24/36-Foot Wooden Boxcar

HO Scale

www.conowingomodels.com
https://www.facebook.com/ConowingoModels/
railrunner130@hotmail.com

Thank you for purchasing this kit!

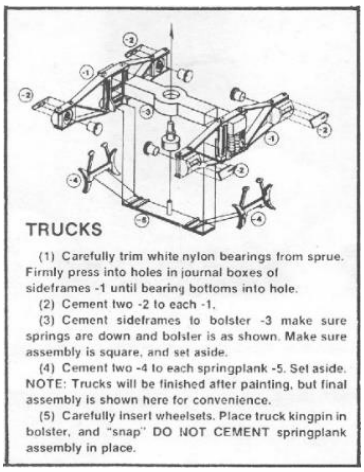
The enclosed boxcar is fictional but based on some real-world information. Instructions cover both 24-Foot and 36-Foot kits. The only difference aside from length is that the 24-foot version lacks some of the ladder provisions.

Supplied are the basic directions. For more tips and some additional instructions, please see conowingomodels.com

BUILDING THE FRAME

1. Start out by removing the frame from its carrier. Note there is a side with lines that denote where the bolsters and queenposts go. This is the underside. You'll also note where the coupler boxes go. Plan out where you'll want to add weights. The NMRA, in RP-20 (essentially) states that the 36-footer should weigh 3.875 ounces. An unweighted example I used weighed less than .5 ounces. If you're not liking the options, I'd suggest adding a permanent load weight. Failure to add weight will result in a very uncooperative car that doesn't stay on the tracks.

2. Assemble the trucks and coupler boxes (some kits) as shown below.



TRUCKS

(1) Carefully trim white nylon bearings from sprue. Firmly press into holes in journal boxes of sideframes -1 until bearing bottoms into hole.
(2) Cement two -2 to each -1.
(3) Cement sideframes to bolster -3 make sure springs are down and bolster is as shown. Make sure assembly is square, and set aside.
(4) Cement two -4 to each springplank -5. Set aside. NOTE: Trucks will be finished after painting, but final assembly is shown here for convenience.
(5) Carefully insert wheelsets. Place truck kingpin in bolster, and "snap" DO NOT CEMENT springplank assembly in place.

(courtesy Tichy Train Group)

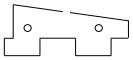
3. Paint the NBWs, stake pockets, ladders, brake parts and trucks as desired. See step 17 for illustration.

4. Take the included needle and run it through the holes in the end and side pieces as well as the truss rod holes to ensure that there is no glue or errant laser residue in them.

5. If you're adding a lighting kit, plan out where the wires will run and where the lights will go and where you will need to deviate to accommodate those items.

6. Cut the 1/32 x 3/32 wide stripwood for the decking to 9.5 scale feet wide or 1 5/16 inches. Scrape the pieces with a hobby knife, scuff them with a sanding block, cut the edges off of and add nail holes as you feel appropriate. we've found that painting/staining at this time is not a good idea because you'll trim the edges later.

7. Carefully cut the angled bolster pieces out and glue them together in pairs. You will end up with four pairs. Run the needle through the holes in the bolsters again to ensure they are properly aligned.



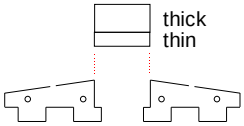
You can do the same with the smaller square bolster pieces, using one thick and one thin piece for each. You will end up with two pieces.

8. Glue the side rails into place before the end pieces. Ensure the side rails either fit snugly against the decking or under it, depending on your decision for overhang or not. The end pieces should fit snugly against the side rails and the cut out on each end should match up to allow for the coupler box to fit.

9. With the top side is up, glue down the stripwood as shown. I covered both end pieces and side rails. Ensure you leave a small gap between the pieces to prevent buckling when you paint/stain it. IMHO it looks better with spaces as well. A few not-so-perfectly-aligned pieces add life to it.

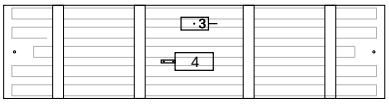
10. When finished adding the decking, Flip the bottom side up and flatten with a heavy object to prevent warping during the drying process. Be sure not to crush the side or end pieces. You may want to consider clamping the corners to something solid instead.

11. Once dry, glue the bolsters and queenpost(s) into place and secure with clamps. The side pieces of the bolsters are notched to fit the under decking of the car. Ensure you use one of each thickness on the bolster center pieces.

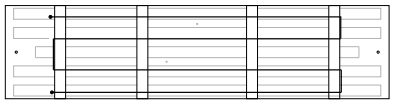


The 36-foot body has the option of two wooden posts or two flat basswood pieces with plastic posts.

12. Included is the standard Westinghouse K-brake system. I'm not that familiar with the system. If you are, please enlighten us on the Facebook page. Glue the brake reservoir (4), brake cylinder (3) and any other desired details into place on the underside. There are notches where they need to go.



13. Take the length of thread and put an overhand knot in one end (I used three and a dab of CA at the first bolster because the thread is thin) and gently thread it through the bolsters and queenposts as shown below. The wooden queensposts have notches for the truss rods to pass over. Initially, concentrate on just getting it threaded and then tighten it.

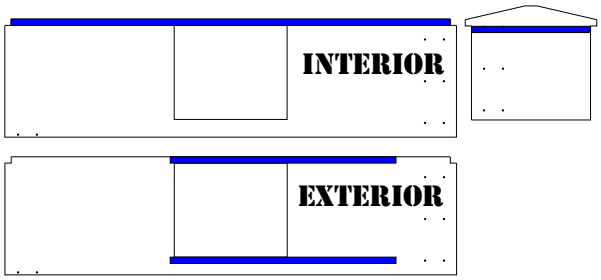


14. Once taut, apply a drop of CA to the thread at the end of the threading to hold it in place. I hung the whole assembly from my workbench with a small clamp while it dries to keep tension on it. When it's dry, add the final knot (or several) as close to the bolster as you can get it and cut the excess. A drop of glue on each rod can be used to simulate turnbuckles.

15. Trim the deck boards as desired. The under sides, side rails and end pieces can be painted/stained and lettered at this point, or you can choose to do so later if you so choose.

BUILDING THE BODY

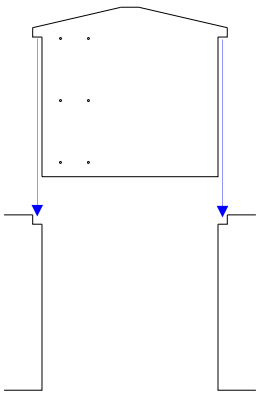
16. Brace the walls as shown below using 1/8-inch stripwood. (X2)



17. Once thoroughly dried, paint/stain the boxcar walls as desired.

18. Remove the roof supports from their carrier and paint them. (Most likely brown) They are a group of small rectangles. Do the same for the walkway.

19. Match (but do not glue yet) the end walls to the side walls. (Side walls shown sideways for clarity). The side wall tabs will fit in the notches. Use a rubber band to hold the four walls together.



20. Place the walls over the flat car so that the sides hang over. Match up the top of the door slides with the floor of the flat car as shown below. (prototype photo)

21. Once in place, then glue along the inside corners only. This ensures a proper fit on the corners. You may also choose to glue the side walls to the floor. I used a quick-drying CA, but that isn't necessary.

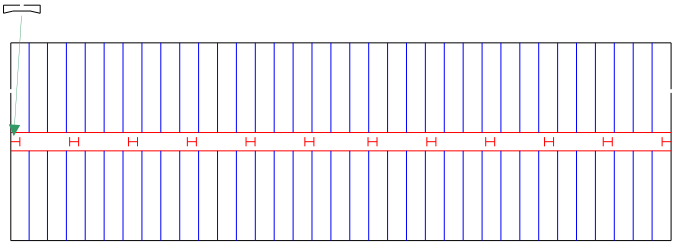
22. You should install any weights (not included) at this time. Reference the flat car instructions for proper weights.

23. While you're waiting for the car to dry, turn your attention to the roof. Bend along the two scribed lines that parallel the walkway. This will add rigidity while you're painting the roof.

24. Paint the roof either a metal color or you could use construction paper (not included) to add a tarpaper roof.

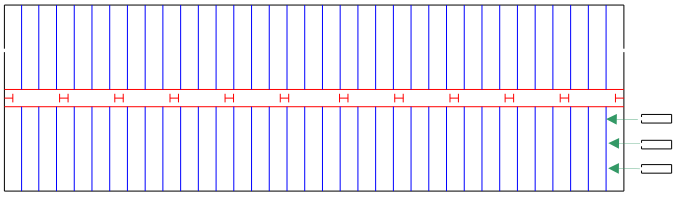
25. Once dry, install the roof. Ensure all sides are glued down.

26. Glue the roof supports onto the Hs as shown below. The rounded side should straddle the center. (Only one shown for clarity.)

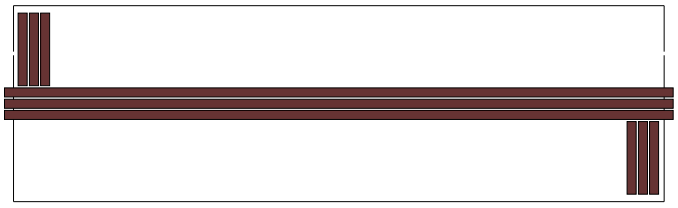


27. Size and glue down the stripwood on the roof supports, allowing them to slightly overlap the ends of the boxcar. Don't apply stripwood to the ladder accesses just yet. See step 12 for an example.

28. Glue down the roof supports for the ladder accesses on the right forward and left aft sides of the roof. (Only left aft shown)



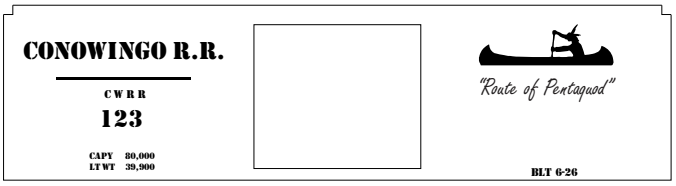
29. Size and glue down the stripwood on the ladder accesses



30. Paint/stain the boxcar as desired. I used Apple Barrel Chocolate Bar Brown.

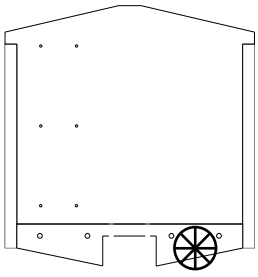
31. Cut and install the ladder pieces as required. The holes should match up with the ladders. The short ladders on the left outside have an engraved top hole to serve as a mark for where to cut the top of the ladder.

32. Apply decals as below if you choose to do so.



33. Install the doors, NBWs, brake wheel, trucks and couplers. On the prototype, I installed the brake

wheel as shown below. Feel free to place it elsewhere.



34. Cut and glue the narrow stripwood to the doors. I went with one piece across the middle, but you may want to make a “Z” or something else. Apply the hinges to the top and door latch about mid-way on the left side. There are several latches and hinges to choose from.

35. Paint any remaining items that need paint.

36. Apply any finishing touches and enjoy!

Many thanks to Mark Schreier, Jeff Grove, Steve Milley and Greg Cassidy for their help with this endeavor.

Visit Conowingomodels.com for more model railroad kits. Please post photos of your completed Conowingo Models kits on our Facebook page.

Thank you for your purchase!