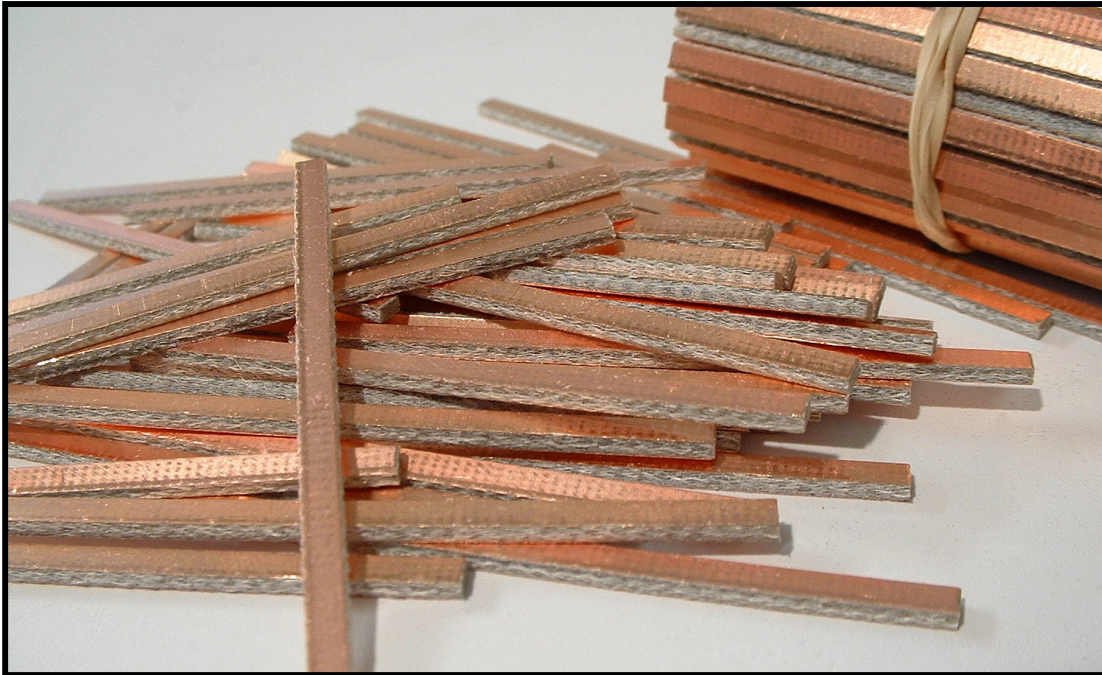


USERS' GUIDE

Using Fast Tracks PC Board Ties (UG09)



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Fast Tracks PC Board Ties Users' Guide

This document explains how to prepare and use Fast Tracks PC Board Ties.

The images shown in this document may not be your specific size of PC Board Tie, however these instructions are suitable for all sizes and types of PC Board Ties.

Larger, printable versions of the images in this manual are supplied with the documentation CD that is included with any track construction tools that you purchase from Fast Tracks. Look for the link under the "Additional Documentation" section of the CD menu that is displayed when you insert the CD into your computer.

The latest version of this guide and all related documentation is always available for download from the Fast Tracks website at www.handlaidtrack.com/documents.html

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Using Fast Tracks PC Board Ties

Fast Tracks PC Board Ties are constructed out of high quality 1/16" or 1/32" thick printed circuit board material and are stamped rather than sheared, ensuring a perfectly flat, consistently sized tie for use with your Fast Tracks fixture.

Every effort has been made to ensure a consistently accurate width tie, but the final size can be difficult to measure. When manufacturing the ties we measure the final width after they have been 'de-burred' to remove a bit of 'fuzz' that is left behind by the stamping process.

Follows are the steps needed to prepare the ties for use.

Step 1

Remove the fuzz from the edges of the ties with a file; a few short strokes is all that's needed. This is only required for 1/16" thick ties, 1/32" ties do not have this fuzz. (Image 1)



Image 1

Step 2

Using the printable tie template that matches your fixture (available from the Fast Tracks website or on the CD included with your fixture), mark the length to cut the tie to. PC Board Ties are shown as shaded ties on the template. (Image 2)

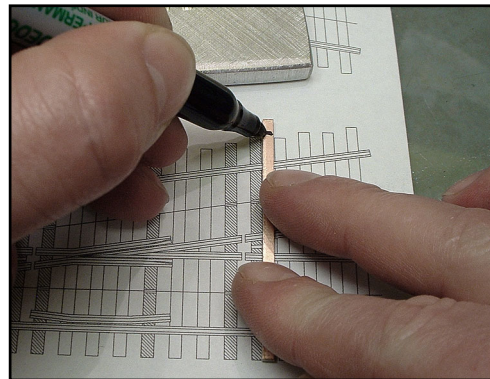


Image 2

Step 3

Cut the tie to length using a pair of rail nippers. (Image 3)

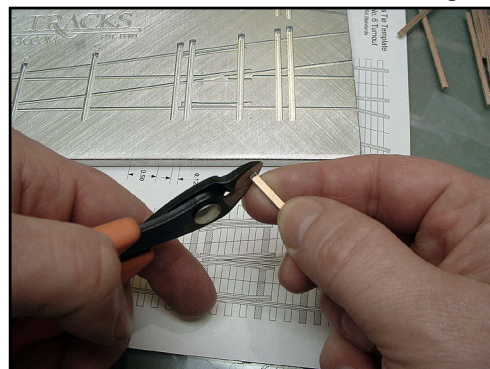


Image 3

Step 4

After cutting the tie to length there will be a bit of a "burr" that must be removed from the ends to ensure reliable results. Using a small fine file, file the top and bottom of the tie holding the file flat against the surface. (Image 4) After filing the end of the tie clean, check the fit in the fixture.

Step 5

It is much easier to cut the gaps in the copper foil of the tie before you solder them to the rails. A small, inexpensive triangle file works best for this step. (Image 5)

Use the printable tie template to determine the location of these gaps. Make sure that you file completely through the copper or you will get an electrical short on the finished trackwork.

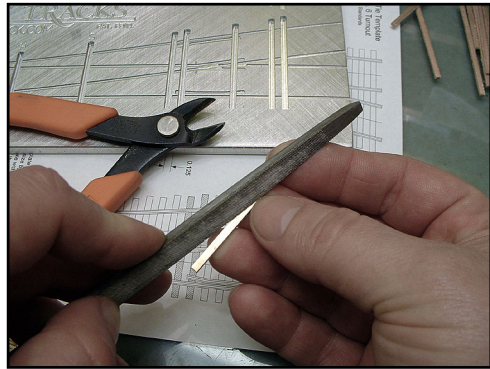


Image 4

Step 6

The copper foil will oxidize over time so to ensure a good solder joint you need to polish the copper foil. Use a piece of 400-grit sandpaper for this step. (Image 6)

A clean, shiny surface is important for a good solder joint. Only clean the ties that you can use the same day, as they will re-oxidize very quickly.

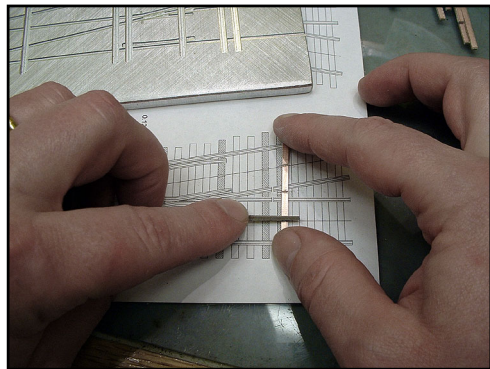


Image 5

Step 7

Place the prepped tie into the appropriate pocket of the fixture and repeat the process for the rest of the ties. (Image 7)

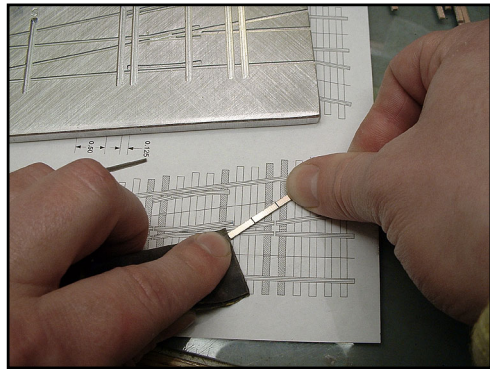


Image 6

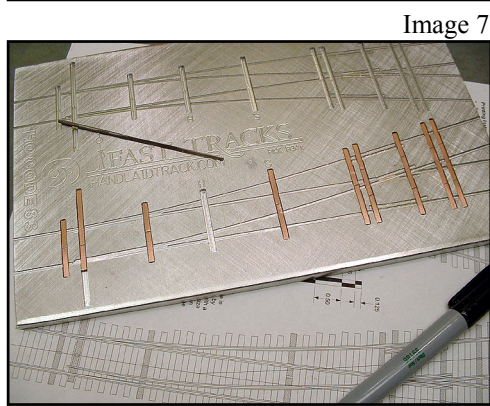


Image 7



Warning! It is very important that you ensure that the isolation gaps are cleanly cut and that there is no conductivity between the two halves of the tie.

Failure to ensure complete isolation can result in an electrical short, which can cause equipment problems, overheating and the risk of fire.

We recommend that you confirm that the two halves of the tie are electrically isolated by testing with a continuity tester. There should be no conductivity between the two halves of the tie if the gap has been properly cut.