

Frequently Asked Questions-BOV Product

1. Is my BOV Product an Authentic TiALSport product?

We sure hope so! But, for confirmation of authenticity please email a clear photo of the actuator cover, with serial number, to <u>tech@tialsport.com</u> and we will confirm for you. A list of confirmed counterfeit serial numbers is also published on our website at <u>tialsport.com/index.php/authenticity</u>

- 2. How do I decide which springs to use? Unlike wastegates, spring pack choices for BOV product are made using engine idle **negative** pressure, or vacuum, rather than boost pressure. Use a reliable gauge to measure vacuum at idle, then use the chart published on our website at <u>tialsport.com/documents/w3 tial gqr sp.pdf</u>
- **3.** Why is there a unique spring pack for supercharged applications? Supercharged engines typically produce positive manifold pressure at idle and most supercharger manufacturers recommend bypassing that pressure for tuning purposes. As a result we suggest a very weak spring to allow the valve to remain open at idle, but to close very rapidly once that negative pressure is increased to positive. It is perfectly normal for our BOV to be open at idle on supercharged applications.
- 4. What is the best way to test a BOV?

It is best to connect a hand vacuum pump to the air fitting and slowly create vacuum while monitoring valve travel. The valve should begin to move at the low range of the spring rating and should open completely as vacuum increases numerically.

5. How do I connect the wastegate?

The BOV is designed with an air fitting sized for ¼" (or 6mm) hose. The larger hose allows for quicker response and better control under positive boost pressure. This hose should be connected to full engine vacuum, preferably directly to the intake manifold, without any check valve or "tee" in place.

6. How can I make my BOV louder/quieter?

It is surprising that this question is often very polarizing; some customers want the valve to be quieter, some want it to be louder. In general, the open-body of the Q BOV results in a quieter discharge with the greatest flow, where the QR BOV discharges at a higher velocity with a reduction in flow, and is therefore typically louder when not recirculated. The QRJ, with a very modular outlet design, can configure to discharge to atmosphere or recirculate. Therefore both 'quieter' and 'louder' operation can be accomplished with one valve.