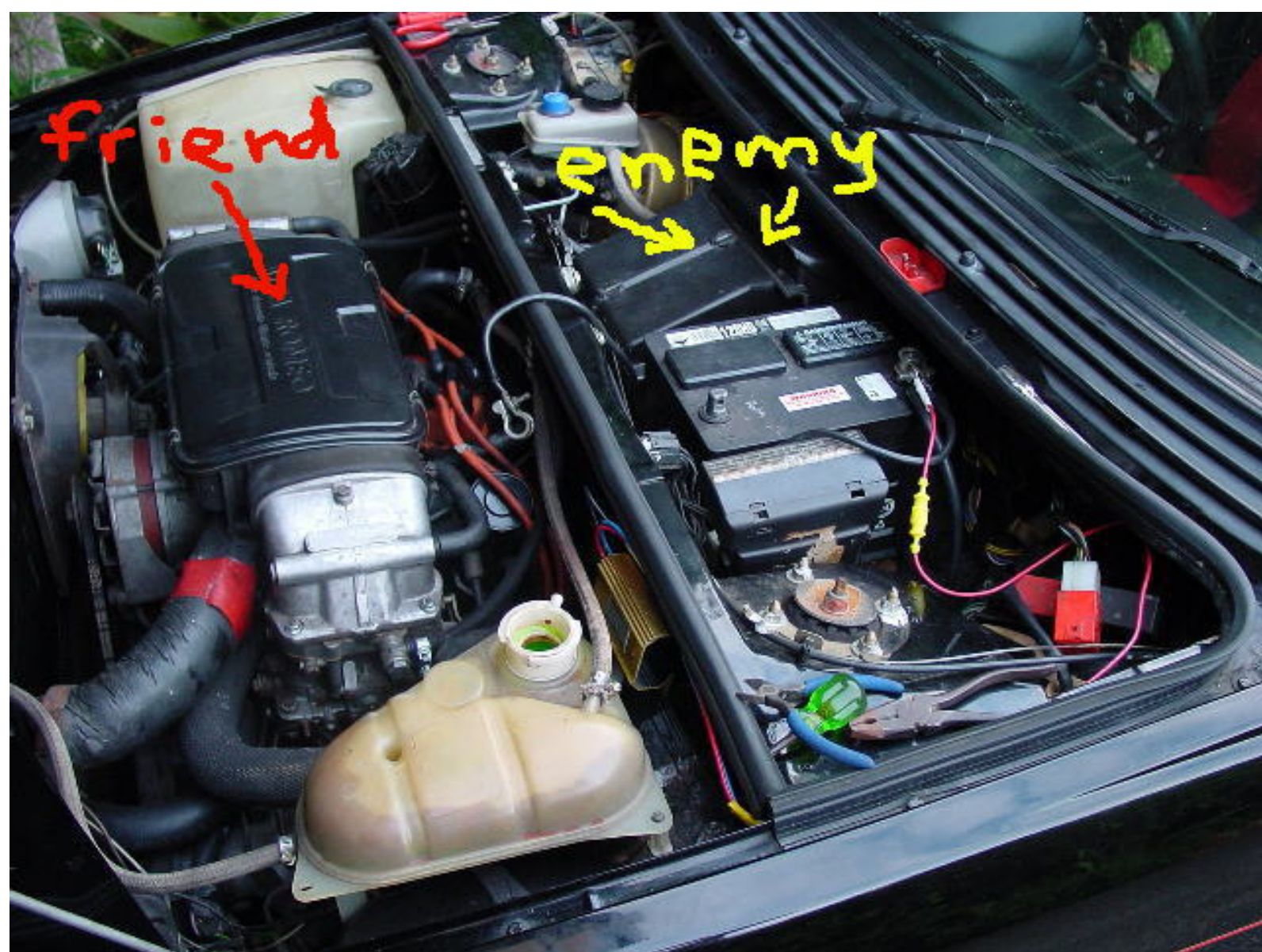


Fun with the Ventilation System

Not long after I got my 33, I was foolish and inexperienced in the ways of Alfas. So when I noticed squealing noises from the ventilation fan motor and miserable airflow out of the air vents, I decided to take the whole system to bits to 'get it working properly again'.



Before undertaking this task, I recommend you consider whether it's worth it. The 33 ventilation system, particularly on Series 1 and 2 cars, is rubbish and just exists to make noise. Whatever you set it to, some air comes out of every vent. And after I finished all this work, it didn't take more than a few weeks for my thoroughly greased fan motor to start squealing again. It still squeals on occasion.

But if you still want to take your ventilation system to bits, here's how I did it with my series 2 car without air conditioning.

- Disconnect the battery, because you'll be mucking around with wires and possibly water. Removing the battery improves access.

- Drain the cooling system. The ventilation system contains the heater core (like a mini radiator, to give miserable lukewarm air to the cabin on cold days). You'll be disconnecting the heater core next and that will be messy without the cooling system drained. Plus when you see how much orange muck is in the heater core, you'll want to replace your coolant anyway...

To drain the cooling system, undo the radiator reservoir cap and the two drain bolts on the bottom of the engine block (either side of the sump, inboard of the exhausts). Lots of water will come out (hopefully) and it will be messy.



You will need access up behind the dashboard, and the sliding ventilation controls will need to go out of the car, so the centre console will have to pretty much be disassembled. In the above picture, I've started with the easy bits and have already run into Italian wiring!



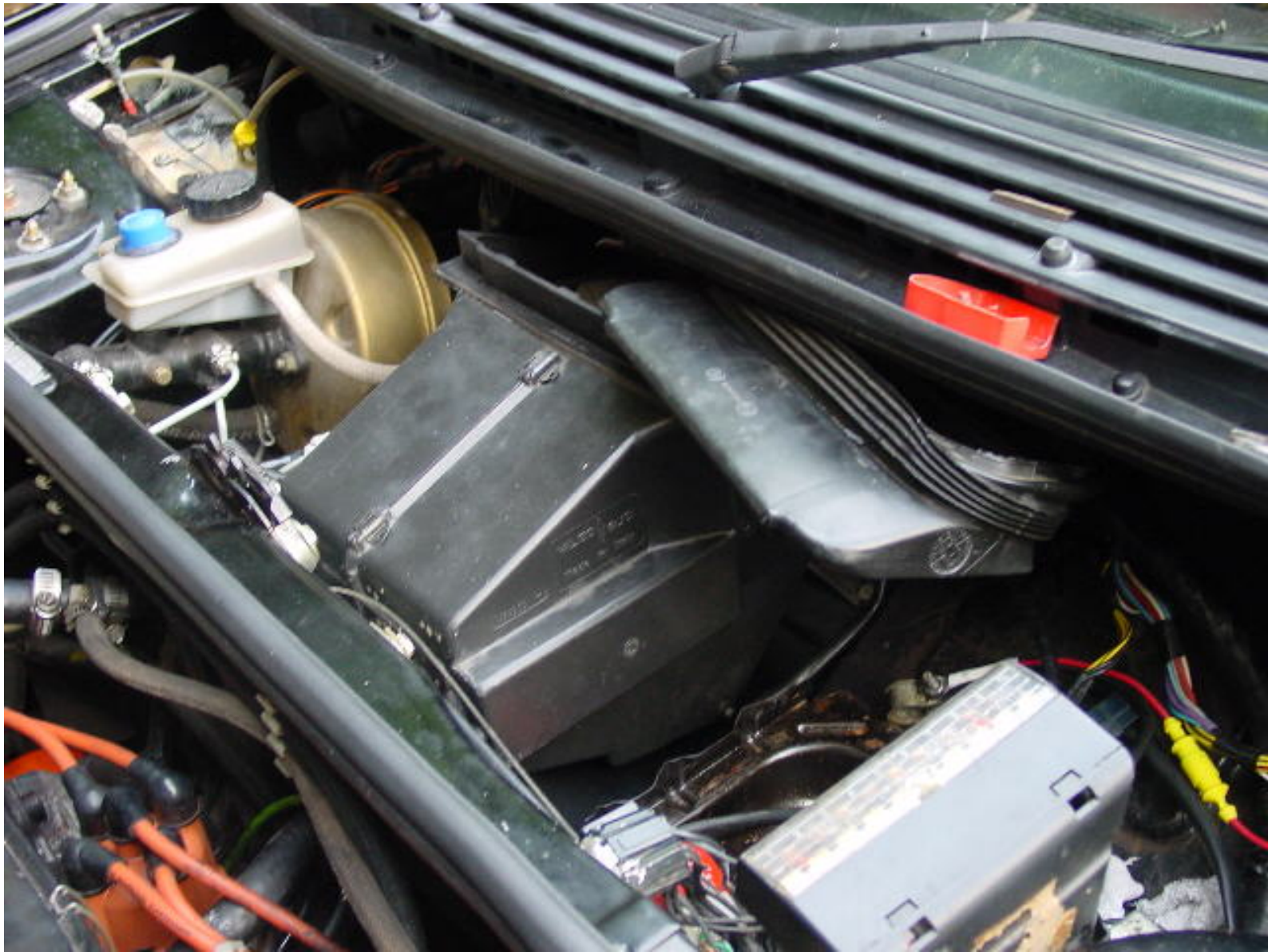
In the above picture, the air vents have been removed (easy, put your fingers in the vents and pull gently or use a blade to lever the rectangular mounting plate off) and so has the radio. The three circular air vents are fed by three tubes which just push into place. Pull off the round knobs on the ventilation controls.



Now the upper section of the centre console has been removed, you can play with the ventilation controls and get an idea of how the system supposedly works.

- Undo the screws holding the ventilation control sliders to the centre console. Two of the sliders are connected to the ventilation unit and will be removed from the car - separate them from the third slider.
- In the engine bay, remove the soft plastic ducting which draws air into the

ventilation unit (trying not to mangle it too much). See picture below. I had removed the battery by this stage to improve access.



- Disconnect the two cooling system pipes which feed the heater core. Be prepared for some coolant to still be in the system.
- Now the only thing stopping you removing the whole ventilation unit is the four very fiendish mounting bolts holding the unit to the firewall.
Easy, you say, I'll just take the nuts off with a socket set and I'll pull the ventilation unit out from the engine compartment.
Unfortunately, it's not that easy!
Take the nuts off the mounting bolts, and you can't get the ventilation unit out because:
 - For the unit to come out, the bolts must clear their holes
 - For that to happen, the unit needs to be moved upwards
 - For that to happen, the whole dashboard needs to move
 - The dashboard is riveted in place and you do NOT want to take it all out
 - The ventilation unit mounting bolts cannot be pushed out into the engine bay

because they're built into the unit itself
I tried to hacksaw through the bolts. It didn't work.
The only way I could think to do it was to grab the ends of the top bolts with big pliers from inside the car and twist them, breaking the bolts free of the ventilation unit.



Hooray! The ventilation unit comes out of the car! It's a bit of a squeeze but just pull harder.



When Dashboards ATTACK!



Once the ventilation monster has been dragged kicking and screaming from your car and you've got him out in the open, he looks like this:



I have no pictures of the rest of the job because somebody else needed the digital camera that day. =(

- Remove all the metal clips holding the two halves of the ventilation unit together
- With the unit on its side, slowly and carefully take it apart, paying attention to how it went together!
- Put one pipe of the heater core up to a tap and turn the tap on - behold the rust fountain!
- When that clears up, half-fill the heater core with water, block the pipes with your thumbs and shake it all about. It may take a lot of goes to get all the rusty muck out.
- Clean and grease the Spanish-made ventilation motor if you want.
- Connect the ventilation motor to the car battery (with some mysterious spare wires that came out of the car at some point during this disassembly process) and marvel that in isolation, the motor is actually quiet and blows a lot of air.
- The less-slow of the two fan speeds is created by bypassing the series resistor mounted inside the fan motor housing. I forget if the resistor looks like a spring.
- If your motor was squealing, try to find a replacement motor. Something more powerful.
- Do not be tempted to cover the air flaps in the ventilation unit with new foam. I tried and when I restarted the car, smoke poured out of the ventilation system as the foam burnt off..

Adjustments.

- Make sure the internal flap which shuts off airflow from the heater core is adjusted properly, so you'll get the coolest air possible on hot days
- While you are refitting the ventilation unit, notice that the lower flap which blocks off air to the footwells doesn't close far enough. You can help fix this by the way you mount the ventilation controls. I used some small spacers to mount them back slightly toward the firewall, which helped keep the lower ventilation flap closed and prevent air escaping there.
You can't mount the controls too far back before the round slider knobs won't reach back to clip onto the sliders though.

Now put everything back together as best you can. Fill up the cooling system with new antifreeze. Put the mounting bolts for the ventilation unit through from the other direction, or replace them with screw-headed bolts and washers or something so this job is easier next time.

And go for a drive to celebrate!

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1988 Alfa Romeo 33 1.7 QV