



➤ Sharing knowledge is the responsibility of EVERY experienced modeller!

The last newsletter was a long one.

This will in fact be one of the shortest, with just ONE subject in images and words - but with 3 PDF files (32 pages in total) of really valuable information for any modeller that needs to buy a soldering iron, solder, flux, or who wants to be able to solder like an expert with almost any material that is used in our hobby.

Broken into 3 parts for you to read at your leisure, the PDF documents that we have linked to this newsletter form the core of a 3-day soldering course that I have run many times, teaching many, many, modellers how to “relax and solder with a smile”.

We are certain of this point... *If you take the time to properly read the attached documents and work through the advice given, use the tools and associated materials just as we say, practice it step by step - then you will always look forward to soldering in future as you will be able to do it with a smile!*

If there is anything that is NOT clear to you after reading them, I invite you to email us at web@dccconcepts.com. In include your daytime contact number / contact address and we will either invite you to our offices to show you in person OR work through any point of difficulty or uncertainty with you remotely if you are too far away.

Using the PDF files that are offered here:

Modellers: *Please feel free to use this information in a non-commercial manner. Share them at your club or with your friends so that others can enjoy soldering too . But please, do NOT post them online.*

Others: *If you are a trade client or a commercial operator or related professional of any type, please understand that we do pay close attention to the use of our intellectual property and we ask that you respect our creation and ownership of this information. Please ensure that you talk with us before you quote from or reproduce it in any way, otherwise an angry “Fact Conductor” may insist on visiting you.*

Richard Johnson



Soldering wires to rails.

Resources:

- * *This Newsletter... and if you have a printer, the associated PDF beside you.*

Materials:

- Dropper wire like [THIS](#)
- DCCconcepts [S179 Solder](#)
- DCCconcepts [No-Clean Flux](#)
- An offcut of track to practice on

Tools:

- A 50 watt or higher power soldering Iron (Examples: look at the [SA-50 here](#), or the [ST60 here](#))
- Ideally a “C type” tip for the soldering Iron (like a rod with the end cut off at an angle)
- A pair of [wire strippers](#)
- A [fibreglass brush](#), [needle file](#) or similar
- A pair of fine sprue or track cutters.

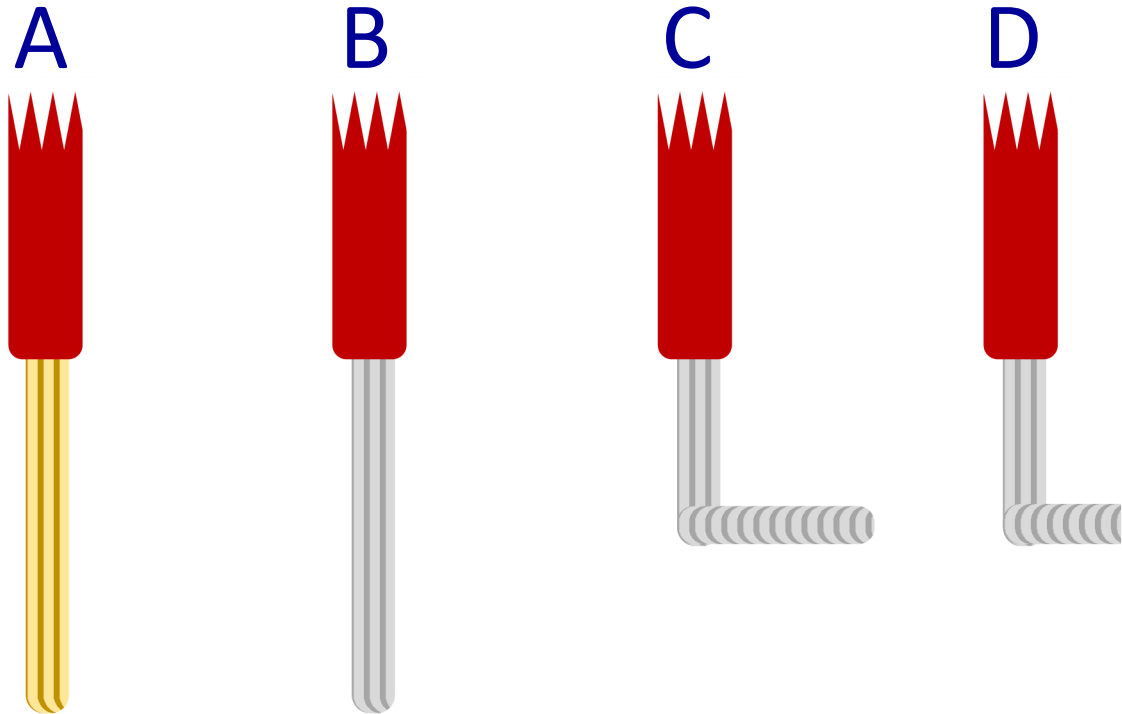
Work Area:

- Clear a space to work in with good light so you can see your first perfect solder joint.
- A surface to work on. A workbench, or an old glass shelf, an unused bathroom tile perhaps? (I have found that white melamine-surfaced MDF makes a great soldering board. It takes heat and any muck will scrub off later. Perhaps you have a bit lying around from some modular furniture or shelves?)



Prepare the wire

It is all about the process. Do it this way. Do not skip steps!



A: Strip about 15mm of insulation. Do not just “grab and pull. For the best results, use our [DCW -FWS](#) strippers to by ring-cut the insulation - then twist the cut end with your fingers while pulling it off the wire. This gives the tightest and tidiest twist and guarantees no loose strands of copper.

B: Strip about 15mm of insulation. Dip the stripped end of the wire into the DCCconcepts [No-Clean flux](#) or add some flux with a brush. The flux will make it suck into the wire really quickly .

C: Bend the tinned wire end at a right angle. Make the bent end slightly larger than its final size which should be about 3~4mm in OO/ HO. (see later images to get a visual idea about length)

D: Snip off the end of the bent bit. This makes it neater and of course tidier... and its always easier to solder something that is properly prepared.

All 4 of these steps are quick and easy to do... Then you can move on to the track preparation.



➤ Prepare the Track

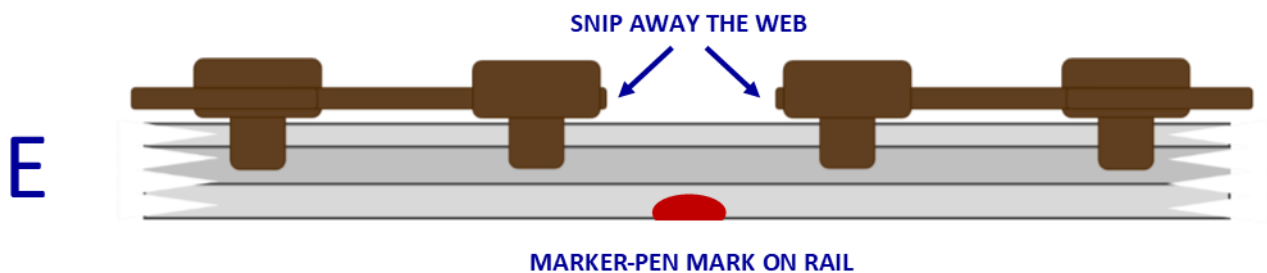
Again, its all about the process. For many years I have added wiring before I lay the track because it is both easier and neater to do it that way.

It does not need a lot of pre-planning really. When I cut and test fit the track, I mark where I want droppers to be with a marker pen. A dot on the track-bed gives me positioning for drilling the hole for the wire and a mark on the on the rail shows me where I will need to remove the web to create a place to solder the droppers to. (see E below).

If I forget the odd wire, its no big deal as it can still be neat if you think carefully. You can easily add new droppers after laying with a similar approach but solder them to the back side of the rail, low down and on the web. That way they will stay pretty well invisible. Remember at ALL stages that you do not need a lot of solder. ONLY the solder in direct contact with wire and rail add to strength - the rest is just an ugly lump you do not need!

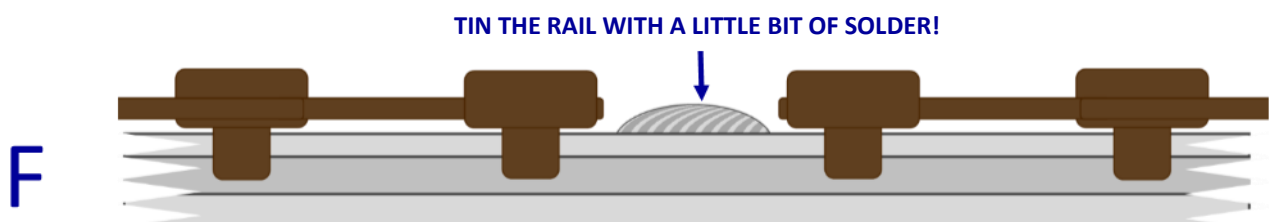
Moving on... lets get the track ready!

E: Clip away the “WEB” from between the sleepers. For the best results, use some Fine Sprue Cutters for this.



F: Clean the base of the rail then tin it.. Do not skip this step. It will make sure that the job is neat and tidy and ensure a strong and very quick joint with ZERO chance of melting sleepers!

Clean the base of the web with Fibreglass brush or fine file. Add some flux with a brush. Put a little solder on the soldering Iron tip. Apply the flat side of the C type tip to the bottom of the rail web



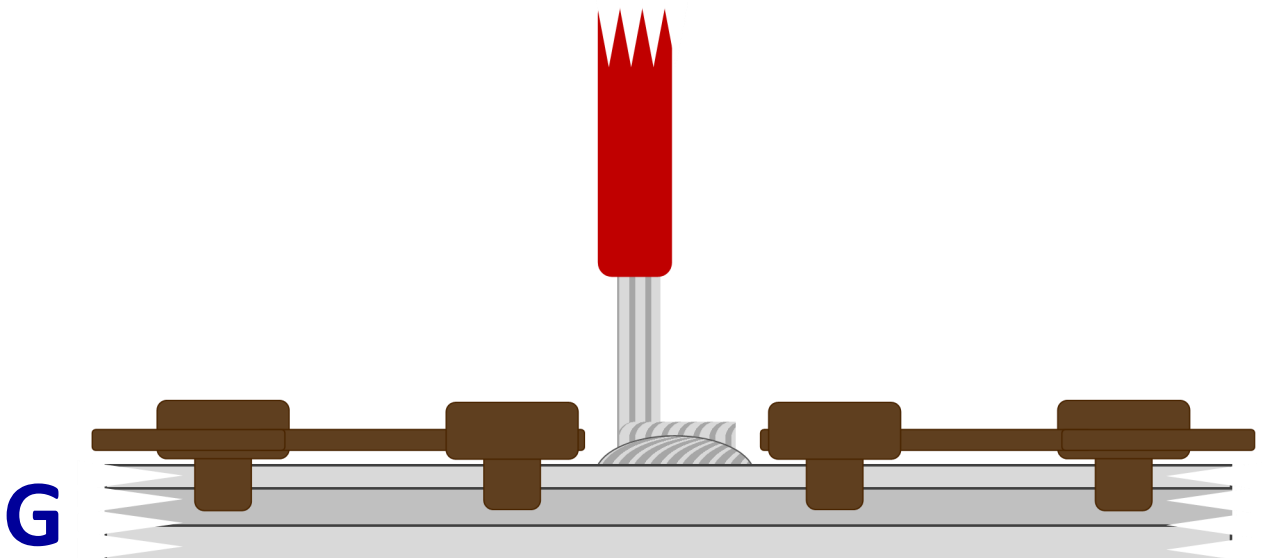


Prepare the Track

G: Solder the wire to the rail. *Dead easy if you do as we say here....*

Place the wire onto the rail as per the drawing. Add some flux with a brush. Be generous as it is a no clean flux anyway. Clean the Iron tip and add a TINY bit of solder to it. Apply the Iron to the "wet with flux" wire/rail joint with gentle pressure. The solder will flow almost immediately (less than a second or two). As soon as it does, remove the iron, count to 3 then let go.

Job done... one strong, neat joint. Excellent.



Are you ready to learn more about soldering?

These three PDF files will totally "De-mystify the Black art of soldering" They contain all you need to learn in order to solder anything you may come across in our great "Model Railway Hobby".

Part 1. - The right stuff....

What is Soldering? Tools and Soldering materials & how to use them.

Part 2. - Techniques, Tinning, soldering and clean up.

Includes preparation and post-soldering cleaning. Fluxes & Tinning. Advice on Brass kit work.

Part 3. - Digging down into the wider need for the hobbyist.

More on kit-building. White-metal and harder-to-solder metals including spring and Stainless Steel. How to join different metal types. Choosing the right Tip. Maintaining the equipment.

These documents were a pleasure to produce & I hope you enjoy them. Share them with your friends & lets work together to take the fear of soldering away from our hobby once & for all.



 **That's it for this time....**

We hope that you enjoyed reading about these products, and that the “how-to” information that we have included may inspire you to get back to the workbench and become a soldering expert at last!



Richard Johnson

PS: We look forward to seeing you all in Glasgow 22~24th February.

Did you enjoy the contents—please let us know.

Don't be shy: We invite you to email us and discuss any changes you might like to see and welcome ideas for any “style” changes or additions we could consider to make more interesting reading.

Of course, if you have a specific subject that you would like us to cover, we will listen. Please email us at web@dccconcepts.com and we will see what we can do.

Until then, thank you for sharing your valuable hobby time with us.