

GFB VTA

Installation Instructions

Part # T9468



+61 2 9534 0099 sales@gfb.com.au www.gfb.com.au facebook.com/GFBturbo instagram.com/gofastbits



TURBO MANAGEMENT SYSTEMS



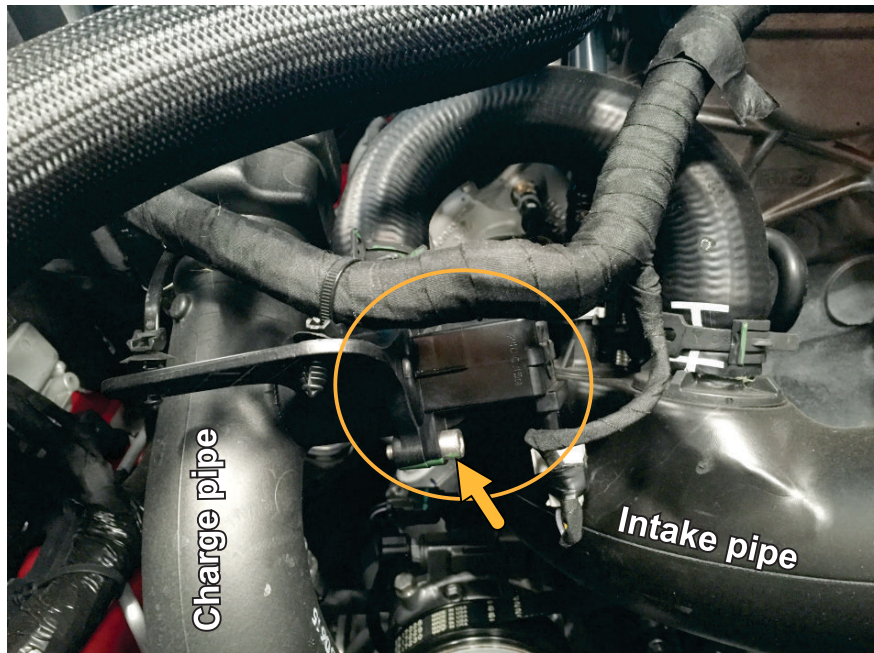
PERFORMANCE WITHOUT COMPROMISE

Installation

The T9468 VTA is only for use on Ecoboost Mustangs with a Pierburg factory diverter valve. In 2018, the factory diverter valve changed to a Continental brand which cannot be disassembled and used with the VTA.

The factory diverter valve on the Mustang is located on the side of the charge pipe near the intake pipe.

Using a 5mm hex driver/key, undo the 3 screws (→) holding the diverter, unclip the electrical connector, and remove the diverter from the car.



Pull the piston from the factory diverter valve solenoid and remove the spring.



Next, remove the plastic piston shroud. This should be able to be removed by hand, but if it does need to be levered out take care not to damage any of the plastic pieces.

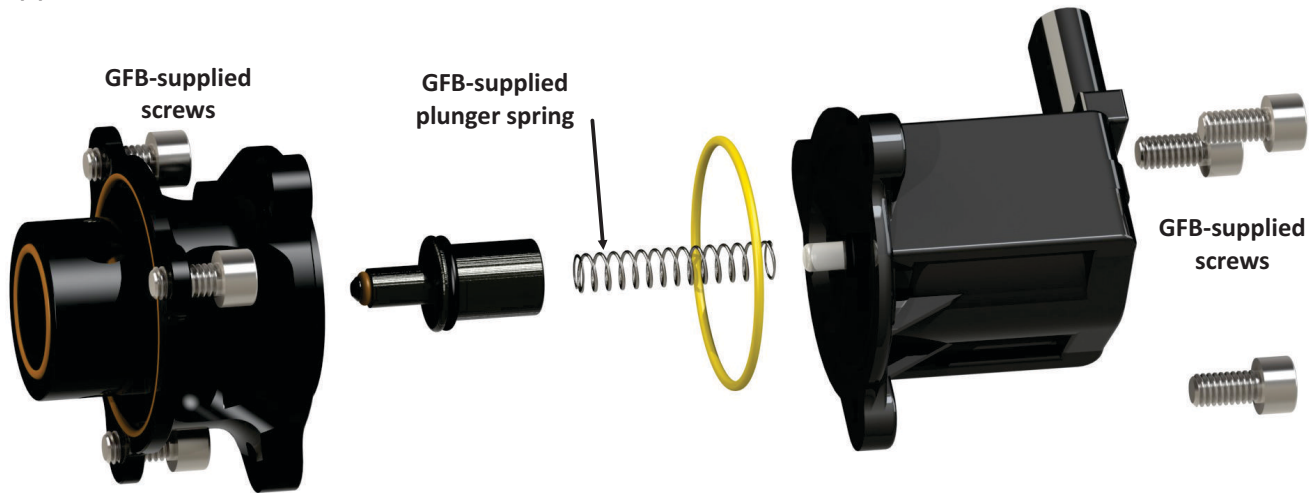


The factory yellow o-ring is required for the VTA installation, but the piston, shroud, and spring are not, so store these in a safe place.

Assemble the supplied spring and plunger into the solenoid, then attach the VTA body to the solenoid with 3 of the supplied screws, as shown below.

Installation - Continued

- Insert the GFB supplied spring (**DO NOT re-use the factory spring**) and plunger into the solenoid, and check that it slides freely. Now fit the VTA body and factory yellow o-ring onto the plunger/spring/solenoid assembly as shown below, securing the solenoid to the VTA with 3 of the 6 supplied screws:



- Install the VTA/solenoid assembly onto the diverter valve mount using the three remaining supplied screws. Because of the asymmetric bolt holes, the assembly can only be installed in one orientation.
- Clip the electrical connector back on, and replace any parts that have been removed for access during installation.

Notes on VTA Operation

Oily Residue: It's normal to find some oil around the atmosphere outlet, which is from the oil vapour recirculated through the turbo intake by the PCV system. This is not a fault of the VTA or anything to be concerned about.

Venting Duration/Timing: You might hear the VTA vent at seemingly odd times, but this is determined by the ECU and is not a fault with the VTA. The ECU turns on the solenoid to vent the diverter any time the throttle is closing faster than a specific rate, or, in the case of the Mustang, even some steady state throttle conditions.

Unlike the factory diverter that is directly opened by the solenoid, the VTA will only open when the ECU turns the solenoid on, AND there is enough boost pressure to push the piston open. In some cases, you may hear the VTA vent when you didn't expect it to, however it can take only a slight throttle closure to trigger it, and if the throttle is not opened it will continue to vent for 2 seconds or until there is no more pressure in the intercooler. Other times, you may be closing the throttle and the VTA doesn't vent. In that case, it is simply because you are closing the throttle slow enough that the ECU doesn't turn the solenoid on to vent the valve.

Venting Sound: Because the VTA can open and close progressively in response to how much boost pressure is present (unlike the factory diverter which just opens fully regardless of whether there is boost to vent or not), it is not unusual to hear a slight fluttering sound from the intake when lifting off the throttle at low RPM, especially if you have an aftermarket intake, larger turbo, and/or ECU tune. This is nothing to be concerned about.

Fault Code: In some cases, the different operating method of the VTA (as described above) may be misinterpreted by the ECU as a faulty diverter valve which may result in the fault code P2261 being recorded. The ECU is monitoring the pre-throttle pressure after lifting off the throttle as a diverter check, and because the VTA will start to close as boost pressure drops (where the factory diverter would remain wide open under the same conditions), that's when the ECU assumes there is an issue with the diverter.

This P2261 code does not indicate a problem with the VTA, nor does it cause any issues to the turbo or engine, and it doesn't light the check engine light.

WARNING: GFB recommends that only qualified motor engineers fit this product. This product is intended for racing use only, and it is the owner's responsibility to be aware of the legalities of fitting this product in his or her state/territory regarding noise, emissions and vehicle modifications. GFB products are engineered for best performance, however incorrect use or modification of factory systems may cause damage to or reduce the longevity of the engine/drive-train components.

GFB Limited Lifetime Warranty:

We live in a throw-away society, conditioned by cheap products and built-in obsolescence to expect eventual failure and discard something when it stops working or is superseded. However, pride in workmanship and our commitment to quality means that when we put our name to something, we are also staking our reputation on it.

That is 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.