

# GFB Mach 2

Part #T9114



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**GFB**  
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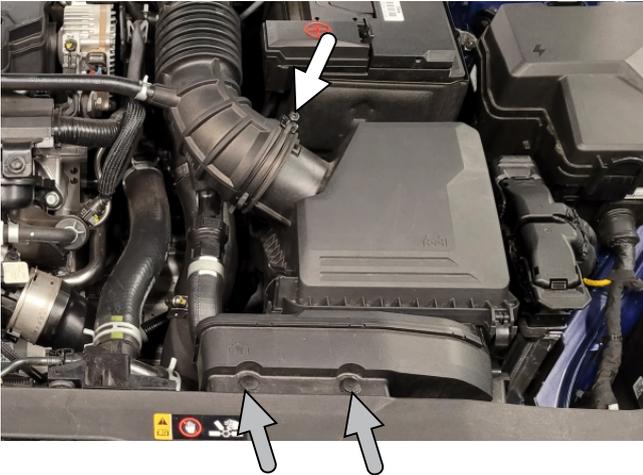
TURBO MANAGEMENT SYSTEMS



PERFORMANCE WITHOUT COMPROMISE

## Installation

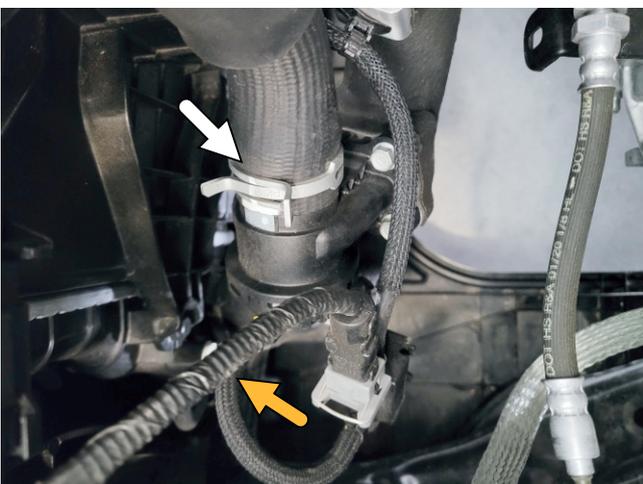
1) Remove Airbox: Loosen the intake hose clamp (⇐⇒), then unclip and remove the airbox lid and filter (→):



2) Remove the two plastic clips on the intake, followed by the 3 bolts that hold the lower half of the airbox (→). Carefully remove it from the car and set aside:



3) Remove the recirc hose (⇐⇒) and vacuum hose (→) from the factory valve:



4) Loosen the top clamp (→) on the metal intercooler pipe, then pull it free of the hose:



5) Bend the top of the pipe towards the engine (⇐⇒) to allow access to remove the four screws on the factory diverter valve (→):



6) Install the GFB valve using the supplied screws. A 5mm T-handle hex key helps with the rear screws:



- 7) Fit the recirc and vacuum hoses and their clamps to the GFB valve.
- 8) Push the top of the metal intercooler pipe back into its hose, and tighten the clamp.
- 9) Re-install the airbox, intake hose, and intake snorkel in the reverse order of removal.



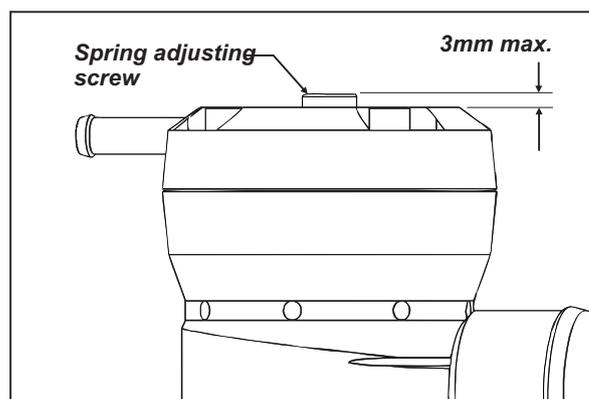
## Adjusting the Spring Pre-Load

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.

Because Hyundai uses an ECU-controlled solenoid valve to switch the top port of the BOV from boost to vacuum when it requires it to open, the conditions under which the BOV vents are largely determined by the ECU. However, the duration of the sound and how easily it blows off is controlled by the spring pre-load.

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.



Since the Mach 2 valves are fully recirculated, and there is no MAF sensor on these cars, the spring pre-load adjustment is not critical and is it possible to use the Mach 2 valves straight out of the box without adjustment. 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
- 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. This is now the ideal setting for best throttle response.

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](http://www.gfb.com.au/contact-us) to get in touch.