

This information was found in an internet forum. I do not have the original author's name. This is not my idea, but I have used the information below to fix one of my power door lock actuators and it worked.

WARNING: The following is long winded, but if you want your PDL's to work again WITHOUT spending any \$\$ read on.

I finally got tired of my non-working PDL's and decided to tear into my truck and find/fix the problem. There have been many discussions about possible issues and I have concluded that the majority of us are seeing actuator motor problems and not relays, switches etc. Ill start by saying the problem I have had is that when I hit the switch, the locks attempt to move and after repeated attempts, the signal appears to get weaker and weaker until nothing....I assumed relay or switch.....NOT THE CASE!

First I started by testing the signal at the harness plug to the actuator. Perfect. No issues here. Next I completely removed the actuator/lock mechanism and bench tested them with 12V. Here lies the problem. The actuator acted the same as when in the truck. First I did a thorough cleaning of all of the mechanism so it works freely and still had the same results. Here's where it gets tricky. These things are built so that they are NOT serviceable. I had already decided that they were going to need to be replaced, so I decided to break them open for closer inspection. It comes apart relatively easily, but appears that It cannot be put back together once apart. I drilled out two small rivets and then pried the case apart. As you pry the case apart you'll notice these small little plastic rods protrude up through the case cover. These rods are then "mushroomed" with heat through the upper case and then sealed with some kind of silicone. When you pry apart the case the "mushroom" head breaks off and the rod remains. You can dig out the silicone and mushroom head with a pick. It comes out very easy. Inside you will find a very small motor and some gear mechanisms. Open the rear of the motor look at the plastic brush housing. Inside you'll find a small, thin rectangular (thermal resistor relay, doodad, thingamabob??) pardon my ignorance, but I'm not sure what to call it. All I know is that this little part is what keeps you from burning up the motor, should you continue to press the switch once the lock has been actuated. It appears that this thing wears out over time and will not allow enough signal to get through to the motor to make it work. THE FIX. I am cheap. Since I had done so much work up to this point, I decided that I would go a little further and try to make it work without spending the \$\$\$. I have better things to spend my

money on than actuators. I took a small piece of aluminum foil and wrapped the "thing" voila! Perfectly working motor! I sat there and operated the thing for 10 minutes including one or two times stopping the armature and holding down the switch to see what would happen. The motor builds heat, but not much. Not enough to worry about. Now that I had a good working motor I decided I would try and reassemble the unit. The problem is you cannot glue the unit together as there is a rubber gasket around the perimeter of the case and if you tried to glue the rods into the case, you would not have enough pressure on the two halves of the case to keep the gears in place (these things actually apply a great deal of torque on the case) What I decided to do is completely break off the plastic rods flush with the bottom side of the case and then drill out the bottom case and screw it together. This worked perfectly. You'll need screws that are the same diameter as the holes in the top of the case to keep it from "wandering". Also the screws should not protrude through the back of the unit as some of the mechanism has some pretty close tolerances and a screw sticking through the back would not allow some of the mechanism to work (this can be remedied with a decent set of wire dikes or a hacksaw). I know all of this is hard to picture, but if you do decide to try this fix, you'll see what I am describing here. The locks are back in and working flawlessly.

Pic one is the unit after the two rivits were removed



Prying the unit apart



The open unit minus the motor



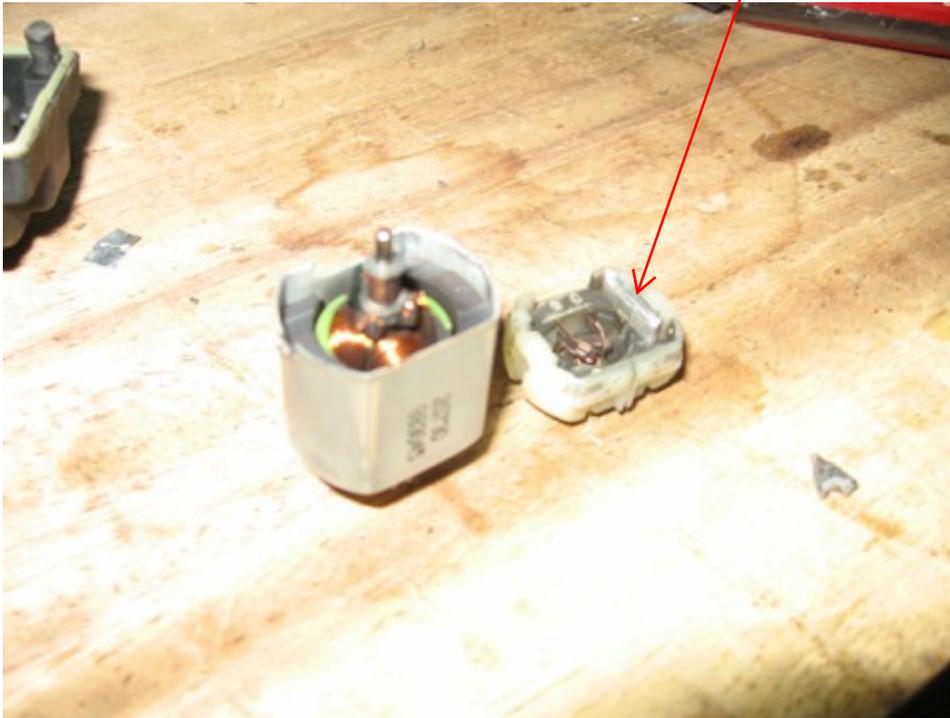
Prying the two tabs open on the motor



The opened motor the little metal piece to wrap in tin foil is on the left side of the cap



Now the motor getting ready to be put back together the part is wrapped in foil on the right side in this pic.



Hope this helps