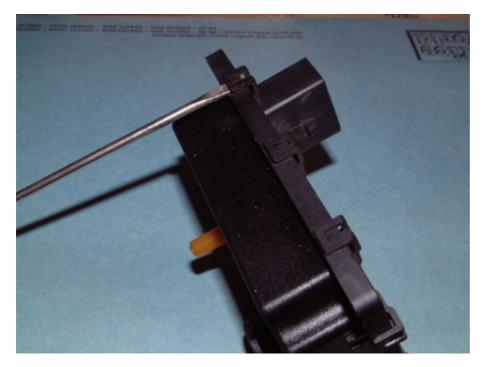


How to repair a Vis Valve motor By Shedist of XPF

The offending article



First, ease back the clips



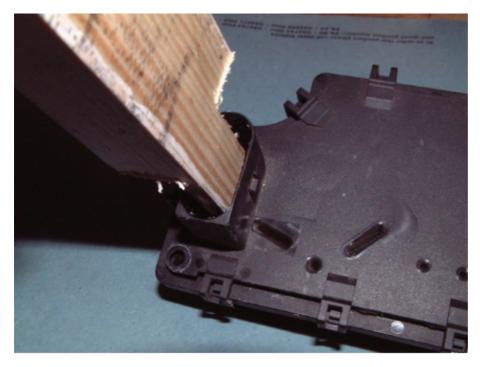
Then using a thin, wide blade,



gradually prise the cover away from the housing. It will not come off at this stage



Cut a suitable piece of wood or metal to fit right inside the electrical connector



Then push the connector blades and cover apart. This requires a fair bit of force and don't worry if a blade bends or pulls out of the circuit board. When the cover is off the motor internals with the worm gear removed look like this



One or both of the two black limit switches is likely to be loose. This is due to poor location resulting in broken soldered joints. The next stage is to remove the circuit board. First, prise out the worm. Take care not to loose the washer off the end of the worm shaft. Use a wide flat blade to spread the load and unclip the worm, bringing the motor and PCB with it.

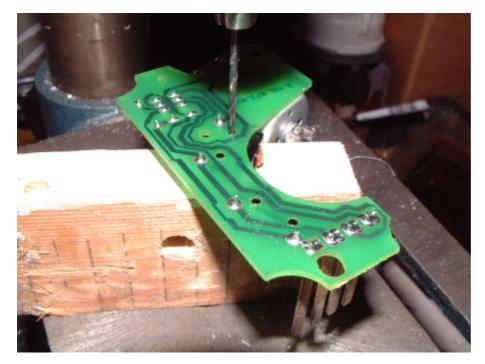


At this stage the switch terminals can just be re soldered and the actuator put back together, only to fail again. You can improve matters by screwing the switches down. You will need a 1,8mm drill, 8BA tap and 8BA by 1/4 inch screws. Or use 2mm if you prefer metric! These can all be obtained from

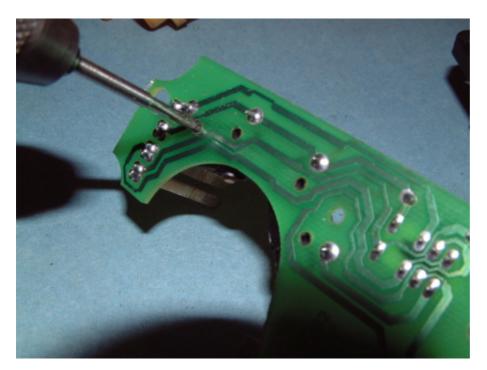
http://www.mainlytrains.co.uk/acatalog/index.html

Just do a search for 8BA and then for the drill.

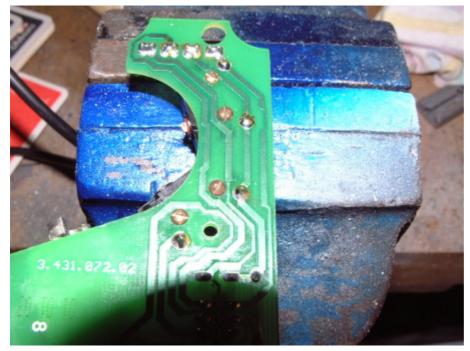
Drill out the switch pegs with the 1.8 drill



Tap the holes



and fit the screws. TAKE CARE TO ENSURE THE SCREWS DO NOT SHORT OUT 2 PCB TRACKS. FILE A FLAT ON THE SCREW HEAD TO AVOID THIS.



Once the screws are fitted, re solder the switch terminals.

Coolant Tank Level IndicatorRemove the old sealing bead from the case joint and apply new sealer. I use blue Hylomar



Reassemble the parts, taking care to clip the motor and worm in together, not forgetting the washer. Fit the worm wheel so that neither switch is operated- both white switch plungers are not pushed in by the cam, then fit the cover.

I have a test box to test these things - another "how to" coming for this.

Before refitting, plug the actuator into the wiring harness and turn on the ignition- dont try to start the car. This will reset the actuator. Align the actuator output to the manifold slider, and secure with the 4 screws. Start up and check for air leaks, the screws need to be tight and you may have to add a bit more sealer around the actuator joints.