GFB Mach 2

Part #T9119

Configuring Your Valve

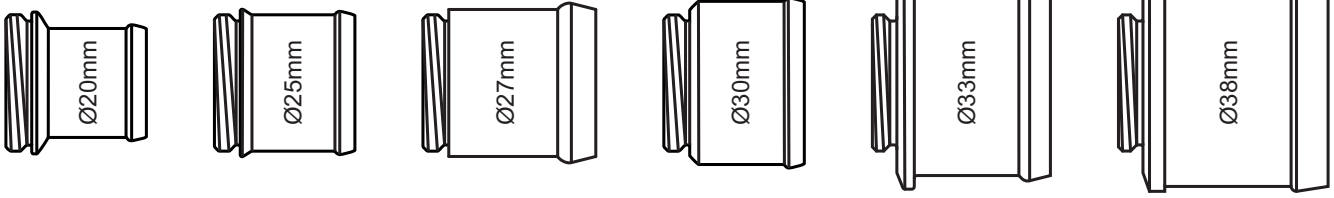
The T9119 Mach 2 kit is intended for custom installations where the valve is to be rigidly mounted to your aluminium or stainless steel intercooler piping using a v-clamp system.

PLEASE NOTE: This kit comes with only the valve and v-clamp. To finish the installation, you will need to purchase the appropriate weld-on flange to suit your intercooler pipe material, and an outlet fitting to suit your recirc hose internal diameter.

Weld on flanges available:

Part #5352 - 6061 Aluminium, suits aluminium intercooler piping
Part # 5353 - 304 Stainless Steel, suits steel or stainless steel intercooler piping

Outlet sizes available:



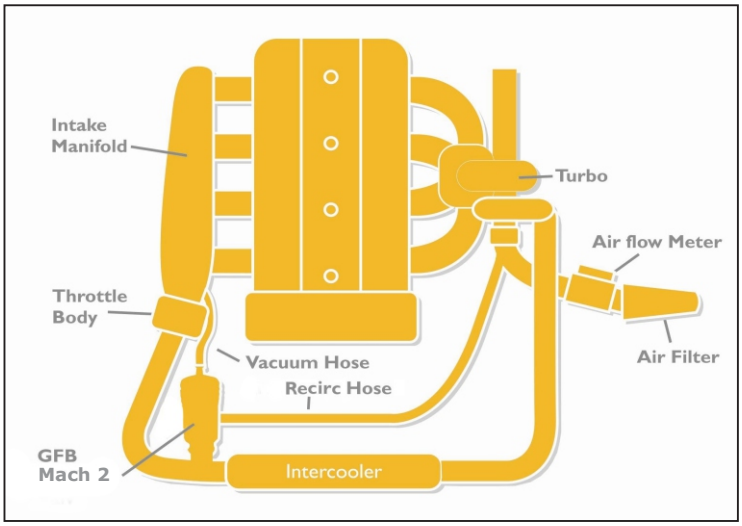
Part # 5220 | Part # 5225 | Part # 5227 | Part # 5230 | Part # 5233 | Part # 5238

Installation

1) Find a suitable location for the Mach 2 on the intercooler piping between the turbo outlet and the throttle body.

NOTE: it is possible to mount the valve on either side of the intercooler, there is no measurable performance difference between either location.

2) Ensure you have the correct v-clamp flange to suit your intercooler pipe material, then weld it into place.



3) Clamp the Mach 2 onto the flange, then connect the recirc hose (if fitted) to the Mach 2 outlet.

4) Connect the vacuum nipple on the top of the Mach 2 to a suitable manifold vacuum source (after the throttle body), using vacuum hose of at least 4mm I.D. It is preferable to use a single, dedicated vacuum source for the Mach 2, with a hose as short as practical to ensure rapid response from your GFB valve. DO NOT CONNECT THE BOV VACUUM HOSE TO BOOST CONTROL, FUEL PRESSURE REGULATOR OR BRAKE BOOSTER HOSES.

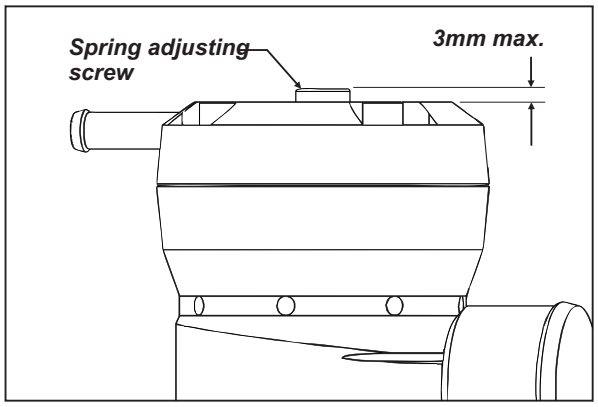
5) If necessary, the cap can be rotated so the vacuum nipple points in a different direction. Simply unscrew the 4 cap screws and rotate the cap to a new position and reinstall the screws.

Adjusting the Spring Pre-Load

The spring pre-load ***DOES NOT*** need to be adjusted to suit different boost pressure. **All GFB valves *will stay shut*** under full throttle conditions ***regardless*** of boost pressure or spring pre-load.

The spring adjustment changes how easily the valve vents when you lift off the throttle, and for how long. Generally speaking, the hardest spring pre-load you can run without causing compressor surge (fluttering sound when lifting off the throttle) is ideal for best throttle response.

The screw in the centre of the Mach 2 cap is the spring adjuster, which requires a 5mm metric hex key (supplied).



The softest spring setting is achieved when the top of the adjustment screw is 3mm above the head of the valve as shown opposite. Do not set the screw more than 3mm above the head.

The hardest setting occurs when the screw bottoms out. Do not attempt to keep turning the adjustment screw once it stops, or damage may occur.

To set the spring pre-load for best throttle response:

- Set the spring to the hardest setting (adjust the screw all the way down)
- Start the car and drive it until it is warm
- Accelerate moderately in a high gear to about 3000RPM and then lift off the accelerator - these are the conditions most likely to cause compressor surge. If you hear a fluttering sound as you lift off, turn the adjustment screw in the "-" direction one turn at a time until the noise disappears.

Note that all cars have a different threshold for compressor surge, so it is possible that you may be able to leave the valve in the hardest setting without hearing surge.

Don't be afraid to experiment with the spring pre-load adjustment, you can't cause any damage by doing so, and getting the setting right to suit your car can help to optimise throttle response.

Maintenance

GFB blow-off valves are designed to be as maintenance-free as possible. In most cars the small amount of crankcase and rocker-cover oil vapor that is directed into the intake system is enough to keep the piston well lubricated indefinitely.

However, if you notice the sound of the valve changing over time (e.g. slow response time, intermittent operation), or if you can see that the piston is not moving smoothly, it may require a clean and re-lube.

Cleaning Procedure: Remove the four screws holding on the cap, taking care as the spring will try to push the cap off as the last screw is removed. Remove the spring and the brass piston, and wipe any grime from the inside of the valve and the piston with a rag. Apply normal engine oil to the piston and the inside of the bore, and re-assemble.

Warranty

WARNING:
GFB recommends that only qualified motor engineers fit this product. GFB products are engineered for best performance, however incorrect use or modification may cause damage to or reduce the longevity of the engine/drive-train components.

GFB LIFETIME WARRANTY:
Our commitment to quality means that when we put our name to something, we are also staking our reputation on it. That's why we back our products with the best warranty in the business!

You should expect a lifetime of use from a well-engineered product, so if your GFB product fails as a result of defective materials or faulty workmanship whilst you remain the original owner, we will repair or replace it (limited only to the repair or replacement of GFB products provided they are used as intended and in accordance with all appropriate warnings and limitations. No other warranty is expressed or implied).

If a fault occurs as a result of usage outside of the terms of the warranty, or you are not the original owner, fear not, we can still help you. You should never need to throw a GFB product away, as spare parts are available and won't cost the earth.

TECH SUPPORT:
We want you to get the best advice, first time. That's why our engineers are available to answer any technical questions you may have.

Head to www.gfb.com.au/contact-us to get in touch.