

Important updates to DV+ T9351

GFB Technical Bulletin: DV+ (part # T9351) leak issue: 9th September 2013.

Since the DV+ was released, it became apparent that there were significantly more variables than our initial testing revealed. This is because we have a patent pending on this product, and we were limited in how many different cars we could use during development since you cannot disclose the product to the public until the patent has been lodged.

The Audi/VW community has made us aware of a leaking issue with some of our DV+ valves, for which we've now engineered a solution.

The leaking issue is the result of a number of contributing factors, however it can be generally said that the problem is most common on cars using the K04 turbo. This is because in most cases, cars equipped with the K04 turbo run higher boost.

What we found is that it is possible for the plunger inside the solenoid coil to be forced open by high boost pressure, which results in a drop in pressure behind the main piston, causing the valve to partially open.

Whilst our initial testing showed the plunger to be capable of holding in excess of 30psi, we've since found that variations in the factory spring and a slight difference in the diameter of the O-ring used on the front of the plunger leads to significant differences in the ability of the plunger to stay shut under load.

Initially, a stronger plunger return spring seemed like a good solution, but after testing as many solenoid coils as we could, it appeared that the electromagnetic strength of the coils varies significantly, especially when hot. Therefore some coils were not able to reliably open the valve when a stronger spring was used.

Our solution? We have made changes to both the spring and the plunger to ensure that it does not get pushed open under boost, and that it continues to open reliably when the solenoid is energised by the ECU.

The changes to the DV+ T9351 kit are detailed below:

- We have manufactured a spring that holds the plunger down with more than twice the force of the original factory spring
- To ensure the solenoid is able to reliably retract this harder spring, the plunger has been made slightly longer to shorten the stroke. This means the electromagnetic retraction force of the coil on the plunger is significantly increased
- The diameter of the silicone O-ring on the front of the plunger has been reduced so the area exposed to the boost pressure is smaller, which further increases its ability to resist being pushed open (smaller area means for a given pressure there is less force being applied)

All new T9351 DV+ kits come with the new plunger (which can be identified by its black colour as opposed to the silver finish of the original plunger) and spring.



For the earlier DV+ T9351 models, all that is required is to replace the existing plunger and OE plunger spring with the parts supplied in the GFB upgrade kit.

We thank you for your patience and feedback whilst we have implemented this solution. All product supplied since September 2013 has the correctly upgraded kits.

Best regards,

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