How bright is your ignition light?

Our trip home to Cornwall from the celebration at Blenheim was, like everyone else's, more than merely damp. The indicators on my Mk1 MGB GT stopped working before the turn off for the A420 towards Swindon and the M4 and, ominously, the ignition light was coming on. So, using wipers intermittently, Rainex is very effective at keeping a windscreen clear, and vigorous use of duster by wife to keep interior mist under control we got to Swindon and bought some WD40 to disperse as much damp as possible from underbonnet electricals. The weather lifted a bit for journey from Swindon to west Devon so everything was working and no ignition light. Press on then. As we got into Cornwall predictably the rain came again with even more ferocity on the thick end of a NW gale. The ignition light was coming and going but I know that an engine will run for many miles whilst there is a discharge from the battery so I was confident of getting home. Arrived home in Camborne in heavy downpour and put car in garage. 298 miles in 4.5 hours driving and mid 30's mpg. Not bad in the circumstances. Time for a well earned whiskey and we'll sort the MG out tomorrow.

Monday dawned bright and fair. A beautiful day. So, I took the MG up to St. Agnes, Tim Kelly, to dry it out and get a spare sump breather diaphragm.(*Safety Fast* Nov 2011 vol. 55 No.11, page 44, MGB Newsletter) Everything was working nicely, apparently and I was told that ignition lights do tend to come on when you have driven the car through many watersplashes/ puddles. WD40 liberally applied to electrics and a good drying drive will generally sort it out.

I didn't use the MG for about 4 weeks after the above journeys but then decided to use it to go to Newquay as I had a couple of appointments there and it was a dry, bright day and promised not to rain that evening. On the way home in the evening I noticed that the ignition light was coming on. In fact, the faster that I drove the brighter it got. Next day I started to see if I could resolve the problem. Naturally I started with the fan belt. Tension was fine but I changed it anyway as it was showing signs of wear. Run engine up, still an increasing discharge with increased rpm. Commutator brushes! Get dynamo off and in the vice, extract long bolts and get the end plate off. Filthy in there but brushes both ok. Put it all back together and back in the car. At this point I went back to my new, shiny Haines manual, 50th anniversary edition, and found the instruction, after a lot of maintenance/ rebuild instructions for dynamos followed by details of control box workings, refer to capable electrician. Good idea as I have reached the end of my electrical knowledge. I was not confident that I could get to Tim Kelly in St. Agnes with it so, luckily, our local garage in Camborne, Glassons, are very knowledgeable when it comes to older cars and have a very competent electrician. To cut a long story short the dynamo was outputting about 7.5 volts and the output from the control box to the field terminal on the dynamo was impossible to measure as it was fluctuating so wildly. Both, obviously needed to be replaced which presented no problem. Tim Kelly had both in stock so I went over in the Landrover and got them.

I swopped the dynamo over for the new one and started the engine to see if a) it worked and b) if the old control box was still functional. With horror I saw evidence of an enormous battery discharge – a really bright ignition light. The manual says nothing about swopping one dynamo for another so gives no hint as to what was wrong. Martin, the electrician at Glassons, knew the answer of course. The new dynamo needs to be polarised. That is, told that, in the case of my MGB, it is positive earth. To do this you take both connections off the dynamo. Then with a piece of wire about 2 to 3 feet long get a good connection on the F, field, terminal on the side of the dynamo and with the other end of the wire stroke a live connection. The live on the starter solenoid is easily accessible. Do this several times. There will be some bright flashes when you make contact. This will polarise the dynamo and it will start to function correctly, i.e. start producing a charge! No where have I ever seen this written down. I have changed commutator brushes in several dynamos over the years but did not know this about swopping dynamos. As a footnote we changed the control box as well as examination showed that the contacts were well worn. It is quite possible that it had been on there since 1967. We will never know. What has become obvious now is that our ignition problems coming home from Blenheim were caused more than by just the weather. Neither component is very expensive. I paid £29 for a control box and £38 for a dynamo and give them the old one for rebuilding. All plus VAT, of course.

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