ALKEM Scale Models

O Scale Switch Stand

Introduction

This is a 1/48th scale (O Scale) photo etched kit of a 19th century switch stand used to control stub turnouts. The kit uses a fold-up design to simplify construction. The lever arm and the pivot point have two positions to allow the stand to control a conventional two way stub turnout or a three way or double slip stub turnout.

The kit includes 4 different types of targets. Use the target that is appropriate for your railroad.

Two examples of this type switch stand:: one at Richmond, VA (left) and on the USMRR at Globe Tavern (right).

Kit Contents:

1 photo etched O.010 inch nicklel silver sheet
1 piece O.010 inch phosphor bronze wire
1 piece O.032 inch phosphor bronze wire

Recommended Tools and Supplies

Hobby Knife or scissors to cut parts
Needle nose pliers
5 minute epoxy or CAA
400 grit sandpaper
Silver bearing solder and appropriate flux.

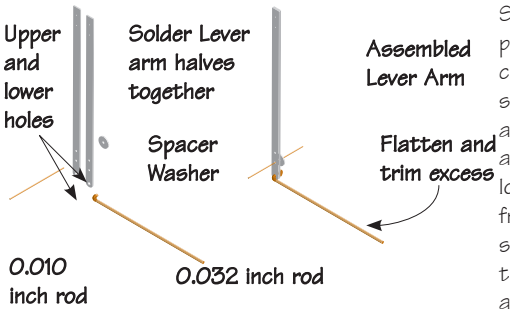
Assembly Sequence - Build the lever arm

Step 1. Cut a .25 inch length of O.010 inch phosphor bronze wire and insert it in the appropriate hole in the lever arm. The lower hole is for a conventional two way stub switch. The upper hole is for use in three-way or three way stub crossovers. Place a spacer washer on the O.010 inch wire. Solder these parts together.

Step 2: Take a two inch length of O.032 inch phosphor bronze and bend a 1/8th inch right angle at one end. Insert the bend into the larger hole at the bottom of the lever arm. Take a set of pliers and crimp the portion that extends through the hole, flattening the rod so that wire will not fall out. Trim off the excess.

Build the main frame

Step 3: Fold the four sides of the main frame toward the fold lines. Note that there are folds on each side of the part. This allows you to fold the parts so that the sides will conform to the complex shape.



Step 4: With the parts folded to close to the final shape insert the assembled lever arm and rods. Use the lower hole in the frame for a two way stub turnout and the upper hole for a three way switch. You may have to drill out the hole in the frame to clean out the hole to clear the O.010 inch wire. Test the lever to make sure it actuates without binding.

Step 5: Solder the frame members along their edges so that the base is a solid unit.

Step 6: Pre-curve the lever locks and slide it over the lever and onto the frame. Solder it on. The washer on the lever arm should be on the opposite side as the lever locks.

Add the base and final details

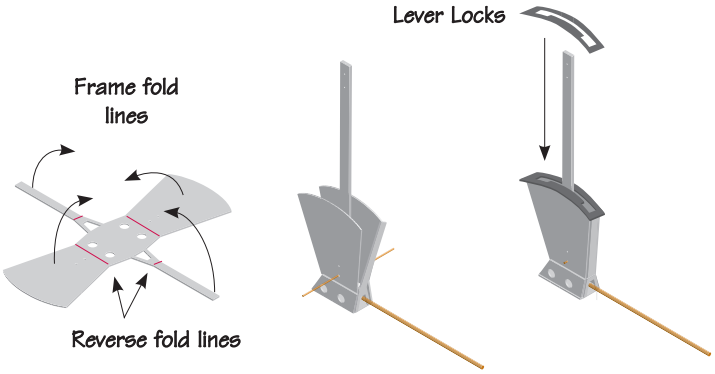
Step 7: Solder the base to the frame. There is a two hole and a three hole base. Use whichever you prefer.

Step 8: Attach the appropriate target with solder. Use the holes as a guide for proper placement, however, note that depending on hole close you install the stand to the rails, you may have to trim the length of the lever arm to avoid interference with the rolling stock. The best thing to do it test fit it and trim as necessary.

Step 9: Attach the lock and chain. This is a cosmetic detail.

Install the stand

Step 10: Prime and paint the stand as usual. The targets should be a bright color like red, white or yellow, while the frame and base should be black or rust.



Step 11: Solder the O.032 inch rod to the rail. Test the spacing. Adjust your stubs to fit the throw of the stand. It is sometimes easier to build the stand before laying the turnout so that you can adjust the stub rail spacing to the throw of the stand. The stand provides positive control of the rails so that throw stops or other adjustments are not necessary. Epoxy and spike the stand to the tie.

Note the kit does not include turnout bridles. I use a 1.5 inch lengths of N Scale printed circuit tie stock and slivers of rail joiners to make my bridles.