

Lionel News & Views

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New FasTrack Section – To Cut or Not To Cut

In the previous issue of *TLR*, we published a chart of track lengths that could be assembled using different combinations of FasTrack™ lengths. Although the addition of the 1-3/8-inch track section more than doubled the possible lengths that can be assembled, there are times when there might be a better answer. For instance, let's say you just finished assembling your layout and to complete it, you find that you need an 8-1/4-inch section. Great – refer to the chart for 8-1/4, and you'll find that such a section can be made by connecting six 1-3/8-inch sections. While making a section of that length is possible, an 8-1/4-inch section with six joints is not the most efficient method, nor is it economical.

In this case, the best answer is to custom cut a special section. As we discussed last issue, cutting FasTrack is a bit more complicated than cutting tubular track. You can't simply cut a piece off the end. If you did that, the section would not mate with any other FasTrack section, with the possible exception of the O-gauge transition piece. There is a better way; simply cut a section out of the middle of a track section. Before attempting to explain the procedure, I tried it myself and what follows is a complete description with photos on what I feel is the best method to make custom lengths of FasTrack.

Let the Cutting Begin

For our example, let's assume I need a section that is 8-1/4 inches long. If the section you want is less than 10 inches, it will only require one standard section of FasTrack. We want to remove a section from the middle and reassemble the track. That leaves us with a section that retains the two original ends and can easily be connected to other sections of FasTrack. The first decision is exactly where the first cut will be made. If you look at the underside of a section of FasTrack, you'll notice the bent metal tabs which secure the rails to the plastic roadbed. When the track is cut, you want to leave as many of these remaining in place as possible. You also want to avoid cutting the track over the metal plate which connects the two outer rails. If need be, this plate can be removed before cutting. Subtracting the length we want (8-1/4 inches) from the full length of 10 inches, we get a length of 1-3/4 inches to be cut away from the middle of the track in order to preserve the two ends of the track.

Cutting the track square is very important. For that reason, a miter box is a very efficient method. I purchased an inexpensive plastic one at a home improvement store. One feature that I liked was that its front side had a lip which overhangs the table and holds the miter box in position as you cut on the forward stroke of the saw. Typically, a back saw is used with a miter box. This is not acceptable for

cutting metal, and I substituted a hacksaw with a 32-teeth-per-inch blade.



Photo 1 shows the setup as the sawing proceeds. You must hold the track firmly while sawing. Once you get through the metal rails, the cutting will go quickly. After the first cut was made, I positioned the two pieces as shown in

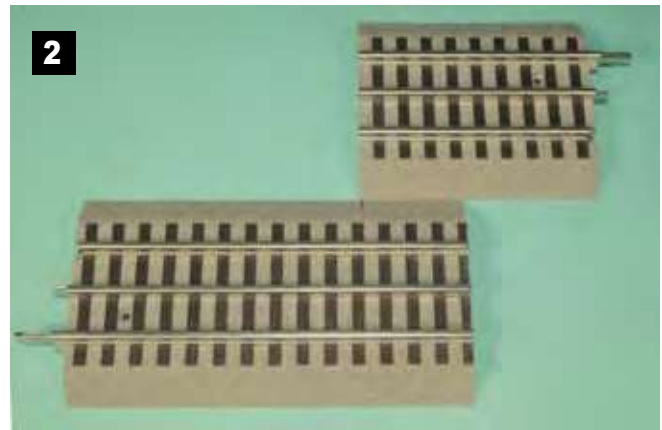


photo 2 and set them so that the measurement from the end of the cut piece to the end of the remaining piece was my desired track length – in this case, 8-1/4 inches. I then marked the larger section at the point where the smaller section ended. This is where the second cut must be made on the larger piece. This is cut in the same manner as before, using the miter box.



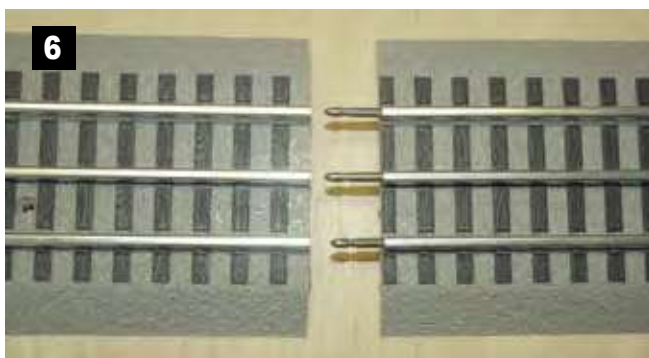
Photo 3 shows the result. The very short middle piece can be discarded. Next I used a sanding block with 120 grit sandpaper and carefully smoothed the cut edges. Be careful not to sand it too much; all you want to do is remove the saw marks and leave a smooth, square edge for gluing. It takes very little sanding to achieve this. If you sand too much, you may lose the squareness of each piece and they will not mate perfectly. **Photo 4** shows the two cut edges after sanding.



The next step is to drill into each of the rails at the cut end of each piece. This is done with a 7/64 inch drill as shown in **photo 5**. The drilling is necessary because there are plastic supports spaced at about 1/4-inch intervals under each



rail. These can be seen if you look at the small section to the left of the track being drilled in **photo 5**. Drill to a depth of at least one half the length of an O-gauge track pin. Be sure to keep the drill against the inside top of the rail and support the rail from above with your finger.

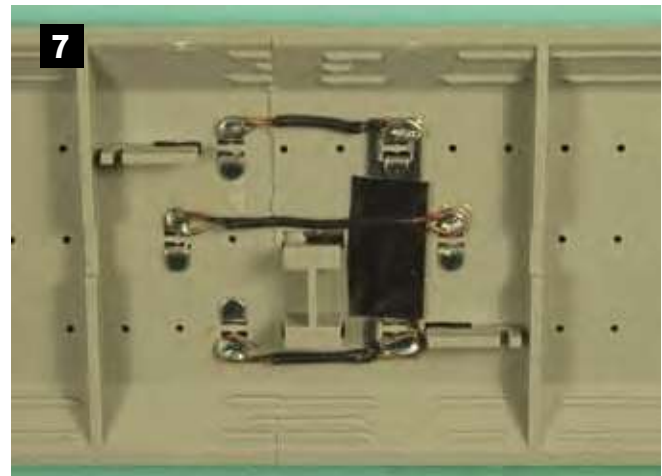


Now place a standard O-gauge track pin into each rail of one of the sections as seen in **photo 6**. You can now press the two sections together for a test fit. If you've been careful, the rail tops and the roadbed will line up properly. For the glue to hold properly, the joint of the two sections of roadbed should touch without any gaps. Next, separate the two sections and place the pins in one section. Sparingly apply Superglue™ (cyanoacrylate) to the edge of the roadbed

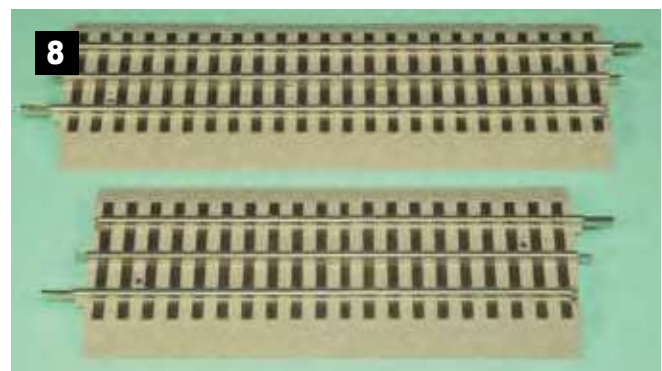
on the section without the pins. Place both sections on a flat surface and push them together and hold them tightly for about 10 seconds. Although many of these glues are called instant, their full strength is not developed for up to 24 hours. We're almost finished, but there is one more important step.

One Last Step

To assure the best conductivity, the rails of each section of the new piece should be soldered together. I usually prefer stranded wire, but in this case, the joint will not be moving and solid wire is quite suitable. I used 18-gauge copper wire. **Photo 7** shows the completed soldering. In this particular case, I soldered to the connecting plate. Depending on the



length you are making, this plate may not be there. Simply solder from the metal tabs of one rail to the tabs of the same rail on the other section. Do this with all three rails. Notice that in my example, I had to bring the center rail wire across the plate which connects the two outer rails. It is very important that this center rail wire does not make contact with this plate as that would result in a short circuit. I assumed that I would have no problem as the wire insulation would keep any contact from occurring. I discovered however, when I soldered the wire, that the insulation shrunk and bare wire came very close – too close – to the plate. I then removed the center wire and placed a piece of electricians tape over the plate. If I had it to do over again, I might simply remove the plate or at least loop the center



wire so that it approaches the connection from the opposite side. **Photo 8** shows the completed section along with a standard 10-inch piece for comparison.