



TIPS on SOLDERING WHITE METAL to BRASS

Paul Dougherty | 210 Kenmar Drive, Yorktown, VA 23692

ricketyrails@cox.net | www.ricketyrails.com

When soldering brass to white metal (pewter) you need both C 70° (Lowmelt) solder and C 145° (Detail) or higher melt solder and a good flux. When soldering white metal to white metal, you just need the C 70° solder and flux.

Test the white metal. Heat your iron and let it cool so it will melt the C 70° solder, but not the white metal. Some US made white metal products melt lower than the C 70° solder.

A fellow modeler proposed making a box with a dimmer switch and a plug for the iron. When you achieve the correct temperature for the solders mark the dimmer, so next time you'll have the correct temp. I've used my iron - a 25 watt with a flat well tinned tip - so much that I know when to turn it off and on to get the correct temp for each solder.

White Metal to Brass: Clean both pieces in warm soapy water, let dry. Heat your soldering iron to a point where it melts the C 145° solder, flux the brass where you wish to attach the white metal. Put a very small amount of C 145° solder on the tip of your iron and spread the solder on the brass part in an area a little bit larger than the piece of white metal you wish to attach. Turn off your iron and let it cool, reflux the tinned brass and the piece you want to attach. Put a very small bit of C 70° solder on the tip your iron. Check that your iron is cool enough where it will not melt the C 145° solder - touch the tip to the solder. When it is cool enough put the two pieces together and touch the tip of the iron that has the C 70° solder to the joint. The flux will draw the C 70° solder into the joint. Once the solder is drawn into the joint, remove the iron immediately. If the piece is so large that you cannot see solder around the entire joint, then reflux the other side near the joint, put another tiny bit of C 70° solder on your iron tip and tough the other side. Make sure the piece doesn't move. Let the joint cool.

White Metal to White Metal: Clean both pieces in warm soapy water, let dry. Heat your iron whereas it will melt the C 70° solder but not the C 145° solder as above. Flux both pieces of white metal, place them together and with a very small bit of C 70° solder on the tip of your iron touch the joint. Once the solder disappears into the joint, remove the iron immediately. Again if the piece is large and the solder doesn't flow to the other side of the joint, repeat the process on the other side.

A Couple of Hints:

1. Keep the tip of your iron clean and coated with C 145° or higher melt solder, a wet sponge will do.
2. Put solder on the tip of the iron not on the parts to be joined.
3. To keep other joints from coming apart, use a wet Kleenex as a heat sink; just surround the other joints.
4. Cleanup your joints with a mixture of teaspoon of baking soda in a quart of warm soapy water while gently scrubbing with a SOFT toothbrush. Baking soda will take care of the acid in the solder and flux.
5. Do not use excess solder - clean up is a chore.
6. If you leave a lump of solder on the model, heat it with the iron and knock it off with your finger, if you are quick, it won't burn. If you can't, heat it with the iron and spread it out as thin as possible. Then clean it off with a fiberglass tipped tool.
7. Various sizes of wooden clothes pin/pegs are great for clamping the metals together when soldering.

Most of all, if you think you are using too much flux you aren't, and if you think you have too little solder, shake some off the iron, you have too much. PRACTICE WITH SOME SCRAPS BEFORE YOU START ON YOUR MODEL.

I recommend the combination of Carr's Solders (a British product) and Fry's WaterFlow 2000 Flux.

Rickety Rails Models **Low and Detail Soldering Kit with Fry's WaterFlow 2000 Flux** is available for \$14.00 plus \$4.00 S/H. To order call 757 898 8194 or email to ricketyrails@cox.net.