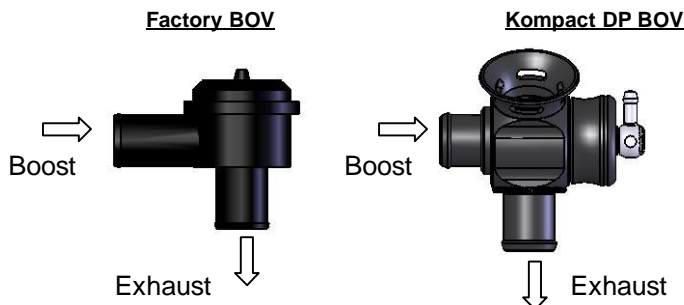
RECOMMENDATIONS

- **Turbosmart recommends that your Blow off valve (BOV) is fitted and adjusted by an appropriately qualified technician**
- **Turbosmart recommends that a boost gauge be permanently fitted to the vehicle**

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

Quantity	Description	Use
1	Dual port BOV	Replaces standard bypass valve
6	Shims	To increase spring force for high vacuum applications
2	Hose clamps	To secure Boost and exhaust hoses onto BOV

HOW TO INSTALL YOUR BOV



NOTE: Be sure to mount the Kompact Dual Port in the orientation shown above compared to the standard BOV.

BLANK PLUG: The Dual port is supplied with a blanking plug for the vent to atmosphere side of the BOV to convert the BOV to full recirculation mode. Simply unscrew the trumpet and screw in the supplied blanking plug. Alternatively, the blanking plug can be used to convert the BOV into full vent to atmosphere mode by installing the blank onto the plumb back side.

General installation guidelines

- Remove the engine cover, common to most European vehicles.
- Locate the factory BOV. Undo the hose clamps holding the factory BOV to the boost and exhaust hoses.
- Remove the factory BOV **noting the positions of the boost hose and the exhaust hose**. You will have to fit the Kompact DP BOV with reference to the boost hose and exhaust hose.
- Remove the vacuum/boost line from the Factory BOV nipple.
- The Kompact DP BOV will be mounted in the space where the factory BOV was sitting. Ensure that the mounting position will not be effected by the engine moving when under load.
- The Kompact DP BOV must be mounted in a position so that it is sheltered from any contamination, i.e. away from where it could be splashed or the direct path of any air borne debris.
- Ensure that the factory hoses on which the Kompact DP BOV will be fitted to are in a good condition, not worn and without any tearing.
- Connect the factory boost hose onto the Kompact DP BOV
- Connect the factory exhaust hose onto the Kompact DP BOV
- Tighten the hose clamps supplied on the factory hoses to secure the Kompact DP BOV.
- Connect the factory vacuum/boost line onto the Kompact BOV nipple. If the factory vacuum/boost line does not fit, connect the appropriate reducer & 5mm vacuum hose. Push the exposed end of the reducer into the factory vacuum/boost line and connect the 5mm vacuum hose onto the Kompact nipple.
- Minimise the length of the vacuum hose where possible – the longer the hose, the slower the Kompact DP BOV will respond, this may have a dramatic effect on the performance of the Kompact DP BOV

ADJUSTING YOUR BOV

Each BOV needs to be adjusted to suit the vehicle it is being mounted on. The aim of the adjustment on the Dual port is to make sure that the piston is hard closed at idle and that the piston closes fast enough to minimise backfiring and not stall the engine.

Adjustment to the BOV is made by rotating the cap. To increase the spring force on the piston, rotate the cap clockwise in the direction of hard as marked on the top of the cap. To decrease the spring force on the piston, rotate the cap anticlockwise in the direction of soft as marked on the top of the cap - **CAUTION** - Do not rotate the cap beyond the O-Ring groove. If the cap is fully wound down and the piston is still open at idle, remove the cap and install 2 shims to increase the force. Re install the cap and check that the piston is fully closed at idle. Add more shims if required. Once it is confirmed that the piston is fully closed at idle, perform the following adjustment procedure.

- Start with the BOV cap at the maximum soft position (The indicator O-Ring should be completely covered by the edge of the cap)
- With the engine at idle the exhaust port should be closed off by the piston – the piston should be hard against the seat and not floating or moving
- Free rev the engine and back off quickly, the engine should return to normal idle speed – if the engine drops below idle or stalls increase the spring tension by one turn
- Repeat this process until the engine free revs and returns to normal idle speed
- Test drive the car and ensure that when decelerating or changing gears that the engine has minimal backfiring and no stalling. If backfiring is excessive or stalling is noticed then check all connections made during the installation, otherwise increase the spring tension

MAINTENANCE

Turbosmart recommends that the following maintenance procedure is carried out at six monthly intervals or at higher intervals if the environment is very dusty or wet. Regular maintenance will ensure that your BOV is operating at its peak performance and will extend the working life of the product.

- Remove the cap of the BOV by rotating in an anti-clockwise direction – **CAUTION**, the cap is under spring force, remove with care!
- Carefully remove the piston and thoroughly clean the piston and the bore of the BOV
- Inspect the surface of the piston and the bore of the BOV for scoring or excessive wear, silver coloured marks on the bore are an indication of excessive wear
- Check the Base O-ring and the Cap O-ring for any damage – replace if necessary
- Lubricate the bore and the piston with Uni-Glide™, hydraulic oil or sewing machine oil – DO NOT use grease or viscous oils
- Re-assemble the BOV in the reverse order

TROUBLE SHOOTING

The following points should be checked if you find that your engine is dipping below normal idle, stalling or if the BOV is functioning poorly. Please note: the following checks will cure 99% of problems experienced with a BOV.

- Check the vacuum hose for splits, cracks, loose connection, kinking or any obstruction – old or fatigued hose may collapse under vacuum causing an obstruction.
- With the engine running remove the vacuum / boost hose from the nipple in the cap of the BOV, there should a loud hissing sound. The engine should idle poorly, double check by covering the end of the hose with your finger – otherwise the hose is blocked.
- Check to see if the BOV is blocked or contaminated with dirt or debris.
- Ensure that the vacuum / boost source is not shared and that the vacuum source is directly from the inlet manifold.
- Check the seal between the intercooler flange and the BOV. Make sure the supplied gasket is installed and the BOV Flange is secured on the intercooler flange with the two factory bolts.
- Ensure the spring clamps are secured on silicon hoses and fittings.