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VWvortex Forums > [Golf III & Jetta III](#) > **DIY: COMPLETE, very detailed airbox/intake modification write-up.**

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**Breezy**  
Member

DIY: COMPLETE, very detailed airbox/intake modification write-up.

<< >> 2:39 PM 9-22-2006

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Member Since  
10-14-2005  
2426 posts

Mk3 VW GTI VR6

**DISCLAIMER: This is what I did on my vehicle and had great results with it. However, I am not liable if anything happens to your car because of this.**

**The airbox/intake modification:**

I did this for the performance of course, but the sound that comes with it is unbelievable. You will have heads turning left and right when they hear it. There is no other naturally aspirated 12V VR6 that I have heard that sounds as incredible as this. Good luck.

And some sound clips:

To prove the gains for this airbox modification, I provided a link of my dyno with such minimal modifications (176whp/177wtq) (<http://forums.vwvortex.com/zerothread?id=2899452>). My track times also prove that modifying the airbox is the way to go on these cars. (It's a 14.4 second car and it's near stock).

You are almost definitely losing power with a cone filter, instead of the airbox in place because you are sucking in hot air from the motor. Cone filters work in either a cold air intake or when being used with a heat shield. To further prove to you the power loss of a cone filter in place of an airbox, here is a dyno test from Techtonics Tuning of an open-element conical filter versus an airbox. There is quite a drastic loss in power with the conical filter. <http://www.techtonicstuning.co...7.JPG>

First, buy a high-flow drop-in air filter of your choice.

What I did, and what many others do, is modify the stock airbox. All you really need is a dremel, or maybe a utility knife, if that may work [I used a dremel].

Next, is cutting out part of the front/fender side of the airbox. I used a ruler and straight blade to slightly draw out where I wanted to cut exactly. I used many of the airbox's lines to cut the cleanest looking cut. Those who say to swiss cheese doesn't make sense when you can just cut a whole clean piece from the airbox. It will flow better air and look much more professional/clean. You honestly can't tell the airbox is modified if you do it in this manner.

Here is my setup:



Here with K&N panel filter inside...



In the upper airbox, there is a duct in the upper section of the airbox that I removed. Notice the difference in diameter after removing the duct. Quite bigger and it also sucks more air in from the whole panel, rather than a portion before.

To remove air duct, take two flatheads and stick in between the duct and upper airbox, unplugging the tabs. Leave the flatheads in there after unplugging the tabs. Then, take small pliers and grab a nice hold of the duct and pull out with some force.

NOTICE: Some people say this duct basically acts like a velocity stack and that it helps direct air to the MAF. Not sure how much it helps or doesn't, however, I still opted to take it out. I'm willing to sacrifice this piece by looking at the bore of the intake afterwards.

With the duct in the upper airbox...



Without the air duct...Notice the difference?





And the velocity stack removed from the airbox.



I removed this plastic honeycomb piece from the MAF. It's there to give the MAF the most accurate readings, but I've been running without this piece for a long time without any problems. If anything, it helped. Remember, this piece pops right out, so you can always push it back in if you ever want to re-attach it. It is not a permanent modification to the MAF.

Take the following from someone on the 300zxclub.com forums:

"Removing the mesh on the mass airflow sensor (MAS) will up the boost on turbo'd vehicles a couple pounds....this allows for more air to enter with less restriction...did this on my skyline...probably do some good for NA too.

But... the mesh is there for a reason....the mesh channels the air through the MAS and onto the sensor...without it, there is an argument that the sensor may be getting an incorrect reading...but it worked for me....its up to you...

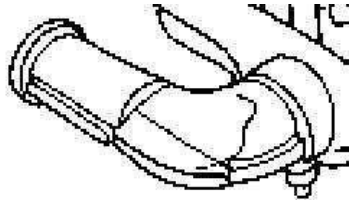
On the 300ZX if you do the mesh removal, you will increase air volume from 300cfm to about 700cfm. It will increase your boost and your response, and will get rid of most of your hesitation problems..... oh, and it should lean her out a bit too, good for those of you with hight boost. And iv'e seen articles where LS1's are being dyno tuned with the mesh removed."



That plastic piece removed gives you a straight through MAF...



Remove this duct from the front of the airbox. This piece is pointless now that the airbox is opened up and there is no velocity sucking air from it anymore. Now, it just blocks air from the front of the airbox. I removed it completely.



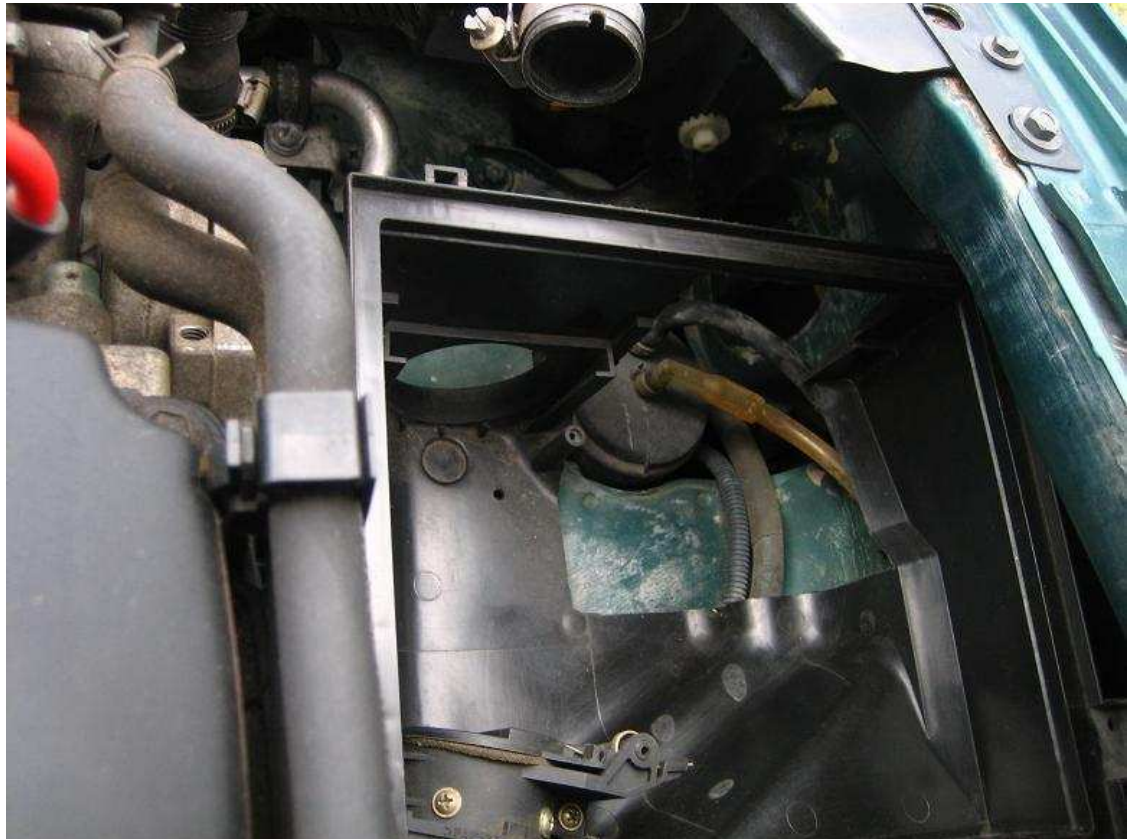
Remove this piece from the fender area. There is no point of it now that the duct is removed. It also gives a little more air from the fender area.



And the result of that being removed is more air from the fender area...



And some shots of how the airbox sits...







Modified by Breezy. at 7:36 AM 9-10-2007

The smaller modifications count most.  
14.4 second car and \$450 of engine modifications.

**Golfmk3\_18**  
Member

Re: DIY: COMPLETE, very detailed airbox/intake modification write-up. (Breezy.) »

« » 2:42 PM 9-22-2006



Offline

Member Since  
9-21-2004  
2165 posts

QC  
A2 20vT from Hell

nice write up, but dont you think thats a lot of work for an extra 1.3 hp?

just sayin

-- *Dulce Periculum* --

**rallyferret**  
Member

Re: DIY: COMPLETE, very detailed airbox/intake modification write-up. (Golfmk3\_18) »

« » 2:45 PM 9-22-2006



Offline

Member Since  
5-23-2006  
404 posts

Clearwater FL

Horsepower to the wheels isn't cheap.. but this is, so no big deal 🤔

Nice write up, and thanks for the pics

Quote, originally posted by **PrupleGTI** »

I love my 2.0L I can floor it and beat the crap out of the car like I'm racing it and nobody else on the road knows it

Quote, originally posted by **-Trouble-** »

rwd is old fashioned and pointless in my book



1995 Golf GL - Sold for \$50 🚗  
1995 Volvo 940 Turbo - 15psi 🚗👍👍

**Breezy.**  
Member

Re: DIY: COMPLETE, very detailed airbox/intake modification write-up. (Golfmk3\_18) »

« » 2:46 PM 9-22-2006

Offline

Member Since  
10-14-2005

Quote, originally posted by **Golfmk3\_18** »

nice write up, but dont you think thats a lot of work for an extra 1.3 hp?