

## How to Connect

No, I am not talking about making it with the opposite sex. This is help and some assistance towards connecting those wires on the bike.

An often asked question 'do we solder or crimp'. Soldering takes longer, it is almost a magic art that needs learning, which if you don't take care doing it you can end up with heat damage to the cables especially the insulation etc. You need electricity, in the shed at the bottom of the garden? By the side of the road when it is raining?

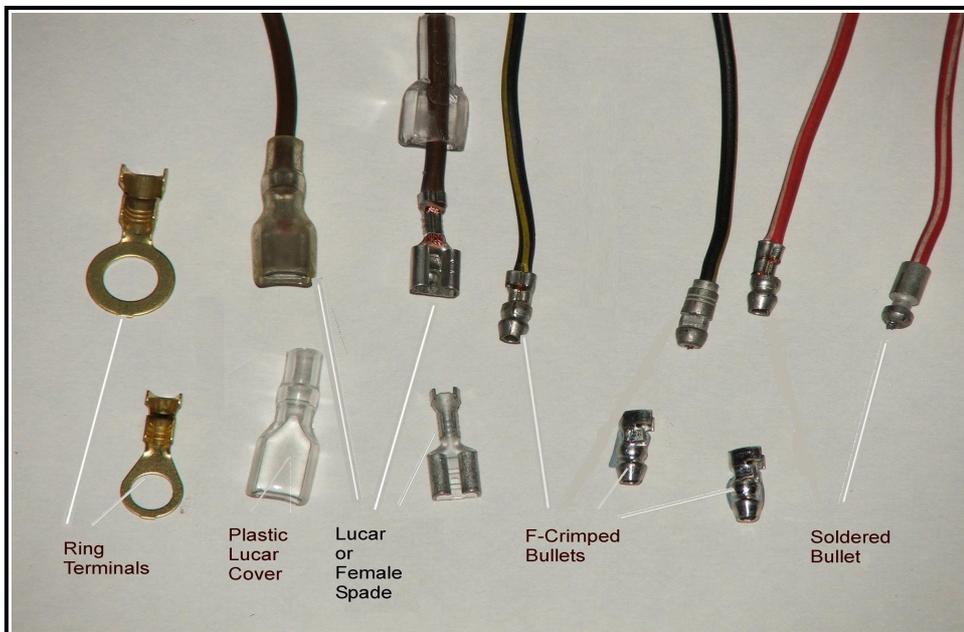
Crimping was good enough for the manufacturer, far quicker, easier to learn and I believe perfectly adequate, i.e. I do not see any thing to be gained by soldering for most normal connector installing. Both systems can be performed poorly and be the victim of cheap tools. I personal prefer to crimp, so much quicker and I do not believe there is any better result with soldering.

Some points re soldering before we abandon it, if you have a short wire that you can't replace so you have to extend it, then soldering is the only answer. The copper wires are cleaned and are carefully entwined, soldered to be no fatter than the wire in the first place, then covered with heat shrink. There is a range of heat shrink Butt connectors these days which incorporate solder in side, so they do the two jobs in one operation, unfortunately they are not cheap.

Unleaded solder-another NEW thing so that if your baby should happen to chew the wiring on your motorcycle, he cannot get lead poisoning! This takes more heat than the old fashioned leaded stuff, so you might need a new soldering iron. I suspect most of us who actually do solder usually have some old stuff with lots of lovely lead in it though! I trust nobody even thinks of Bakers fluid/paste!

Back to crimping. You wouldn't use 50P spanners, so why use a 50P crimp tool? Decent jobs need decent tools, and these days ratchet type crimp tools can cost less than £20 so please do it properly. By the way when on about connectors we do not use those nasty RED or BLUE DIY connectors. They often fail, due to being fitted badly, the bullets come in 3MM and 5MM while the British bullet is 4.7mm! 'nair the twain shall meet' and they look awful. It would appear that the bike/wiring has measles!

The original connectors are the ones with a separate clear plastic cover. Proven through the industry so recommended that you stick with them. When asking to buy these they are often know as F crimps as a side look at the connector before crimping looks like an F. While there is another crimp system for bullets, that puts a hexagonal crimp into the middle of the bullet. The problem hear is the cost of the crimping tool, it is prohibitive.



Another area of concern to some riders is upgrading the lights. We have fancy high voltage headlamps and LED rear lights. They both use less power, with the latter on bikes with lowly dynamos this is often worth having. They do cost a bit more than the traditional filament lamp, they are supposed to last longer (less susceptible to vibration, but perhaps more susceptible to voltage surges.) There are a couple snags to be aware of though, they are polarity conscious and they tend to ‘beam’ the light, so the side view of your rear light might not be as bright as it could be with the traditional filament lamp.

Headlights, now that some upmarket cars have ‘high voltage’ lamps which use less power, they seem to be available for motorcycles. Yes more light for less power must be worth having, but before you go to significant effort and cost for these are you sure your old system is up to scratch? A recent dull headlamp on a Moto Guzzi (Yes I know Italian electrics!!!) was traced to losses in the wiring, connectors and switches. The battery voltage with headlight on was 11.8V while there was 8.4V across the headlight!! Far too many connectors and switches to upgrade so relays were the answer. Decent simple wiring to feed the relays, which were then fed with the original headlamp feed circuitry. 11.8 at the battery, 11.4 at the headlamp bulb! See RELAYS.

### **Don't do it.**

Recently I have tested some A reg alternator regulator/rectifiers that have apparently failed in service. My bench rig test says that the reg/rect is in good order. On examining the wires from the A Reg we see some pointers as to this situation. Often the wire ends have been tinned and then screwed down. ie non vehicle connections. The screwing down is very often a domestic connector block, mostly made of nylon. They melt, they also suffer vibration and the terminals unscrew/come apart. There is no use for domestic terminal blocks on motorcycles. The soldering(tinning) of the wires also is hard and allows the screwed terminal to vibrate loose.