Introducing the new DV+ for Mini N18 Engines

BITS #0017

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GFB'S DV + SOLUTION COULDN'T BE SIMPLER - KEEP WHAT WORKS AND REPLACE WHAT DOESN'T.

- » Uses factory solenoid coil for seamless integration
- » Replaces plastic valve parts with metal for reliability and strength on chipped engines
- » Direct-fit replacement with GFB's TMS benefits
- » Exclusive "pilot-actuated" valve mechanism for rapid response at high boost

New to GFB's ground- breaking DV+ range is the T9353, which is designed to fit in the tight confines of the Mini N18 engine bay. Tighter confines surrounding the factory diverter valve on the N18 engine means the current Mini DV+ (Part T9352) cannot be used. Instead, the T9353 kit splits the DV+ into two parts, the valve, and the solenoid, meaning the solenoid can be mounted lower in the engine bay out of the way.

The DV+ part #T9353 is a bolt on solution for the weak factory diverter valve that is still being used on many European vehicles. The solenoid coil itself from the factory-fitted valve is great- the ECU opens it faster than any pneumatic valve so why replace it? The weak point however, is the valve mechanism itself. GFB's DV+ solves this problem by replacing the valve parts with an anodised billet aluminium housing, fitted with a brass piston machined to exacting tolerances.

The valve is still controlled by the factory solenoid via the ECU, and the end result is sharper throttle response, lightning-fast valve actuation, and it will hold as much boost as you can throw at it. Read all about the DV+ story on the next page.

Other manufacturers' products involve replacing the entire system with a traditional pneumatic valve. This approach is really a step backwards in technology (a bit like replacing fuel injection with a carburettor) resulting in slower response and effectively removing any control the ECU has over the valve operation.





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SUITS ALL MINI ENGINES, FITTED TO:

» Mini Cooper N18 Engine (2006-2010)

GFB's DV+ solution on the other hand is more responsive,offers better boost recovery on gearshift, retains ECU control and doesn't cause compressor surge/ turbo flutter. Oh, and it doesn't require different springs or frequent rebuilds either.

It's just the way the factory diverter valve SHOULD BE!



Order Part #: T9353

GET BETTER PERFORMANCE, FASTER BOOST RECOVERY AND DON'T PAY FOR WHAT YOU DON'T NEED!

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The DV + story: BETTER PERFORMANCE - MORE RELIABLE



DV⁽²⁾ kit contents Plunger O-ring Anodised billet Piston Solenoid plunger Factory solenoid coil and yellow Extended bolts Brass piston with Spring 6061-T6 body with silicone Spring o-ring (not included). bonded silicone o-ring seal face seal mmm

Many late-model European cars use ECU controlled solenoidtype diverter valves. This is a good concept, because the valve can react very quickly and it only opens when it needs to.

However, there are some problems with these valves;

- The diaphragms are weak and known to rupture, especially if boost has been increased. Once this happens, the valve will no longer hold boost pressure.
- The plastic lip that surrounds the diaphragm is very thin and pieces can break off, potentially ending up going through the turbo.

Additionally, the solenoid on the OE diverter is directly connected to the valve mechanism, which is not ideal because neither it nor the return spring are strong enough to open and close the valve reliably at high boost.

With problems like this, you can see why other aftermarket manufacturers assume the best solution is to replace the factory diverter entirely, or change it to a purely pneumatic system. Unfortunately though, whilst their replacement kits might be stronger than the factory diverter, their slower response speed and lower flow do not justify the extra cost and complexity - more of a compromise than a solution.

GFB has taken a different approach to deliver a complete solution that solves existing problems and improves performance, without compromise or a hefty price tag.





The DV+ addresses the factory valve problems with a very simple and elegant solution. Keeping the factory solenoid, the DV+ retains all the benefits of the stock system. Also replacing the valve parts with indestructable metal components ensures strength and reliability, no matter how much boost you run.

That's not all; rather than using the solenoid to directly actuate the valve, we've introduced a unique "pilot-actuation" system. This means the solenoid only has to control airflow through a small passage that is then used to open and close the piston (rather than opening and closing the piston directly), so it doesn't matter how much boost you push through it, the DV+ will open and close reliably without ever exceeding the solenoid's capability.

This feature also improves on the factory system by opening the valve progressively in response to boost pressure, so it only opens as much as required to get the job done (the factory valve simply opens and shuts, it cannot partially open if boost pressure is low), resulting in better throttle response.

Patent Pending/Design Patent Pending

UNNECESSARY REPLACEMENT KITS ARE A COMPROMISE, NOT A SOLUTION





Available Now

Order Part #: T9353



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