

## SOUTHERN RAILWAY/REGION OFFSET SIGNAL BRACKET



Suitable for 1 to 3 dolls

**Note:** this kit contains bracket components only. For a complete signal, you will need: a rail-built base post (S032); dolls (S022 or S7/22); signal arms (S012 series); finials (SC02); lamps (SC06); a ladder (S7/09 or S09 series); and a landing, which is best fabricated from thin stripwood.

Obtain good photographs before starting work. Remember that changes may have taken place during the lifetime of the prototype, although probably limited in the case of these post-grouping signals.

### ASSEMBLY INSTRUCTIONS

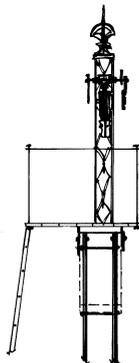
Burnish both sides of the fret before removing any parts.

Prepare the two S032 base posts by first removing the cast-in bearings, post caps and round feet. Find some material 2.6mm thick which will be unaffected by soldering heat, and cut a piece 7mm wide and 120mm long. Sandwich this between the two posts such that the rail bolt heads and the thickness of the spacing material are facing you, and secure with clips or elastic bands etc. Most signals did not have one post extended for bracing purposes, as shown in the heading photo.

Remove the bracing pieces from the centre of a bracket and solder them over the large rectangle in the bracket in the positions shown overleaf: equidistant from the vertical members, with the top piece level with the top bracket horizontal, and the bottom piece equally spaced either side of the bottom horizontal. The bolt heads should be face down at this stage. This unit should now be soldered to the top of the post, turning it so the bolt heads now face outwards.

Turn the post over, and repeat the above for the second bracket and set of bracing. Finally, cut the post to length, ensuring a minimum of 13'6" clearance remaining between the rail head and the underside of the cantilever, at any point where it will foul a running line.

The landing should be made from six or seven thin wood "planks", glued parallel to each other to give a rectangle 112mm wide x 20mm deep. Establish the handrail stanchion positions from your prototype photographs, and drill the landing perimeter at the chosen intervals with a no.75 drill. Fix the landing to the bracket tops, with the front and rear overlaps in the proportions shown below (the rear overlap is the longer one!).



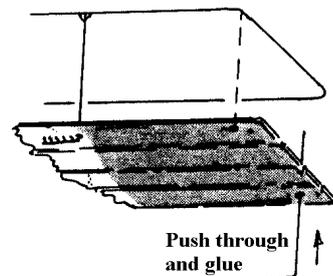
Cut to length sufficient S022 or S7/22 dolls. Complete them by adding arms, lamps and balance weights. Finials should be left until last to avoid breakage.

Carefully make holes in the landing to accommodate the dolls. For a junction signal, these should be at least 6'6" apart; dolls applying to parallel roads should be at least 10' apart. Fix in the dolls, soldering them to the top edges of the brackets (some shimming may be needed).

All working motion should now be undertaken to a satisfactory stage, before the addition of handrails, so as not to impede access. Small cranks tend to lose their efficiency due to poor bearings, so it is wise to provide small tubular bearings soldered unobtrusively into the bracket frame, and then to put the cranks onto short lengths of nickel silver wire as axles, with a washer soldered on the rear

end to give a good movement. The wire linkages will perform that much better.

For the handrails, insert scale 3' to 4' lengths of 0.45mm wire into each previously drilled hole, from below, with a short "L" turned on the bottom of each one. A quick superglue joint on each one will fix them in place, then they can be aligned by eye, and a handrail of soft iron wire fixed around, one stanchion at a time. Leave a hoop at the rear where the ladder will be attached. Finally, trim off all excess wire.



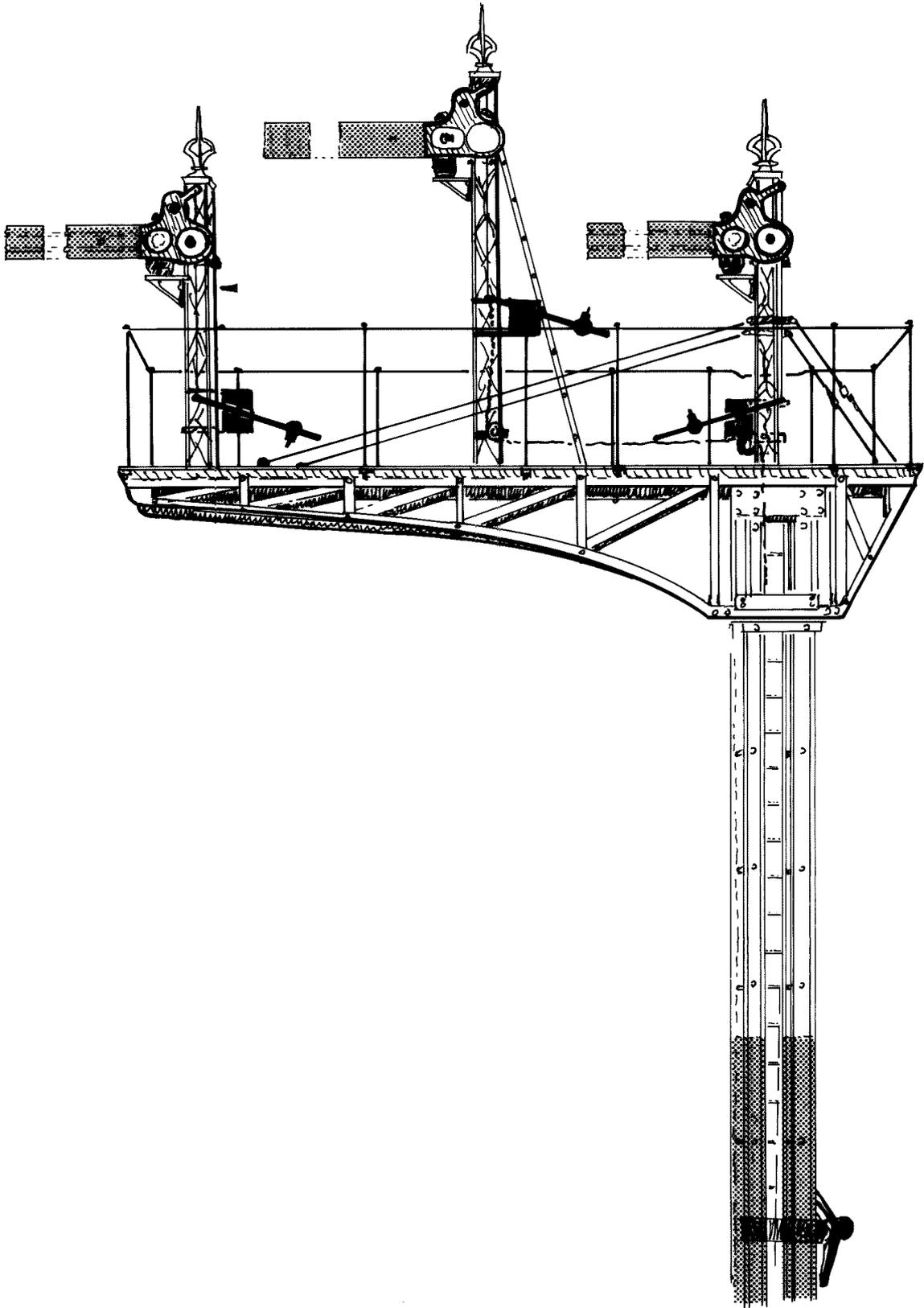
Secure the chosen ladder to the rear of the landing, adding two bracing stays from thin brass strip midway up the base post.

Due to the rigidity of the rail-built base post, ground bracing was often unnecessary. However, doll or base post bracing was sometimes provided, as shown in the illustrations.

### PAINTING

Clean the signal by immersing in warm detergent water, rinse under a running tap, then allow to dry overnight. Spray overall with white primer. The bottom 4'6" of the base post should be painted black. However there are many variations, e.g. black brackets, so beware!

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**Not to scale!**