

## A Guide to Preparing Wires for Crimping

As many of you will know, it can be very difficult to get a crimp terminal over a large cable, even Nigel Calder admits that you often have to cut a few strands in his excellent book "[Boatowner's Mechanical and Electrical Manual](#)".

Having just made a batch of cables for 95mm terminals, I was pleased when the guy who did the crimping mentioned that he rarely gets all the strands in!

### Tools and materials

A Dremel (or similar) with a metal cutting disc. If you haven't got one, go and buy one - they are incredibly handy on a boat.

An old (but clean) paintbrush, about 12mm.

A tube of [Contralube 770](#) as a lubricant. If the wires are in proximity to the battery, then use Battery Terminal Grease, such as made by Würth. Note that Vaseline and Silicone Grease are both insulators, and are not suitable for wiring.

A sharp modelling knife. You could use a Stanley, but the 9mm snap-off type is much easier to use.

A rubber mallet or the handle of a hammer.

Cable ties (if cutting close to an existing end)



### Making the cut

The most important thing is to make the cut without distorting the core, or allowing it to splay. If you are cutting close to the end, bind the strands together tightly using a cable tie. Using a Dremel, you just cut a circle around the insulation, then work your way inwards all the way around. If you don't have a Dremel, you can use a very fine hacksaw, but try to make the cuts inwards. If you use wire cutters, you will distort the core.

After cleaning: note how the cores are not distorted

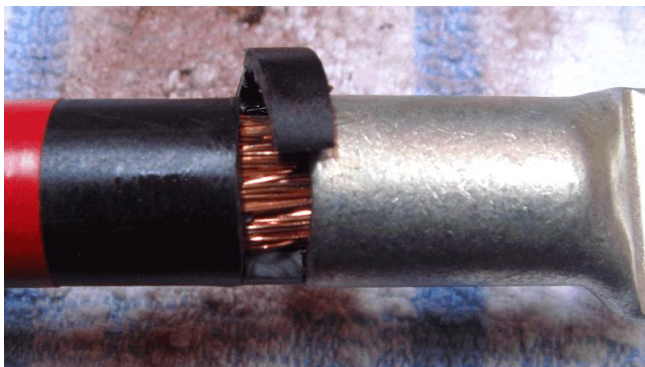


## Removing the insulation

**STOP!** You were about to remove the insulation, weren't you! The first thing you should do is to mark the cable where the insulation needs to be cut. On a large crimp, you can normally assume you will get the cable about 3mm past the knee.

The next step is the secret to success. Score through the insulation about 3mm from the end of the cable, and carefully remove it. Do NOT remove the entire length.

Now paint the end of the cable and the inside of the crimp with lubricant, and carefully insert the cut end into the crimp. It is important that you push the crimp on straight, don't try to get one side on before the other.



So now you have a cable with a crimp on the end. The next step is to cut another 3mm of insulation, and remove it by slitting the perimeter.

Then paint on a little more lubricant and push the crimp on by another 3mm, use the rubber mallet to tap it on if necessary.

You may get one or two strands that fold back on themselves. Don't Panic! Don't try to remove the crimp at this stage, just cut them off close to the crimp, then tuck them in between the other strands and carry on.



Keep repeating:

- Cut and remove 3mm insulation
- Brush on lubrication
- Push crimp on another 3mm

When you get to the marked point, you are done.