

# GFB DV+

## Installation Instructions

### Part #T9356

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## TURBO MANAGEMENT SYSTEMS



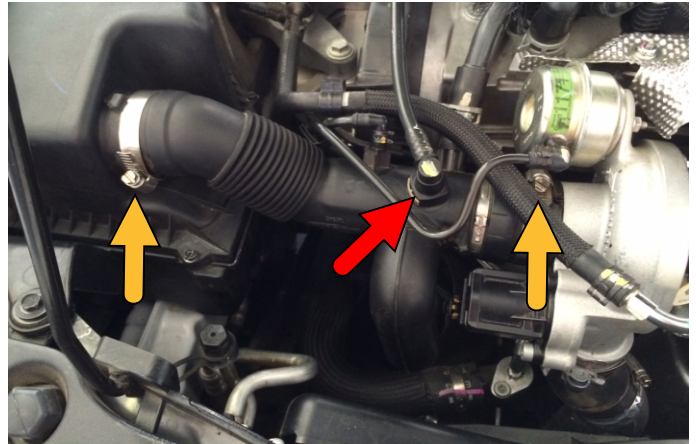
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# INSTALLATION

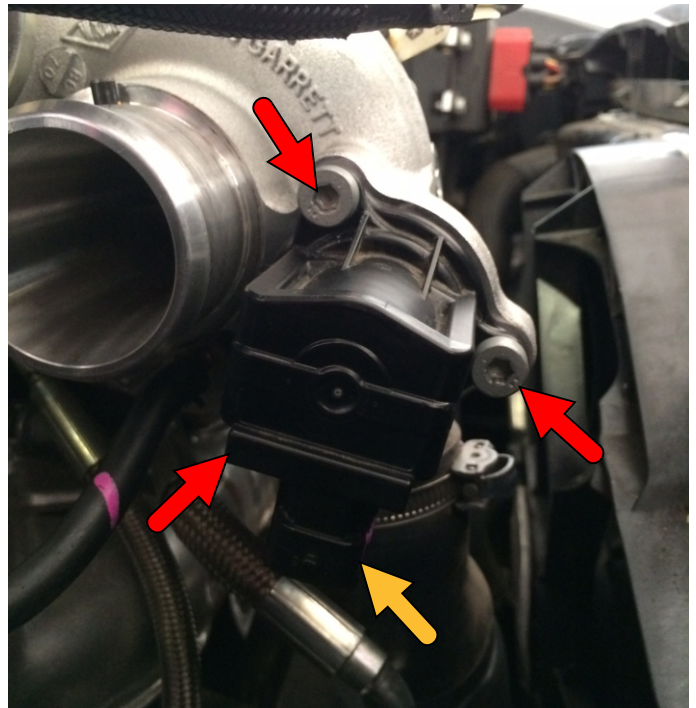
Note that the DV+ part # T9356 is used on a variety of makes and models. These instructions illustrate the installation process on a Dodge Dart which uses a Fiat engine, but the procedure is the same regardless of the engine type, i.e. locate and remove the factory diverter valve, fit the DV+ to the factory diverter valve as shown on the next page, and re-install.

- If access to the factory diverter valve is restricted by the turbo intake (as it is in this case), begin by removing the turbo intake pipe. Loosen the hose clamps on each end of the intake pipe ( → ), and unclip any hoses connected to the intake pipe so it can be removed from the car ( → ).



- Unclip the electrical connector ( → ) from the factory diverter valve, then remove the 3 bolts ( → ) that hold it to the turbo.

Note that the bolts are metric and you must use the correct hex key or you risk damaging the bolts.



## ASSEMBLING THE DV+

Piston type OEM diverter (typically Dodge/Fiat):

Remove the yellow o-ring from the factory diverter. This should be done carefully 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.

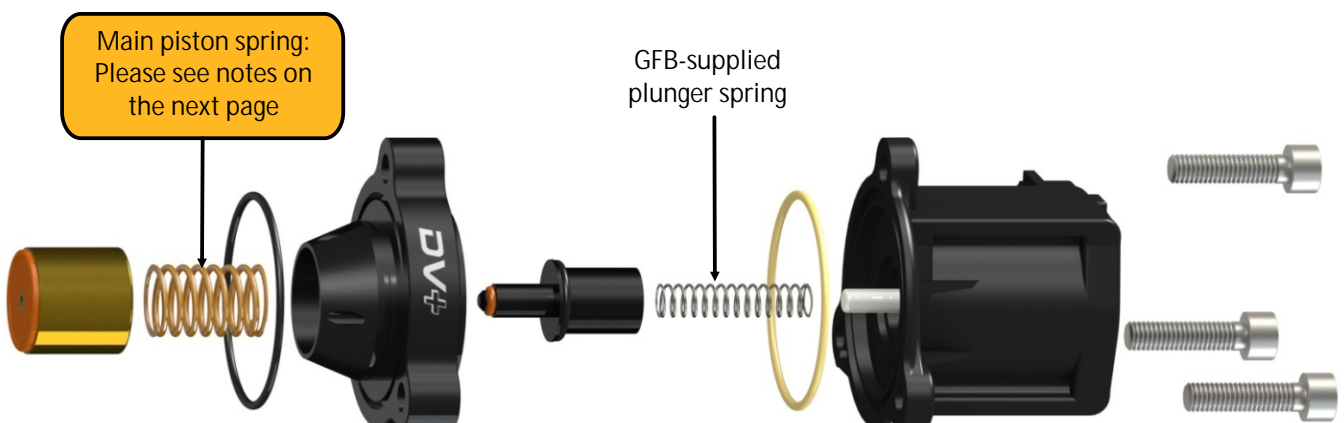


Diaphragm type OEM diverter (typically BMW):

Remove the yellow o-ring from the factory diverter. This should be done carefully 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.



## Installation - continued

- Install the DV+ assembly onto the turbo, making sure to hold the piston so it doesn't fall out during this process. Don't forget to use the supplied longer screws.
- Clip the electrical connector back on, then re-install the turbo intake pipe and any other parts that have been removed during the installation process.



## Using the main spring

The DV+ can be configured in two different ways, depending on your desired outcome. Fitting the DV+ with the main spring installed as shown on the previous page can be thought of as a "Sport" mode, offering the best possible throttle response and boost recovery during on/off throttle applications (i.e. during gearshift with a manual transmission).

Using the main spring means the DV+ 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. Because this operation method is different from the factory diverter, it is not unusual or detrimental to hear a different sound from the intake when lifting off the throttle at low RPM, especially if you have an aftermarket intake or a larger turbo installed.

Additionally, in some cases this different operating method may be mis-interpreted by the ECU as a faulty diverter valve (it simply sees the diverter doing something different, it doesn't know the diverter is actually attempting to improve throttle response), resulting in fault code P2261 being recorded. This does not indicate that the DV+ is faulty, nor does it cause any issues to the turbo or engine.

If the fault code or different sound occurs and you want to prevent it, or you simply want a direct replacement for the factory diverter that is stronger, holds boost better, and lasts longer, you can choose to install the DV+ WITHOUT the main spring behind the piston. This configuration can be thought of as an improved "Standard" mode, which behaves just like the factory diverter, but with the added benefits of better boost-holding, strength, and reliability.

**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 recommends that only qualified motor engineers fit this product. Warranty is for the period of one year from the date of purchase and is 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.**