GFB VTA

Installation Instructions

Part #T9416

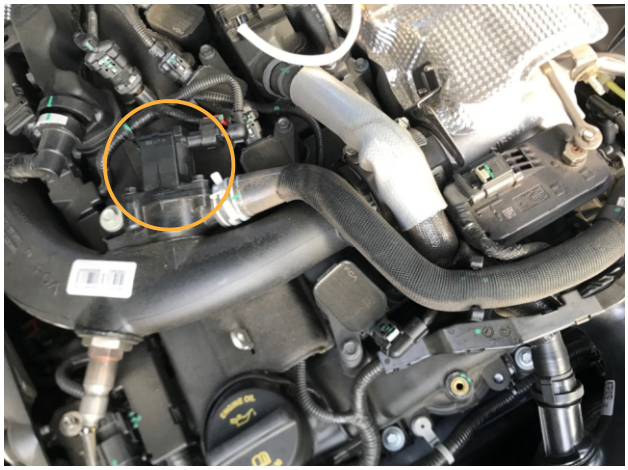
MADE IN AUSTRALIA

OEM DIVERTER REMOVAL

The T9416 VTA is designed as a bolt on diverter valve replacement for many popular Alfa Romeo, Fiat, and Jeep vehicles. These instructions illustrate the installation process on an Alfa Romeo Giulia 2.0T, and a Fiat 124, however the procedure is the same regardless of the engine type -. locate and remove the factory diverter valve, and replace with the T9416.

Giulia 2.0T

The factory diverter valve is easy to access, as it is mounted on the plastic charge pipe running across the top of the engine. Remove the engine cover, unclip the wiring connector, then remove the three screws holding the diverter (if access to the lower screw is too tight, remove the charge pipe from the engine first).



Fiat 124 Spider (1.4 Multiair engine)

The factor diverter valve is mounted directly to the turbo compressor cover, and access is generally unobstructed. Unclip the wiring connector, then remove the three screws holding the diverter.

INSTALLATION

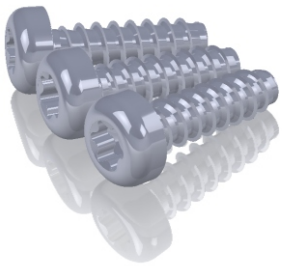
1. Before installation, ensure the two o-rings are installed in the VTA as shown:

INSTALLATION CONTINUED

2. Select the correct screws:

The T9416 is supplied with two different sets of screws to ensure correct fitment as described below:

When screwing directly into plastic (shown below, e.g. 2.0 Giulia), use the supplied coarse-threaded screws. Take care not to strip the thread, tighten to 4Nm (3lbf-ft).



Where the diverter valve mounting flange is metal as shown below (or has metal threaded inserts), use the supplied metric 6mm screws (requires a 5mm hex key). Tighten to 6-8Nm (4.4-6lbf-ft).

3. Position the VTA onto the mounting flange with the trumpet pointing in your preferred direction. Don't worry about the orientation of the connector, as it can be rotated by hand to a position that best suits your application.

4. Ensure all 3 screws are tightened to the torque recommended above, then use the supplied "plug-and-play" adaptor loom to connect the VTA to the vehicle's wiring loom.

Ensure the loom is routed and secured in a way that it is protected from abrasion, heat and vibration.

5. Re-install any other parts that were removed during installation.

CONFIGURING THE SOUND

You can use the trumpet on the T9416 to configure the venting sound to your preference.

With the trumpet installed, you can expect a loud, high-pitch whistle venting sound.

With the trumpet removed (simply unscrew it from the body), you will get a more mellow, classic "whoosh" sound.

NOTE: When re-installing the trumpet, ensure it is screwed on firmly to prevent it from vibrating loose.

ADJUSTING THE SPRING PRE-LOAD

Please note, the spring pre-load **DOES NOT** need to be adjusted to suit different boost pressures. The T9416 cannot be blown open regardless of the boost pressure, and will only vent when triggered by the ECU.

Because the ECU is responsible for triggering the valve to blow off, it is not possible to change WHEN the valve vents. However, the spring pre-load adjustment can modify the valve's venting behaviour and sound when triggered by the ECU. This adjustment mainly affects what you hear when lifting off the throttle at low boost levels, e.g:

> *A softer pre-load means you will hear the valve blow off very readily, and the sound duration will be longer.*
>
> *A firmer pre-load will reduce the blow off sound and duration at low boost, but you will still have maximum noise at high boost.*

Adjustment Screw

- Requires 5mm hex key
- Shown in the softest setting (screw level with cap)
- Do not adjust screw higher than the cap

GFB recommends starting at the softest setting, then adding 3 full turns of adjustment (clockwise). Go for a drive, and take note of how easily it blows off at low boost. As a rough guide, you should be able to accelerate gently up to 1500-2000RPM and lift off, hearing minimal sound from the valve. This allows you to "drive around the sound" at times if you want to.

If you want to hear the sound more frequently, reduce the pre-load. If you still hear the sound more than you'd like, increase the pre-load one turn at a time until you achieve the desired result.

Note that adding too much pre-load could result in a fault code, because the ECU can mistake a firm pre-load for a stuck valve. It is also more likely to occur on tuned engines because they produce more boost at low RPM where the ECU does its checks on diverter operation.

TECH SUPPORT

Just installed your shiny new VTA and something doesn't seem right? Do you have a question about the product? Have you heard conflicting information and need some clarity?

We want you to get the best advice, first time. No-one has as much experience with these products as our own engineers, so make us your first point of contact!

Head to www.gfb.com.au/contact-us to get in touch, or use the QR code:

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.