L e y l i n e s

Canberra and Districts Leyland P76 Club Newsletter May 2006

Next Meeting:

TUESDAY 9 MAY

at WESTON CREEK LABOR CLUB

Meeting starts sometime after 7.30pm

Presidential Pearls

I would like to thank Angus. You see, a few weeks ago I lent him my engine hoist. Not only did this clear up a valuable amount of free space in the garage but when he returned it, he left me a few goodies.

Now I was more than happy to lend him, or any other club members, such items with no expectation of any form of remuneration, but of course being non-Islamic, alcohol is always well received.

But more important than the beer was the CD of photos he took at the Easter meeting at Cootamundra. You see, I had been planning to travel up in convoy with Geoff on the Sunday to Temora, but instead spent the entire long weekend from Thursday evening until Tuesday morning in bed with the flu.

So it was with great excitement I found the CD with hundreds of P76 pics, sitting next to my engine hoist next to the garage when I returned home later in the week.

Thanks Angus, looks like it was a great weekend.

See you all next Tuesday.

Alex

Editor's Note

It seems that the P76 Nationals at Cootamundra were a great success. Congratulations to Michael and Gwen for all the effort and hard work they put in. Unfortunately, not all of our members could spare the time over Easter to attend. I'm looking forward to a first-hand report on Tuesday.

This month's cover photo is a result of a morning spent with fellow motoring scribe Malcolm Robertson playing around with action pix for cars. We were trying to hone our skills to increase the appeal of photos for publication. I have to admit that Malcolm was better at it than I was, but I did get this photo with Malcolm at the wheel that I have messed about with in a 'poor man's Photoshop' program to give it a bit more impact. I took this one with my old film SLR. It's remarkable how quickly an SLR with a motor

drive running at three frames per second can consume a 36 shot film! But for this kind of work it's more capable than my 5mp point and shoot digital Canon.

The morning wasn't a total success. We were working on a sweeping bend on the Coppins Crossing road and making plenty of U-turns, and the stress became too much for the high pressure hose on the power steering system, resulting in it coming apart at one of the joins. I detailed the repair process at EnZed hoses in Leylines last March.

Otherwise, I don't have much to report on my car. The air conditioning that I have spent considerable time and money on still seems to be working, touch wood! I hope that the last round of repairs finally found the leaks in the system. Using the air, however, does point up just how marginal the battery condition is. With the fans running at moderate speeds it doesn't have much kick left when I stop. I'm trying to keep it going until June, when it will be nine years old. I've never had a battery last this long before, although I did have a couple of the Australian Besco brand a while ago that lasted eight years. So I'd like to have the satisfaction of seeing this Century brand battery run the full nine years, just for the fun of it!

Col

Alex Lights the Way

Last year before I went to Eastern Creek for the Muscle Car Masters I decided to fit the upgraded Hella H4 and H2 headlamps in place of the standard sealed beam units, and at the same time upgrade the wiring to the lights as well.

I kept the entire setup from the Aspen green car I sold to Damo (yes, he knew I was going to keep them when we negotiated the price, along with the electronic ignition and scorcher dizzy, the Targa mags, the rear Koni shocks and the big VL Commodore radiator).

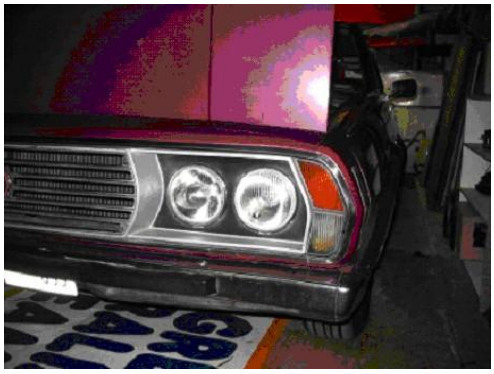
Before I started, I forgot that the inner high beam units are much deeper than the sealed beam units. But the advantage of a pencil beam pattern to complement the better spread of the new High/Low beam units as well as being able to upgrade the globes to 100W, or even 130W if I so desired, made it worth the bother.

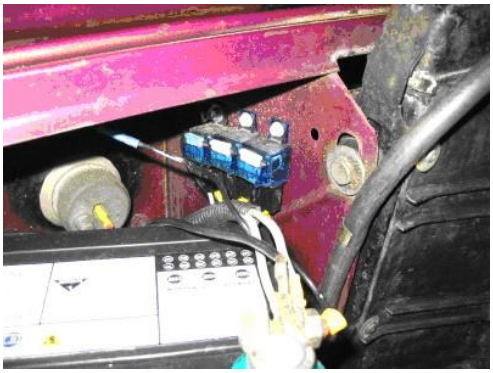
Stock standard, as it left the factory floor, original non-modifying car types should stop reading NOW!

After removing the old lights I had to cut away a small amount of metal behind the inner lamps as the pressings are not as deep as for the outer lights, this was to accommodate the larger single lamps fitted to the deluxe model.

I did this using a Dremel with a mini angle grinder cutting disc insert and the result was very neat, I then painted the raw edge to prevent rust.

I then fitted the four new light assemblies and aligned them, then refitted the headlamp surrounds and the grille. Of course, at this stage the light coming from the headlamps was still a bit yellow, so I started with the new wiring. I decided to modify it slightly compared to how it was installed in Damo's car, with the relays to be hidden under the valance rather than beside the battery and mounted in sockets rather than spade terminals for a neater and more reliable installation.





I used Hella relays incorporating a blade fuse to simplify the wiring, and negating the need for inline fuse holders. Utilising a connector with the same three male connectors as a headlamp I could use the original power to the headlamps to control the relays.

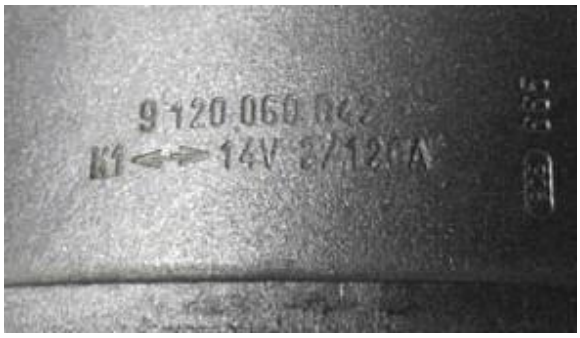
The power for the lights now comes direct from the positive output terminal of the alternator about 60cm to the three relays, one for low beam, one for both High beams on the drivers side, and the other for both high beams on the passengers side. It then goes from the relays directly to the headlamps via heavy duty, cables insulated in split loom tubing, and returns directly to the negative terminal of the battery. Now the lights glow a bright white and on high beam have a good wide spread as well as two distinct beams of light way off into the distance.

This of course brings me to my second problem, the alternator. The original Crown Prince of Darkness Lucas unit still seems to work fine putting out about 13.8V and what should be 42 amps under load. However, with the lights on high beam, they should only draw about 20A, 60W x 4. But the volts drop steadily away to about 12V after about 10 minutes driving at about 100km/h with only the other items to actually run the car operating.

No problem. Many years ago, I bought a brand new Bosch 120A alternator at the Henty Field Day for just this purpose. However, when I went to fit it I stumbled upon a few problems. The first was that because of its larger capacity, it is physically much larger than the original alternator and was so deep that the output terminal on the rear of the unit would actually touch the cylinder head... *Bugger*.

No problem. I simply removed the four long screws securing the front of the alternator to the rear section and rotated it 180 deg and refitted the screws. Now it would be tight but it would actually fit.

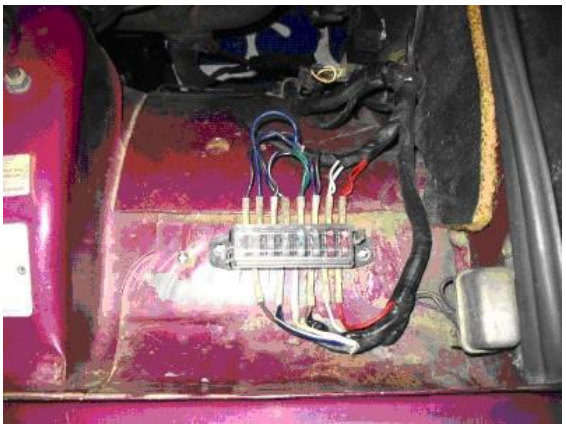
Now I just had to connect it. Hmmm... What's with this extra terminal? Time to fire up the laptop and do a bit of Googling, and eventually I came across a site with a Bosch connection guide and, more importantly, a number decoder.



I discovered all Bosch alternators have a 10-digit number followed by more numbers letters and symbols. These specify the catalogue number as well as the physical characteristics, such as physical size, voltage, power output through rotational speed ranges, max current, and cut in speed.

So in the example above the 1 then 3 then 3 then 3 or 10 digit number is the part number. Then on the second row the K is the stator size, the 1 is the Compact diode assy. The 2-way arrow show rotational direction so it is a universal fit as it goes both ways… Then it is a 14V, and then the 2/120A. This was the part that upset me a bit. You see, the first number is the max output current, a big masculine 120 amps, more than enough for one hundred and twenty one giggawatts of lights. But the 2, well, that was the peak current output at idle.

It was then I realised why the man at the Henty Field Day was so eager to sell it so cheaply. $120 about 10 years ago, because an automotive alternator should have something like 42/120A on it. The one I had was only suitable for a backup generator when connected to a small Honda motor or the like for generating 12V in remote locations.



Oh well on to something else then. On the plus side, I was able to get rid of the crappy European style ceramic fuse box in my P76. As you may know these tend to vibrate free after many Ks of driving on bumpy dirt roads, or develop intermittent connections in wet or humid conditions, thus conserving power by disabling your windscreen wipers the first time it rains for a few months.

Because of the new headlamp relays, I no longer needed the double fused headlights so I could replace my fuse box with an aftermarket blade type one, with 8 fuses rather than 10. I could not find a quality universal fuse box with 10 circuits.

And from a wiring perspective, because there was no cutting of the original wiring, all that is required to return the car to original condition is to plug the original fuse box back in, unplug and remove the wiring and relays, and plug the original headlamp connectors back. But you would only ever do that before selling the car to Damo…

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