Product Name: Product Description: Product Number:

## RACE PORT Blow off valve TS-0204-1001



### ABOUT THIS PRODUCT

Thank you for purchasing your new Turbosmart Race Port. This new Blow off valve (BOV) has great features such as high flow capabilities: flows more than 100% more air compared to most BOV's on the market, supports high horsepower applications: 1500HP +, quick release V-band clamp for easy mounting, made from lightweight, aircraft grade billet aluminium and has a variety of springs available to suit different idle vacuum levels.

## IMPORTANT NOTES ON YOUR RACE PORT

- Use only silicone hose that is the correct size and pressure/vacuum rating for your application when fitting your Race Port
- Ensure that all plumbing is secured with suitable clamps or the correct fittings are used
- Your Race Port should be mounted at least 100mm from any heat source or adequately shielded
- This product might not work successfully on MAF/Airflow metered cars, please consult your local performance shop for more information
- Check the vacuum level produced by your engine to ensure the right spring is installed in your Race Port for maximum response

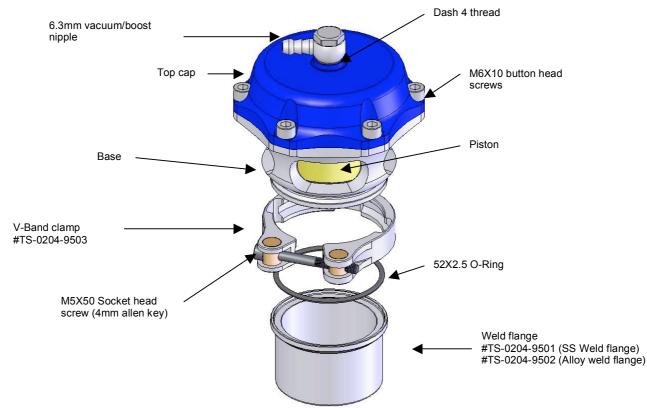
#### RECOMMENDATIONS

Turbosmart recommends that your Race Port is fitted and adjusted by an appropriately qualified technician

# HOW TO INSTALL YOUR RACE PORT

- Allow the engine to cool down before installing your Race Port
- Identify a suitable location along the intercooler/intake piping for the Race Port this will need to be between the outlet of the turbo
  and the throttle body ideally between the throttle body and the intercooler
- Remove the Race port from the weld on adapter by removing the V-Band clamp. The V-band clamp is removed by rotating the
  screw until the end of the screw is flush with the end of the V-Band clamp. Grasp the Race Port and push on the bolt head to open
  the V-Band clamp
- Weld the adapter onto the intake pipe in your ideal position, then allow the adapter to cool down
- Put the V-Band clamp over the adapter before re-installing the O-Ring seal and the Race Port
- Open the V-Band clamp and place in position. Tighten the V-Band clamp screw until it is finger tight then turn an additional 3 turns with an allen key. Be sure not to over tighten the screw as this will cause damage to the V-Band clamp
- Identify a standalone vacuum / pressure source from a port after the throttle body and connect with correctly sized hose to the vacuum/boost port on the cap of the Race Port
- Secure all silicone hose ends with correct clamps
- Start the engine and check for air leaks in the system

### RACE PORT DIAGRAM



# SPRING REPLACEMENT

The Race Port has a variety of springs to suit different vacuum levels. Different tuning levels produce different levels of idle vacuum. The Race Port is fitted with a standard spring which will remain closed until the engine produces more than 17 in/Hg. Using this spring on an engine which produces less vacuum will reduce the response of the Race Port. Turbosmart has a range of springs to suit different vacuum levels to ensure high levels response from the Race Port. Please visit our website – <u>www.turbosmart.com.au</u> for further details.

- Allow the engine to cool down before removing your Race Port from the intake piping
- Remove the dash 4 nipple on the top cap with a 16mm spanner
- Using a press or vice, clamp the top cap to the base ensuring not to damage the cap surface
- Slowly remove the 6 M6X10 button head screws with a 4mm allen key
- The cap is under spring tension, slowly release the clamp to open the Race port
- Replace the springs. Make sure that the diaphragm bead is inside the diaphragm groove on the base
- Align the stem inside the piston and the stem guide in the top cap
- Using a press or a vice, slowly push the cap onto the base, making sure the screw holes in the cap line up with the base
- Replace the 6 M6X10 button head screws and refit the dash 4 vacuum nipple
- Re-install the Race Port onto the intake piping
- Start the engine and check for leaks in the Race port. Make sure the valve is functioning properly by revving the engine and watching the valve piston move

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## **TROUBLE SHOOTING**

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

- 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 Race Port, 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
- 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 adapter and the Race Port ensure that there is no gap between the Race Port base and the weld flange
- Check the join between the adapter and the cross over pipe for leaking
- Ensure that the right spring is installed in the Race Port for your engine's vacuum level

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