GFB DV+

Installation Instructions

Part # T9366

IMPORTANT! All GFB pistons are checked for fitment and tolerance before shipment. Please do not drop the GFB piston onto a hard surface as this may cause (invisible) damage that could result in boost leaks or sticking.

WICHTIG! Alle Kolben wurden vor Versand auf Freigängigkeit geprüft. Bitte achten Sie bei der Montage darauf, dass *der Kolben nicht auf den Boden fällt*, da dieser schon bei kleinster (evtl. Nicht sichtbarer) Beschädigung zur Undichtigkeit oder Kolbenklemmen führen kann!

INSTALLATION

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.

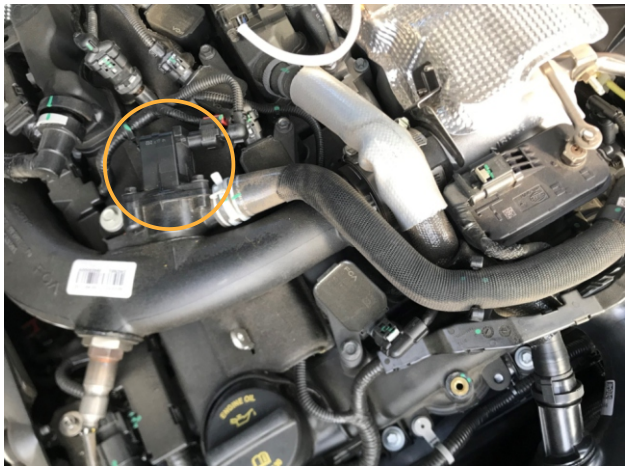
TECH SUPPORT:
We want you to get the best advice, first time. That's why our engineers are available to answer any technical questions you may have. Head to www.gfb.com.au/contact-us to get in touch.

Note that the DV+ part # T9366 includes coarse-threaded mounting screws designed for use on plastic mounting flanges. Please check the supplied screws against the factory diverter screws to ensure they are the correct type for your application.

The T9366 kit is used on a variety of makes and models. These instructions illustrate the installation process on an Alfa Romeo Giulia 2.0T, and a BMW X5M, however the procedure is the same regardless of the engine type, i.e. locate and remove the factory diverter valve/s, assemble the DV+ onto the factory diverter valve/s as shown on the next page, and re-install.

Giulia 2.0T:

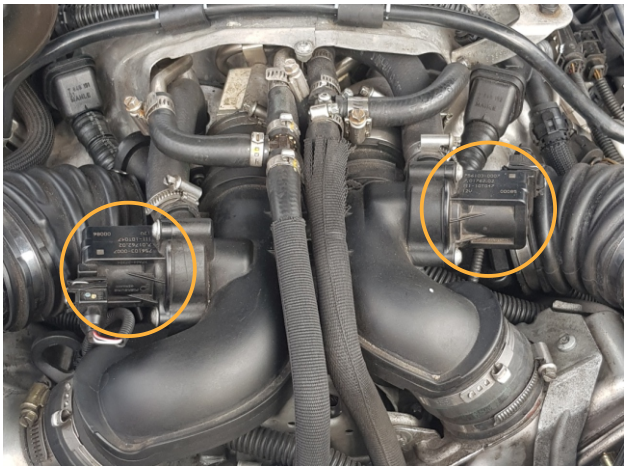
The factory diverter valve is easy to access, as it is mounted on the plastic charge pipe running across the top of the engine. Remove the engine cover, unclip the wiring connector, then remove the three screws holding the diverter (if access to the lower screw is too tight, remove the charge pipe from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



- ***BMW X5M:***

Please note that for twin turbo applications like the X5M, two T9366 DV+ kits are required.

The factory diverter valves are located under the engine cover, mounted to the two plastic charge pipes as shown. Unclip the wiring connector, unscrew the mounting screws, then remove the diverter valves.



ASSEMBLING THE DV+

Piston type OEM diverter (typically Alfa Romeo):

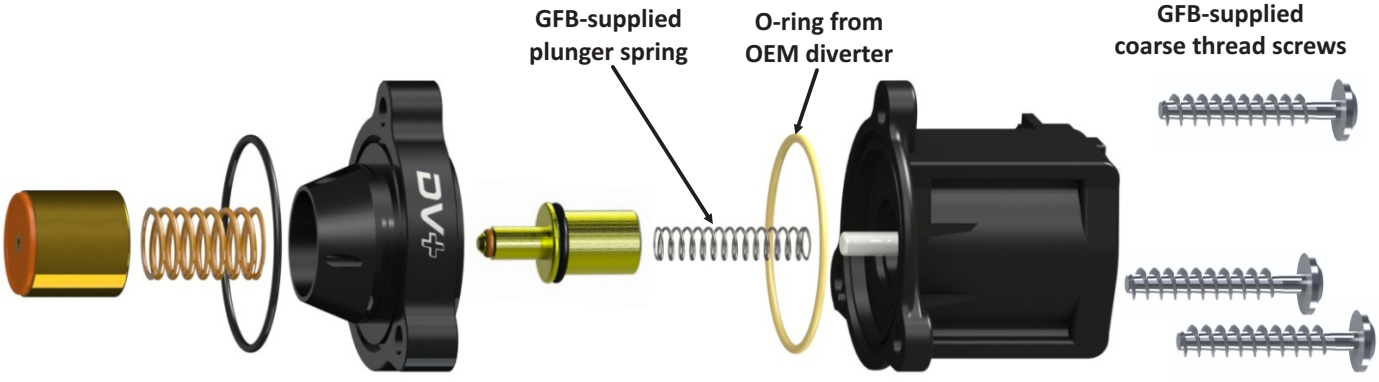
Remove the yellow o-ring from the factory diverter. Take care to avoid damage, as the o-ring will be re-used on the DV+. Now pull the piston out of the diverter body, then remove the spring.

CAREFULLY pry the piston sleeve out of the diverter body, using the inside lip near the blue seal or the lip where the o-ring was. Lever it gently and work your way around so it pops out evenly. Note that this piece is fragile and can break easily - if this happens, you'll still be able to carry on with the installation, but you won't be able to re-fit the factory piston again.

Diaphragm type OEM diverter (typically BMW):

Remove the yellow o-ring from the factory diverter. Take care to avoid damage, as the o-ring will be re-used on the DV+. CAREFULLY pry the diaphragm shield of the diverter body, using the lip where the o-ring was. Remove the valve/diaphragm and spring.

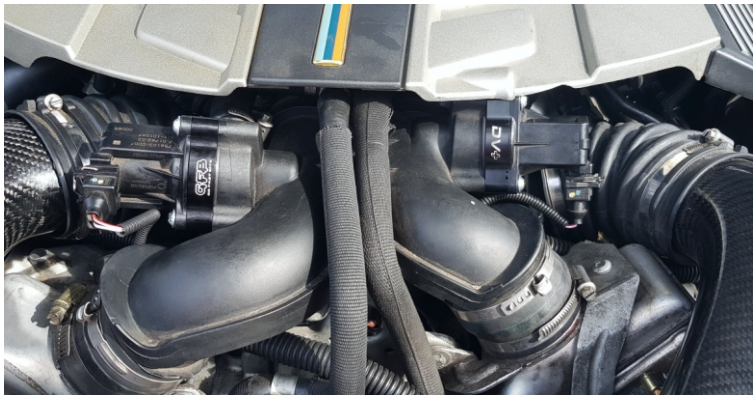
Assemble the GFB parts onto the factory solenoid body as shown in the exploded view below, making sure to use the GFB-supplied plunger spring, and the yellow o-ring removed from the factory valve. Apply some engine oil to the piston during this process, and check that the piston moves freely.



INSTALLATION - CONTINUED

- Install the DV+ assembly onto the plastic mounting flange using the supplied longer screws (Torx T25 driver is required), making sure to hold the piston so it doesn't fall out during this process.

- Clip the electrical connector/s back on, then re-install the turbo intake pipe and any other parts that have been removed during the installation process.



WHAT TO EXPECT FROM YOUR DV+

The DV+ is designed to offer three key improvements over the OE diverter:

Longevity: If you've ever replaced a factory diverter, chances are it won't be your last. Fitting a DV+ is good insurance and pays for itself after one or two factory diverter replacements. This is especially true on the BMW engine, as the diaphragm is weak and known to rupture.

Boost holding: The OEM diverter valve uses a plastic piston with a plastic "seal". Unfortunately, these two parts that are responsible for sealing boost pressure don't do a very good job of it. Because the parts are moulded plastic, and minimum friction is required for the solenoid to have a hope of opening and closing the valve, the fit of the OEM piston and seal is very loose, meaning it does a poor job of sealing the boost pressure.

The DV+ however will seal properly even up to 50psi, ensuring all of your hard-earned boost gets to the engine. Of course, the performance benefits you notice from the driver's seat will depend entirely on the condition of the factory diverter you replace. For example, if your factory valve is not (yet) leaking significantly, there will be no change to your peak boost.

However, if your factory diverter is leaking only a small amount, a DV+ may show the same peak boost, but with an improvement in the amount of boost held to redline. If your factory valve is leaking significantly, fitting the DV+ will result in higher peak boost pressure, as well as less drop-off at high RPM.

Throttle response: The DV+ will preserve as much boost pressure as possible when the throttle is lifted. This means that when you lift off to shift, or when using slight on-off-on throttle modulation (causing the diverter valve to open and close), the DV+ can help recover boost faster than the OEM diverter.