Korber Models

Scale Model Railroad Structures

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Model 708 O Scale Background Furniture Factory Instructions

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Introduction

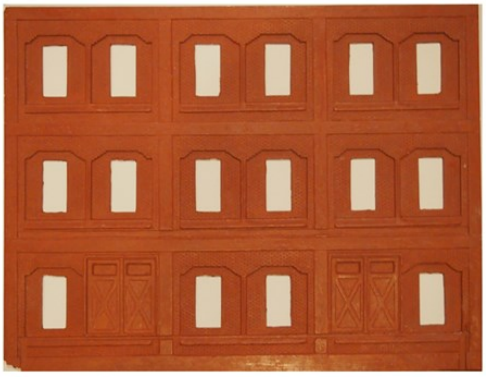
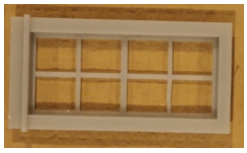
Congratulations, you have purchased the Korber Models #708 Background Furniture Facotry Building. The Background Furniture Factory Building is one of the new Korber O Scale kits introduced to the market! This structure represent thousands of buildings whose back could be seen along the tracks all across the nation.

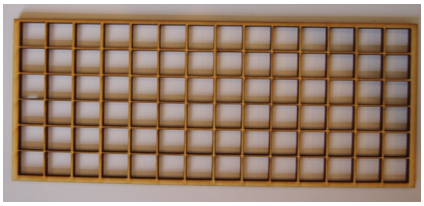
You can follow the simple, step by step instructions outlined in this document to easily assemble this great looking addition to your lay-out. We have covered not only the key required steps to build the building so you can get it on your layout the quickest, but have also included several optional steps to enhance the appearance. These enhancements are based on submissions from modelers just like you who have taken the Korber structures to the next level, and now by following a few extra steps you can achieve the same results.

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 and make it easy to find each as you start the assembly process. If you are missing anything, please contact us so we can get you any of the missing items.

Qty	Description	Qty	
1	Front Wall w/16 windows and 2 freight door 	1	Side Wall with 3 windows 
1	Side Wall with 3 windows 	22	Injection molded windows 4x4 

Qty	Description	Qty	
1	Laser cut roof sign (Letters) 	2	Laser cut roof sign support legs 
1	Laser Cut roof sign support 	2	Loading Dock sides— Gray 3mm x 1" x 1-5/8" 
1	Loading Dock front -Gray 3mm x 1" x 12-3/8" 	1	Loading Dock top—Gray 3mm x 1-7/8" x 12-1/2" 
2	Injection Molded Smoke Stack 	4	Laser cut Loading Dock Roof supports
1	Loading Dock Roof (12 1/2” x 2 1/8”) 	1	Sheet of clear plastic “Window Glass”
1	Roof material 12 7/8” x 2- 1/4 	3	13” 1/4x1/4 back cross brace 
2	10” - 1/4” x1/4” (1) front top brace (1) front center brace 	2	5-3/4” 1/4x1/4 corner supports 

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

The Korber Background Furniture Factory Building, 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
- Antique white craft paint for cement lines
- Light grey or cement color paint for cement foundation and frame
- RustOleum camouflage flat spray paints work well for painting window frames, gutters 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 like the new Gorilla brand super glue because it is thicker than most super glues, and allows you to put int 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)
Medium grit sandpaper or emery board
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. Flashing 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 window frames and doors. You may want to paint both of these types of pieces the same color to create a theme for your Background Furniture Factory Building.

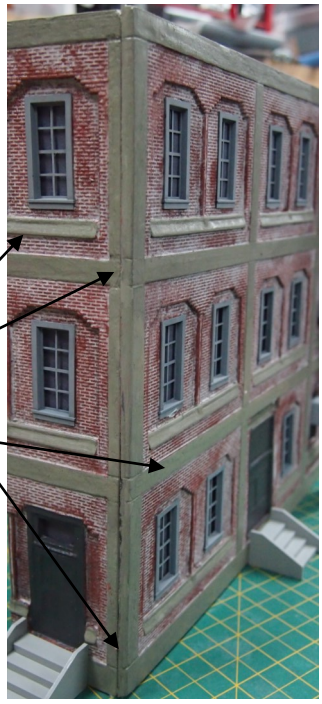
The internal wooden pieces do not need to be painted as they are for structural support only.

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 (Antique White or 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 removing 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



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 foundation & cement frame are intended to represent a cement structure that is exposed, and should be painted a cement or light grey color once assembled. There are other cement details that also can be highlighted with the cement 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 bricks and give definition. The wash should not be so dark as to overpower the cement/light grey color.

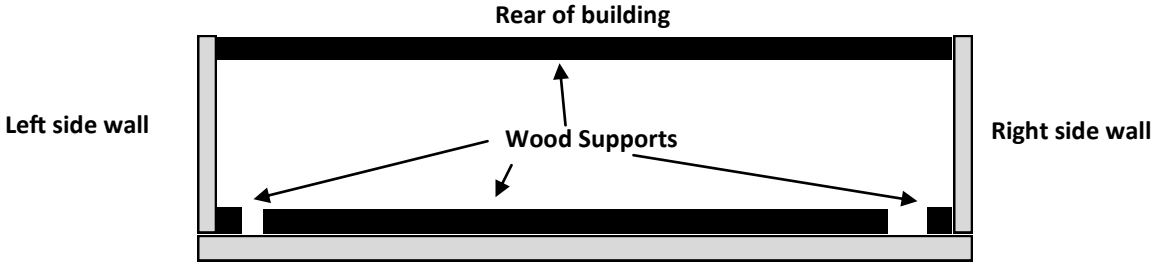
2 - Assembly & Install windows

The windows are made from injection molded plastic and will have a clear plastic sheet stock applied over the opening from the inside of the model to form a finished window.

- Carefully remove any flashing 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
- If you plan to install the vertical vent shaft in a later step, you will have to leave one window off each floor in a vertical row to accommodate the vent shaft
- Place the walls to which you want to add windows brick side up on a flat surface
- The windows are designed to overlay the window opening from the front, or outside of the building, and will not fit inside the window opening if installed from the back
- Apply a small amount of glue around the edge of the frame and insert over the openings on the wall sections
- Let the glued windows dry before moving the wall sections to a vertical position to avoid glue running or the windows falling out
- Prepare to cut and glue small pieces of window clear plastic material over the back of each window. Consider the following two window detailing option for the windows:
- If you want the window panes to have a hazed affect, lightly sand the window material until you've achieved desired haze effect prior to cutting into small window pieces
- You may also detail the windows with shades by covering the top portion of the window material with masking tape

3 - Assembly of Main Structure

The assembly of the main structure is based on making a simple "U" shaped structure when viewed from the top. There are three walls, a long one in the front, and two shorter ones on each side. 1/4" square wood is used to add strength to the corners, and maintain the side wall to side wall distance on the back of the structure, which remains open since it will be up against the wall. Below is a top view drawing of the relationship of the wall sections and the wood support pieces.



Placement of brick walls

- Glue one of the 10" long 1/4" square wood pieces on the inside center of the front wall going horizontally between floors one and two to add rigidity to the front wall section. Place the second 10" piece about 1/4" down from the top of the wall, this will support the roof
- Take one sidewall and the front wall and line them up to make a right angle. The use of a small square is helpful. The front wall should overlay the edge of the side wall . Glue the two wall sections together, and add the corner vertical wood support pieces in the corner to assist with strength and to create a solid right angle
- Some sanding may be necessary. Rough up edges only where you need to glue

View looking at the back of the structure w/wood supports installed

- Repeat the last step but using the right wall section to create the “U” structure
- Optionally use clamps as necessary to hold pieces together
- Install the 13” long 1/4” square wood pieces in three places along the back opening of the structure. The first is placed horizontally at the back of the structure 1/4” inch down the side wall. This piece supports the back of the roof. The second is installed at the rear center of the structure, and the third is placed at the rear near the bottom

4 - Install roof

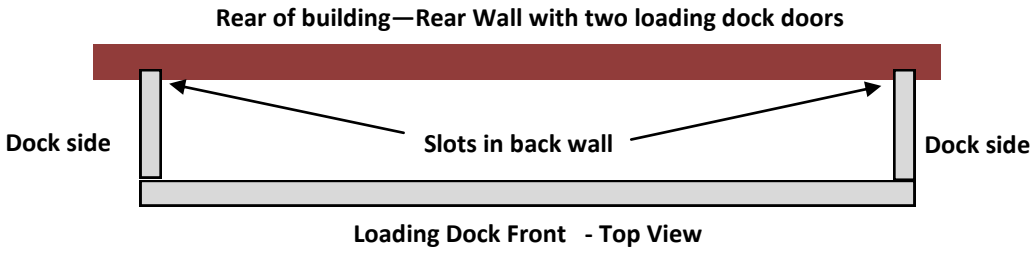
The #707 Background Grocery Building has a single level rectangular flat roof made from a black material. The intent is to glue this piece to the wood structure which is about 1/4” below the top of the four walls of the building.

- The black roof material measuring 12 7/8” x 2 1/4” is designed to fit inside the three walls and rest on the two wood roof support pieces. You can glue in this place.
- You may want to paint the upper inside section of the walls black to match the roof material.

5 - Build and Install Loading Dock and Roof

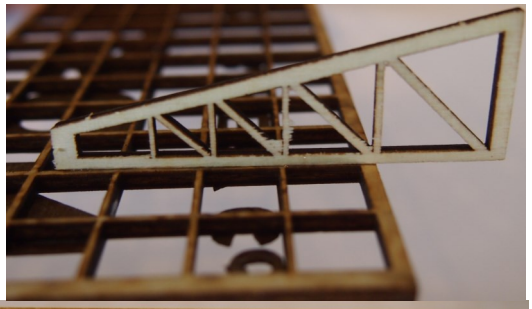
The loading dock has four pieces, a front section, two sides and a top section each of which is constructed in a grey—cement color such that painting is optional.

- Glue the two dock side pieces to the dock front piece as shown in the diagram below—note that the front piece covers the end of the side pieces, creating a three sided “U” shaped part.
- Glue the “U” shaped base to the side of the building. Note that the dock sides should mate to slots in the side wall of the building rear.
- Dry fit the loading dock top on top of the loading dock base you have just attached to the building, some light trimming or sanding may be needed to get a tight fit to the building just below the loading dock doors. Once you are satisfied with the fit, glue the loading dock top to the base and the rear of the building.



- The loading dock roof has a corrugated side that should face up, and attaches to the rear of the building in a slot above the freight doors. This roof section is supported by four supports that are glued to the back of the building and the bottom of the loading dock roof. It is simpler to attach the loading dock roof if you place the building back side down on your work surface such that the wall with windows is facing up.
- Dry fit the loading dock roof in the slot in the wall above the loading dock doors, and fit the four loading dock roof supports under the loading dock roof and position one at each end, and two aligned to the middle cement wall structure as seen in the photos and glue the support in to place.
- Once dry, glue the loading dock roof to both the back wall in the slot, and to the support you just attached in the previous step.

6 - Assemble and Install Roof Sign



- Remove the letters and the sign supports from the sheet they are attached to. Note the letters should be attached together at the bottom by a thin band of material to keep them aligned.
- Paint the letters a color of your choice, both back and front and let dry
- Glue the support legs to the sign support structure as shown in the drawing to the right, one each on the second vertical space in from each end. Once dry paint the entire frame a gray or black
- Carefully glue the letter in place on the sign frame as shown in the photo to the right.
- Once dry place on the roof and glue in to place
- You can place the two small smoke stacks/chimneys on the roof, drill a small hole that matches the size of the bottom of the chimney through the black roof material, and glue the chimney in to place.

7 - Final Detailing – Weathering

If you have not already done so, place and glue the steps assembled in an earlier step in front of the side and front doors.

Your Korber #708 Background Furniture Factory Building is now assembled and ready for placement on the layout. You may wish to provide some additional weathering before you install it as a building next to the tracks would be a heavily used structure with a layer of soot, 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 to the building. Once done you can spray the completed structure with Dullcote to remove any gloss or shine.

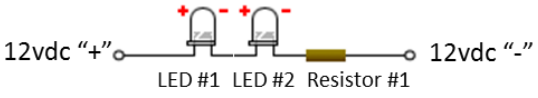
If you choose not to detail the inside of your structure, or light it, an effective and quick way to make a good looking background building is to cover the widows with black construction paper from the inside. This creates a dark building look that is more desirable than the view in to an otherwise empty shell of a building.

Option – Lighting

Interior lights add more realism to this great structure. Following the few simple steps outlined here you will be able to add this improvement to your model. Although we outline using individual LED's for the lights, many use incandescent bulbs, or the LED's that come on a role pre-wired work well too. Remember that LED's need 12VDC and are note designed to work directly from track power or another AC source.

The 3mm flat-top white LED's work well as they spread light over a 120-150 degree angle as opposed to the 30 degrees or so that the dome-top LED's give providing an even light inside the building.

This simple diagram shows the basic electrical circuit. The value of Resistor #1 (R1) depends on the LED's used. You can find a good on line calculator and more information on LED's at http://led.linear1.org/led.wiz/.



The photo shows how a harness for 2 LED's was made. On top are the LED's and a current-limiting resistor (value depends on what LED's you're using) soldered to black wires. On the bottom, shrink tubing has been added to hide the resistor and the solder joints prior to assembly. You need to be careful to keep the polarity correct on the LED's (don't get the "+" and "-" wires mixed up). Make up and test each harness prior to installation. Once the harnesses are assembled (you may need several for the size of the building), glue them in place on the inside roof and wall of the structure.