Korber Models

Scale Model Railroad Structures

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Model MRS 1032/1132 O Scale Double Stall Engine House Instructions

Compiled by: Rich Redmond

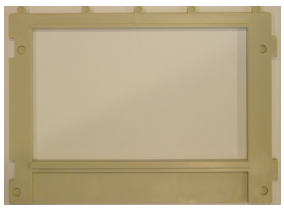
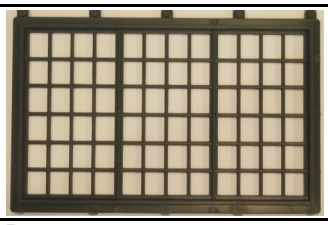
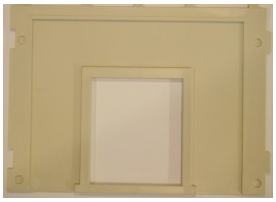
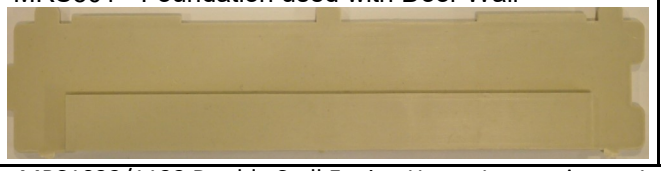
Introduction

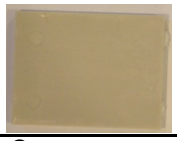
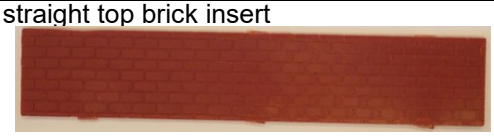
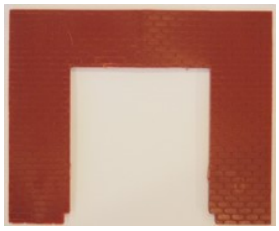
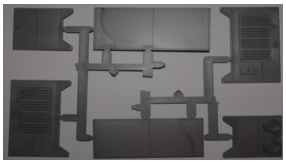
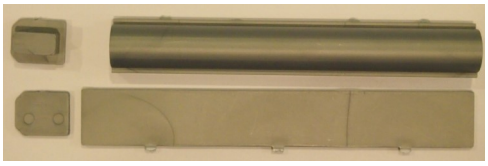
Congratulations, you have purchased the Korber Models #MRS1032/1132 Double Stall Engine House. You can follow the simple, step by step instructions outlined in this document to easily assemble this great looking addition to your layout. These parts have been designed to be a complete modular system so that many styles and configurations can be built simply. You can mix and match to create your custom structure or build a pre defined kit. This kit can make either a cement based building, or a cement and brick version.

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 great piece 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. If you are missing anything, please contact us so we can get you any of the missing items.

Qty	Description	Qty	
8	MRS100 - Peaked Top 	8	MRS101 - Straight Top 
16	MRS200 - Window Wall Section 	16	MRS202 - Window Insert 
1	MRS300 - Doorway Wall Section 	1	MRS304 - Double Entry Door insert 
13	MRS400 - Blank Wall Section 	13	MRS500 - Foundation used with Blank/Window Wall 
3	Sheet of clear plastic "Window Glass"	1	MRS501 - Foundation used with Door Wall 

Qty	Description	Qty	
8	MRS700 - Building Top Corner Pilaster (beveled) 	8	MRS701 - Building Middle Corner Pilaster (beveled) 
8	MRS702 - Building Foundation Corner Pilaster (beveled) 	12	MRS703 - Building Top Straight Pilaster 
12	MRS704 - Building Middle Straight Pilaster 	12	MRS705 - Building Foundation Straight Pilaster 
4	MRS706 - Building Top Corner Pilaster Cap 	12	MRS707 - Building Top Straight Pilaster Cap 
8	MRS110 - straight top brick insert 	16	MRS210 - window brick section 
1	MRS310 - door brick insert 	13	MRS410 - blank brick insert 
4	D806 - Air Conditioner 	4	D805 - Roll Up Door 
8	12” - 1/4” x1/4” wall brace material 	2	Roof material 17-1/16” x 11-7/8” 

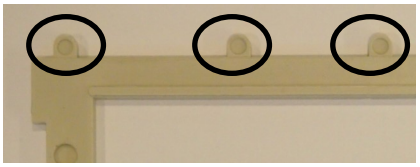
Materials needed – (What else might I need that is not included)

The Korber #MRS1032/1132 Double Stall Engine House, 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

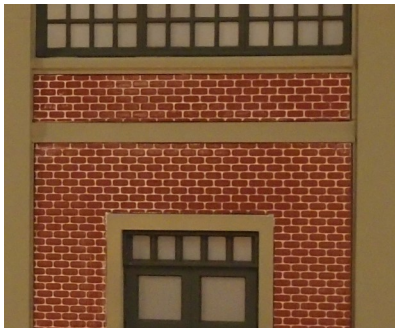
- Flat paint, choice of colors, for doors, windows, trim
- Light grey or cement color paint for walls
- RustOleum camouflage flat spray paints work well for painting the structure, window frames, and doors
- Paper towels or soft cloth rags
- Cyanoacrylate (CA) glue. Also known as Super Glue, Gorilla™ super glue works well
- 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 or small nubs 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, angled cutters, a small file, or an emery board.



The parts in the kit can be assembled in the color they come in or optionally you can paint them to the final colors you select, for parts such as the windows or doors, it is much easier to do this step before you completely assemble them. The windows and doors come colored in gray, red or green, however you may want to apply a light coat of flat paint in the color of your choice, RustOlium Camouflage spray paints give a great look. If you select to use the brick wall inserts, they are colored in a brick red and are ready to use, 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. Paint in a well ventilated area (outside is good).



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.

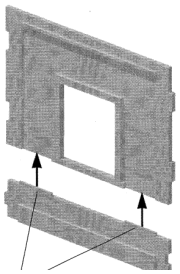
One simple method we have used is to dilute some water based antique white or light grey craft paint to create a soupy like consistency.

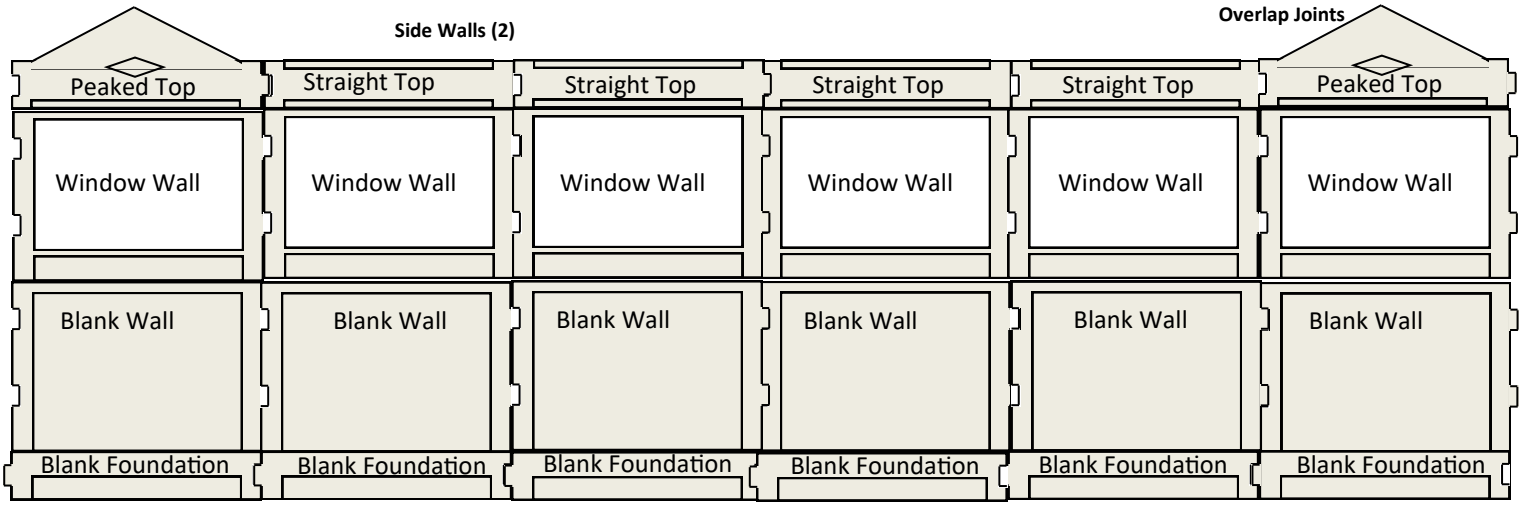
- Cover entire wall section with diluted white paint, letting it settle and collect in the mortar lines
- Wait a few seconds and lightly wipe off excess paint using a slightly damp paper towel or soft cloth until paint is removed from the brick surface, but not the mortar joints
- Keep flat and let dry 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
- 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

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. 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 groves/joints around the rocks and give definition. The wash should not be so dark as to overpower the cement/light grey color.

2 - Assembly of Walls Section

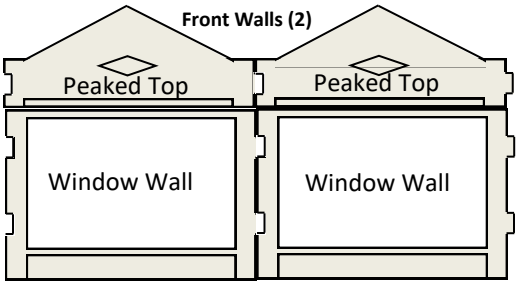
In this step we will assemble individual wall sections together to make four complete walls of the structure, two sides and two ends. The assembly of the walls of the structure is based on gluing together several modular sections to make a continuous front wall. On the next page is a front view drawing of the relationship of the modular wall sections use to make the front wall. We have found it is simpler to build the wall sections in vertical "columns" the complete height of the structure, then glue the multiple "columns" together to make a front wall frame.





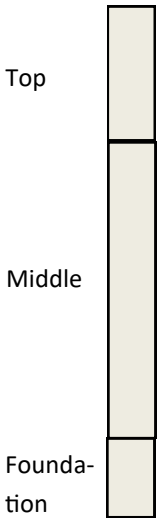
- Some sanding may be necessary. Sand edges only where you need to glue to ensure a smooth fit
- Starting at the foundation glue two sections together aligning them on a flat surface face up and let dry, note there are small tabs on the foundation and on the top sections that overlap the piece above or below as show in diagram
- Repeat the last step but using the remaining modular wall sections in the left most "column" to create a continuous piece
- Optionally use clamps as necessary to hold pieces together
- Repeat the previously steps five more times to create a total of six "columns" using the diagram above as a guide

- Dry fit the previously construction columns together to ensure a solid fit, once certain glue together along the joint.
- Repeat the above step for the next four columns using the diagram on the previous page as a guide to complete the side wall
- Repeat the previous steps to create a second side wall
- In a similar manner to the two side walls use the diagram to the right to create two end walls (not the end walls are only the second floor to allow for the locomotive doorway on the first floor

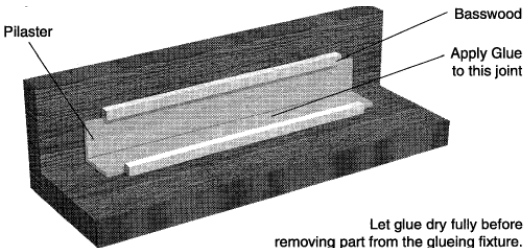


3 - Assemble & Install Pilasters

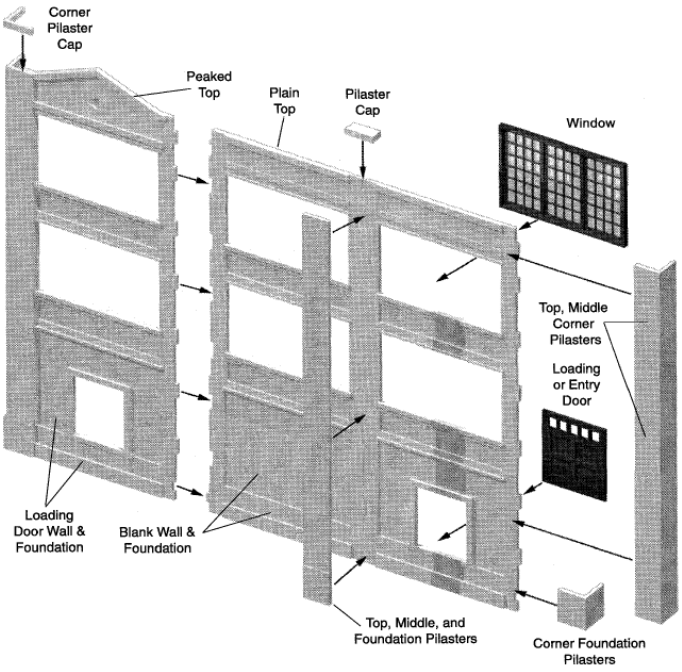
In this step we will assemble the pilasters that cover the seam between wall sections. The assembly of the pilasters is based on gluing together several sections together to make a continuous pilaster from foundation to top of the structure. To the right is a drawing of the relationship of the three pilaster sections used to make a complete pilaster. In the three story building the pilaster sections are assembled full length, however in structures larger or smaller trimming the middle pilaster will be required to make the assembly the correct height.



- Glue the pilasters together end to end to make one continuous part, note the foundation pilaster is thicker than the others so join your parts together on a flat surface face up in order to get a perfectly flat backside. Use a straightedge as needed to ensure the assembly is straight.



- To make the corner pilasters, join the sections together end to end as described in the previous step with exception of the foundation pilaster.
- Using a right angle, or a fixture similar to the one shown at the right, join the corner pilasters together along the beveled edge, note the foundation corner pilasters should be made separately and not joined to the rest at this time.



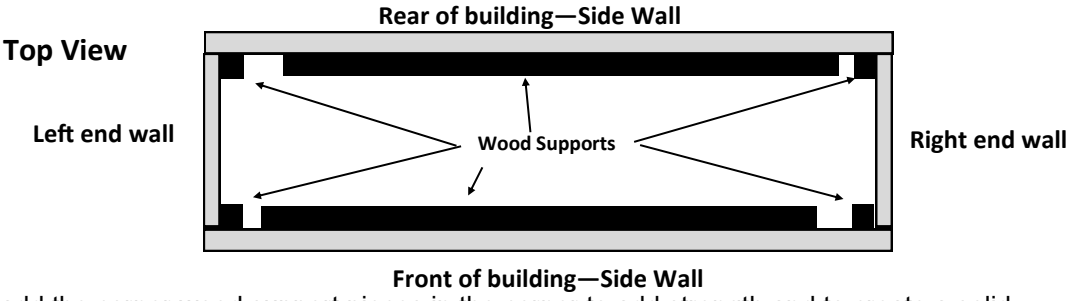
- Once all the pilasters are made, place the previously assembled wall face upon a flat surface. Dry fit the center pilasters aligning from the bottom over the joint between the vertical ”columns”, if any features or joints need to be trimmed to filed to ensure a smooth fit do so now. Use the drawing on the following page as a guide. Once you are satisfied with the dry fit, glue in place. Use clamps or a weight to hold down.
- Once complete with the center pilasters, turn your wall such that the end you want to place the corner pilaster on overhangs the end of you work surface. Starting with the foundation pilaster glue to the wall aligning to the raised features on the front wall. Repeat with the longer pilasters to complete the corner. Repeat steps to attach the other side.
- Repeat the preceding steps for each of the side and end walls, note at this point the corner pilasters should only be attached to the side walls, and the side wall will have a pilaster on the first and foundation level without any wall modules
- Optionally you may want to use a brace across the back of several modules for added strength

All the wall sections come colored in a cement gray, however many modelers find a light coat of flat cement color or RustOlium Camouflage Khaki spray paint gives not only a great look, but also makes it easier to add weathering to the walls later on. In a well ventilated area (outside is good) apply a coat to the wall sections. Let the paint dry before moving to the next step

4 - Assemble Main Structure

The assembly of the main structure is based on making a simple “box” structure when viewed from the top. There are four walls, two long ones in the front and back, and two shorter ones on each side. 1/4” square wood is used to add strength to the corners,

and provide a lip or cleat for the roof section on the top. Bellow is a top view drawing of the relationship of the wall sections and the wood support pieces.



Placement of walls

- Take one sidewall and the front wall and line them up to make a right angle, aligning the corner pilaster that is attached to the side walls with the end wall. The use of a small square is helpful. Glue the two wall sections together, and add the corner wood support pieces in the corner to add strength and to create a solid right angle
- Some sanding may be necessary. Rough up edges only where you need to glue
- Repeat the last step but using the other sidewall, and finally repeat using the other front/back wall to complete the "box"
- Optionally use clamps as necessary to hold pieces together
- Glue the two long 1/4" square wood pieces horizontally 1/4" down from the top of the front and back wall sections as shown on the drawing above. Clamp them together and let the glue dry. The purpose of these pieces is to create a cleat or lip to rest the roof material on in the next step.
- Optionally you can paint the entire building a aged cement color, or use the material as it comes. RustOlium Camouflage Khaki spray paints give a great look,

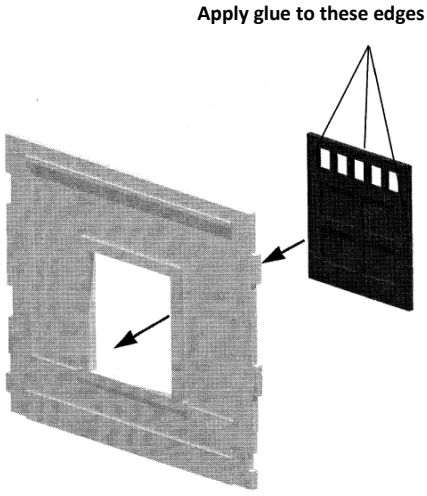
5 - Optionally Attach Brick Inserts

If you are building this kit to have a overall cement look, skip this step and proceed to the next section.

- If you have not already painted and applied the brick "mortar" outlined in section one, please do so before proceeding.
- You may want to place the structure on your bench, with the side facing up for simpler alignment. Dry fit the brick panel in the indented space of the module you are working on. Note on door wall sections with a foundation below you must remove the lowest row of bricks from the panel using a razor knife to ensure a good fit.
- Once satisfied with the fit, remove, and apply glue to the back and return the insert to the model wall. Be cautious not to use too much glue. Optionally you can use clamps to hold in place while the glue dry's. We recommend using the CA glue accelerator to speed the process.

6 - Assemble & Install windows & doors

The windows & doors 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 & door frames
- If the window & door 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
- Place the walls to which you want to add windows or door detailed (outside) side down on a flat surface
- The windows & doors are designed to insert in the opening from the back, or inside of the building
- Apply a small amount of glue around the edge of the frame and insert in the openings on the wall pieces
- Let the glued windows & doors 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 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 affect 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
- Cut window materials to fit over the back of each window & door – glue in place

7 - Install roof

The #MRS1032/1132 Double Stall Engine House has a single level rectangular flat roof made from a black material. The intent is to glue this piece to the molded cleats which are about 1/4" below the top of the wall sections of the building.

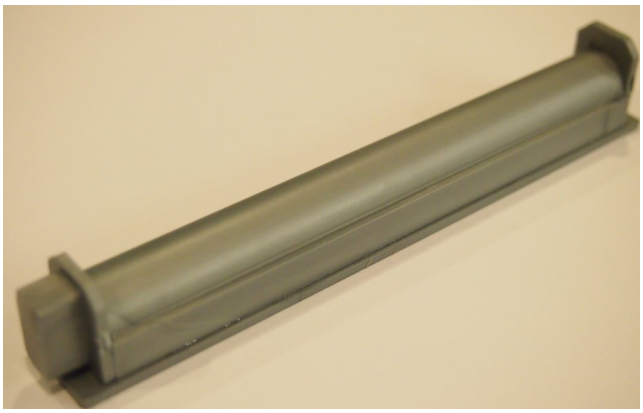
- The two black roof material parts measuring 17-1/16" x 11-7/8" is designed fit inside the four walls and rest on the wood cleats attached in a previous step. Glue or tape (on the underside) the two sections together along the 11-7/8" end to make one continuous roof 34-1/8" x 11-7/8". You can glue in this place. You may want to paint the upper inside section of the walls black to match the roof material.

8 - Build Rooftop Air Conditioning Unit

The roof top Air Conditioner unit consists of six parts, four walls, a top and a bottom, all of which may be attached to the same sprue.

- Trim flash or sprue from the pieces to create the six parts, two end walls, two side walls, a top (larger) and a bottom.
- The parts come molded in a silver color, and do not need to be painted.
- Glue together the four sides to make a rectangle with two ends (shorter) opposite each other and two sides (longer) opposite each other. Use a small square if needed to make a right angle joint.
- Once the side sections are dry, glue the bottom section to the underside of the assembly between the legs.
- Once the bottom sections is dry, glue the roof section to the top to enclose the structure
- The final product should look like the photo to the right.
- Place on the roof and glue in place

9 - Build Roll Up Door



The Roll Up Door consists of four parts, flat back, half round roll up section, flat end, end with motor, all of which may be attached to the same sprue.

- Trim flash or sprue from the pieces to create the four parts, the parts come molded in a silver color, and do not need to be painted.
- Glue together the half round section, and the flat end on one side, and the end with the motor on the other.
- Attach the previous assembly to the flat back.
- The final product should look like the photo to the right.
- Place above the locomotive door and glue in place

10 - Final Detailing – Weathering

Your Korber Models #MRS1032/1132 Double Stall Engine House 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.

