

Conowingo Models



GE 35-Ton Flatbed Snowbeast HO SCALE



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Thank you for purchasing this kit!

You will need to purchase an HO-scale AHM GE 35-Ton Switcher to complete this conversion. You may try to fit it on another body, but we didn't develop any instructions for that. We also did not include DCC decoder or decoder installation instructions as they usually come with the decoder and can vary by model and manufacturer.

We used the AHM GE 35-Ton Switcher as a donor base because of several factors; 1. They're readily available. 2. They're usually pretty cheap. 3. They will convert to DCC. 4. You probably have a few around that are just collecting dust.

We do update kit instructions from time to time. Please check the website for the latest instructions on this or any other Conowingo Models kit.

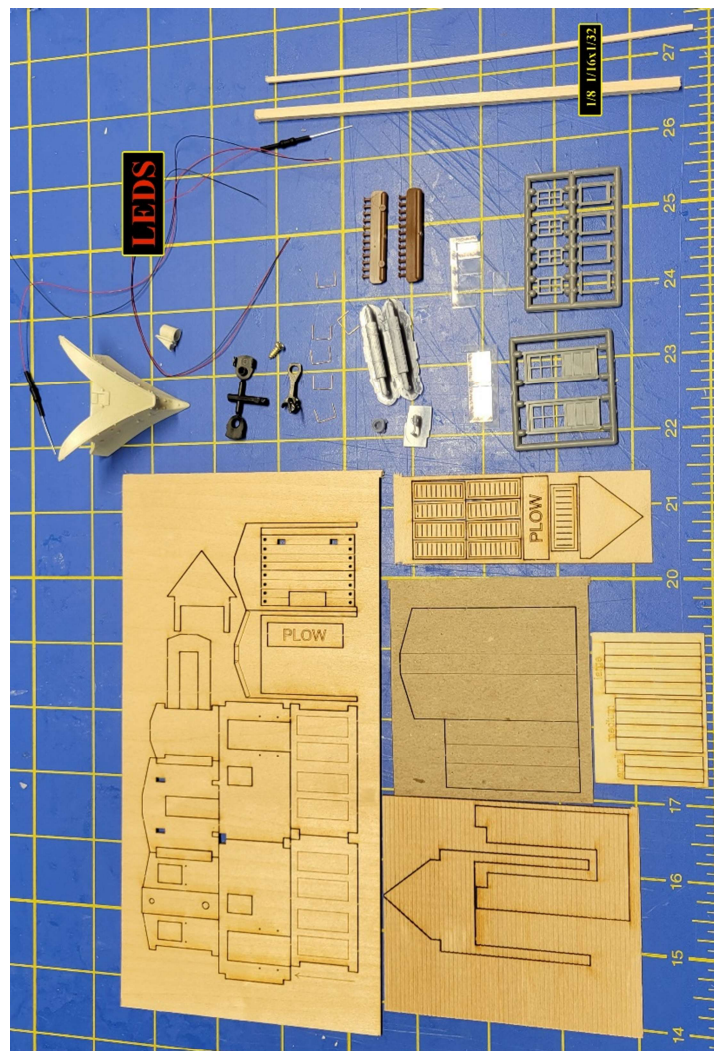
Background – The Snowbeast is purely fictional. We were looking on building a self-propelled snow thrower/rotary snowblower or something along those lines. The original version looked pretty wimpy, so we went back to the drawing board. After all, judging from railroad snow

removal equipment, the overall consensus is that they are heavy and mean- they scare the snow into moving! LoL. The great Tom Yorke was on The Modeling Lifestyle one night and showed a photo of a beast he referred to as the "creosote locomotive".

This kit uses minimal bracing due to the way we designed it. Should you choose to add bracing, you'd want to do so after the walls are put together. It's actually pretty sturdy with very little bracing.

The kit instructions are designed so that you can do some skipping around. That is the purpose of the check boxes at each step. Before you skip around, please read through the instructions to get an idea of why the steps are ordered the way they are. Some steps require others to be completed first. There is a DCC diagram on the last page.

DIAGRAM OF INCLUDED PARTS

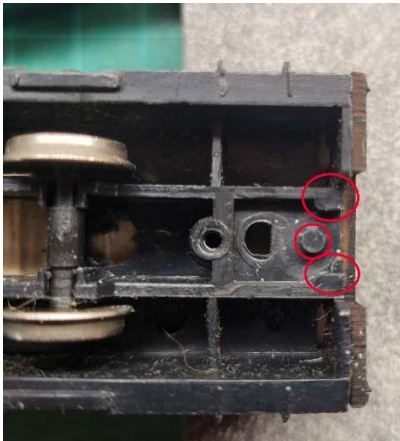


Not shown- decals, instructions, acetate for headlights.

PREPARE THE DONOR BODY/MECHANISM

1. On the underside of the donor locomotive, there are three screws. Remove all three screws and the underframe piece, followed by both couplers.
2. Now you need to make a decision. At most, you can add one coupler to the rear of the Snowbeast. You have four choices with the new coupler. Remember your choice for the Final Details section.
 - A. You can install none. If this is your choice, skip ahead to step 2.
 - B. You can install the coupler at a lowered height, which will not be conducive to pulling cars.
 - C. You can install the coupler at the correct height for pulling cars. This approach will take the longest with a small degree of difficulty.
 - D. You can use the horn coupler that came with it.

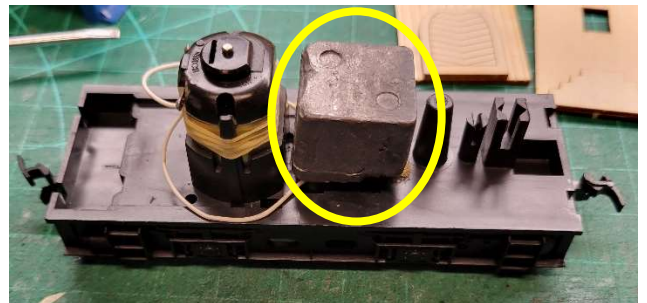
If your choice is B or C- Using a rotary tool, cut the plastic pieces as shown below. To clarify, cut the guides off of the aft end as well as the round piece where the coupler held to the body. For choice B, ensure the surface is level.



- For B – Assemble the coupler box and coupler. Glue it into place using a fast-drying glue. Follow that up with a screw. You may want to pre-drill the hole first. (Shown after installation of the underframe.)
- For C - **We didn't attempt this approach.** You will need to cut out the area shown to the left and build a new mount for the coupler box that is approximately 1/16 inch higher inside the body than the original. You will also need to cut the rear bumper when you get to that step to accommodate for the increased height.



3. Remove the shell by removing the screw on the top.

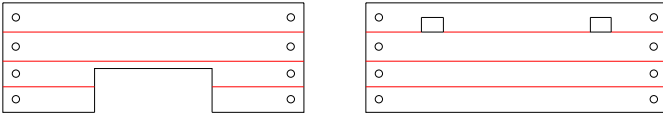


4. Remove the weight.



5. OPTIONAL - Use a rotary tool, such as a Dremel to remove the attachment plastic and flatten the bed. The photo below shows where we had added and removed a bed on an early version, which is why there is wood shown.

6. OPTIONAL - Depending on whether or not you choose to convert the kit to DCC or not, you could do some wiring at this point.



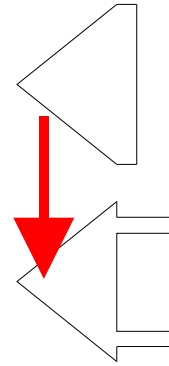
7. Locate the two body end pieces. The one shown on the left is the rear piece and the one on the right is the front piece.

- Glue the front body end piece into place. Do not put glue onto the plastic piece that holds the couplers into place. Ensure the front piece matches up with the two slots. Also ensure the piece fits side to side and does not protrude above the top.

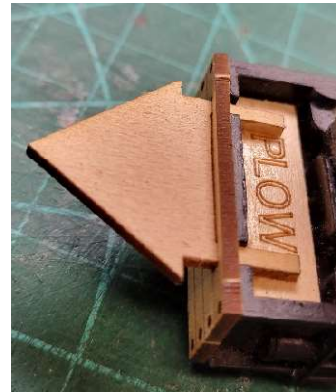
- Glue the rear body end piece into place. Do not put glue onto the plastic piece that holds the couplers into place. Ensure the piece fits side to side and does not protrude above the top.



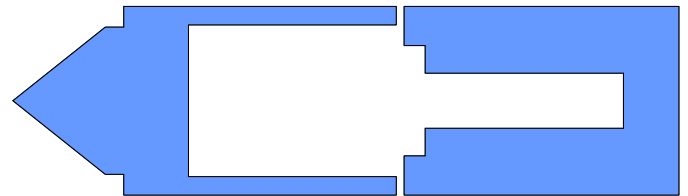
8. There are two pieces of 1/16 marked "PLOW". Glue them on top of each other and insert in the slot as shown above.



9. Take the two pieces (the top is 1/32 basswood and the bottom is 1/16 basswood) of the decking wedge and glue them together, stacked. The pointed ends should match.



10. Install the decking wedge as shown above. The 1/32 is not shown in this photo, but it should be on top.



11. Glue the decking into place. The piece on the right should come to the end of the rear body end piece, overlapping it but not protruding beyond it. The pieces are shown separately for clarity.

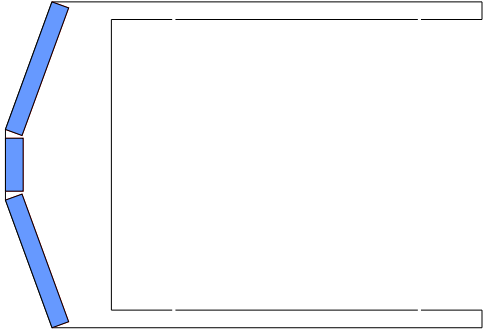
- The forward edge should match up with the decking edge. However, if it doesn't, the important thing is that there are no gaps on the body. That portion of the wedge will not be visible.

12. Add weights to ensure the deck is flat. However, the wedge will require plastic clamps or something similar.

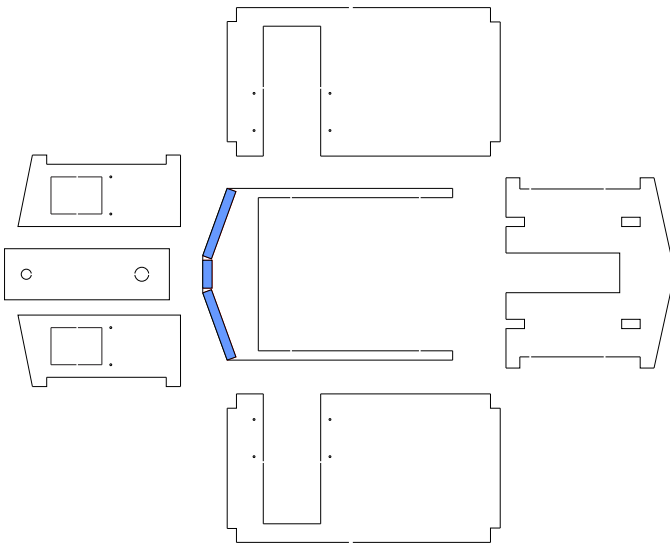
13. Set aside to dry.

CABIN ASSEMBLY

Due to the nature of how the main body is assembled, it makes more sense to build it, then paint it. Read through this section and the Engine Compartment Assembly section because you may prefer to do the Engine Compartment first.



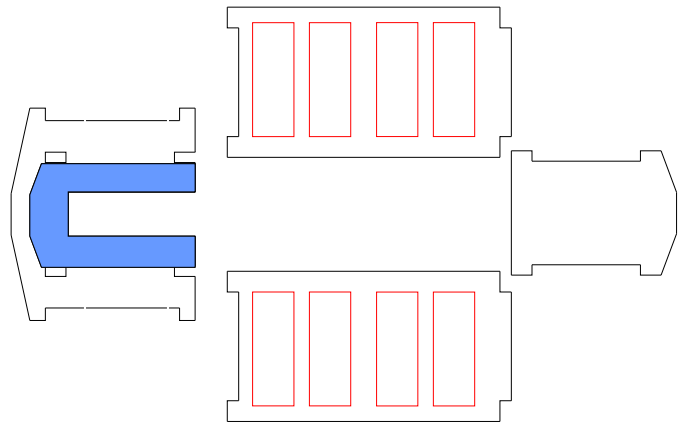
- 1. Locate the 1/16 cabin frame piece as shown above. There are two included with the kit in case one breaks.
- You could probably use the second cabin frame above the windows and doors to keep the walls at the proper angle should you choose to. We didn't try it. If you do, please let us know how it worked out.
- 2. Fit, cut and glue into place pieces of 1/8 x 1/8 stripwood as shown above in blue. Start with the center piece first. The stripwood goes on top of the cabin frame piece and will serve as a brace for the outer walls. Reserve the remaining 1/8 x 1/8 stripwood.



- 3. Locate and install the outer walls for the cabin as shown above.

- Except for the forward center wall, the assembly is tab and slot.
- The forward center wall has two holes, which are different sizes. The top hole is for the headlight and the bottom is for the wiring for the plow headlight. Decide which orientation you would prefer before installing this piece.
- The cabin frame piece is mainly for the forward three pieces and to align the side walls. It will not go all the way back to the aft piece.
- 4. Let this assembly dry on a flat surface before proceeding to the engine compartment.

ENGINE COMPARTMENT ASSEMBLY



- 1. Like the cabin, the engine compartment is mostly tab and slot construction. It assembles as shown above. There are a few things to be mindful of.
- The forward engine compartment wall is a support to ensure that the engine compartment assembly is square. Glue this in place on the aft cabin wall before adding the remainder of the walls.
- There is an access area that was cut like a door opening in both the rear cabin wall and the forward engine compartment wall (shown above in blue). This is for wiring access for the motor and/or DCC installation.
- The side pieces are laser etched to serve as guides for the engine access doors. You may choose to hide that detail by having them on the inside instead.

- The etching on the side pieces are not vertically centered. We designed them with the intent that the doors are slightly raised.

- Ensure that the assembly sits flat and the walls are vertical.

- 2. Set aside to dry

PRE-PAINTING

For instructional purposes we will refer to the colors by what we painted them. Please feel free and deviate as you feel appropriate.

- 1. Paint the following pieces YELLOW
 - Engine compartment doors x 9
 - Hand rails x 6
 - Plow x 1
 - Doors x 2
 - Windows x 4
 - Roofing x 2 (tops, edges and ½ inch of exposed undersides) The tops are the sides with the laser engraving in it. This will allow the roof to bend.

- You will notice that we did not include the body pieces. We believe it best to paint them once assembled.

- 2. Paint the following pieces SILVER/METAL/BLACK
 - Exhaust stacks x 2
 - Headlight x 1 (silver inside, black outside)
 - Plow headlight x 1 (silver inside, black outside)
 - NBWS (Nut, bolt, washers) x 16 (black)

- 3. Stain the following pieces DRIFTWOOD/ CREOSOTE
 - Decking x 2
 - Body end pieces x 2

- 4. Paint the following pieces BRONZE
 - Whistle x 1

MISC. SUB-ASSEMBLIES

- 1. Assemble the windows. We chose to leave the window panes out and install the acetate using a clear-drying glue.

- 2. Assemble the doors. We chose to cut out the window panes and simply install the acetate using a clear-drying glue.

- 3. If you are using the headlight on the plow, you will need to drill a hole through the pad on the plow and a second hole through the corresponding location on the headlight.

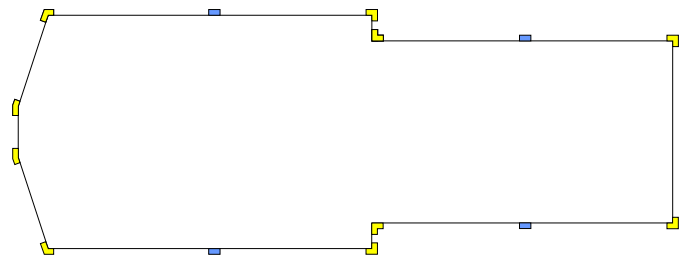
- Glue the headlight into place on the cabin.

- 4. Glue the acetate headlight lenses in place using a clear-drying glue.

CABIN AND ENGINE COMPARTMENT DETAILS

1. There is a piece of white laserboard that has three different sizes of outside bracing on it. The “bracing” is purely decorative and doesn’t support anything.

- Each piece has a laser-etched center to go around the curves. When you cut these pieces out, don’t cut that etching.



- 2. Glue into place the appropriate-sized pieces of white laserboard bracing to the assembled cabin and engine compartment as shown above in yellow. Don’t worry about trimming them yet.

- 3. Fit, cut and glue a piece of 1/16 x 1/32 stripwood as shown above in blue.

- 4. Glue the engine compartment doors into place. Four goes on each side of the engine compartment and one goes on the aft end.



- 5. Install the six grabirons as shown above. Add glue on the inside and use pieces of scrap stripwood to hold them in a uniform position.
- 6. When all glue is dry, paint yellow or your choice of coloring.

ADDING THE CABIN TO THE BODY

- 1. Plan out how you will attach the cabin and engine compartment to the body, moving any wires that may get in the way and fishing the decoder into the engine compartment (as applicable).
- 2. Once you're happy with the above, glue the cab and engine compartment into place.
- 3. Glue the doors and windows into place.
- 4. Trim the bracing so that it will not interfere with the roof line.
- 5. Fish the wires for the plow headlight through the bottom hole on the forward center wall. We recommend using a small piece of masking tape to hold it in place.

PLOW INSTALLATION

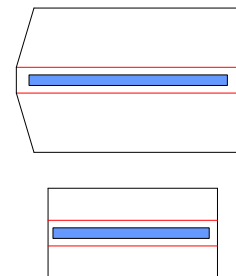
- 1. Fit, cut and glue into place the leftover piece of 1/8 x 1/8 stripwood under the wedge. You can leave it a little bit short, or trim it so that the 1/8 doesn't interfere with the V of the wedge. This has two purposes; to reinforce the plow installation and set it to the proper height.
- 2. If you desire to alter the height of the plow above the track, we advise you do so now.
- The mounting bracket for the snowplow is built in and should be glued under the 1/8 piece. Not now though!
- Be sure to do any test measurements with the mechanism and plow on a piece of track.
- The pilot model was left unaltered.
- We recommend you use pieces of scrap wood from the parts trays to serve as shims for any alterations.

- 3. If you're using one of the LEDs for the plow headlight, fish the LED into the headlight and glue it into place. Leave a little slack for work.

- 4. Once you're happy with your height, glue the plow into place under the 1/8 and any shims. Ensure it's in the desired location and centered.

ROOF INSTALLATION

- 1. Pull the plow headlight wiring so that there is only slight slack between the headlight and the forward center cabin piece.
- Glue the plow headlight and LED into place using CA.
- 2. Glue the cabin headlight into place.
- 3. Glue the LED for the top headlight into place using CA.
- 4. Finish any DCC installation.



- 5. If you have any spare stripwood, consider cutting and gluing a piece to the center of the undersides of both roofing pieces as shown above. This will help keep the roofs flat. Don't go all the way to the ends as it will interfere with the walls.
- 6. Once the roofing is dry, dry fit it to the appropriate locations on the cabin and engine compartments.
- Our roof placement left a visor on the front side. You may choose to do something different.
- Trim away any conflicts that would prevent the roof from going on smoothly.
- 7. Glue the roofs to the desired locations. You may choose to use rubber bands to ensure proper adhesion.

FINAL DETAILS

1. Add the NBWs onto each side of the front and rear bumpers. Randomly pattern the direction of the NBWs. They should fit nicely in the holes.

2. Add the whistle wherever you see fit. The pilot model doesn't have one.



3. Glue the two exhaust stacks onto the top sides of the engine compartment roof. You are encouraged to put them elsewhere, possibly vertically like on tractor trailers.

4. Remember what your decision was on the couplers?

- For B and C, cut the underframe with a rotary tool as shown below. Ensure that you cut the correct end.



5. For all coupler installations, reinstall the underframe piece using all three screws.

FINISHING TOUCHES



1. Apply the decals as you desire. Here is what we did for the right side. We mirrored it on the left and just kept it simple.

2. Perform any paint touch up and weathering as needed!

3. Please share your photos on our Facebook page!
<https://www.facebook.com/ConowingoModels>

Once again, thank you for your purchase!

If there are any parts missing, please e-mail us what you need to complete the kit and we'll send it your way. I'm usually a one-man shop and I do occasionally miss things. Also, suggestions for improvement are welcome.

Please send photos!

See the Conowingo Models website
www.conowingomodels.com

Or our Facebook page
<https://www.facebook.com/ConowingoModels/>
 for more exciting, funky buildings and rolling stock for your model railroad!

Many thanks to my family, Geoff Bunza, Jeff Grove, Steve Milley and Mark Schreier for their support!

