

Fitting after-market thermo fan to 1985 Alfa 90 (2.5l V6)

Step 1 – removed existing fan and shroud – easy removal by disconnecting power lead at clip and the removing the four 6mm bolts and washers at the end of the shroud mounts. The whole assembly then lifts out from the top (you might need to pull the upper radiator hose to one side to help removal)

Removed assembly:

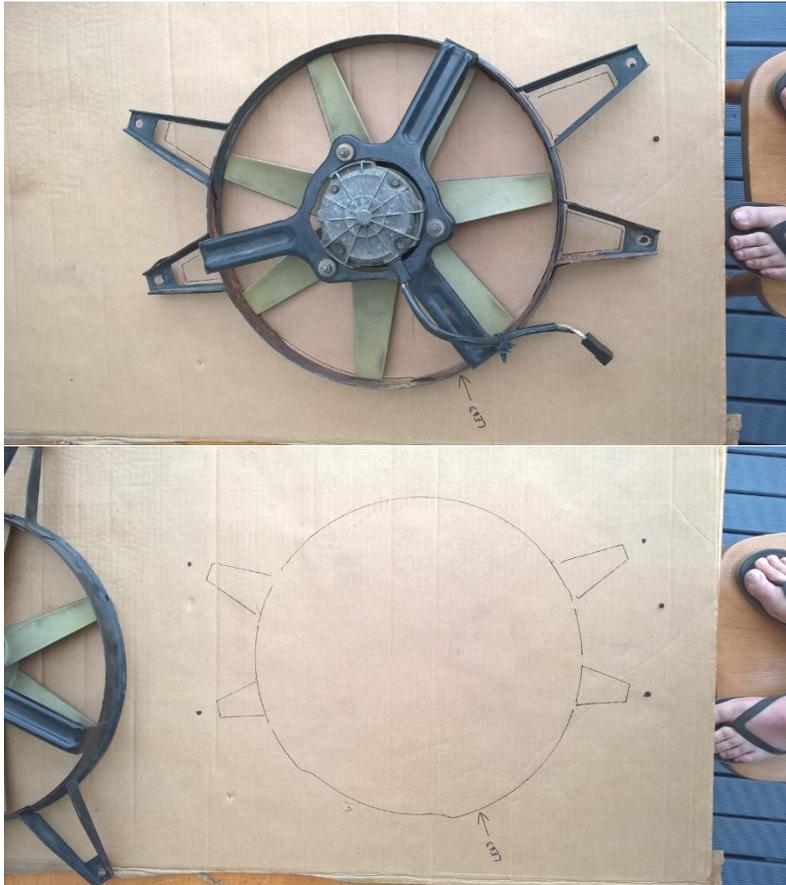


Next – measured the shroud to ensure correct size for replacement



Shroud measured just under 400mm which meant that a 16 inch replacement was too big so purchased a 14 inch Calibre thermo fan.

To ensure that any mounting brackets I made could be measured correctly, I used the old shroud and mounting assembly to draw a template on a large sheet of cardboard, taking care to mark where the power lead was located.



The Calibre fan comes as a “pusher” which means that, before fitting, you will need to reverse the fan blades (as per instructions that come with the fan) and also that you will need to check polarity to make sure that the fan sucks rather than blows!

The Calibre fan has 4 plastic mounting brackets but they are too short and in the wrong location to mount directly into the 90 (as this next pic shows when they are placed over the template)



So, the next step is to make brackets that will extend to fit the 90. First, though, I test fitted the Calibre behind the radiator to check the space and found that the lugs on the Calibre brackets were fouling the radiator edges which meant they need to be shortened. This was done by removing the

ends as per next picture.



In order to get my brackets fastened to the Calibre mounts as securely as possible, I drilled a 6mm hole in each plastic mount between the 2 extended lugs on the other side of the plastic mount as in next picture:



Then, using 125mm x 25mm x 2.3mm mending plates (available at most big hardware stores) M6 X 20mm hex head bolts, an M6 countersunk washer (this is need as a spacer as seen in the picture) and 6mm nyloc nuts, I attached the mending plates to the Calibre plastic mounts:





Once all four were done, I attached the plastic mounts to the Calibre fan:



Next, by placing this assembly over my template (on the cardboard as shown previously) I was able to tighten the nylocs so that the mending plates were correctly oriented over the mounting points.

I then marked the mounting hole locations in the mending plates (using the template) and drilled the mounting holes slightly oversize (I used a 9mm bit but 10mm would be OK). This allows for a little adjustment in the final fit. A final alignment check with the template is good here as it allows you to tighten the nylocs before final fitting.

It was then a matter of lowering the assembly in behind the radiator and refitting the 6mm bolts and washers and tightening. (Oh, and reconnecting the power lead!)

And there it is:

