

## 6V Becomes 12V

There is some degree of myth about this voltage change giving better lights, yes but the reasons? And is there a better way?

The instant reason for the better headlight/tail light is that for the same wattage lamp you have now doubled the voltage and halved the current. This means that any residual resistance in the system ie bad connectors and tarnished switches have less effect as the resistance has less effect. ie you get more power at your lamp as opposed to loosing it in the wiring. So in effect you are covering up the poor state of your electrics! On a British motorcycle?

There is a case for 12V as of course you get a better choice of batteries and lamps and you can also run a decent Quartz Halogen headlight,

There could be a better way, but perhaps it might mean work-even costs!

This is what you can do-the result being better lights/electricity and retention of the 6V

You rewire the bike! You use the next size up cable (15A) (we sell a wiring kit for this) you pay strict attention to all connections, (do not use REDs and BLUEs!!) Crimp or solder (see elsewhere)

Perhaps new switches, or at least service what you have paying strict attention to the path of the electricity through the switch.- Bingo.

One of the best rewires I did a few years ago showed up the worth of all this attention. I rewired a 1936 Stevens, very few wires but just happened to be of 25A cable that was in effect self supporting, very few wires anyway. The result even amazed me, the 6V battery flooded the garage wall with light!

All above relates to dynamos and alternators. except with the latter you generate more electricity and can therefore 'waste' more.

If you have a dynamo once it is asked to give 12V it will have to run faster to get on to charge. Unless you go for the 12V dynamo upgrade but please read the words on the V Reg information on my web. But in a lot of cases this can easily be achieved by a pulley change.

A recap-old 6V systems used switching of the alternator output (with the head light). Converting to 12V was done by putting the alternator on full out put and fitting 12V Zener diode, (actually 14.7V). But as 'real' Lucas Zeners disappeared in the 1980s although still a viable system we now have to fit regulator/rectifiers for 12V (and available for 6V)

The humble 6v dynamo can be re regulated to give 12V and it can be rewired for 12V. (see V Reg details).