ELECTRICAL DIAGNOSIS

P6 ROVER OWNERS CLUB

Oily BITS

I do not drive much in the dark, but every month, on the second Tuesday of the month, three of us travel 28 miles to the P6 Rover Owners Club meeting at the Fox Inn at Kelham, near Newark. We share the driving and this time it was my turn to drive and as it was Spring I took the 2200TC.

The route has many bends some of which are sharp and blind. The dip beam is a bit inadequate and main beam is used quite a lot.

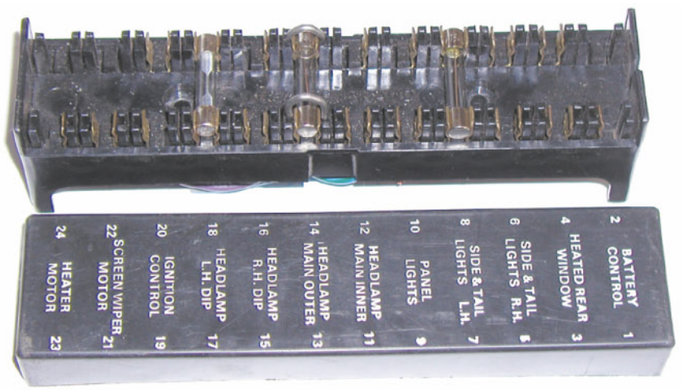
On the approach to an unlit tight bend I switched to main beam and it was a heart stopper when all front lights went out. Switching back to dip restored light but visibility was poor and I struggled to complete the bend. Trying the main beam several times only proved that it was not operating but the headlight flash worked okay although required holding on.

I removed the switch the following day and was puzzled to find no obvious fault except that the plastic switch centre was slightly loose. This was positioned in the diecast Masak housing by swaging. I had several spare dip switches collected over many years so I embarked on a series of tests to determine which was the best one. All of these were similarly slightly loose and so I decided to make a small metal cover to hold the plastic piece more firmly, which I then screwed in place with two small self tapping screws. This worked very well and I again tested this with no resulting fault. Pleased with this I refitted this in the car and testing it in situ was successful.

Several weeks later I had cause to go out in the dark and was really annoyed to find that the same fault occurred again. I was not in a good mood as you may imagine, and as it was Summer (light nights) I did not do any further work immediately.

I went to a car show soon after and browsing in the autojumble I spotted a new dipswitch in a pristine box. Being naturally suspicious of any 'new' item forty years old, I asked to take it out of the box and found to my surprise that it was in new condition. It cost me £28.

This was swiftly fitted and tested yet again and was perfect.

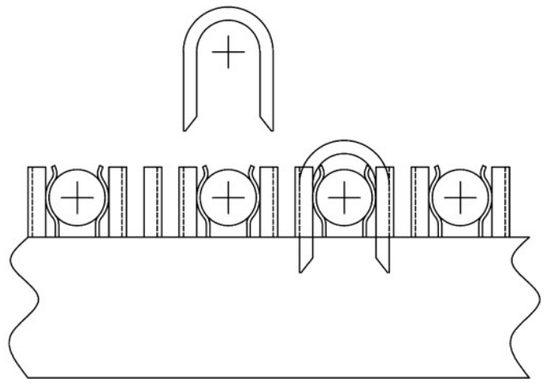


I think you may now be guessing what happened next – Yes, the same fault occurred yet again.

My wife regularly criticises me for swearing and I must admit that I was still going strong when I arrived home some hours later.

I had to sit back and calm down as my first reaction was to rip out all the 'crap' parts and wire in some completely new modern switches. I cannot remember how many times I checked fuses in this saga of well over a year but I did this again and things seemed to be OK.

My son was working on his car on my drive and we tossed all our ideas about and he again checked the fuses. Trouble shooting other faults, I have occasionally removed a fuse and carefully bent the brass lugs inwards to tighten the fuse. The fuse seemed to be tight enough but Paul noticed that if the fuse was pushed sideways resistance was a bit low, but not loose. The simple check was to hold the fuse lugs as tight as possible whilst operating the switch. This worked every time so was this the fault?



I must admit that I was dubious. I have a spare fuse box so I looked at this and then at the one in the car and swiftly concluded that there was no way that I would even try to replace it.

The alternative was to solder up the fuse box lugs and put in a line fuse. I did this on my 3500 years ago in Ireland to fit 100 watt bulbs which tended to melt the fusebox plastic.

My back is not up to laying in the passenger footwell to solder so I sat back to think again.

The wiring diagram shows that the headlight flash fuse is separate from the headlamp fuse. The flash fuse worked so this should have pointed me to the headlight fuse. I should have noticed this at the start and saved myself a lot of work.

Holding the fuse lugs tight around the fuse worked so I decided to make some spring clips to hold these tightly. I had 1.5mm piano wire which is virtually the strongest spring material available. I made a U shape to push down over the fuse lugs. Behind the brass fuse lugs are plastic lugs to reinforce them and these have a slot which happily positions the clips perfectly and prevents sideways movement. The clips are carefully bent and chamfered on the inside to gently engage the brass lugs, and on pushing fully into place, tighten on the fuse. This requires a very firm grip for removal. This works perfectly and has performed faultlessly for over a year.

Looking at my spare fuse box I note that several of the plastic lugs are slightly misshaped and with a good light it appears that my car one is the same. I think that the brass fuse lugs are okay but that the plastic housing has distorted with time or heat and reduced the support for the brass lugs. The steel clips now provide full support.

I have made a small press tool to make these clips so if any of you have similar problems give me a call.

If anybody needs a dipswitch I am your man – If you want an electrician I would advise you to go elsewhere.

Anthony Ryalls