

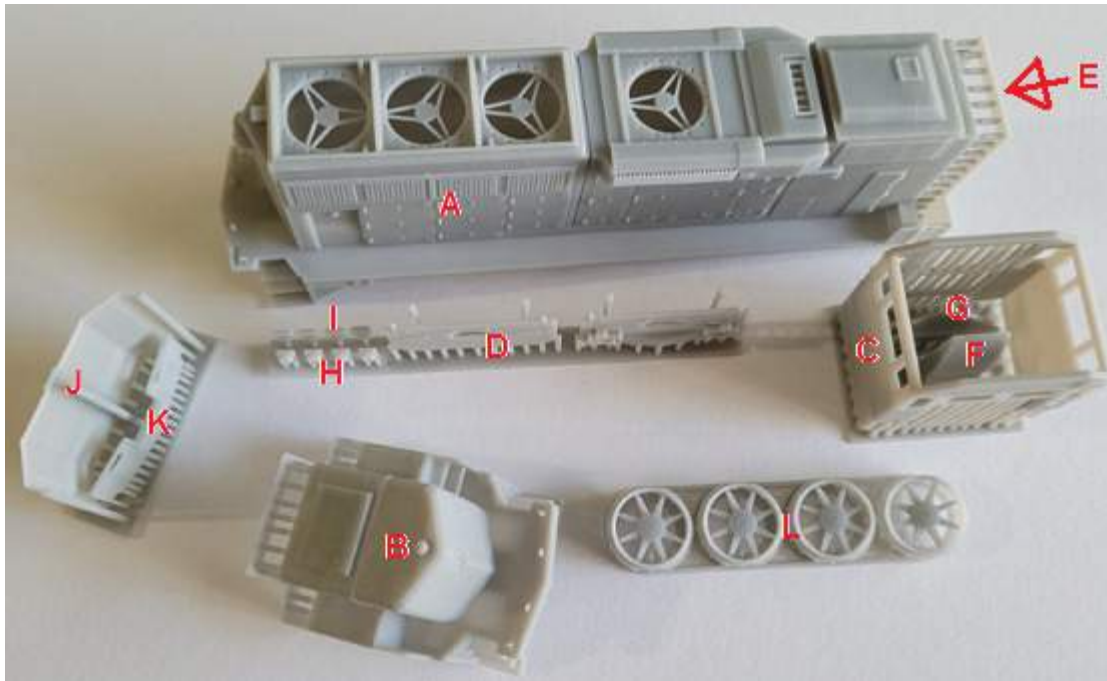
## **HO SCALE GP20ECO INSTRUCTION ARTICLE**

**This kit builds into a model of a CPR GP20ECO. You will need the following items to complete the kit:**

**Atlas GP40 or GP38 with large fuel tank, Athearn GP40-2 with Blomberg B sideframes, or similar chassis with large fuel tank  
CA glue with precision applicator  
#76, #78, #80 drill bits  
flush cutting side cutters  
XActo knife with new standard and chisel blades  
small peice of plexiglass  
small flat nose pliers  
Kadee couplers with standard box- we like #150  
Horn of your choice, Miniatures by Eric is a nice durable choice  
Paint  
Decals**

**Photos will be added shortly as noted in the instruction text. The assembly is more or less self explanatory, but the demonstration model wasn't completed at the time of release of the kit, only checked for fit.**

**These are the parts included with the kit. Please refer to the photo to ensure the correct parts are added at each step.**



- A long hood
- B short hood
- C cab
- D pilots
- E coupler boxes and lids
- F blower duct
- G number board
- H ditch lights
- I jacking pads
- J cab roof
- K plow
- L fans

This is the fret diagram. Please refer to this to ensure you find the correct parts for each step.



- 1 cab side window frames
- 2 windshield wipers

- 3 fan grilles**
- 4 brake wheel**
- 5 cab door handles**
- 6 blower duct walkway**
- 7 left side handrail stanchions**
- 8 right side handrail stanchions**
- 9 end handrail stanchions**
- 10 cut lever brackets**
- 11 cut levers**
- 12 lift rings**
- 13 number boards**
- 14 wind deflectors**
- 15 eyebolts**
- 16 side sills**
- 17 sinclair antennas**
- 18 top mount stanchion brackets**

**1. Begin by removing the support structures from all of the printed parts. Use your flush cutting cutters for this, and remove the supports one at a time. Do not try and break or twist them off. Once you have removed them all, use a fingernail emery board or hobby equivalent to sand the edges smooth. Dont remove all of the support posts on the bottoms of the fan housings, as they are needed to locate the housings to the body.**

**PHOTO**

**2. Drill the handrail holes in the pilots and step wells #78. Drill the grab iron holes and cab door handles on the body #80. Inspect the holes in the walkways for the handrail stanchions, and if they are not clear, drill them #76.**

**PHOTO PHOTO PHOTO**

**3. Glue the cab roof to the cab. Make sure the side with the notch for the number board goes on the front. Glue the short hood, long hood, and cab together. Install the coupler boxes and couplers with the screws provided. The lid is the bottom of the box.**

**PHOTO PHOTO**

**4. Test fit your frame into the body. You will notice you will need to cut out the ends of the frame to clear the coupler boxes. If you cut it judiciously, you can use the coupler boxes to hold on the frame. PHOTO**

**5. Drill the cut lever brackets pads #80 and install the cut levers (11) and brackets (10) to the pilots. Drill the MU hose holes out and install MU and air hoses if you like. Not included. PHOTO**

**6. Glue the pilots to the ends of the locomotive. Make sure you get the one with the spare knuckles and prow on the rear. PHOTO**

**7. Glue the ditch lights to the slots on top of the anticlimbers. PHOTO**

**8. Glue the fans to the top of the hood. PHOTO**

**9. Drill lift ring holes on top of the hood #80 and install the square lift rings (12).**

Drill #80 holes for the cab door handles and install(5). Drill #80 holes for the wind deflectors. PHOTO PHOTO PHOTO

10. Remove the side sills (16) from the fret. Pay close attention to these parts. They only fit one way. It is easy to determine front to back from the handrail stanchion slots, but pay attention to the small bolt dimple etched into the back of one of them, and the etched indents in the front for the jacking pads. On the left side sill, use a blunt needle or similar object to emboss a bolt head for the handrail hole in the side sill. PHOTO Glue the side sills to the body shell. PHOTO On the right side, there is a stanchion printed onto the side of the body that the side sill may have a hard time fitting underneath. I use a razor saw to open a slot under it so the side sill fits easily. PHOTO

11. Remove the top mount stanchion brackets (18) from the fret. Glue them into the holes on top of the battery boxes. PHOTO

12. One by one, to ensure correct placement, remove the battery box stanchions from the fret, bend the bottom in to 90 degrees, insert them on the brackets, and glue in place. PHOTO PHOTO

13. Again, one by one, to ensure correct placement, remove the other stanchions from the fret, directly next to the fret body, making sure to retain the bend over mounting pins, insert them in the side sill and glue in place. PHOTO PHOTO

14. Remove the end stanchions (9) from the fret and glue in place in the holes in the top of the pilots. PHOTO

15. Using the diagram included, bend the handrails. Attach them to the body. I recommend soldering the wire to the stanchions for ultimate strength, but you can glue if you don't want to solder. The fret material is nickel silver for excellent soldering capability. PHOTO

16. Remove the brake wheel (4) from the fret and glue in place. PHOTO

17. Remove the blower duct walkway (6) from the fret and glue on the brackets on the blower duct. Glue the blower duct in place over the lip on the left side of the hood. PHOTO

18. Glue the jacking pads to the little recesses in the bottom of the side sills. PHOTO

19. Glue the number board assembly in place. PHOTO

20. Place your model on the chassis, and on the track. Put a small strip of .050" thick styrene on the rails and place the plow on it, using it as a shim to glue the plow in place. PHOTO

21. Paint your model as desired. Paint the number boards (13) separately. PHOTO PHOTO PHOTO

22. Glue the grab irons in place. PHOTO

23. Glue the fan grilles (3) in place. PHOTO

24. Glue drill a hole for your horn and glue in place. PHOTO

25. Once your model is painted and decalced but not weathered, install the cab side window frames (1), wind deflectors with eyebolts for brackets (14,15), and sinclair antennas (17) if your prototype has them. PHOTO PHOTO PHOTO

26. Finish by weathering your model and reinstalling the chassis. PHOTO

