

BLOW-OFF VALVE SUPERSONIC WRX 01 (WRXSS) INSTRUCTIONS

IMPORTANT NOTES ON FITTING YOUR BOV WRXSS

Turbosmart recommends that your Blow-Off Valve (BOV) is fitted by an appropriately qualified technician. See the following steps for details on the fitting procedure:

- Remove the metal breather tube from the front of the intercooler by disconnecting the three rubber breather hoses and three M6 bolts locating the breather tube to the intercooler (fig. 2)
- Remove the vacuum / pressure hose that is connected to the top of the standard BOV (fig. 2)
- Remove the standard BOV by removing the two M8 mounting bolts holding the BOV to the intercooler (fig. 2)
- Disconnect the return hose from the exhaust side of the standard BOV and remove the BOV from the engine bay – **Take care not to loose or drop the gasket**
- Block the BOV return hose with the Bung Plug supplied and refit the standard hose clamp over the Bung Plug (fig. 3) –**IMPORTANT!**
- Fit the breather hose T-piece to the two breather hoses on the left side of the intercooler as shown (fig. 4)
- Fit the breather hose Joiner to the breather hose on the right side of the intercooler as shown (fig. 5)
- Route the supplied breather hose extension piece under the intercooler and connect it to the breather hose T-piece and the breather hose Joiner (fig. 6)
- Ensure that the BOV mating surfaces are clean and free from oil (fig. 3)
- Fit the BOV and gasket to the intercooler and tighten the M8 mounting bolts (fig. 6)
- Ensure that the BOV is clear of the inlet manifold, if it is touching loosen the mounting bolts and move the BOV until it is clear (fig. 6)
- Refit the standard vacuum / pressure hose to the top cap of the BOV – ensure that the hose is in good condition and has not been kinked or twisted (fig. 6)
- See notes on setting the spring tension of your BOV

Figure 1 Parts Layout

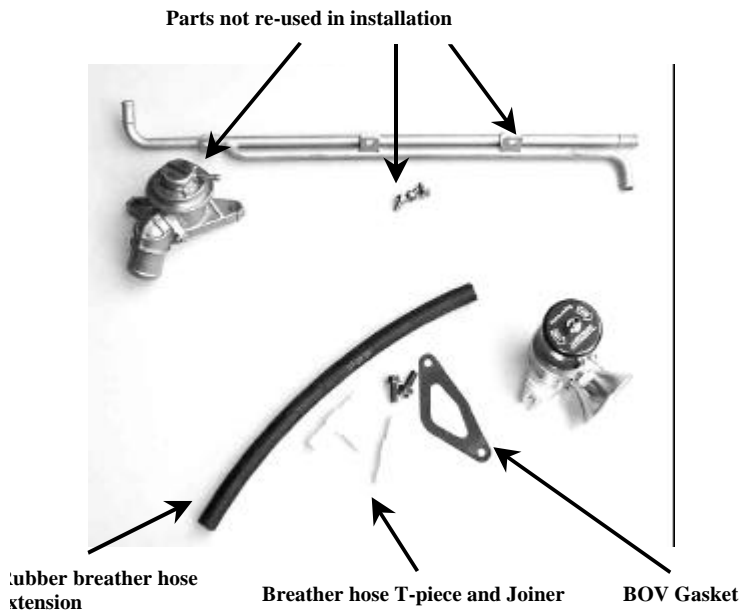


Figure 2 View of standard BOV

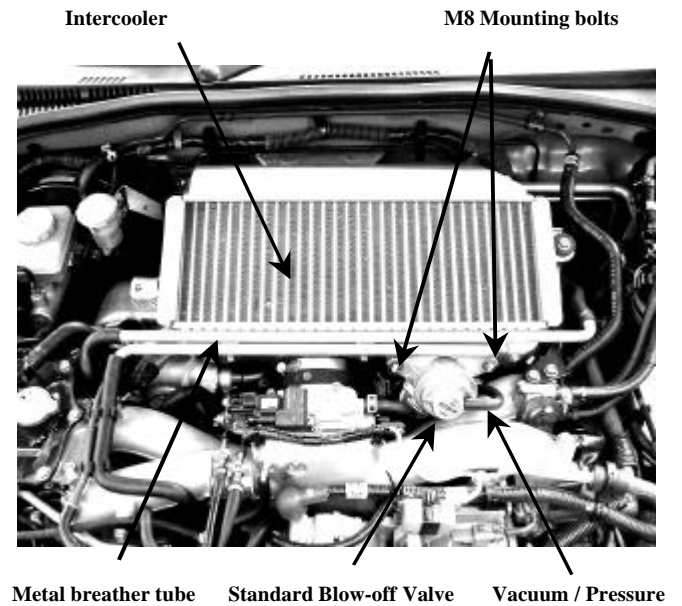


Figure 3 View of standard BOV removed

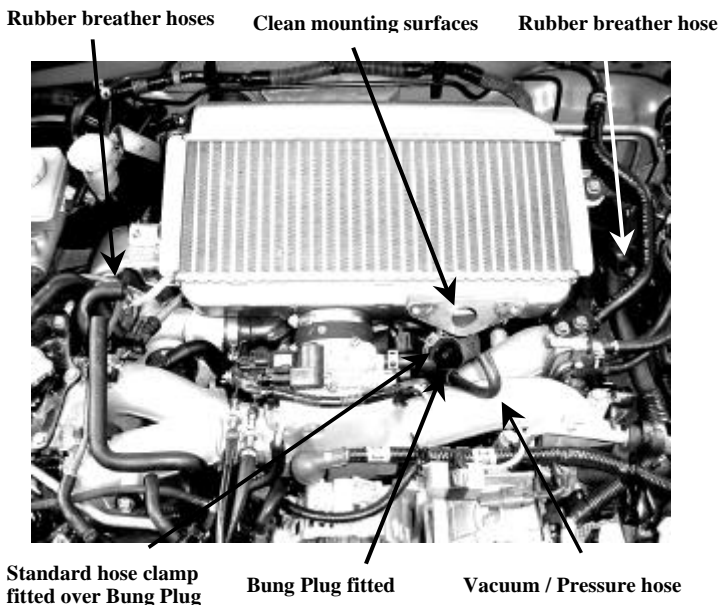
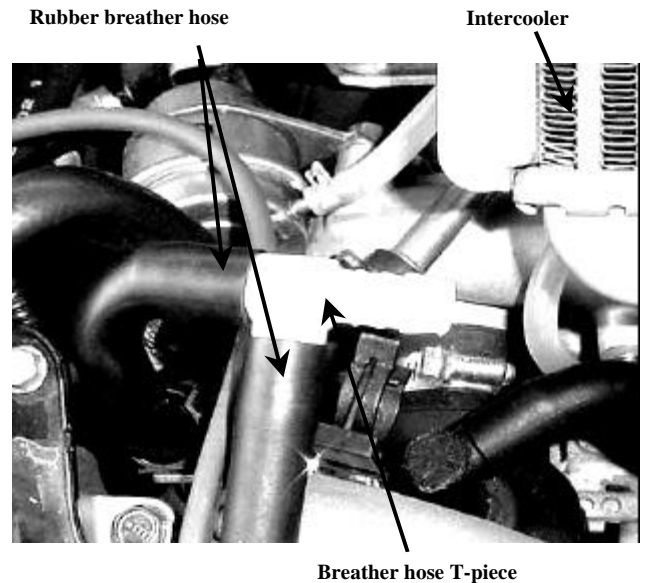


Figure 4 Breather T-piece installed



BLOW-OFF VALVE SUPERSONIC WRX 01 (WRXSS) INSTRUCTIONS

Figure 5 Breather Joiner installed

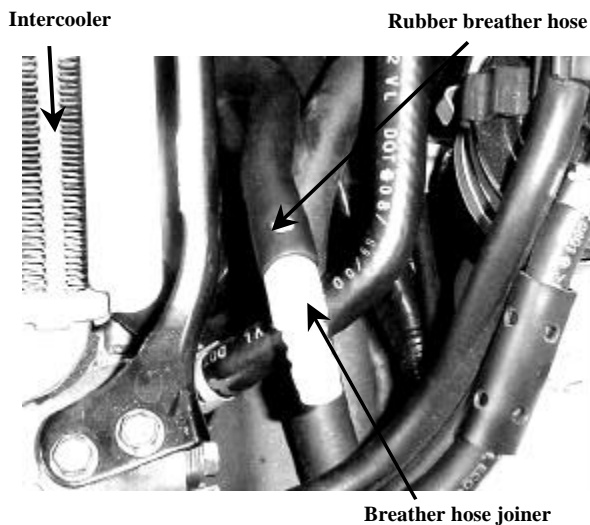
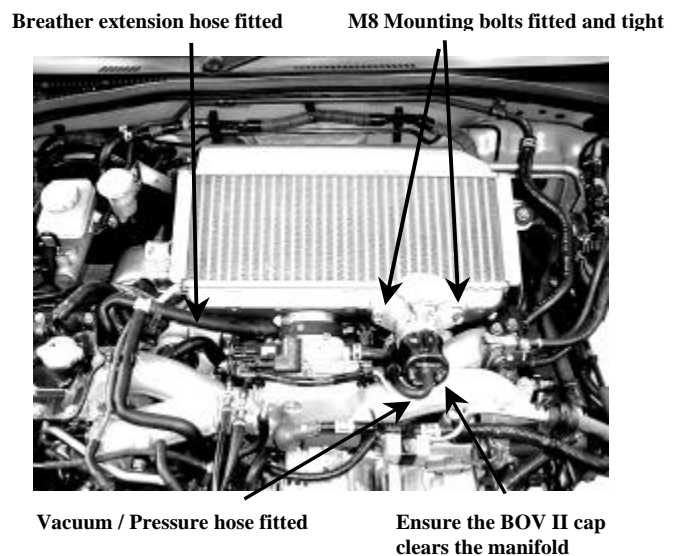


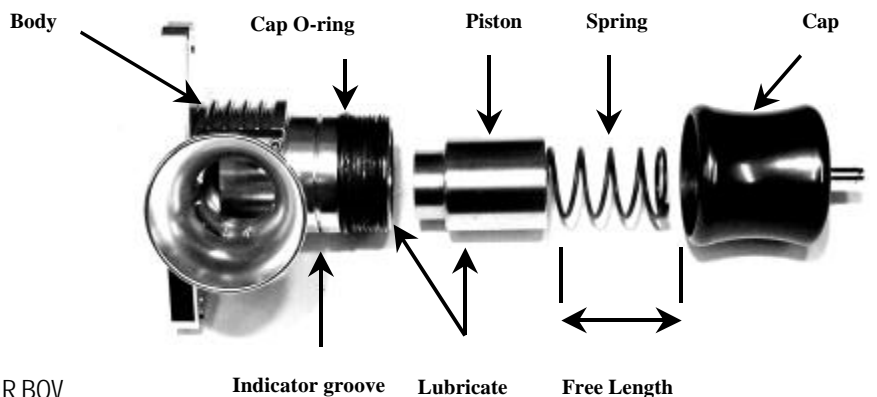
Figure 6 Completed BOV installation



IMPORTANT NOTES ON SETTING THE SPRING TENSION

- Adjustment to the BOV is made by rotating the cap. To increase spring tension rotate in the direction of hard, marked on the top of the cap
- Rotate the cap in the direction of soft to decrease the spring tension – **CAUTION** Do not rotate the cap beyond the indicator groove (see fig. 7)
- With the engine at idle the exhaust ports 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 half a 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 does not backfire or stall. If backfiring or stalling is noticed then check all connections made during the installation, otherwise increase the spring tension
- Turbosmart recommends that your BOV is adjusted by an appropriately qualified technician
- Turbosmart recommends that a boost gauge be permanently fitted to the vehicle

Figure 7 Exploded view of the BOV



MAINTAINING YOUR BOV

Turbosmart recommends that the following maintenance procedure is carried out at six monthly intervals. Regular maintenance will ensure that your BOV is operating at its peak and will extend the working life of the product.

- Remove the cap from the BOV by rotating in an anti-clockwise direction – **CAUTION** The cap is under spring tension, wear safety glasses and remove with care!
- Remove the spring and measure the free length or the overall length of the spring (should be no less than **155mm or 6.125"**) – replace if below
- Remove the piston, 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 are an indication of excessive wear
- Check 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 / pressure 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, if the valve appears to be contaminated follow the maintenance directions above
- Ensure that the vacuum / pressure source is not shared and that the vacuum source is directly from the inlet manifold
- Check the seal between the BOV and the intercooler, ensure the gasket is in good condition and check for any air leaks

Warranty
Turbosmart warrants its products to be free from faults or defects for the life of the product. *
* Subject to Turbosmart trading terms and conditions

Warning!
Incorrect use of this product may result in damage to your vehicle. Failure to observe any notes or recommendations may result in incorrect use of this product. This product is intended for use in off-road racing only. Turbosmart will accept no responsibility for the incorrect use of this product.

Disclaimer!
Turbosmart will not be held responsible for any damage caused to property or person, directly or indirectly related to the use of a Turbosmart product.