SP / ATSF Cantilevered Signal Bridge

All - Scales

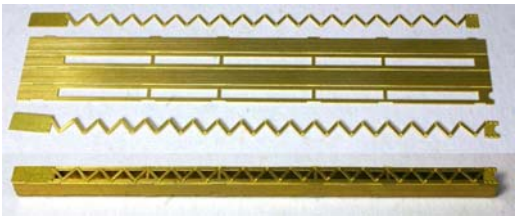
Before Starting

PREPARING BRASS The easiest way to remove the brass parts from the sheet they are produced on, is to use rail nippers. The brass is soft and won't affect their future cutting ability. This will reduce or eliminate the amount of filing to smooth the edge. The next best way is with small sharp diagonal cutters that will fit into the small areas between the part and the sheet holding them. *You should always use a file to remove the balance of the tie. This will ensure a perfect fit.*

GLUING BRASS Instant super glues, Cyanoacrylate, CA for short, are very prominent in model building today. They will work perfectly with brass, and they are instant. We recommend a thick CA glue such as "**Zap-A-Gap**" from Pacer Technology. As I have also been building R/C airplanes for over 33 years, I have many airplanes built entirely with CA glue and I can tell you that the wood will break before the glue joint. So it is great stuff! Besides being almost instant, thick CA glues will help create a small fillet and fill small gaps when applied to the inside of joints. Using a toothpick to apply the CA glue works really well for getting the glue into the interior areas and controlling the amount of glue used.

PAINTING BRASS Wash your completed assembly in warm soapy water. If it is really messed up with flux etc. you can clean it with a lacquer thinner first. *Do NOT bake the model if you used CA glue for construction.* Baking will set the paint to the brass as well as allowing you to paint over parts of it without the first coat dissolving as you spread on the second coat. One nice thing about painting on brass, if you don't like the paint job you can use paint remover to get rid of it and start again without hurting the brass.

Step #1 – Build The Post And Cantilevered Frame

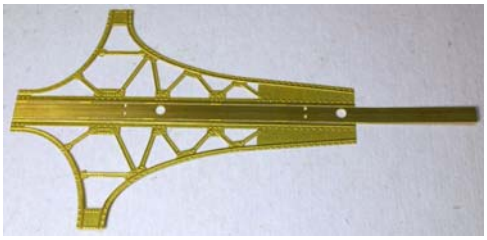


Begin by removing the Post, Diagonal Bracing and the Cantilever Frame from the kit sprue. Clean off all tie remnants with a jewelers file. If you are not sure on how to bend brass, review our online tutorial. All four sides of the post are on the same piece held together with small half-etched tabs to control the three bends that create the four-sided Post.

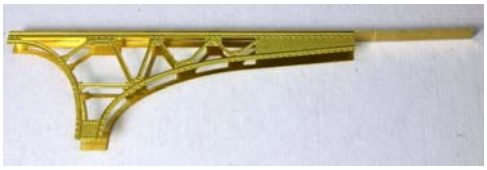
(All Scales but N-Scale) The first bend will be the open Side. Bend the open Side 90 degrees *into* the bend lines. The center bend line between the solid Side and the other open Side is to be bent to 45 degrees. Never bend all sides to 90 degrees. This would not allow the last side to be bent. The last bend will be made to 90 degrees. Reference the image to the left that shows the end of a similar part.
(N-Scale) The first bend will be the solid Side pictured at the top of the image. Clamp/hold the open Side and bend the solid Side 90 degrees *into* the bend lines. For the second bend, clamp/hold the solid Side and carefully bend the open Side 45 degrees. Never bend all sides to 90 degrees. This would not allow the last side to be bent. For the final bend, clamp/hold the open Side and bend the solid Side as far as you can up to 90 degrees.

Once the Post sides are initially bent, carefully bend the 45 degree bend by hand to bring the Post sides together. One Side will have tabs and the opposite side has slots. Join the Side together and secure. Add the Diagonal Bracing to the open Side.

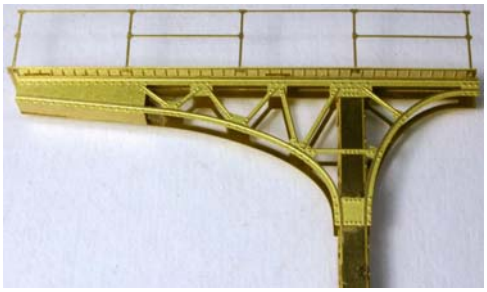
The Cantilever Frame is also one piece with two main bends. Bend the Frame Sides down 90 degrees. Next, bend the center piece at the end of the Cantilever to close off the end. Finally, continue the bend to close off the bottom end of the Cantilever. Align all edges and secure the center section to the Side Frames.



Insert the Post into the Cantilever Frame. The solid Sides of the Post will be secured to the Cantilever. Align the Post to attach to the Cantilever Frame at the location shown. Use a small metal square to ensure the Post is perpendicular to the Cantilever Frame. Secure the Post to the Cantilever Frame.



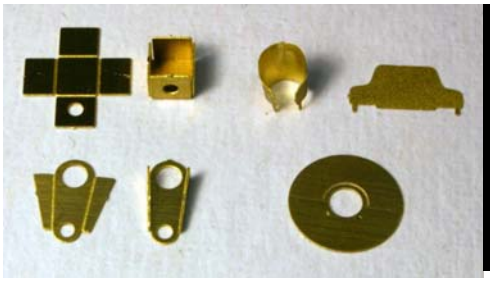
Add the Grated Walkway to the top of the Cantilever Frame. Ensure that all holes in the Cantilever Frame are aligned to the corresponding holes in the Grated Walkway. Secure the Walkway to the Cantilever Frame.

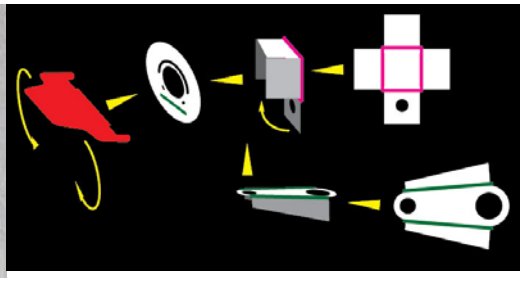


With the Cantilever Frame pointed to the left, secure the long Front Railing into the mounting holes that are now at the top of the Grated Walkway as shown.

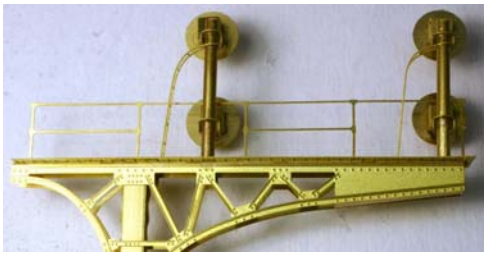
Step #2 – Assemble the Targets

Searchlight Targets have a sunshield that must be rolled into a curvature that will go into the slot above the LED hole on the target. Use a brass rod or tube to create the curvature. Rolling the shade between the tube/rod and you fingers will produce the desired effect. Following the diagrams below, assemble the Target.





Searchlight Targets have a positionable Arm that allows the builder to place the target in any manner. Ensure the bottom hole in the LED Cover aligns with the smaller hole on the Arm.



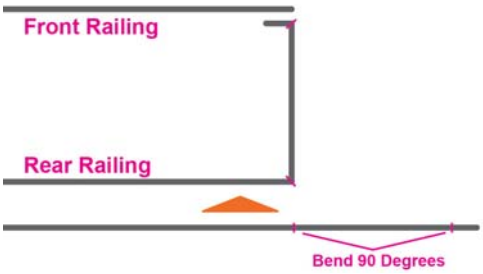
Cut the supplied Tubing in half and secure both Tubing to the Cantilevered assembly ensuring the Tubing is perpendicular to the Grated Walkways in all directions. Place the Lower Target assemblies on to Tubing and position them so the cover box is slightly below the Front Railing.

Add the two Ladders on to the Tubing and make a gentle bend as shown. The bottom of the Ladders goes into holes through the Grated Walkways. Secure the Ladders when satisfied.

The Upper Targets are mounted to the Tubing directly above the Ladders. Secure the Upper Targets to the Tubing and trim the Tubing just above the Upper Targets.

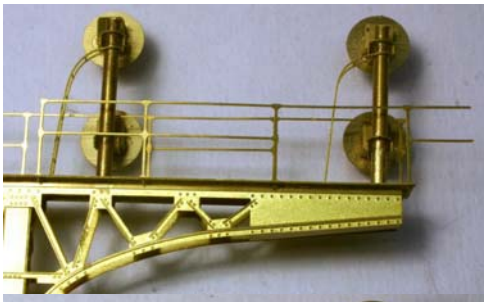
Step #3 – Final Assembly

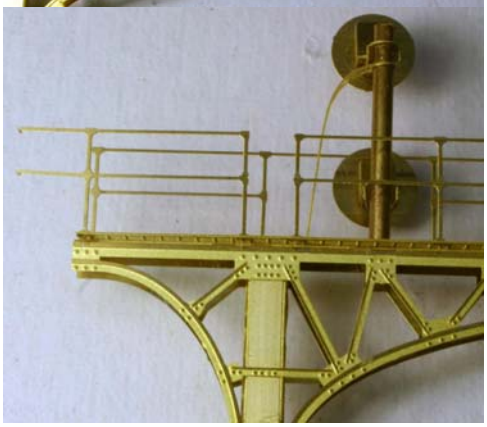
The Back Railings are comprised of two pieces with a separation for the Main Ladder. Each of the Back Railings has free floating pieces of Railing that have two half-etched bend lines. Care should be taken when handling these pieces as they could break off if mishandled.



Secure the longer of the two Back Railings to the Cantilevered end behind the Signal Masts. Bend the floating pieces of Railing as shown and secure the small tab to the Front Railing.

Do the same for the smaller of the two Back Railings.





Secure the Main Ladder to the Cantilevered Signal assembly as shown.

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