

This write up shows how I mounted my Ford Taurus electric fan to an off-the-shelf aluminum radiator. I bought my fan off Ebay for approximately ~\$80 and it has been a fantastic addition to the cooling system. The write up only covers the mechanical installation. The electrical is pretty well documented on [www.nastyz28.com](http://www.nastyz28.com) electrical section.

Below is an example of the type of fan I bought.

### **FAN SHROUD ford TAURUS 94-95 1994 1995**

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Try to get one with a large integral shroud so as to cover as much of the radiator as possible. Your low vehicle-speed cooling ability (particularly stopped at idle) hinges on maximizing air flow through the radiator. The more shroud area, the greater the ability of the fan to pull air through the radiator.

The following is how I mounted mine.

First I took some aluminum angle and mounted it to the top of the fan. The idea here is to spread the load across as much of the plastic shroud as possible



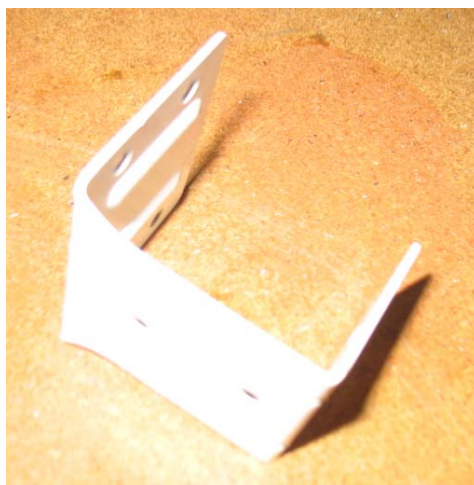
In the above photo, note how I have the aluminum angle sandwiching the plastic shroud. The flat part of the angle should be approximately flush with the edge of the shroud. The angle pieces are then fastened together with locking fasteners per the picture below. Simply drill through the top angle, the shroud, and the bottom angle and then run fasteners and locking nuts. Use locking nuts to prevent the fasteners from loosening up over time.



Since the fan has mass and will be under constant vibration loading while the car is in motion, using this type of angle bracket scheme across the top of the fan shroud will spread the load across a wide patch of the plastic shroud to minimize stress.

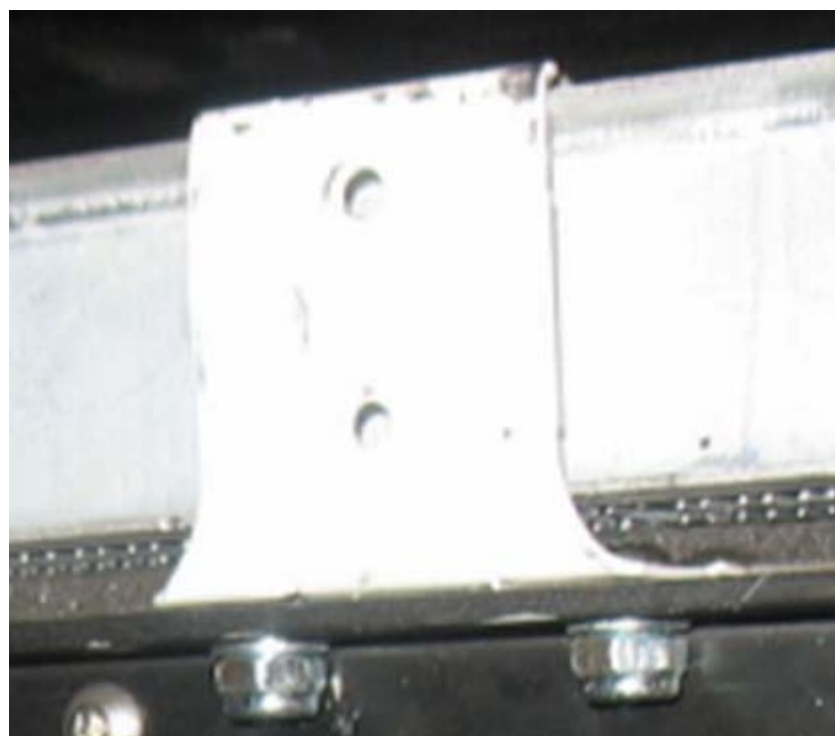
The next step is to fab the brackets. I wanted the fan to hang on the top of the radiator and have the brackets hidden under the top radiator cover for as much of a factory look as possible. The following is what I did.

I grabbed a bracket from my “scrap metal box” and bent it into a U-shape, where the U is able to fit over the top of the radiator as shown below.





Below is a close up of the U bracket installed. Note the aluminum angle has been painted flat black. The U bracket bolts to the aluminum angle. Use as low a profile screw head as possible since the screw head is on the radiator side.



That takes care of the top of the shroud. Now we need to fasten the bottom of the shroud and pull it in as close as possible to the radiator.

For the bottom, again, I grabbed a couple of pieces of scrap metal and hand formed two brackets custom fit to pull the radiator in. The brackets are made using some 1/8" plain steel. It takes some trial and error, but put the radiator where you want by hand and then bend up a bracket to hold it there. Also note that I did the same angle aluminum setup on the bottom of the shroud as I did on the top. Again, doing it this way it avoids point loads on the plastic which can result in stress fractures over time. The picture below shows one side as an example. Simply repeat the process on the other side.



With the shroud fastened to the radiator, now it's just a matter of putting the top radiator cover on.

In the picture below, it's clear the shroud doesn't cover the entire radiator area. However the massive amount of air flow of this fan and the amount of radiator area it does cover is more than sufficient. The remaining open area allows for good air flow when the car is moving at high speed.

