

Korber Models

Scale Model Railroad Structures

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Model 320A O Scale Steam Locomotive Roundhouse Extra Stall

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Introduction




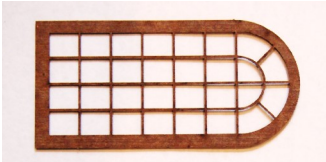


Congratulations, you have purchased the Korber Models #320 Steam Locomotive Roundhouse, one of the most popular O Scale roundhouses on the market! This roundhouse is used in thousands of great layouts including yours, and is a great complement to a number of super turntables.










This is the instruction for the additional stall that was bought to go with your 320 roundhouse. You can follow the simple, step by step instructions outlined in this document to easily assemble this great looking addition to your layout. Before you start you may want to read through the instructions to get a feel for the things you will be doing, and the basic order in which they will be done. You are on your way to adding a centerpiece to your layout, so let's get started!

Parts list & Templates – (What's in the box)

Take a few minutes to locate all the parts in the box to make sure you have all the pieces you will need and that the quantities are right. You may also want to spread these parts out so that you have a small separate stack of each part so it will be easy to find each part as you start the assembly process. If you are missing anything, please contact us so we can get you any of the missing items. tanya@korbermodels.com

Qty	Description	Photo
1	Front Entrance Walls 5" Long	
1	Short Skylight Windows (front) Made of plastic	
1	Back End Walls (2 arched windows)	

Qty	Description	Photo
1	Smokestack molded parts (3 pieces each)	
1	Smokestack wooden dowel 5/16" by 3" (3 pieces each)	
1	Roof Sections (1 each, 2 sizes)	
2	Short Laser Cut Arch Window & Laser Cut Glass	
1	Sheet Clear Window Glass for Skylights	
1	Bag Roof Sand	
6	Round House Doors, wood With detail luan pieces for front and back 3 sets	

Qty	Description	Photo
1/4" Wood Stock - refer to framing templates for part #'s PARTS MAY BE LONGER THEN NEEDED SO TRIM THEM		
4	5 3/8" Vertical beam Posts (#gray)	
1	15 5/8" Lower Beam (#yellow)	
1	15 7/8" Upper Beam (#beige)	
1	8" Front Angled Main Beam (# bright green)	
1	8 1/8" Front Lower Support Beams (#light blue)	
1	2" Upper Roof Vertical Support Posts (#pink)	
1	5/8" Upper Roof Support Posts (#orange)	
2	10" Support Beams (# – shipped length, to be USED BETWEEN STALLS FOR SUPPORT)	
11	1 1/2" long w/ 45 degree ends (#green)	

Diagrams		
2	Floor Plan Layout Templates A and B (1 each)	
2	Framing Templates A, B,	
1	Instructions	

Materials needed – (What else might I need that is not included)

The Korber Roundhouse, like any kit, requires a few additional items to complete the construction. We have included a list here, including some color and brand suggestions based on our experience; however you may use any product that fits the function. Please also note that some items are listed as options such that they either make assembly simpler, or are needed only for optional steps

Flat paint, choice of colors, for doors, windows, trim

“Red” automotive primer spray paint to cover all molded brick surfaces such as Krylon Ruddy Brown primer

Antique white craft paint for cement lines

Light grey or cement color paint for stone foundation portion of the walls

Brown color for interior wood pieces

Wooden doors could also be stained with any flat wood stain

RustOleum camouflage flat spray paints work well for painting window frames, skylights, interior wood and doors

Small paint brushes

Paper towels or soft cloth rags

Cyanoacrylate (CA) glue. Also known as Super Glue, Gorilla™ super glue works well

We really like the new Gorilla brand super glue because it is thicker than most super glues, and allows you to put in on a seam while holding the part in your hand, and will not run when you turn the seam on the side to put two pieces together. This glue is available in most retailers, including the larger home improvements stores

CA glue accelerator (optional) (turns any CA glue into quick set glue (optional)

White glue or carpenters wood glue for building wooden structure pieces

Medium grit sandpaper or emery board

Wax paper

Testor's Dull-cote™ (optional)

Small clamps (optional)

Flat black or grimy black spray paint (optional)

1 - Parts preparation & painting

Look over all the molded parts and remove any flashing that might be left on them. Flash is the thin pieces of the molding material that may be left in widow openings and along edges in the molded parts. This can quickly be removed with a razor type knife, a small file, or an emery board.

The parts in the kit will need to be painted to the final colors you select, and it is much easier to do this step before you assemble them. All the wall sections come colored in a brick red, however many modelers find a light coat of flat red auto primer spray paint gives not only a great look, but also makes it easier to add the mortar color lines to the walls later on. In a well ventilated area (outside is good) apply a coat to the inside (smooth side) of all the brick wall sections first; once dry, do the same to the other side. By painting the back side first you avoid any marks that might appear on the brick textured side.

Use a similar process for the skylight pieces, window frames, and doors. You may want to paint all three of these types of pieces the same color to create a theme for your roundhouse. You will also need to paint the wooden dowel pieces for the chimney a flat black.

The internal wooden pieces also will need to be painted or stained. Stain allows the adhesives to work better after the stain is applied and dries. Golden Oak or Walnut works well. However they are best painted once they are assembled and we will do that in a later step.

Option

An optional step that adds a great deal of realism to any model of a brick building is to add the mortar lines to contrast with the red brick color. The ability to lay the wall sections on a flat surface, when done prior to assembly, makes this detail step simpler. There are several ways to do this, including use of water based paint (Light Grey latex well diluted with water until the consistency is as thin as milk), some commercially available products, and the use of light spackling compound to fill mortar joints. In all of these approaches the general concept is to spread the white product you are using over the brick walls, filling in the mortar line groves in the wall section, and then remove the excess from the top of the bricks. We will walk through the water based paint method.

One simple method we have used is to dilute some water based antique white or light grey craft paint to create a soupy like consistency

- Cover entire wall section with diluted white paint, letting it settle and collect in the mortar lines.
- Wait a few seconds and lightly wipe off excess paint using a slightly damp paper towel or soft cloth until paint is removed from the brick surface, but not the mortar joints.
- Keep flat and let dry before moving so the paint in the joints does not run.
- To remove haze from brick surface, apply a thin layer of Dull-Cote and wipe gently.



- It may require several applications to achieve the mortar line that you want
- A finish light coat of Polly Scale Grimy Black done with an air brush will tone down the grey wash and give it an aged look. (Apply lightly and highlight the area where you would expect dirt to collect flat black spray paint can also be used)
- Applied Grimy black

The good news with this option is that if you don't like it, the paint is water based, so you can get it wet, remove it, and start over.



The bottom of the brick walls has the impression of a stone foundation. This area should be painted a cement or light grey color to represent stone. There are other stone details that also can be highlighted with the cement/stone color you choose. Once dry, this area should be washed using a mix of either watered down black paint, or alcohol and India ink. The purpose of the wash is to settle the black color in the grooves/joints around the rocks and give definition. The wash should not be so dark as to overpower the cement/light grey color.



The tops of the side walls also have a cement colors "tile" along the top edge next to the roof line. They should also be painted the cement/light grey color.

2 - Assembling wood frame

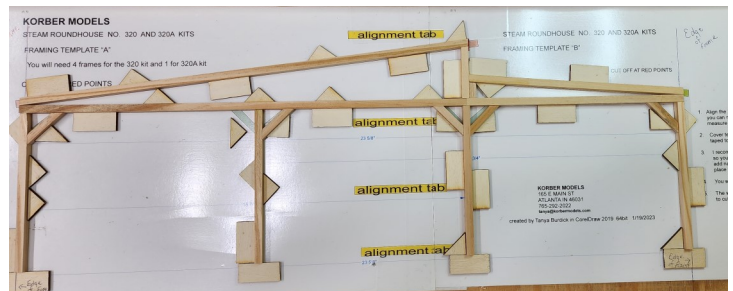
The Korber 320 Roundhouse has internal, detailed scale wooden beams to provide both realism, and structural support. The provided 1/4" by 1/4" pre-cut wooden parts are used for this step. **The wood may need to be trimmed to right size and angles.** The frames will be used between each stall, and against each outside wall. In a 3 stall roundhouse you will build two stall-to-stall frames, and two outside wall frames.

You should use white glue or wood glue to assembly the frames.

STEPS TO MAKE THE FRAME

- Attach templates A and B at alignment tabs. When templates match up, verify that the frame measures 23 5/8" from one end to the other. Tape together and cover resulting single template with wax paper.
- Begin on the lower portion of the structure and glue in place posts **#gray** and beams **#yellow** and **#blue** – while making sure that the corners are square, add bracing pieces **#green**. When dry, proceed by dry fitting roof supports **#beige** and **#light green** to roof beams **#orange**. File the upper ends of the posts to match their contact points with **#pink**. Then file the ends to match the length of the beam below. Glue in place, making sure **#pink** is square to **#yellow**. When dry, fit **#green** pieces and glue in place. **Add a extra #green angled piece to corner of #pink and #yellow square angle.**
- You may want to use small clamps to hold the pieces together while the glue dries
- Next, allow glue to dry thoroughly.
- **One optional suggestion is to build a template jig used to assemble the framing.**

Once all the parts are assembled and dry look over the joints for any excess glue, and remove prior to painting, sanding or the careful use of a sharp knife works well.



You can now paint and or detail these to your liking. You have several choices, a dark paint such as a dark brown works well, or you could use a wood stain to allow any wood grain to come through. You can also leave them the natural wood color they come in. You may also choose to add a light spray from a distance of flat black spray paint to give a grimy – sooty look.

3 - Assembly & Install windows

Brick Wall Windows

The windows are made from two different pieces, a piece of clear plastic “glass” material laser-cut to match the frame, and laser-cut frames, which have a peel-and-stick backing.



- Carefully remove any hanging pieces from the window frames.
- If the window frames have not been painted, and if you would like to do so, paint them now and let them dry before moving to the next step.
- Have a clear area to assemble the windows and a straight edge or square for alignment purposes in next steps, Align the windows and glass film to be used.
- Carefully peel away the protective coating on the adhesive backing.
- Press and align the window frame, sticky side down, on to the clear sheet of plastic that is same shape as windows, and repeat for the number of windows you have.
- Place the walls, to which you want to add windows, brick side down on a flat surface.
- Apply a small amount of glue around the edge of the frame and insert over the openings on the wall pieces. Be careful not to use too much glue or you can destroy the plastic windows panes by getting glue on them.
- The windows are designed to overlay the window opening from the back, or inside of the building, and will not fit inside the window opening.
- Let dry before moving the wall sections to a vertical position to avoid glue running or the windows falling out.



Skylight windows

The skylight parts that will mount near the roof of the roundhouse are molded plastic pieces with several openings in them that represent windows.



- If the skylights have not been painted, and if you would like to do so, paint them now and let them dry before moving to the next step.
- Cut a piece of clear plastic (from flat piece provided in kit) to fit behind the window openings leaving enough extra clear plastic to provide an area to glue or tape at top and bottom side, but **not to exceed past last openings that far as will interfere with gluing to frames.**
- Run a thin bead of glue lightly around the window openings on the back (smooth) side of the skylight piece or use double stick tape.
- Gently apply the clear plastic over the opening on the back of the skylight and let dry.
- Repeat for 2 more pieces for a total of 3 for a 3-stall round house.

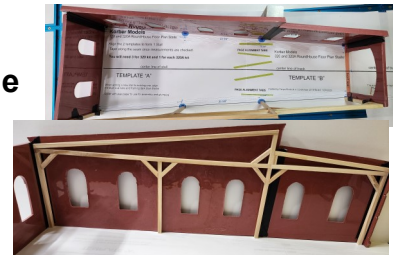
4 - Floor plan

To aid in the assembly we have included full size floor plan templates upon which you can build the roundhouse. This will be necessary to make sure the stalls are lined up at the proper angles. The kit includes a total of two pieces of paper to form a one-stall floor plan. Each stall is made up of two sheets of paper each; one contains the drawing of the front half of the stall and the shape is narrower, and the other contains the back half of the stall and is wider.

- Cut the paper along the left end of Template “B” , then line up with alignment tabs and measurement of 23 5/8”. Tape the papers together. Once joined, this represents the full size floor plan for a single stall.
- In a similar manner as the step you took to make a single stall, now fold or cut the paper template along the side lines to create a stall shaped piece of paper, wider at the back, and narrower at the front.
- Join these pieces along the side lines by lining up the blue circles and squares until you have all three pieces to-

gether to make one full size floor plan for your roundhouse (two joints).

- For additional stalls, add additional templates until the desired number of stalls are represented.
- Cover template with wax paper.
- **Align the ends of the roundhouse up to existing stall and continue adding the frames and front and end walls.**
- **If the building is completed, you will need to take apart a middle seam to add the new stall in.**
- Glue in place remaining roof interior stall to stall frame supports between front and back wall sections at the seam between stalls
- Optionally use clamps as necessary to hold pieces together



The pictures are for reference only. The black tape would be glue and there would be another frame piece against side wall

Placement of the Skylights

- There is one size of skylight; they are to be used on the front or door side of the roundhouse.
- Skylights should be glued along and against the top roof supports
- The bottom of the skylight provides a lip to rest the roof material on
- Optionally use clamps as necessary to hold pieces together

5 - Install roof

The 320 roundhouse has 2 levels of roofing that are covered with 2 different pieces of black plastic. The intent is to glue these plastic pieces to the wood structure and wall tops on the front and back to create two solid roofs, and then cover the roof with the provided gravel material.

- Black plastic roof material should fit on top of the support beams
- Front lower roof uses the narrowest pieces; one per stall
- The top back roof uses the widest piece to create the rear roof; one piece per stall
- Textured side should face up
- Taping roof sections together from bottom to form a single piece is helpful, consider using black tape, or coloring the tape so you don't notice it when looking inside the roundhouse
- The roof sections go between the sidewall sections and rest on the wood frame
- **Seams between stalls should be over the wood frames**
- The back of the front lower roof should fit snugly up against the skylight piece and rest on the lip of that piece, the front of the roof should rest on top of the brick front wall of the roundhouse
- **Roof gravel** mixture may be applied for a gravel roof look. Use a spray adhesive or white glue diluted with water to attach the gravel to the roof.

- **SMOKE STACKS** Glue in place the smoke stacks; typically on the rear lower roof. These are made of 4 parts. 3 plastic and 1 wooden dowel rod. Paint them all black.

- To Assemble 1. glue the piece with a 3/8" x 1/4" tub, facing towards to table while gluing, to the bottom of dowel rod. The other end sits in hole drilled in roof plastic of each stall . 2. Add middle piece to top of dowel with bigger indent hole going over dowel. The top hole is used to hold the 3 prongs of topper. To be held in place with a small dab of glue on each prong.

- If you want to add more smoke stacks, additional ones are available from www.korbermodels.com



6 - Install front doors

The wooden laser-cut doors have markings on both sides so they can be used in any stall, right or left side. The doors are made with three tabs that match three slots in the front walls.

There are 1 sets of doors and 2 sheets of detail lauan that make up the doors.

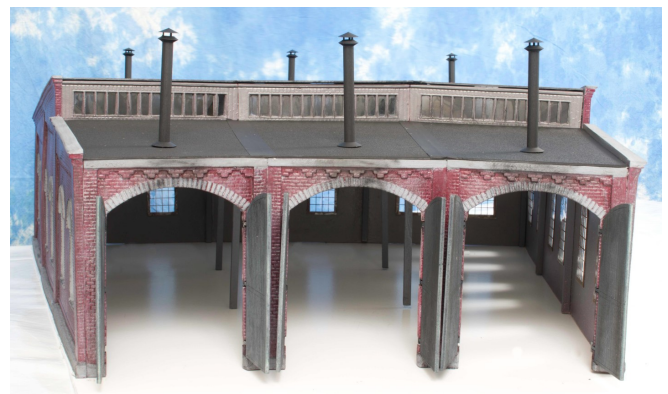
- First carefully remove from the envelope and set aside. **If any of the door hinges broke off during transport, locate in the box. They can be glued back. The lauan that sandwiches the wood will be enough to hold the pieces in align.**
- Once all parts are intact, paint or stain the wood and lauan the desired colors.
- When dry, align the lauan with the long edge and bottom edge of the door. It helps if the door is at right angle to table. Peel off the 3m tape that is on back of lauan detail piece and slowly press against to door.
- Repeat of the other side and remaining doors.
- Dry test fit the doors to make sure the tabs fit securely in the slots on the front walls, and sand the front wall slots as needed to provide a good fit.
- The doors are not intended to swing open or closed.
- Doors can be glued in place in any desired position.
- If it is desired to have closed doors, the tabs can be cut down such that only a small portion fits into the slots on the front wall and glued in place.
- The roundhouse doors would typically be grimy-sooty due to the engines coming and going. You can provide a light over spray of flat or grimy black paint to take the bright color of your doors before you glue them in place.



7 - Final detailing – weathering

Your Korber 320 Roundhouse is now assembled and ready for placement on the layout. You may wish to provide some additional weathering before you install it as a roundhouse would be a heavily used structure in the engine service facility, and would rarely look brand new.

To add a weathered look, spray the entire model with flat black from a distance. This will give a sooty look. Over the doors should be darker black, in the center from the soot that rises from the locomotive smoke stacks that would have passed thru the doorway.



These pictures are before the gravel was put on the roof. I used gaffers tape on inside and out of roof sections so no light went through after it was lit up.