

GFB Mach 2

Part #T9107



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TURBO MANAGEMENT SYSTEMS



PERFORMANCE WITHOUT COMPROMISE

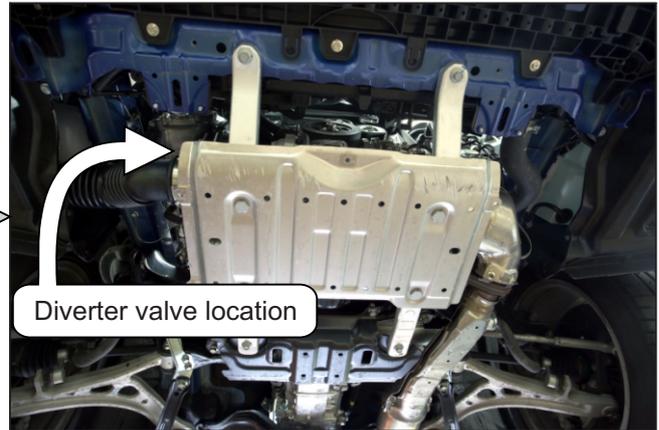
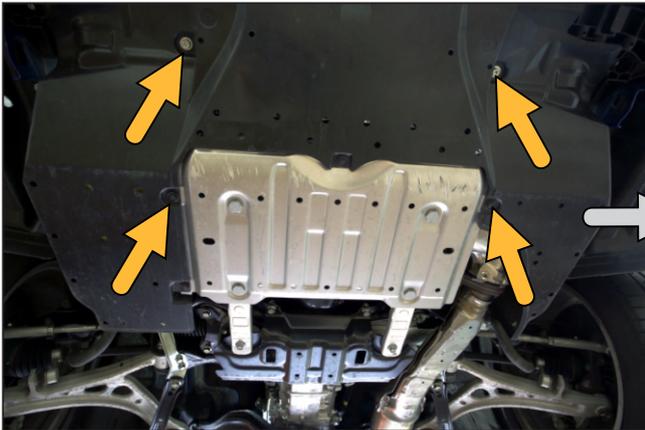
Installation

Note that installing the Mach 2 must be done from underneath the car, which requires raising the car on ramps or axle supports, or a hoist.

WARNING:

NEVER work under a car supported only with a jack.

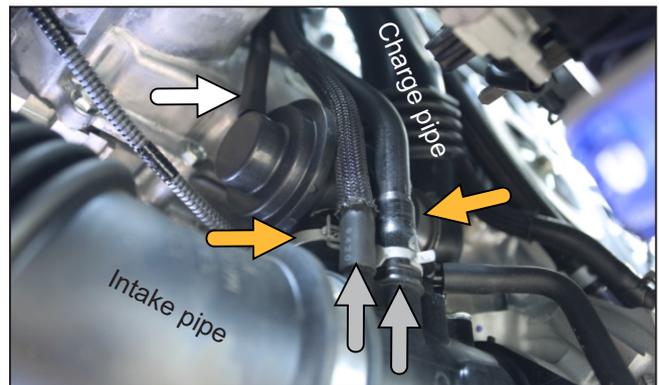
- 1) Remove the plastic section of the under tray by popping the plastic clips and the two bolts. Note that there are more plastic clips than indicated by the arrows.



- 2) Remove the two hoses from in front of the diverter to gain access to the clamps behind.

Remove the vacuum hose from the top of the diverter valve.

Loosen the two hose clamps that retain the diverter valve.



- 3) Using a 10mm socket, remove the two bolts that hold the turbo intake pipe onto the turbo.

Pull down on the pipe and push up on the diverter valve simultaneously to pop it out of the intake pipe. Then pull the diverter valve out of the vertical charge pipe and set aside.

- 5) Install the Mach 2 in the reverse order of removal i.e. insert the base into the vertical charge pipe first, then push the intake pipe up whilst aligning the recirc outlet.

Replace the turbo intake pipe bolts, and tighten both valve hose clamps.

Re-connect the two hoses that were removed in step 2, and then replace the under tray.



Adjusting the Spring Pre-Load

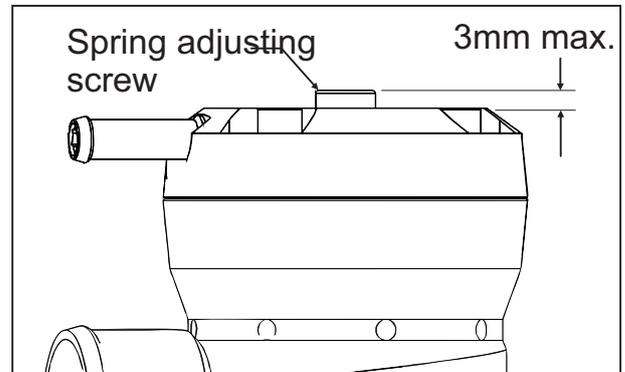
PLEASE NOTE!

The spring pre-load **DOES NOT need to be adjusted for different boost pressures**. The Mach 2 will stay shut under full throttle conditions *regardless of boost pressure* or spring pre-load.

Rather, the spring pre-load affects how easily the valve opens when you lift the throttle, and how long it stays open when it vents.

The screw in the centre of the head is the spring adjustment. Use the supplied 5mm hex key to make adjustments.

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



Unlike an atmosphere-venting BOV, the spring pre-load on the Mach 2 does not need to be adjusted to prevent stalling or backfiring, since all of the vented air is recirculated in the same way as the OEM bypass valve.

It is therefore possible to use the Mach 2 straight out of the box without any spring pre-load adjustments, however you can use the adjustment to fine-tune throttle response. Generally speaking, the hardest spring pre-load you can run without causing compressor surge (fluttering sound when lifting off the throttle) is ideal.

To set the spring pre-load for maximum 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, and make sure the A/C is off.
- Accelerate moderately in a high gear to about 3000RPM and then ease off the accelerator, keeping the clutch engaged - 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. This is now the ideal setting for best throttle response.

Note that all cars have a different threshold for compressor surge (especially when the car is modified with bigger turbo/intercooler etc) 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.