

## Blower Fan Replacement V2.0 With ESS Manifold installed

This is my second attempt to replace the cabin blower fan. During my [first attempt DIY](#) I managed to slightly bend the fan blades while inserting the fan in place. This was because there was not enough clearance (or simply I did not know the correct path/angle). For a \$300 part, mistakes like these are not allowed. The fan spins very quick and the slight unbalance results in massive vibrations, which in my case, were so intense that they were transferred all over the car. I could not set the climate control fan speed to over 30%. Even though the fan sits on a silicone shock absorbing base, once it gets unbalanced, it's for garbage only.

**\*\*\* Before proceeding, disconnect the battery! The fan is always LIVE \*\*\***

I discovered this when I was trying to remove the bracket that holds the fan, which I accidentally touched it on the chassis and I saw sparks flying around. Scary!

What you need to remove to access the fan:

Cabin filter cover, housing, disconnect holder for starter cable, brake booster pipe



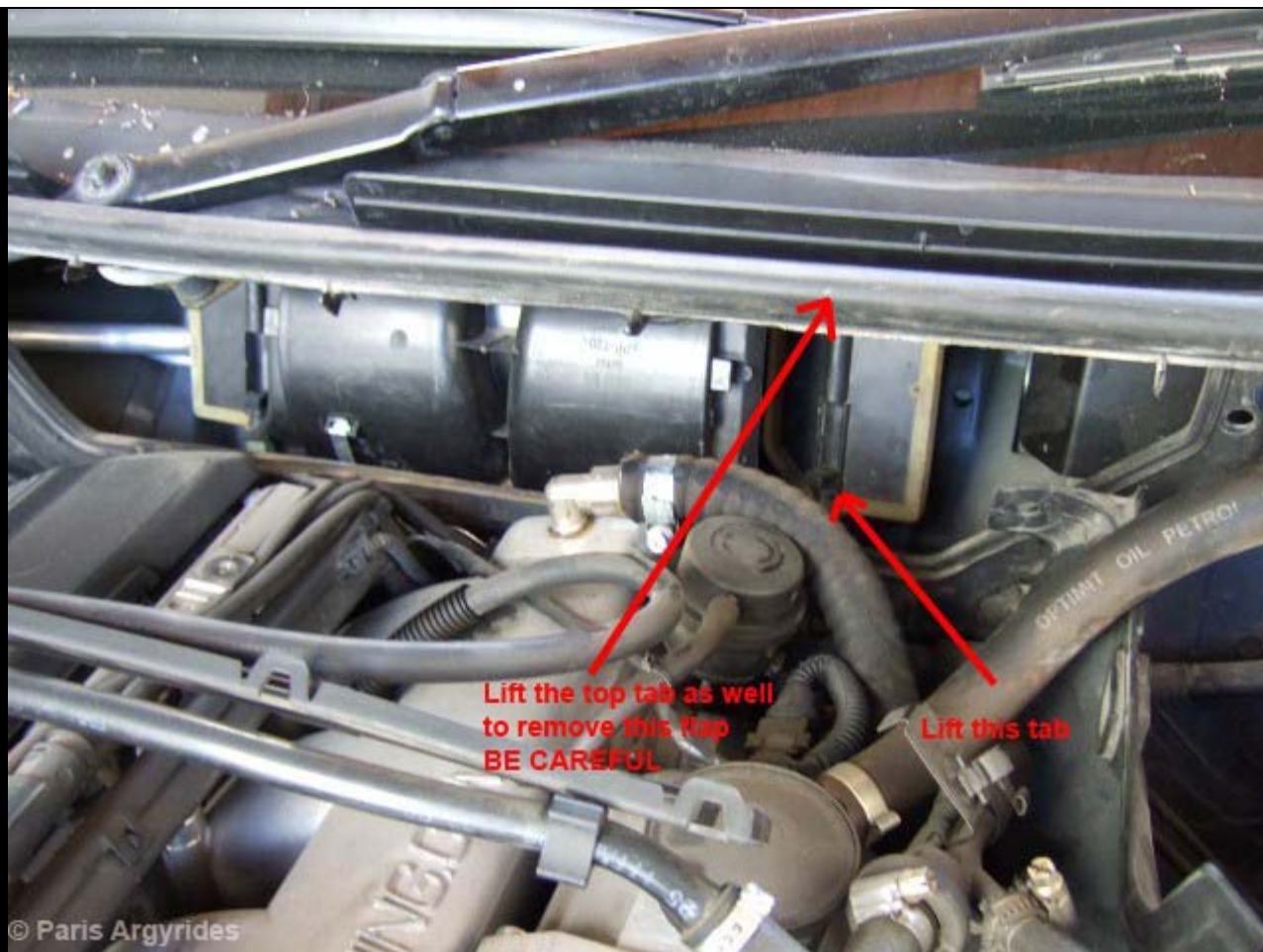
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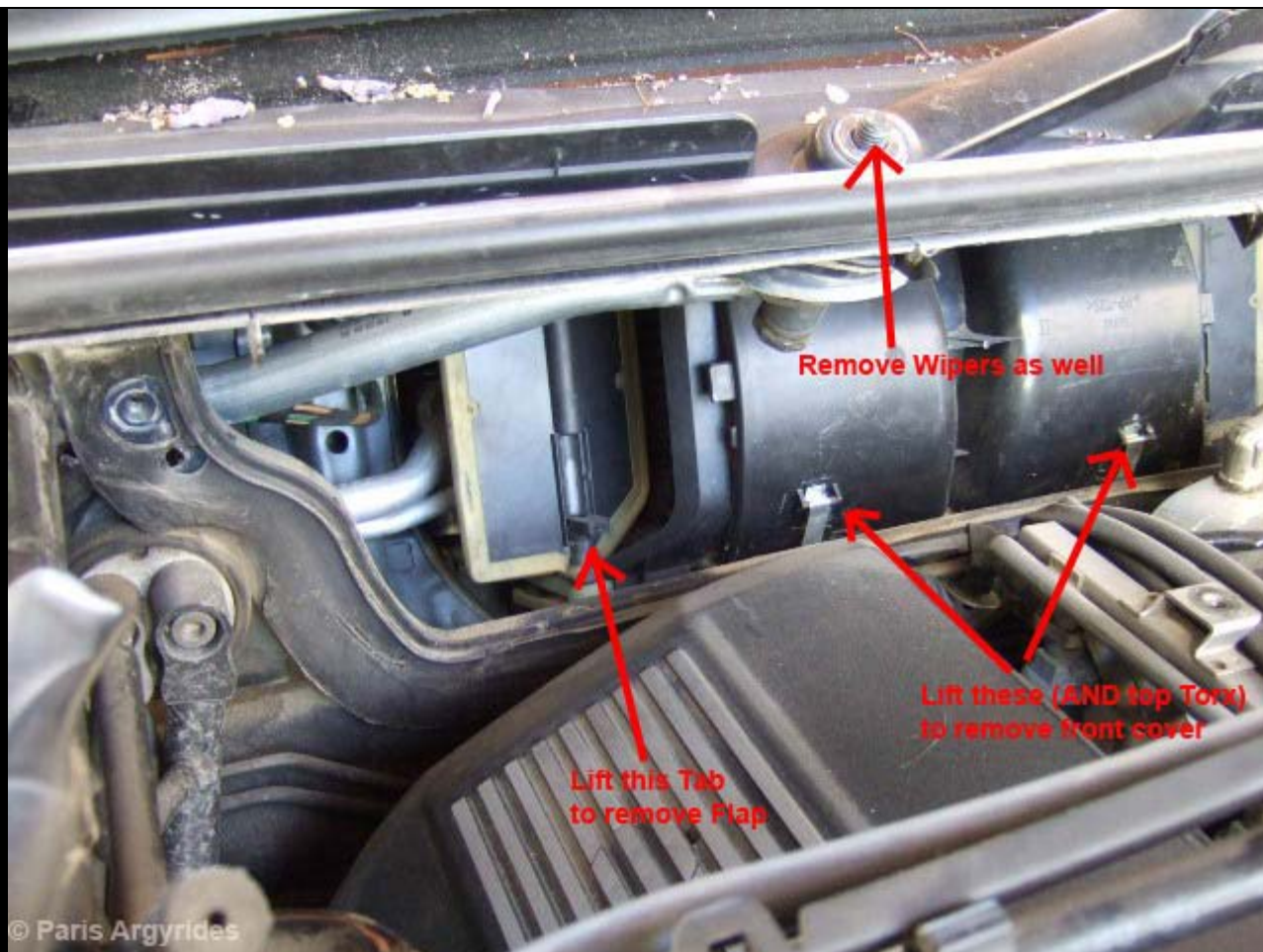
Remove cover on firewall



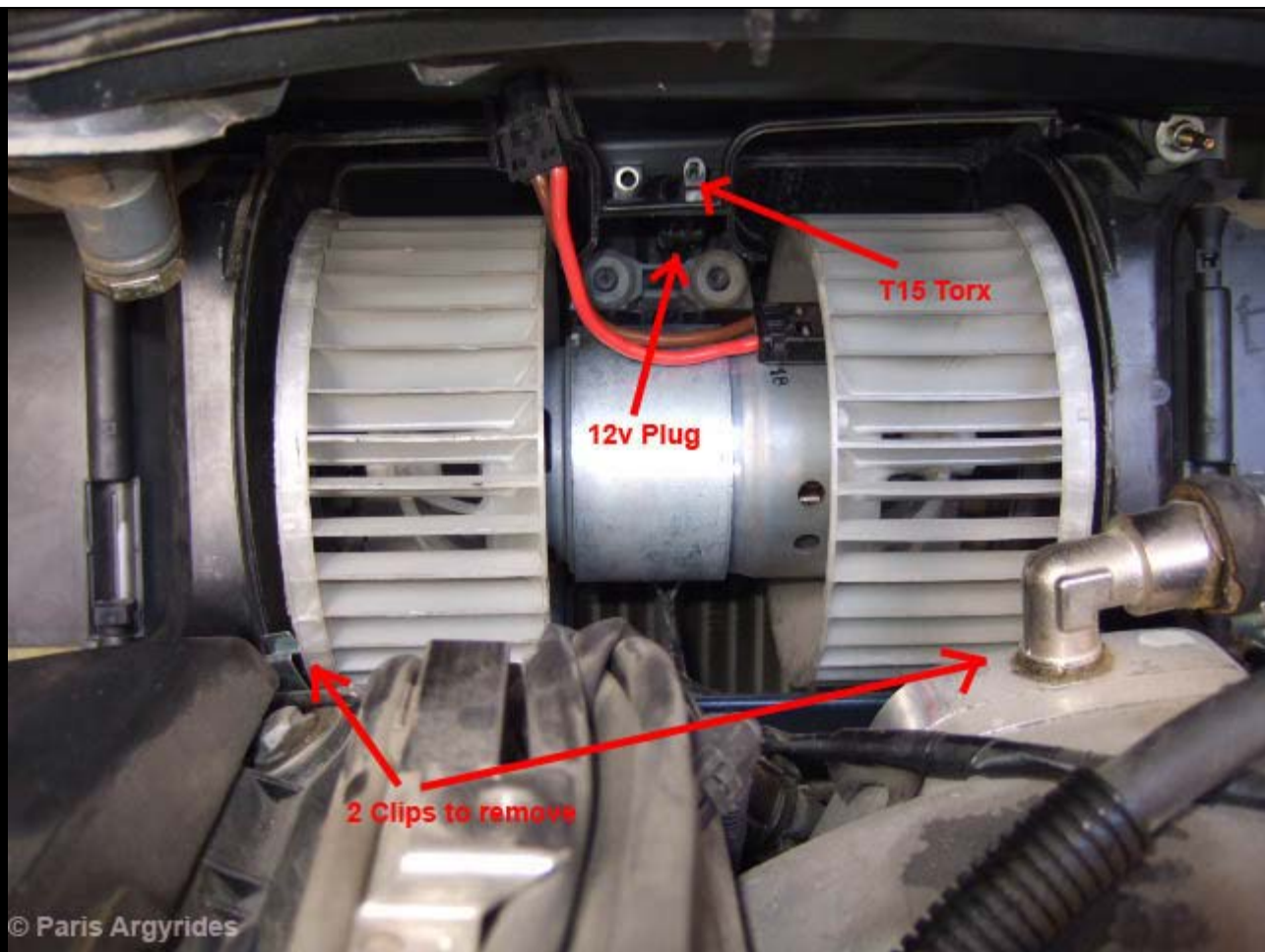
There you go, the guilty fan (and me who messed the first install)



For this DIY to succeed, you must remove the 2 flaps, front cover and side covers of the fan box



Front cover removed: 1 Torx screw on top and 2 clips on bottom. Write down the direction of the plug on the fan, you don't want to place the fan the other way around!





More parts removed:

Take the wipers out to remove the wiper cover and pay attention not to break the plastic clips that hold it in place.

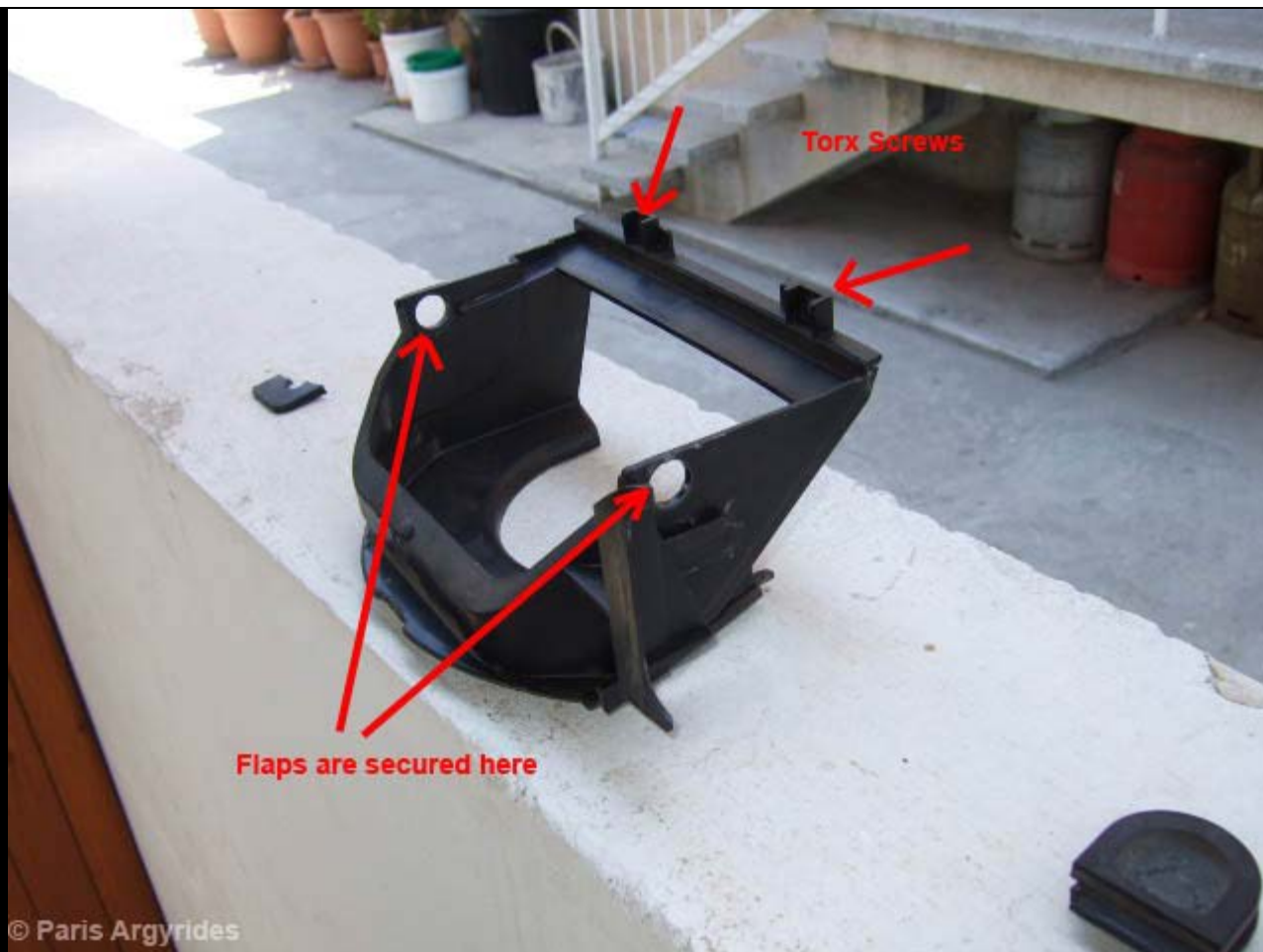


Lift the bottom plastic lever on each of the flaps shown to remove them. The left flap is held by a plastic lever which needs to be lifted upwards for removal. The right flap has a top adjusting lever as well. It's plastic and you need to carefully remove that along with the bottom lever to remove it.





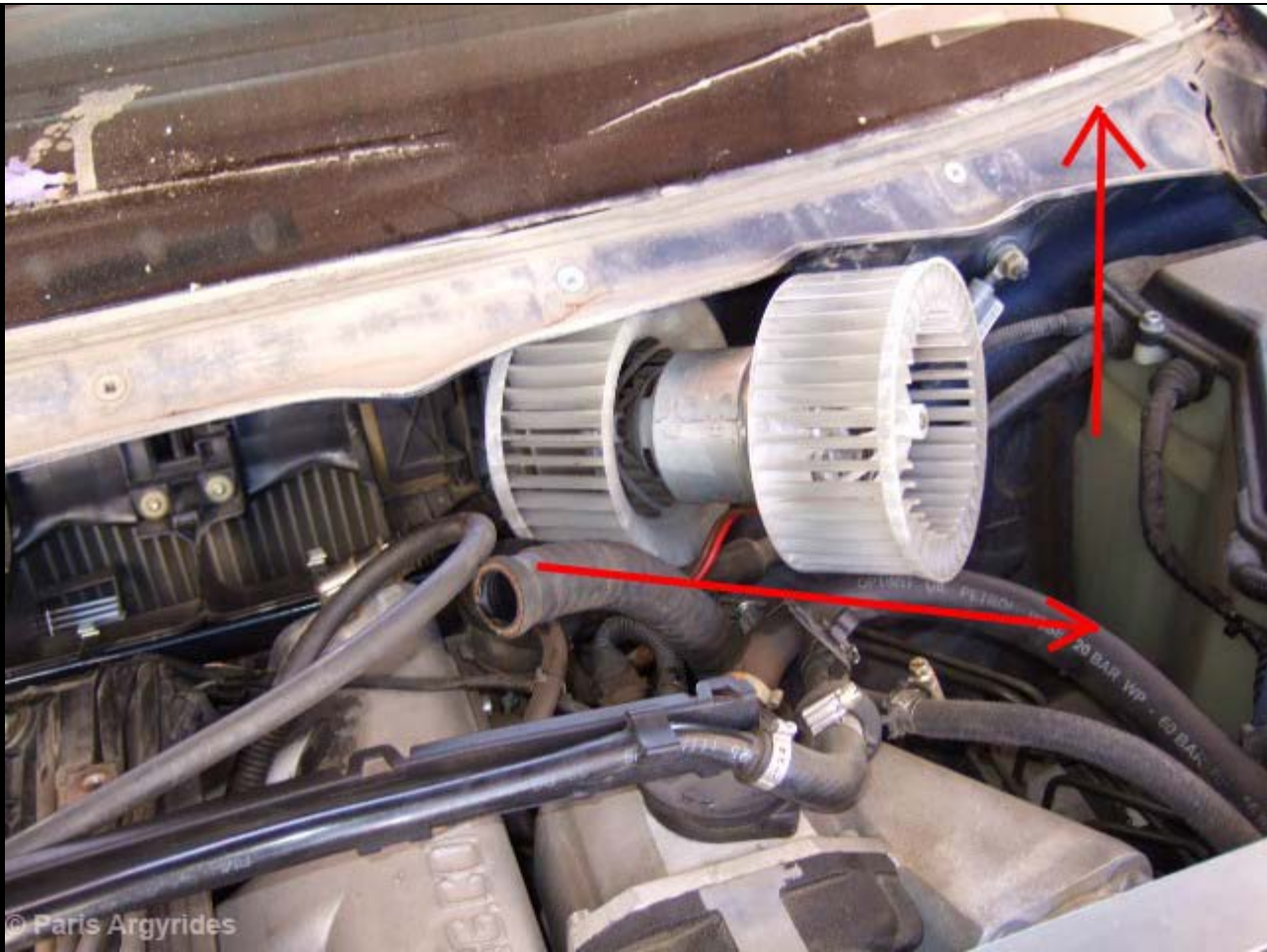
Remove the right side cover of the fan box by removing the 2 torx screws that hold it.



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\*\*\* This applies only for the people who have the ESS Twin Screw manifold in place with the Laminova cores. I had to remove the upper hose to free some space, to allow the fan to come out without damage \*\*\*

Pull the fan outwards and then angle it upwards.



Empty blower box



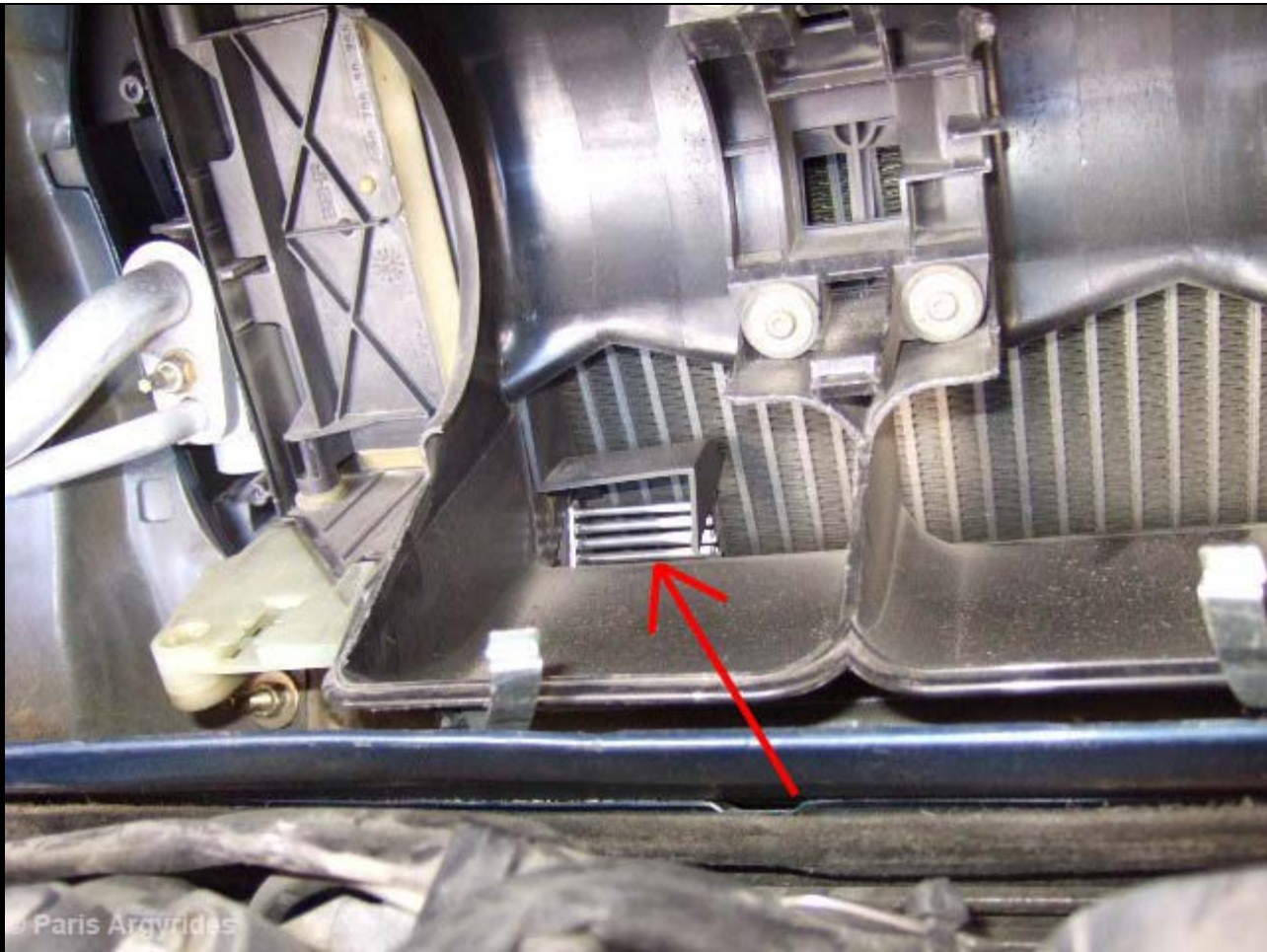
The new fan:



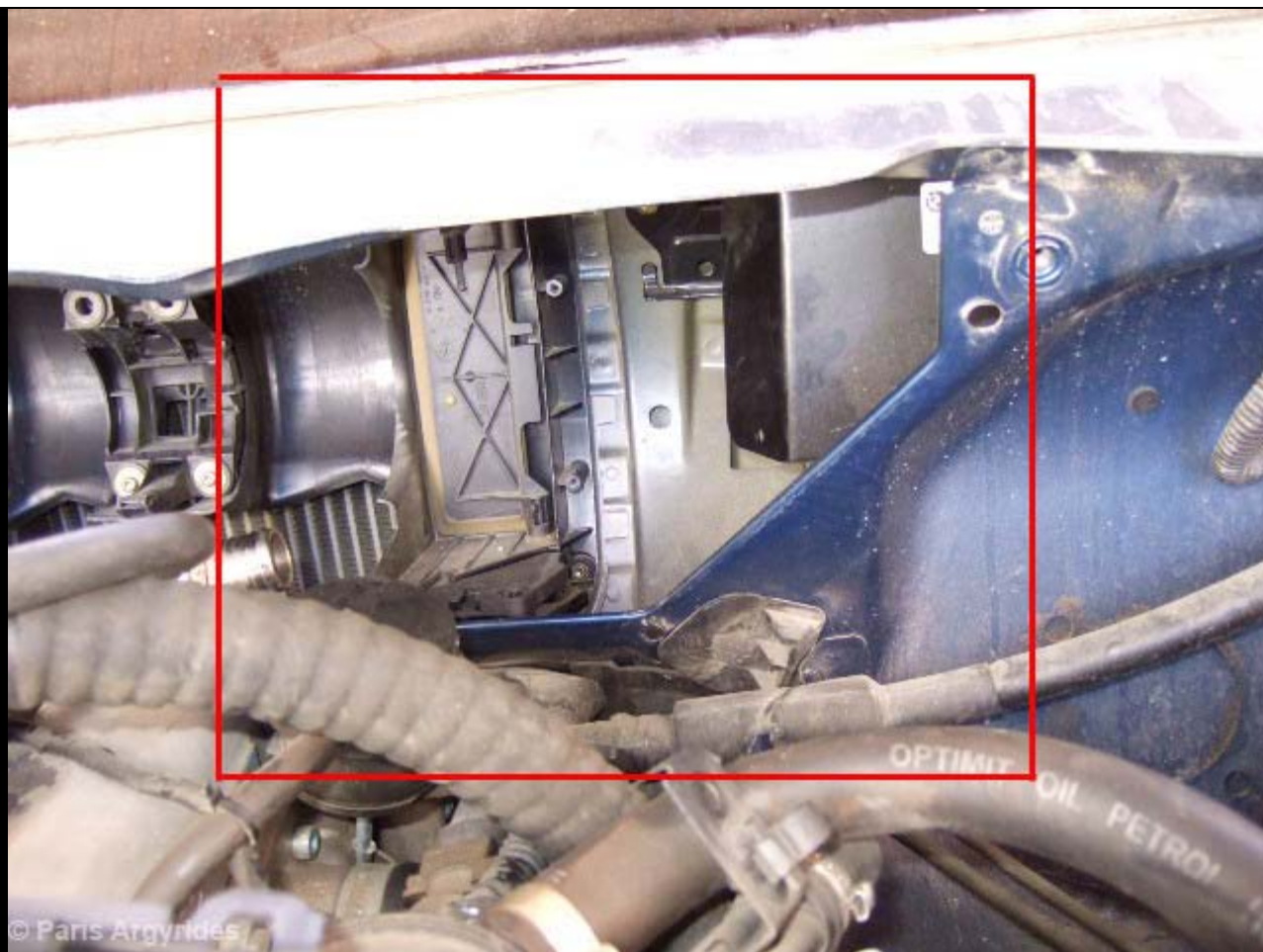
Old Fan:



Final stage resistor as seen from outside the car



The proper path to remove the fan:



New fan in place. Watch the centre bracket which secures it on silicone base. This is the bracket which I touched on the chassis & Fan at the same time. I don't know why a 12v is applied on the Fan body but keep that in mind.





Well that's it. Put back the side covers and the flaps and test the system. Don't forget to connect the fan plug of course. Put it to MAX power to see if the fan works as it should. Once everything is checked, replace all the covers and enjoy a quiet, non-vibrating fan.