

GFB DV+

Installation Instructions

Part #T9351



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TURBO MANAGEMENT SYSTEMS



PERFORMANCE WITHOUT COMPROMISE

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

Locate factory diverter valve solenoid. It will either be mounted directly on the turbo compressor cover, or it can be mounted remotely at the front of the engine bay on cars like the Mk6 Golf R.

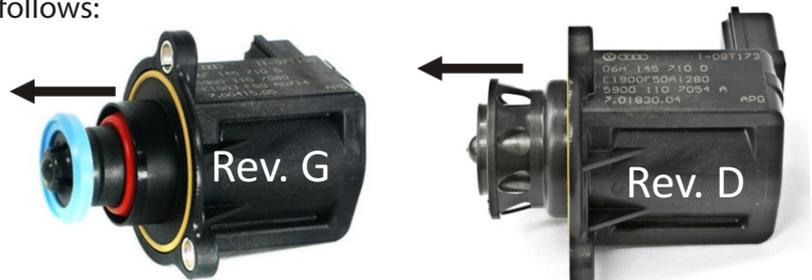
Unclip the wiring connector (→) from the top of the solenoid coil – note there is a small locking tab that needs to be pulled in the same direction (as indicated by the white arrow opposite) as you pull the connector to release it.



Unscrew the 3 mounting screws and remove the factory diverter valve from the car.

Now separate the factory valve mechanism from the solenoid coil, and install the GFB valve mechanism onto the factory solenoid as follows:

Pull on the plastic “basket” (revision D) or the diaphragm shroud (revision G), the whole assembly will pop off leaving the bare solenoid coil. Keep the yellow o-ring.



For revision C valves, first pull the piston from the body and remove the spring. Then remove the piston shroud - this can usually be pulled out by hand but if it's too tight, it can be carefully levered out with a flat screwdriver.



Install the GFB parts onto the solenoid body as shown below, using a little engine oil on the outside of the piston (do NOT use grease or other heavy lubricants). **Make sure to use the GFB supplied spring inside the solenoid coil** – the only factory parts you re-use are the solenoid coil and the yellow o-ring.



Please note: the amount of force required to “snap” the DV+ body onto the solenoid varies because the solenoid is moulded plastic - some solenoids are quite loose and need to be held together until it is bolted onto the car, others can be quite tight and need a good deal of force (by hand). This variation in factory moulding tolerance does not affect the operation in any way.

Fit the valve/solenoid assembly to the car in the factory location using the supplied longer bolts, and re-connect the wiring loom.

C.A.R.B. EO STICKER (USA residents only)

For residents in the United States of America, the GFB DV+ part # T9351 carries a California Air Resources Board (C.A.R.B.) Executive Order (E.O.) number D-844, which means it meets the emission standard for use on pollution controlled vehicles in all 50 states for the specific vehicles listed on the E.O.

To comply with C.A.R.B. regulations in the USA, when the DV+ is installed on a vehicle from the specified list the included E.O. sticker must be placed under the hood readily visible location. Without installing this sticker, you risk failing a smog check.

Please note that the E.O. sticker MUST NOT be placed on vehicles that aren't listed on the E.O.

For a complete list of approved vehicle applications, please visit www.gfb.com.au/t9351-carb-approved-vehicles or use the QR code:



TECH SUPPORT

Just installed your shiny new DV+ 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.

WHAT TO EXPECT FROM YOUR DV+

Sound:

The DV+ is not a blow-off valve and is not designed to make louder or different sounds. It fully recirculates the vented air to the turbo intake in the same way as the OEM diverter. If you hear a loud fluttering sound when lifting off the throttle from full boost, that indicates the valve is not opening correctly and you should contact our tech support using the details on the previous page.

Maintenance:

There are many forum discussions on this topic that often draw the incorrect conclusion that you need to frequently remove the DV+ and oil the piston. The fact is that periodic maintenance or re-lubrication of the DV+ for correct operation or longevity **is NOT required!**

Similar to an engine breaking in, once the DV+ has been used for about a week the microscopic machining high spots are flattened and smoothed, after which it will continue operation almost indefinitely without wear, irrespective of lubrication.

Longevity:

The DV+ will outlast any version of the factory diverter, especially on tuned engines. 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.

Boost holding:

There are a number of revisions of factory diverter valves, each with their shortcomings. The diaphragm types typically seal well, until they begin to fail - which is almost assured on a tuned engine. The piston-type revision D and later model C valves are not as fragile, but their ability to seal ranges dramatically from average to terrible, even when brand new.

The DV+ 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:

When using the DV+ with the main spring installed, it 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, the DV+ can help recover boost faster.

What the DV+ can't do however, is create more boost, or cause the turbo to spool faster. Quite simply, whatever boost the turbo makes, the DV+ will deliver to the engine, and it will also preserve as much boost pressure as possible during a brief throttle lift-off, which is where the faster boost recovery comes from. If there is no boost to preserve, or if boost still drops off at high RPM, that is simply highlighting the limitations of the turbo.