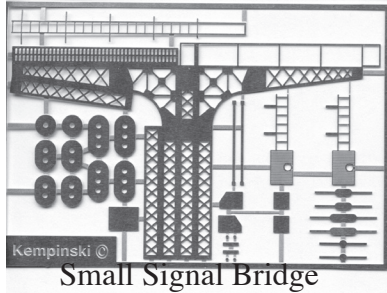
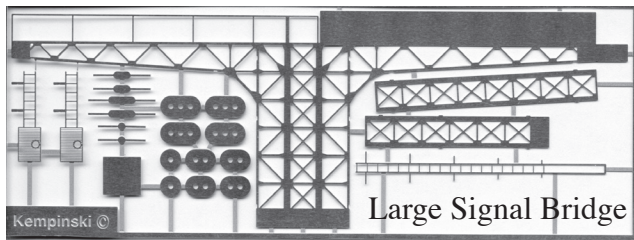
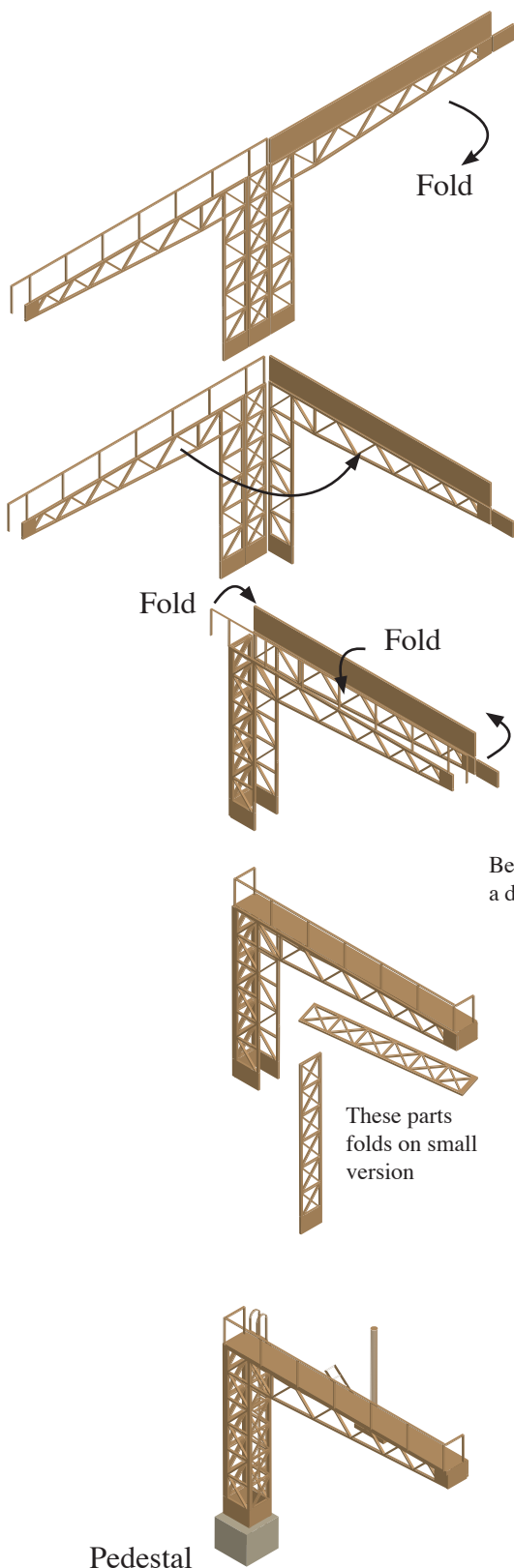


Assembly Instructions for C&O N Scale Signal Bridges

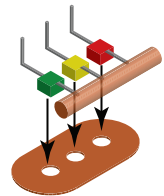


These are the directions for building either of our N Scale C&O Signal bridges. The isometric diagram on this page shows the large signal bridge model. The small version is similar except the vertical truss has four folding sides, and two detail pieces at the base.

1. Remove main truss from shipping frame. Use a sharp XActo knife blade, surgical scissors or rail nipper. Trim any flash from support tabs.
2. Inspect the fold lines on the rear of the main truss. Use the back tip of an XActo blade to lightly score the fold lines on the rear of the truss. This will make folding easier. Be careful to not score too deeply so that you cut through the material.
3. Using a vise or a long needle nose pliers to support the main truss, carefully bend the material along the fold lines to form right angles. Fold the top deck first, then the upright trusses.



4. If you want to light the signal assemble the targets for your signalling application. When adding operating lights the following technique uses the actual frame of the structure as a common cathode to reduce the number of wires. Note LEDs are not provided in the kit. Use a tiny drop of CAA to secure LEDs to back of target. Line up all the LED cathodes on the same side. Take a 1 inch piece of 3/64 inch brass rod (included in kit)



and tin it with solder. Solder the LED cathode leads to the brass rod making sure you don't overheat the LED. Solder individual pieces of magnet wire (not provided) to the anode leads of the LEDs. Test the LEDs to make sure the connections are good. Solder the brass rod to the signal bridge truss in the appropriate location. Follow prototype photos for placement. Gently twist the wires to form a single cable and feed through the center of the signal bridge truss.

5. Solder the separate vertical truss to the main truss using the locating tabs to fit the part. On the small signal bridge, this part also folds and does not have to be soldered. To make soldering easier, apply paste flux to the joint area. Melt a tiny bit of solder on the tip of a 30-50W iron and apply it to the joint. The flux will boil and the solder will flow into the joint.
6. Solder the separate horizontal truss to the main truss using the locating tabs to fit the part. On the small signal bridge, this part also folds and does not have to be soldered.

7. Solder the access platforms to the brass rod. Then solder the access platform ladders to the truss.

8. Use a 1/8 inch dowel or end of a small paint brush as a guide to make a curved bend in the top of the ladder as shown in the diagram. Bend the main ladder supports inward and solder the main ladder to the vertical truss. Some of the supports will not touch a truss member. Don't worry about those, just make sure that the top and bottom posts are securely soldered to the main truss.

9. Paint the model. The C&O painted the signals flat black until the time of the Chessie merger. Afterwards they painted the truss silver while the targets remained flat black. These signals are usually heavily weathered with dirt and rust. Paint the pedestal a concrete color.

10. Glue the pedestal to the model.

Miscellaneous Notes:

- A. There are some parts in the etched kit that are not used. Ignore them.
- B. Use white glue to secure the signal to the pedestal. This joint will fail first protecting the signal bridge if it is struck during operation or maintenance.

See www.alkemscalemodels for more color photos and prototype photos.