

New York Central 2-Track & 4-Track Signal Bridge N-Scale & HO-Scale

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 Bridge Frame

The builder should remove the two Sides, the two End Frames, the Top Frame and Bottom Frame. Clean-up all remnants of the attachment ties.

Identify the Bottom Frame, it has four slots etched all the way thru for the Diagonal Stand Braces and single diagonal braces. Place the Bottom Frame on the building surface with the etched rivet detail facing down and half-etched slots up.

Secure a Side to the Bottom Frame placing the tabs of the Side into the slots of the Bottom Frame. The diagonal end brace of the Side should point up and outward and the rivet detail outward. Ensure the Side is perpendicular to the Bottom Frame. When finished, Secure the other Side to the Bottom Frame.



Secure the Top Frame to the Sides ensuring the Side tabs are in the half-etched slots on the Top Frame.

There are tabs on the ends of both Sides, Top & Bottom Frames. The End Frames have half-etched notches in them allowing the End Frames to be easily secured to the Bridge Frame. Secure them now.

Step #2 – Build The End Stands

The builder should remove the two End Stands and the six Horizontal Stiffeners. Clean-up all remnants of the attachment ties.

Please take note that there are three different sizes required for each stand. Each Horizontal Stiffener has end slots that allow it to fit into the Gusset Plates and Stand Frame. The Stiffener also has a half-etched slot on the bottom for the tabs that are on the Stand Frame. Be sure to orientate the Stiffener correctly during assembly.

The Stiffener will have to be lightly bowed, half-etched slot down, to be able to fit it in the opening of the Stand Frame. Insert the Stiffener into the Stand Frame making sure the end slots are fully engaged. Lightly bend the Stiffener back to being flat and ensure the Frame tab is in the Stiffener slot. Secure the Stiffener to the Frame

Cut the provided "H" beams to 3 11/16 inch lengths using a cutoff wheel. Use all recommended safety precautions of the motor tool manufacturer. Eye & face protection are <u>highly</u> encouraged.

Secure the completed assembly into the slot of the "H" beam aligning the etched brass to the top of the "H" beam. Note that part of the "H" beam will extend past the etched brass assembly. *Use solder only* for this operation as CA glue does not adhere will to



the casted "H" beam. The best locations for soldering are on the back (no detail side) of the gussets. Once soldered, bevel trim the "H" beam ends that extend past the etched brass webbing using either a file or the cutoff wheel.

Step #3 – Secure The End Stands To The Bridge

Place the Bridge assembly on the work surface with the Bottom up. The Bottom has etched slots at the first cross member from each end. Remove the Diagonal Struts from the kit sheet and remove all remnants of the ties.



Begin by cutting the supplied 1/32 "L" girder to 1.25in in length. Secure the "L" girders to the back (non detail side) of the Diagonal Struts. Make sure you build two lefts and two rights.

Secure the End Stand to the Bottom at the ends. *Use Solder Only For This Connection*. Ensure the End Stand is perpendicular to the Bridge Assembly. The Diagonal Strut has an end with a square tab. This tab goes into the slot at the first cross member from each end. With the detail side outward, secure the Diagonal Strut to the Bridge Assembly with either solder or CA Glue. Secure the Diagonal Strut to the End Stand using solder only.

Step #4 – Build & Install the Walkway

Remove the Walkway and both Railings from the kit sheet and ensure all tie remnants are removed. Insert the Railing into the holes of the Walkway and secure the Railing to the Walkway from underneath. Place the Bridge/Stand assembly on the work surface standing upright on the Stands. Place the Walkway into the center (side to side and end to end) of the Bridge. Secure the Walkway to the Bridge from underneath. The Railings will extend out and should be bent to the side to meet the Bridge sides. Trim to fit and secure.



Step #5 – Build & Install the Signal Platforms

Study the following two images of an actual completed model. You will need to remove the components shown below for each Signal Bridge



Begin by determining the locations for the Masts. You will probably need to slightly adjust the locations to allow the Bridge Mounts to properly attach to the top of the Bridge.

Bend the sides of the Bridge Mounts at the half etched bend line. The sides of the Bridge Mounts no look like a "L" on its side. The small protrusion on the Bridge Mount side will go on the inside of the Bridge Top.

The Mast Strut has two tabs in it's middle that bend perpendicular to the Strut. That tab, once bent, is inserted into the square hole of the Bridge Mount.

Using the Mast Strut in conjunction with the Bridge Mounts, Secure both of the Bridge Mounts to the Bridge Top. Secure the Upper Platform to the Bridge Top orientating the large portion of the Platform on the side of the mast which will have the stairs from the Lower Platform. See model images. Secure the Mast Strut to the Bridge Mounts. Secure the Strut Platform to the Mast Strut.

Remove the Upper Platform Railing from the kit sheet. Ensure that all tie remnants have been eliminated. If signals are to be installed on both sides of the platform, you will need to remove the center section of the Railing leaving only the sides. If only one signal is to be installed, then bend the Railing at the center section. Secure the Railing to the Upper Platform.

Bend the Lower Platform at the junction of the stairs in the direction to orientate the stairs with the large portion of the Upper Platform. Using a supplied Mast tubing through the holes in the Mast Strut and the Lower Platform, align the Lower Platform on the flange of the Bridge Bottom to ensure the mast is perpendicular to the Bridge. Remember that the Stair Braces go on the outer side. Secure the Lower Platform to the flange of the Bridge Bottom. DO NOT secure the Mast yet. Secure the ladder to the Upper Platform Railing

The Builder may want to perform these steps to all of the Platforms to be installed before proceeding.

Step #6 – Building the Signal Heads

The Signal Heads are provided as a convenience to the modeler. The structure for working signals are included, but the electronics are not provided and are left to the modeler to accomplish. Begin by deciding which Heads are to be installed on the cantilever. Remove these from the kit sprue and remove all remnants of the ties. Also remove the appropriate number of Sun Shields from the sprue and remove all remnants of the ties.

Using the provided 3/32" tubing, form the Sun Shield into a curve. Place the curved Shield in the curved slot on the Signal Head. Ensure that the shield is perpendicular to the signal head and secure using either glue or solder. Repeat for all shields required.

Remove all tie remnants from the Head Attachment Brackets that were removed from the centers of the Body's vertical columns in the first step. The flat end of the Attachment Bracket will go into the half-etched slot on the rear of the Signal Head. Secure two Attachment Brackets to each





Signal Head ensuring that the two post holes are aligned and vertical to the Head.

Cut a length of the provided 3/32" tubing as required to mount the Signal Heads. Signal Heads that are to be mounted between the Upper and Lower Platform are not to be attached to the Mast until final assembly. Mount all other Signal Heads (if any) to the Mast.

Step #7 – Final Assembly

Place the Mast through the Mast Strut. Place any Signal Heads that go between the Upper and Lower Platforms on the Mast now. Secure the Mast to both the Mast Strut and the Lower Platform. Secure all Signal Heads to the Mast. Bend the Ladder Supports at the Ladder and secure them to the Mast. Slight bending of the Support at the Mast may be required.







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