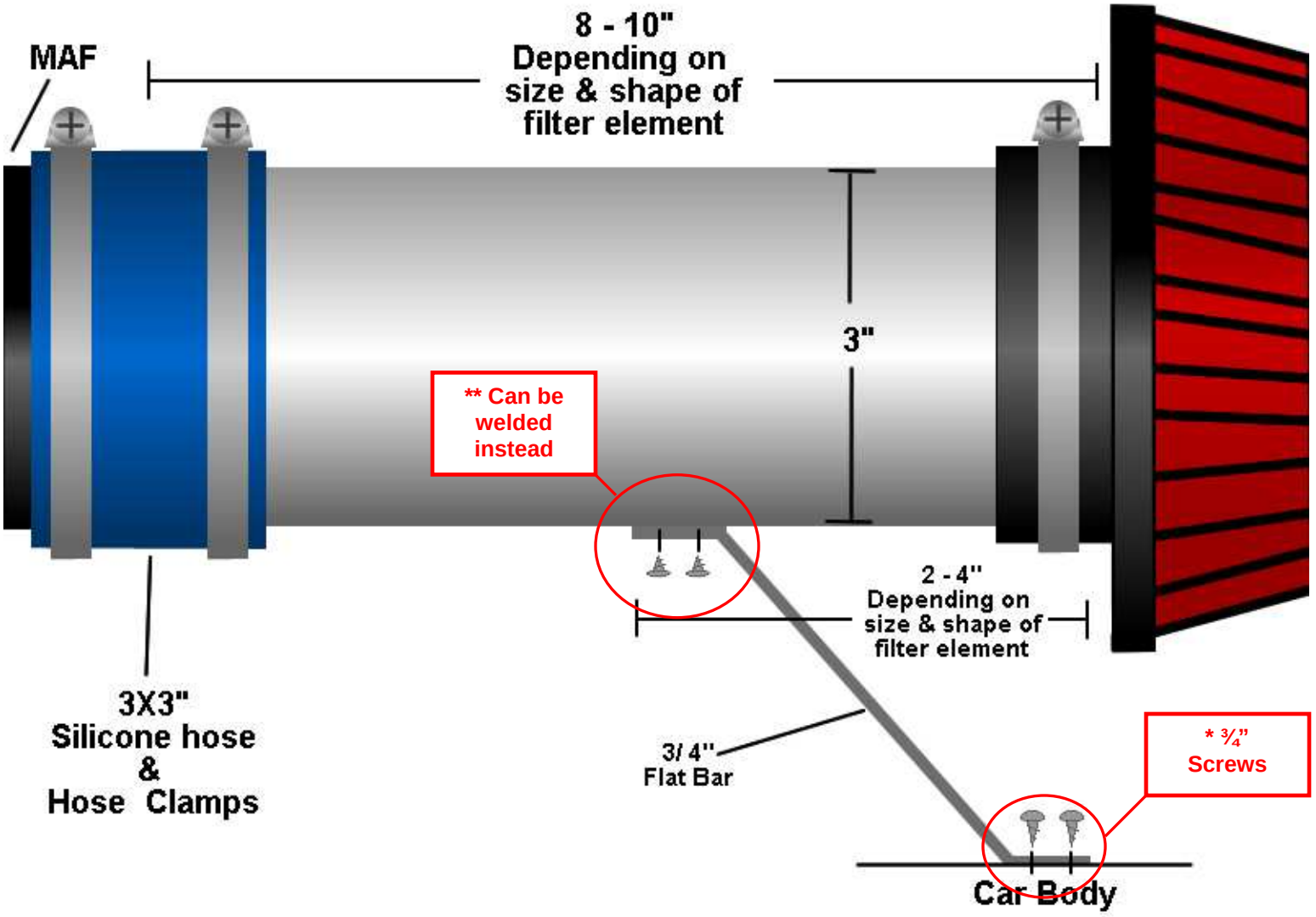
VAGLinks.com – VW MKIII VR6 Home Made Cold Air Intake

You will need:
(1) Some 3/4“ aluminium or steel flat bar (+/- 1 foot)
(2) About 12” of 3” Aluminium or steel tubing.
(2) Piece of 3X3” silicone hose and 2 hose clamps
(3) 1 K&N (or similar) high flow filter with a 3” inlet. I used a K&N RR-3001. Picture on Page 4.
(4) 2X ½” (** optional if support is welded to tubing) and 2X ¾” (*) stainless steel screws (stainless is optional though, I used them so I did not have to worry about rust)
(5) 1X Philips (star) screw driver and/or nut-driver for the hose clamps and mounting screws. A center punch, drill bit to “match” the screws you are using and drill.

This is what we are trying to create in the steps below



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Disclaimer (Legal Stuff): This is my "homemade" Cold Air Intake (CAI) I did for my VW MKIII VR6 (1998). The instructions are not detailed as I assume the reader will have some basic mechanical and fabrication skills before attempting this modification. Don't blame me if this does not work or if it creates issues in your car. You are doing this AT YOUR OWN RISK.

Here we go…

Step 1 – Make sure the car's ignition is OFF!
Step 2 – Unplug (disconnect) the Mass Airflow Sensor (MAF)
Step 3 – Unclip the MAF from the air box lid (2 clips on the Air Box side)
Step 4 – Loosen the hose clamp on the other side of the MAF (Throttle Body side) and separate the MAF from the Intake hose. Put the MAF somewhere safe, for now.
Step 5 – Remove the rest of the stock air box completely. (several steps – this might help: http://www.vaglinks.com/Docs/VW/MKIII/VW_MKIII_Jetta_GTI_Mass_Airflow_Install.pdf)

The steps 6 to 10 is to get all the sizes figured out (support and intake tube)
Step 6 – Weld or screw the support bracket to the tube. I used 2 ½" screws as I don't have gas on my MIG yet (for aluminium). If you are using steel tubing and you have a welder you are good to go. I screwed mine about 3" from the end on the tubing (filter side) so I could still get to the screws with a file, to file them down on the inside of the tube.
Step 7 – Add the silicone hose to the input side of the MAF. The MAF has an arrow on it indicating air flow direction.
Step 8 – Insert the 3" tube into the other side of the silicone hose.
Step 9 – Add the filter element to the other side of the aluminium tube. Turn the tube and MAF to match the electric harness connection location on the body.
Step 10 – Position the filter to be as far forward to the corner as possible, without putting strain on the TB hose (intake) and MAF electrical connections. This is why I left the tube a little longer so I could cut it to size. Cut the tubing to the length you need. Remember, rather cut too little than too much!
Step 11 – Measure the height and bend the support bracket's (flat bar) bottom "foot". The flat bar support is about 6-7" high between the two mounting points (tube and body), depending on how high you want the filter to be sitting. I made sure it was high enough to keep the filter element from banging against the bottom (car body) and mine ended up about 6" high (from body to tube). Once you figure out your height, bend the front foot in a vice and cut the extra flat bar off, leaving about 1 ½ to 2" for the "foot". Mark and drill two hole in the support bracket foot.
Step 12 – Do another dry-fit (I put everything together, from the intake hose to the filter, but this is up to you) to make sure your height, tube length and filter and MAF placement (and harness connections) all worked. If all is well, mark the two mounting holes (through the holes you just drilled) on the bottom of the body, and drill the holes just slightly smaller than the screws you are using. I chased the screws into the body holes before I screwed the intake down. The bottom plate is quite thick so it will be more difficult with the tube in the way.
Step 13 – I wanted my filter element as far forward (towards the front head light) as possible, so I had to put the filter on the new tube before I screwed the tube support down, otherwise I would not be able to get the filter in there after the fact. Screw the bottom support bracket to the body. I used a little Locktite on the treads which was probably overkill, but whatever.
Step 14 – Then I slipped the MAF onto the new tube via the new silicone hose, positioned it so the wiring connections matched nicely and tightened it up to the tube.
Step 15 – Slip the other side of the MAF onto the intake hose and tighten down.
Step 16 – I bought a small filter (from AutoZone) f or the crank case breather and used a cable tie to tie it down. This can probably be done cleaner, but it works.
Step 17 – All set! Take her for a spin and listen to that nice "grunt" under wide open throttle!

Optional, but recommended…
Step 16 – Take a large piece of cardboard and cut and bend it to form a heat shied around the filter element. Then transfer the template to a piece of aluminium and screw it into the bottom (body) with some more stainless screws. Works like a charm.

Questions and / or suggestions: INFO@VAGLinks.com

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This is what mine looked like after all was said and done…

I painted my tubing and heat shield black.

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K&N RR-3001

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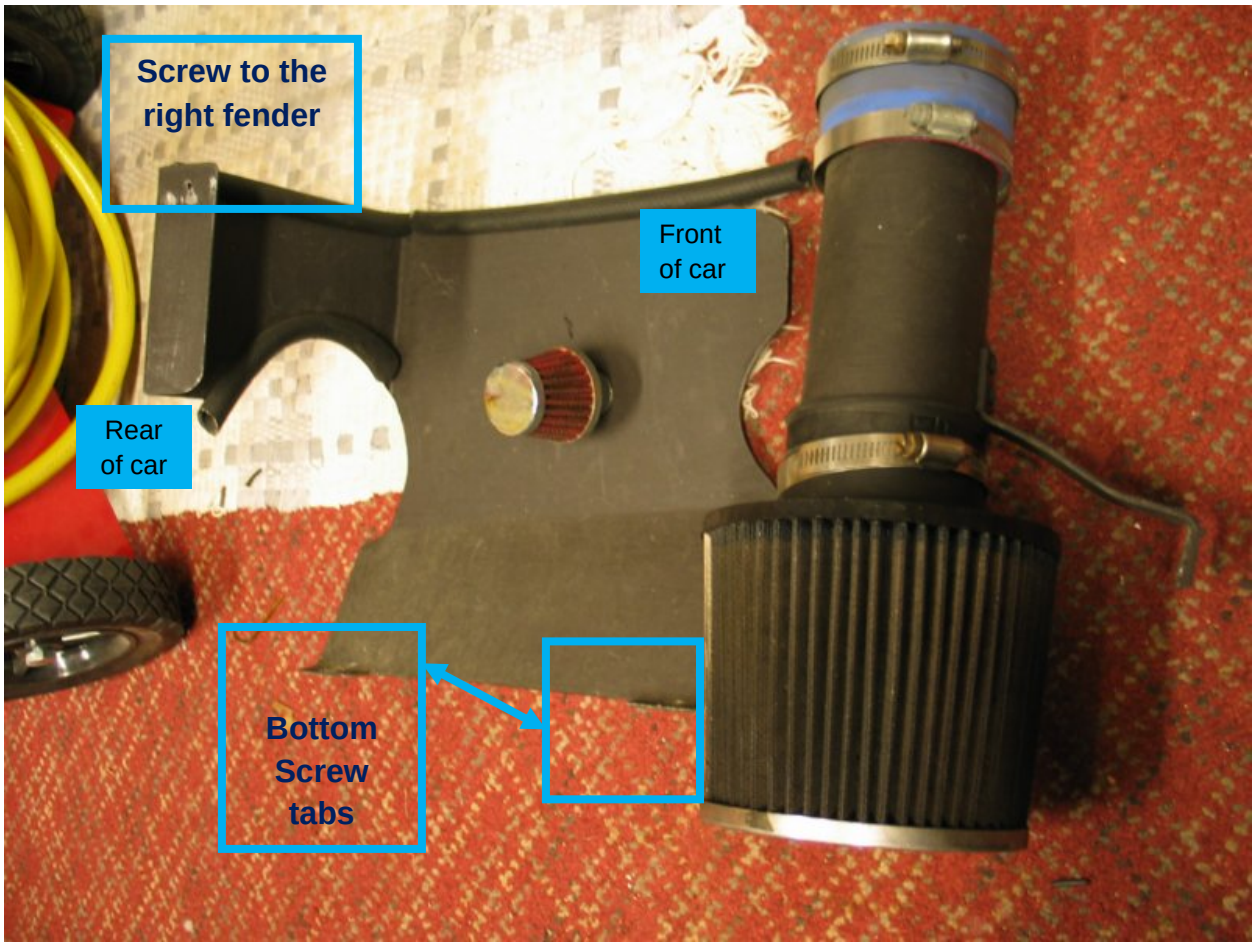
UPDATE:

Here's what my heat shield looked like. There are two tabs at the bottom to screw it to the car and one on the side that screwed to the inside of the engine bay / fender.



I removed the Secondary Air Injection hose that connects to the pipe that goes down to the SAI pump. I bought a small filter from Autozone and added some duct tape to the base until it fit snug inside the pipe and "pushed" it into the SAI pipe. If you can get one with the correct outside diameter you can avoid this, but it worked well.

I also added some beading to the top and around the intake pipe. I used some old rubber hose which I split. Some hot glue (glue Gun) on the corners kept it all nice and snug and gave a more pro look. In the picture above I haven't clued the hose / beading down yet.

Damn that filter needs a clean! Should be K&N red… lol

Hope that helps save some people some money! Let me know if you have any questions. Cheers

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