

# RESPONS TMS : SMARTER THAN A DUAL PORT BOV!

Atmosphere venting BOV won't work on your car? Try a GFB Respons - you'll be surprised!



## JUST ANOTHER DUAL-PORT BOV?

On the surface it may look like just another dual-port blow-off valve, but the Respons is actually much more than that.

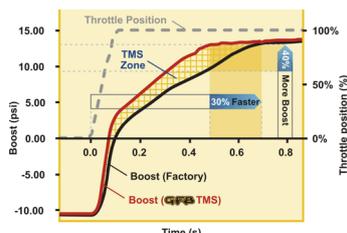
Featuring GFB's patented venting bias adjustment system, the Respons allows you to precisely control how much air vents from each of the two outlets.

## WHY IS THIS SO IMPORTANT? TWO KEY REASONS:

1. Adjust how loud the blow-off sound is. Recirculate all of the air for silent factory operation, vent it all to atmosphere for maximum noise, or set it ANYWHERE in between to suit your preference.
2. Get a blow-off sound WITHOUT causing stalling, backfiring, or any other BOV-related issues, even on a car with a sensitive airflow meter (MAF). Read more about this on the next page.

Hold on, it gets better. The Respons isn't just a noise-maker. It also offers better throttle response, faster boost recovery on gearshift, and unlimited boost-holding!

For example, using GFB's TMS (Turbo Management System) principle, tests show that the Respons can return the engine to peak boost up to **30% faster** than a factory diverter valve when shifting gears (turn over for more information).



FULLY RECIRCULATED  
SILENT OPERATION

30% ATMOSPHERE  
MODERATE SOUND

100% ATMOSPHERE  
MAXIMUM SOUND

## AVAILABLE IN A HUGE RANGE OF UNIVERSAL AND DIRECT BOLT-ON KITS

When we say "bolt-on", that's EXACTLY what we mean. Everything you need is included, it fits directly in the factory location (not on a separate adaptor), and no modifications to the car are required.

## PERFORMANCE AND SOUND WITHOUT COMPROMISE!

- » Adjust the volume of your blow-off sound
- » Up to 30% faster boost recovery on gearshift
- » Get the blow off sound without the hassles - even on sensitive MAF-based systems
- » Hold unlimited boost pressure
- » Direct bolt-on kits available

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## Get the inside information...

GFB is no stranger to dual port BOVs. In fact, GFB pioneered the design in 1999, following up with the patented venting bias adjustment system in 2001. This technology is not just a gimmick – it’s the key to getting a blow-off sound without the issues (unlike other valves), and is exclusive to GFB.

### “I THOUGHT VENTING TO ATMOSPHERE COULDN’T BE DONE ON A CAR WITH AN AIRFLOW METER, SO HOW DOES THE RESPONS DO IT?”

We’ve all heard the stories and seen people get shot down on forums when they ask about BOVs. Common responses are “*your car will stall, backfire, run rich, go slower, or rip a hole in the space-time continuum that will bring about the end of the universe*”. Certainly, if the BOV is not designed or adjusted correctly, at least some of these may be true.

When you vent a BOV to atmosphere, you’re letting air out of the system that has been measured by the airflow meter, so the ECU will continue to inject fuel for that missing air, hence the issues with over-fuelling that can occur.

However, by controlling HOW MUCH the valve vents, WHEN it vents, and for HOW LONG, the Respons can be configured to vent a portion of air to atmosphere at a time and of a volume that least affects the fuelling to the point where there are no negative side-effects.

Since our competitors do not have a means for adjusting the amount of air that is vented to atmosphere, they are unable to achieve the same success that a Respons does on even the most sensitive engines.

***If everything you’ve heard tells you a BOV won’t work on your car, try a GFB Respons - you will be surprised!***

### “HOW DOES A GFB RESPONS IMPROVE PERFORMANCE?”

#### BOOST HOLDING

Unlike factory bypass valves, or other brand valves that require different springs for different boost levels, a GFB valve CANNOT be forced open by high boost!

The balanced piston design in a GFB valve uses boost pressure on either side to cancel out the forces. Therefore it doesn’t matter how much boost you run, you can be sure a Respons valve will deliver all of it to the engine.

#### THROTTLE RESPONSE AND BOOST RECOVERY

GFB’s TMS (Turbo Management System) principle is based on an operating method that is different to all factory bypass valves, which can be summarised as:

- A factory bypass valve is open until required to shut.**
- A GFB TMS valve is shut until required to open.**

This difference in operating methods means that the GFB valve only vents when required, and only enough air to prevent compressor surge.

For example, during a gearshift it is possible to preserve a small amount of boost pressure for a short duration. Then, when the throttle is then re-opened, peak boost is reached faster than if all pressure is lost (as is the case with the factory valve that remains fully open too long).

Read more about the TMS principle at [www.gfb.com.au](http://www.gfb.com.au)



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