Repairing a Threaded Plastic Extrusion

By Larry Klusza, November, 2022

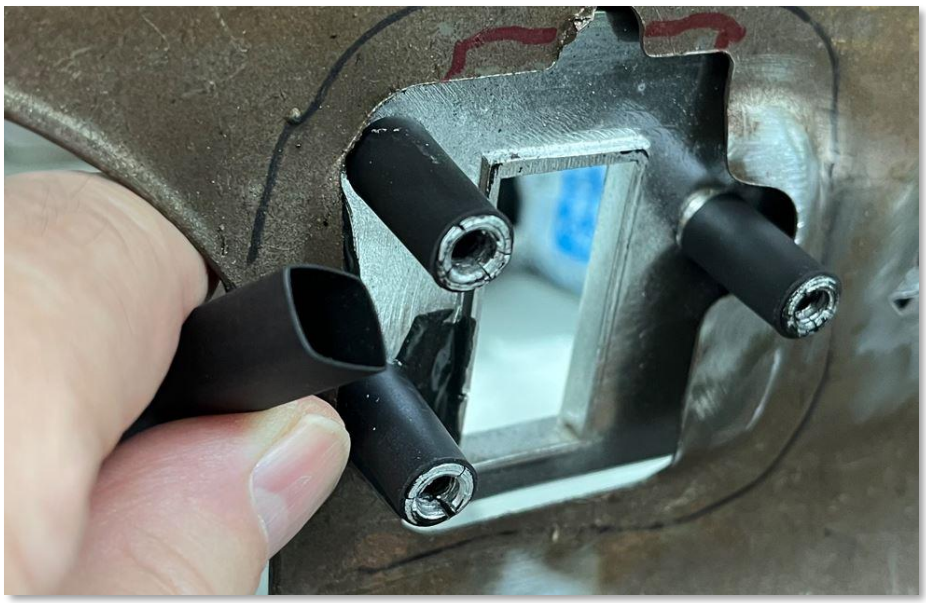
As I work on my classic 1970 GTO, I occasionally encounter damaged threaded extrusions on plastic panels. At one time or another I'm sure you all have too. The plastic becomes brittle with age and may already be cracked from over tightening of a mounting screw, or broken off altogether. They are delicate and many times difficult to repair. Such was the case while I was working on the dashboard from my GTO.

I had the dash out and on the bench for an entirely different reason. However, while doing a general overall inspection, I noticed that the wiper switch was crooked and all three mounting "stalks" for the switch were cracked length-wise along the threaded area used to mount it to the dash. Addressing this issue is important as, in addition to mounting the actual switch, the retaining bracket also formed the method by which the instrument cluster and clock lighting circuits were grounded through the dash panel and out to the rest of the car. Without it, I'd have no dash lighting.

One can certainly try to glue the crack and "splint" with some tape while the glue sets, but I found a different method others might find helpful. Basically, I used heat shrink of an appropriate size to close the crack and add support to the stalk. Of course, this trick depends on the diameter of the stalk in question as heat shrink comes in only so many sizes. In my case, I got lucky and it worked well without glue – your experience may differ. Here are some before and after pics:

Here, you can see all the cracks in the stalks as well as my initial attempt at a repair. I chose not to use any glue as I didn't want the heat shrink to force the glue down into the threads, which would have potentially caused further issues.

I thought I'd try it on the worst one first. It looks bad but the deeper the threads go, the better they closed. I was able to get more than an acceptable amount of tension on the screw without further stressing the plastic.



Here is a picture of all three stalks done. You can see how much the cracks closed.

It turns out that the previous owner had the switch misaligned. I had to notch out the areas marked in red to make the switch sit squarely in the hole and on the mounting stalks.

The switch is now securely mounted and the retaining bracket makes a very good electrical ground for the instrument cluster.