

Trolley Tip - Single-point Switch Construction For Street Track - by Dave Gairo

O-scale: Running rail is Code 125
 Guardrail is Code 100
 High guard is 1/8 x 1/32 brass strip

HO-scale: Running rail is Code 100
 Guardrail is Code 70

1. Lay the outside straight running rail through the entire switch area.
2. Lay the inside curved running rail through the switch area, gauging to the outside straight rail up to the beginning of the point. Put a slight kink in the curved rail where the beginning of the point will be, to start the curve. (NOTE: All curved rails are pre-curved before attaching to the ties.)
3. Pre-bend a piece of running rail to form the outside rail of the curve. File a taper on the curved end where it will meet the outside straight rail. This will form the mate to the switch (the part with no moving point). Attach the rail to the ties, using a piece of guardrail to space the curved rail away from the straight rail.
4. Form a piece of guardrail to follow the outside straight rail through the mate area and through the outside curve at least past the location of the frog. Put a slight kink in the rail to form the beginning of the curve and the mate area. All guardrail lies on its side with its head into the web of the running rail. Its web and base then form the flange way and guard.
5. Cut and fit a piece of running rail to form the section of straight rail between the frog area and point of the switch. This rail is angled to fit flush against the curved rail and the point end is cut straight. Allow room for the point, from the start of the inside curve to the start of this piece of rail. In O-scale the point should be at least 1 inch long and no more than 1.5 inches.
6. Cut and fit a piece of guardrail for the running rail placed in step 5. This guard starts at the frog and continues at least through the point area. Before mounting, place the guard in position and mark the entire area of the point. Remove the guard (base of the rail) through the point area. This will be replaced with high guard later.
7. Cut and fit a piece of guardrail to form the guard of the inside curve rail. Taper the end of this rail to fit into the joint of the curve rail and point guard.
8. Cut and fit a piece of guardrail to form the guard of the outside straight rail. This rail is tapered to fit the joint between the curved guard and straight running rail.
9. Cut and fit the running rail and the guardrail for the straight section beyond the frog.
10. Use a motor tool and cutoff wheel to cut the flange way through the frog and dress with a

piece of a hacksaw blade.

11. Add brass strips to form high guards around the point and through the entire inside curve. The strip at the point should be bent to form a small pocket for the tip of the point when it is thrown for the curved route.
12. Using a motor tool, hacksaw blades pieces, files or what ever, smooth the flange way through the point and mate areas. The point area should be smooth to allow proper movement of the point.
13. Make the point from .045 or .050 brass or nickel silver. The heel should be approximately 1/16" wide and the point should taper to 1/32" or less. Before cutting out the point, drill a #67 hole at the heel to mount the pivot. The pivot is #20 brass wire (.032) soldered into the hole in the heel. Then solder 1/16" brass tube over the wire and against the bottom of the point.
14. Drill a 5/64" hole through the rail and track board to accept a piece of 3/32" brass tube, giving a tight fit. This tube provides a bushing for the point pivot.
15. Switch machine mounting and connection to the point pivot is left to your imagination.

