



## O scale kit: Broach Supplies

This model kit is for adults. NOT A TOY. Contains small parts



Thank you for purchasing KHM's Broach Supplies structure kit

Start by checking and identifying the parts and familiarize yourself with the build instructions.

### Painting and staining

The kit is made up from subassemblies, some with their own instructions. If staining, it is best to remove the parts from the carriers then stain them before assembly. That way any excess glue will not prevent the wood accepting the stain. For these instructions I have left the wood "in the raw" for clarity.

### Removing parts from carriers

Use a new blade and take care. While we have part-cut through the retaining tabs, the remaining wood can still be hard. Please don't twist out any of the parts – they will get damaged. Leaving the parts in the carriers until needed will help identification and reduce chance of losing pieces.

### Glue

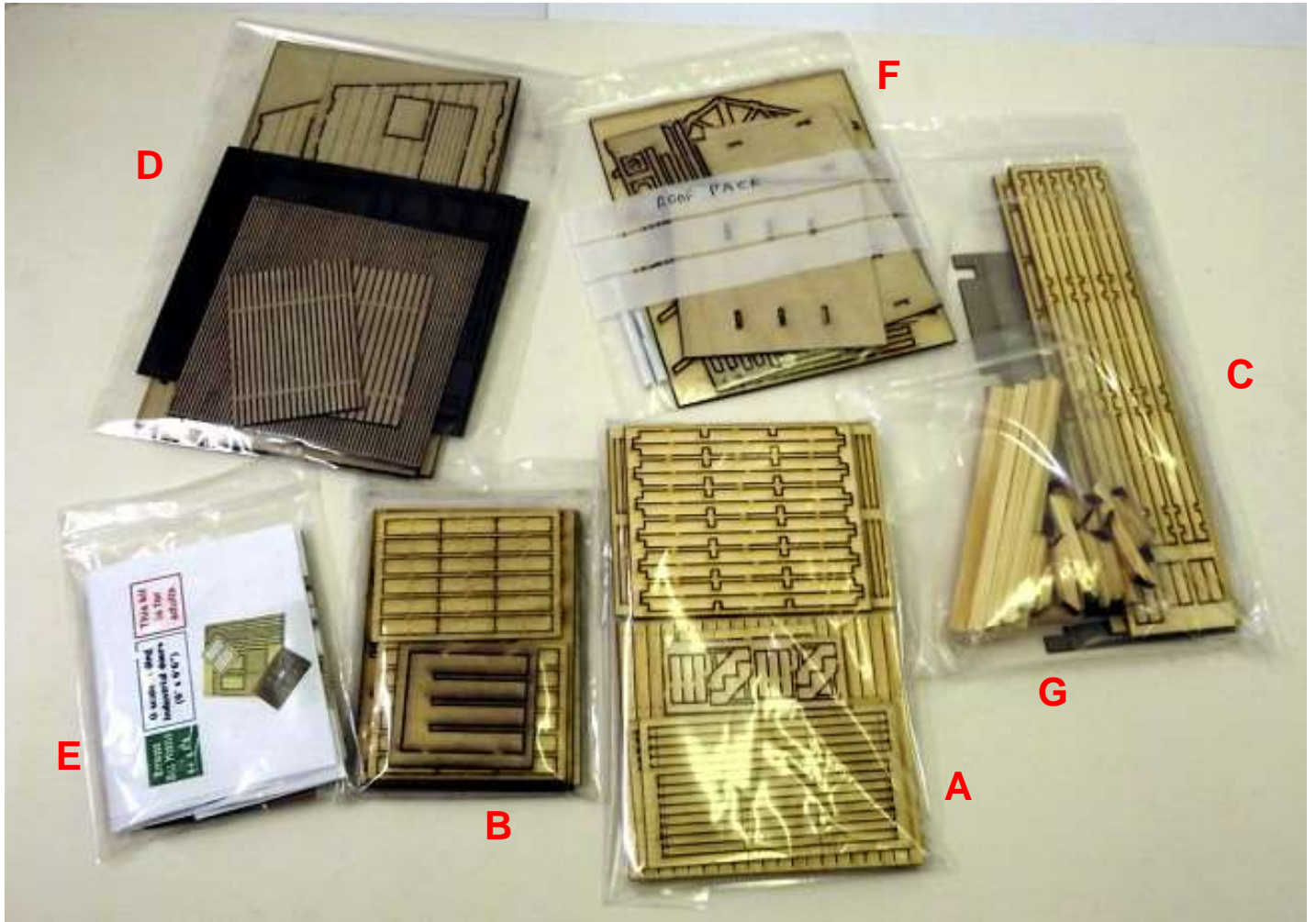
Cyno Acrylate (Super glue) is the most suitable type to use for the wooden frames, and the assembling the walls. You may find the gel type best. Planks are best glued with contact adhesive. White glue is not advised.

### Build order

The kit is built in 2 separate stages, each with subassemblies. It doesn't matter which you tackle first but I suggest the following order, and this is how the instructions are written. The kit parts are packed in separate bags to aid assembly

1. Frame assembly: consisting of upper deck, platform, stairs, gantry.
2. Structure assembly: consisting of walls and floor, windows, doors, internal frames, roof structure and roof covering.

## Kit Parts:-



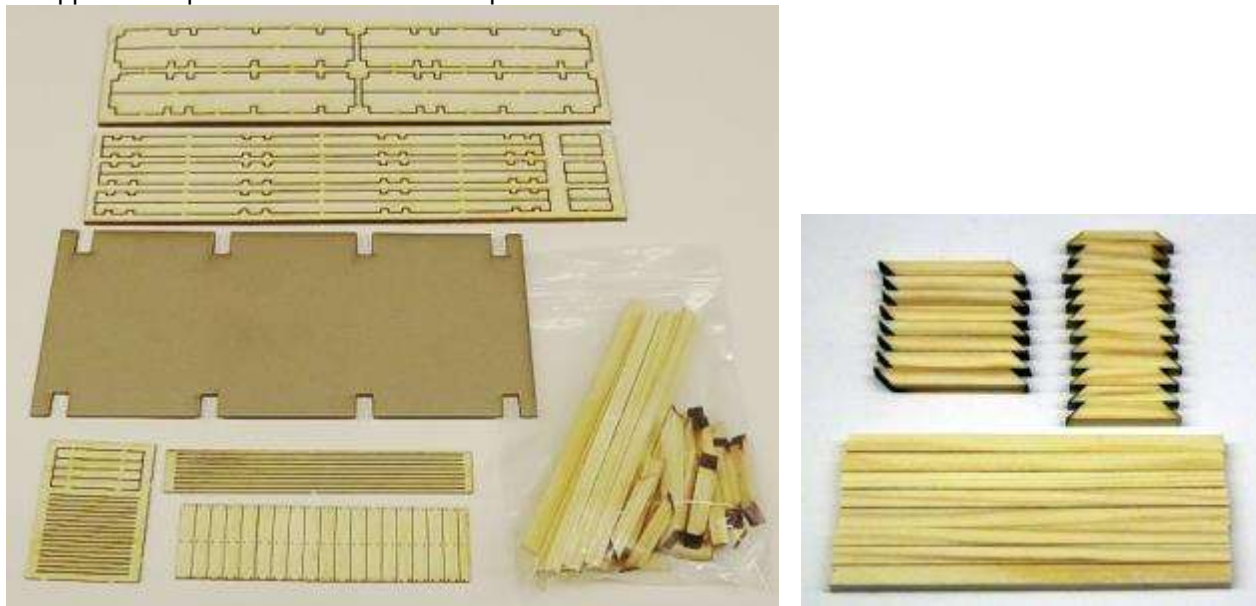
- A: Platform pack
- B: Stair pack
- C: Upper deck pack (includes post pack)
- D: Wall pack
- E: window pack (including sliding door and sliding sash window packs)
- F: Roof pack

The pack contents are detailed in each section.

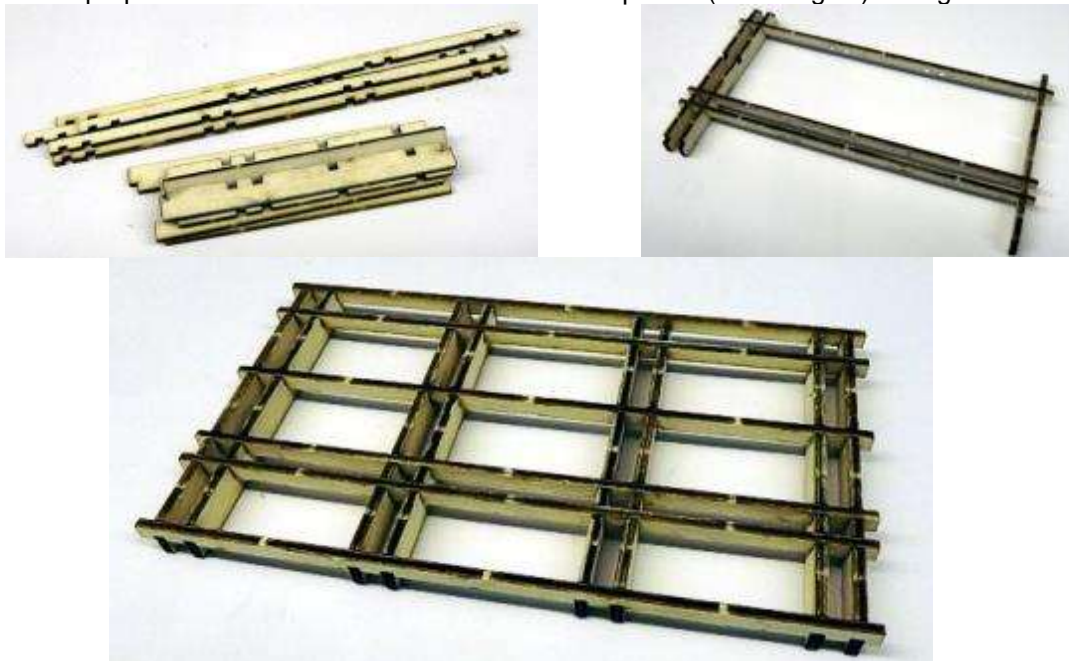


# 1. Upper Deck assembly

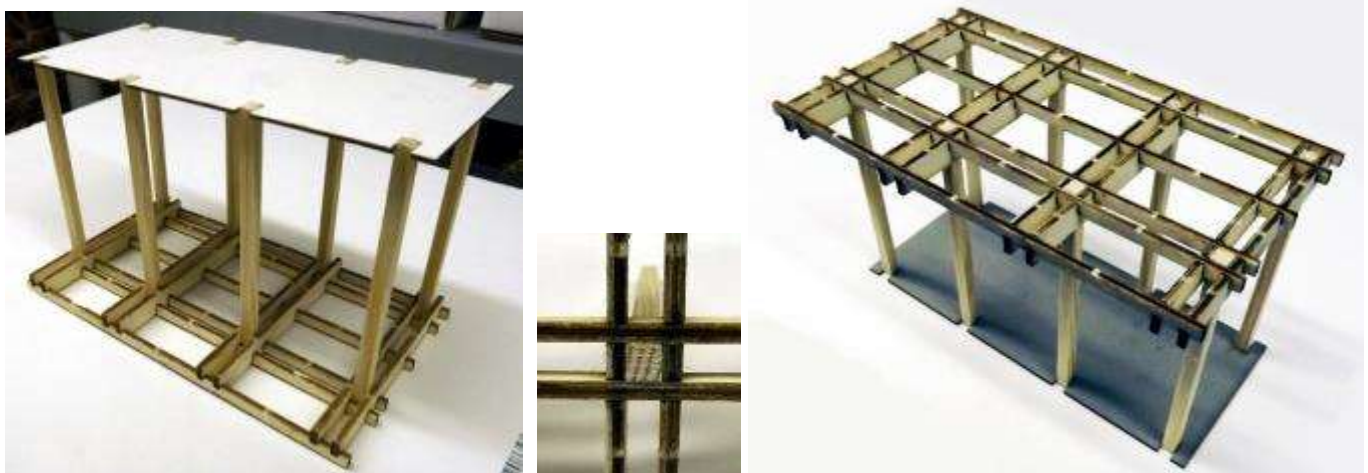
## 1.1 "Upper Deck pack" contents and "Post pack" contents



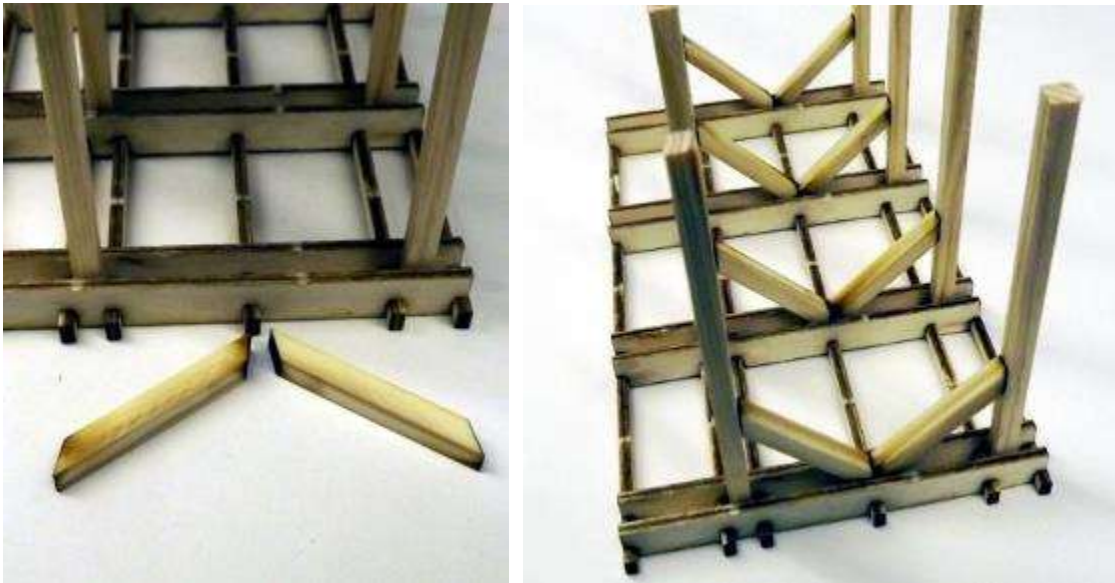
1.2 Remove the upper deck parts from their carrier and stain them. Glue the frame up as in the photos, ensure all is flat and angles are perpendicular. Its easiest to start with 6 inner pieces (use CA glue) then glue the rest.



1.3 Glue the vertical posts into place with the aid of the jig. Ensure they are at right angles to the deck. Don't glue the jig!



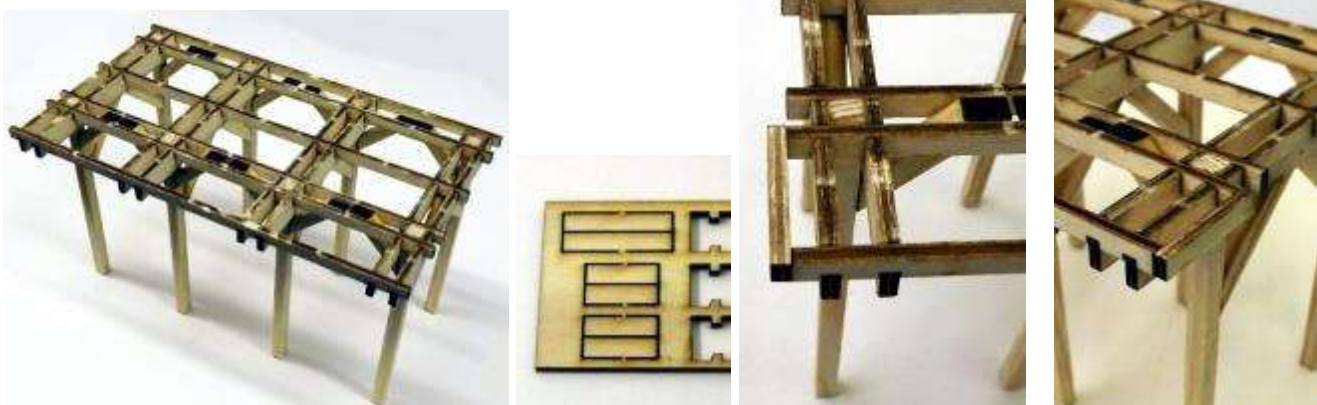
1.4 Glue the large diagonal struts into place. Jig removed for the picture, but best to keep it in place while gluing.



1.5 Glue small bracing struts into place, ensuring the posts remain vertical. (the jig helps too)



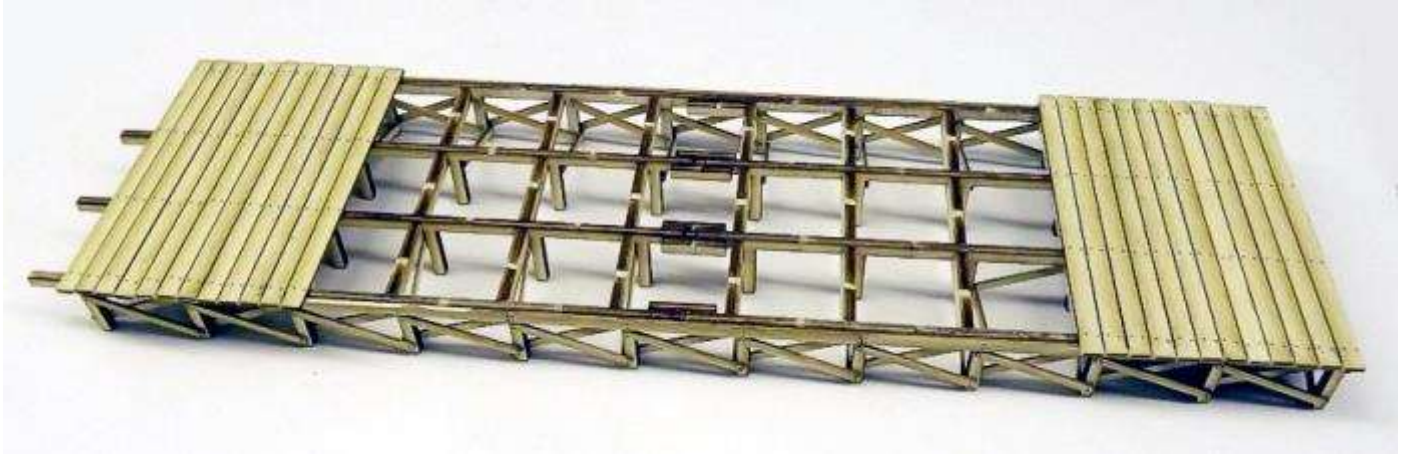
1.6 Last step of the upper deck, glue the stair connection beams into place.





## 2. Platform assembly

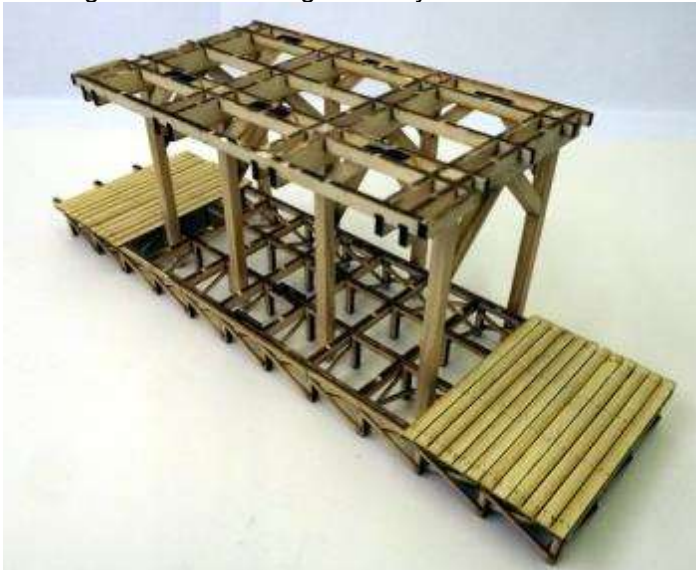
This is made from 2 sections of the 3 ¼ wide platform kit, available as a separate kit. Full instructions are in the pack. For Broach Supplies you need to make it part way, leaving completion of the platform deck and the remaining diagonal bracing until after the upper deck is fitted.



Glue the upper deck to the platform. It should fit snugly into place. Note that the back posts glue onto the platform side planks.



You can finish off the platform now or after the stairs and gantry are added. (like I did here). Don't forget the remaining platform diagonal cross bracing. I know you can't see it under the platform...but you'll know its missing ☺



### 3. Stair assemblies

The stair pack has its own instructions and is also available as a separate kit. When making the kit keep the upper landing separate.

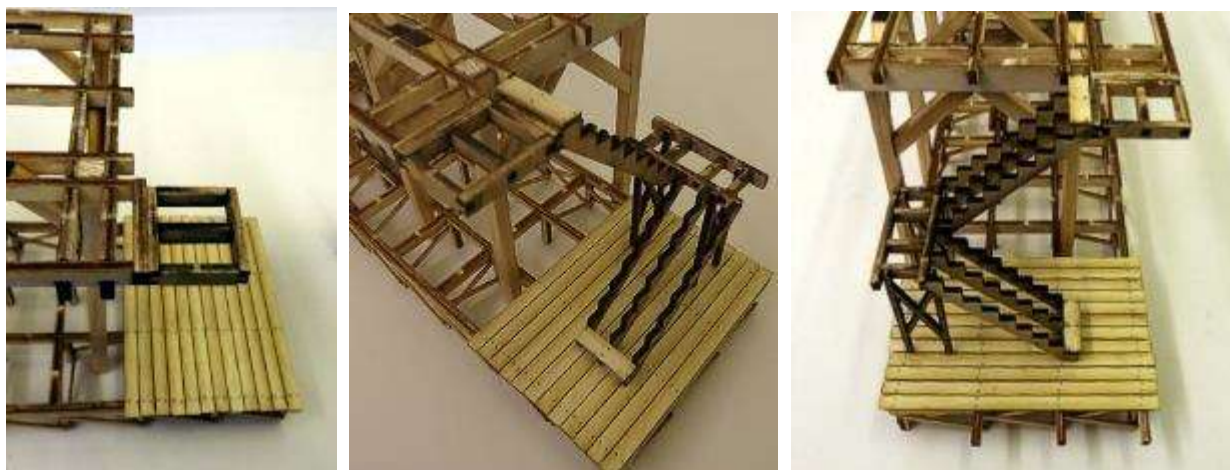
Fit upper landing to the upper deck, then glue the stairs into place. That way you'll be able to keep everything square more easily. On the left hand side the gantry decking and handrails replaces the upper landing deck parts in the stair pack. Check out instructions for the gantry to see how its works. (hard to describe, but obvious how it goes together)

For simplicity in these photos I am showing the stair stringers and landing frames only, so you can see how they fit with the upper deck, but I suggest to build up the stairs complete with treads and handrails as per the stair kit instructions.

**Note they need to be made up LEFT and RIGHT handed, together with the upper landing frames**



Glue the upper landing frames to the upper deck, ensuring they are level, and flush with the front edge. Then glue the stairs into place.

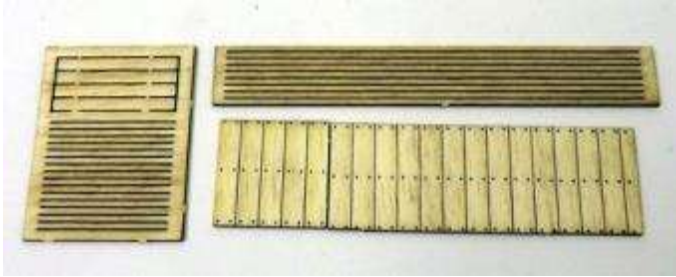




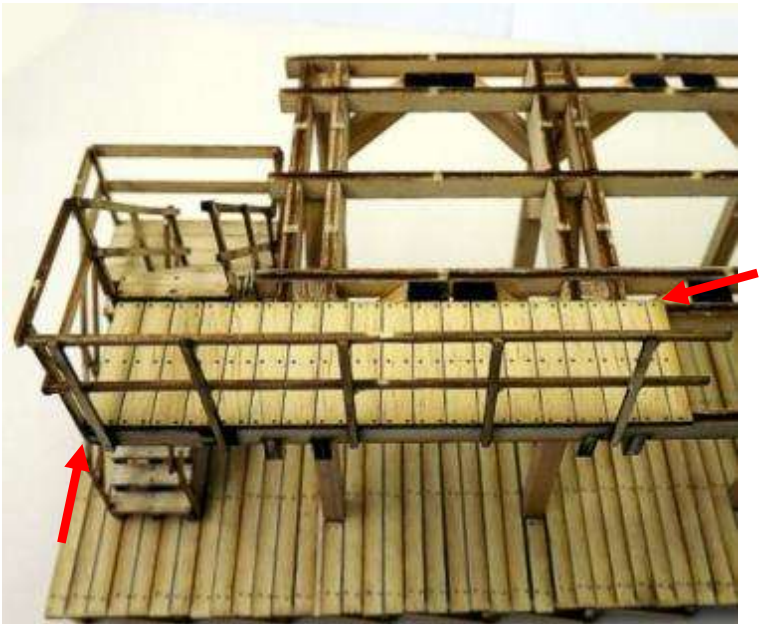
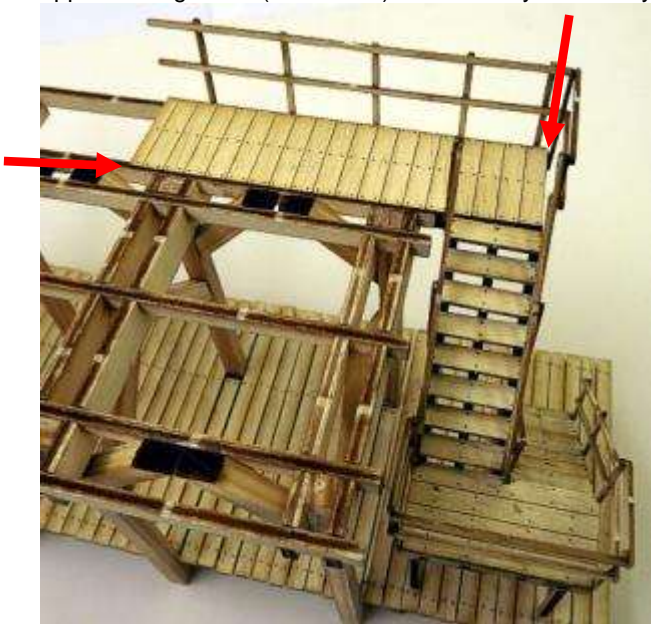
## 4. Gantry assembly

Gantry parts. These replace the left hand stair landing parts.

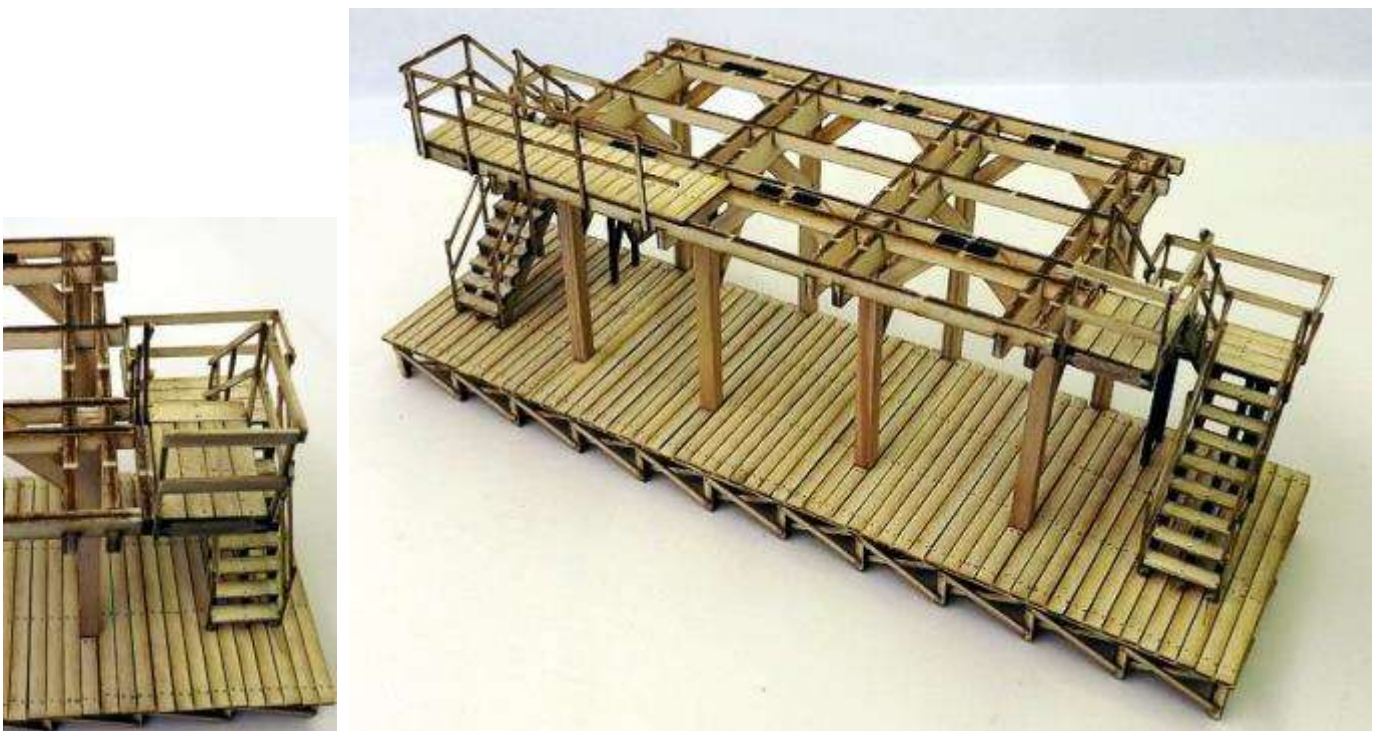
There are plenty of spares. You can do this now, or after the structure is in place.



Just follow the photos to add the gantry. Note it aligns to the upper deck frame along the inside beams, and on the outer edge of the upper landing frame (red arrows). Alternatively wait until you have added the structure.



Landing deck and handrails fitted to the right hand side, then stand back and admire your work!



## 5. Wall structure assembly - preparation

It's best to stain the walls when flat to avoid glue preventing the wood accepting the stain.

Walls and floor parts cut from 1/32" (0.8mm) microply. Battens(A), window trim(B), and corner trim(C) 1/64" ply & peel&stick



Fit window trims around windows and doorways. Its easier to do this with the walls flat, but I have to confess that I fitted them after assembling the walls. (apart from this one wall!). Trim them to fit (I find old wire cutters easier to trim with than a craft knife or scalpel). Remove the peel and stick backing and fit into place.



Battens are treated in the same way: peel the backing off then stick them over the guide-cuts, again I trim the ends with cutters. Note how the trim and battens go around the office windows keeping the rafter slots clear. Also you will need to leave space for the sliding door runners. These glue directly to the wall, not the battens. Better to fit the sliding doors to the wall first (see later instructions) and then fit the battens.

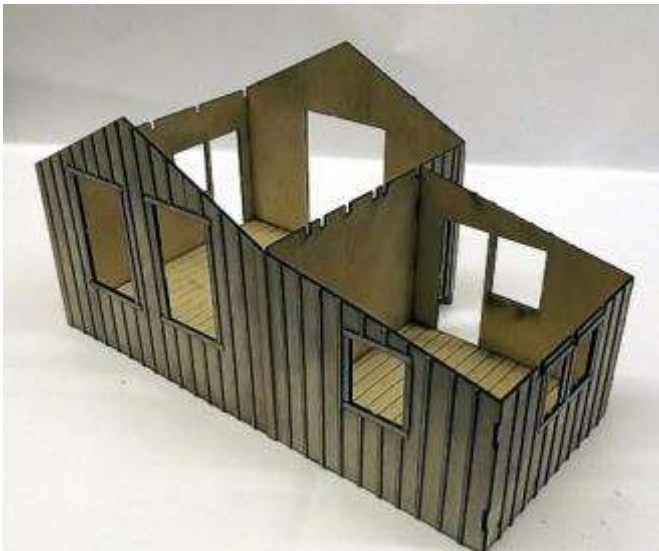




## 6. Wall and floor assembly

I don't have step by step pictures of the order I assembled the walls. I started by glueing the centre wall to the floor, then the back wall of the main workshop, the right hand side wall of the workshop and then the front. The smaller office walls then glued into place. The slot and tabs will guide you. It's obvious and the pics below tell the story, but do practice before glueing so you get the idea. Note that the walls and floor form a recess that fits over the upper deck. I built this structure separately so it would lift off, but of course you could build it straight onto the upper deck.

Note that the workshop back wall and front wall are symmetrical and can be swapped. On my Silver Creek layout, I had high scenery immediately behind so the rear doors opened via a short ramp onto a roadway. Anyhow I thought I'd keep the option in the kit.



Now fit the corner trim to hide the slots. Again peel and stick parts, trimmed with some old cutters. (You can see the gap I left in the battens for the sliding door runners in the middle shot)



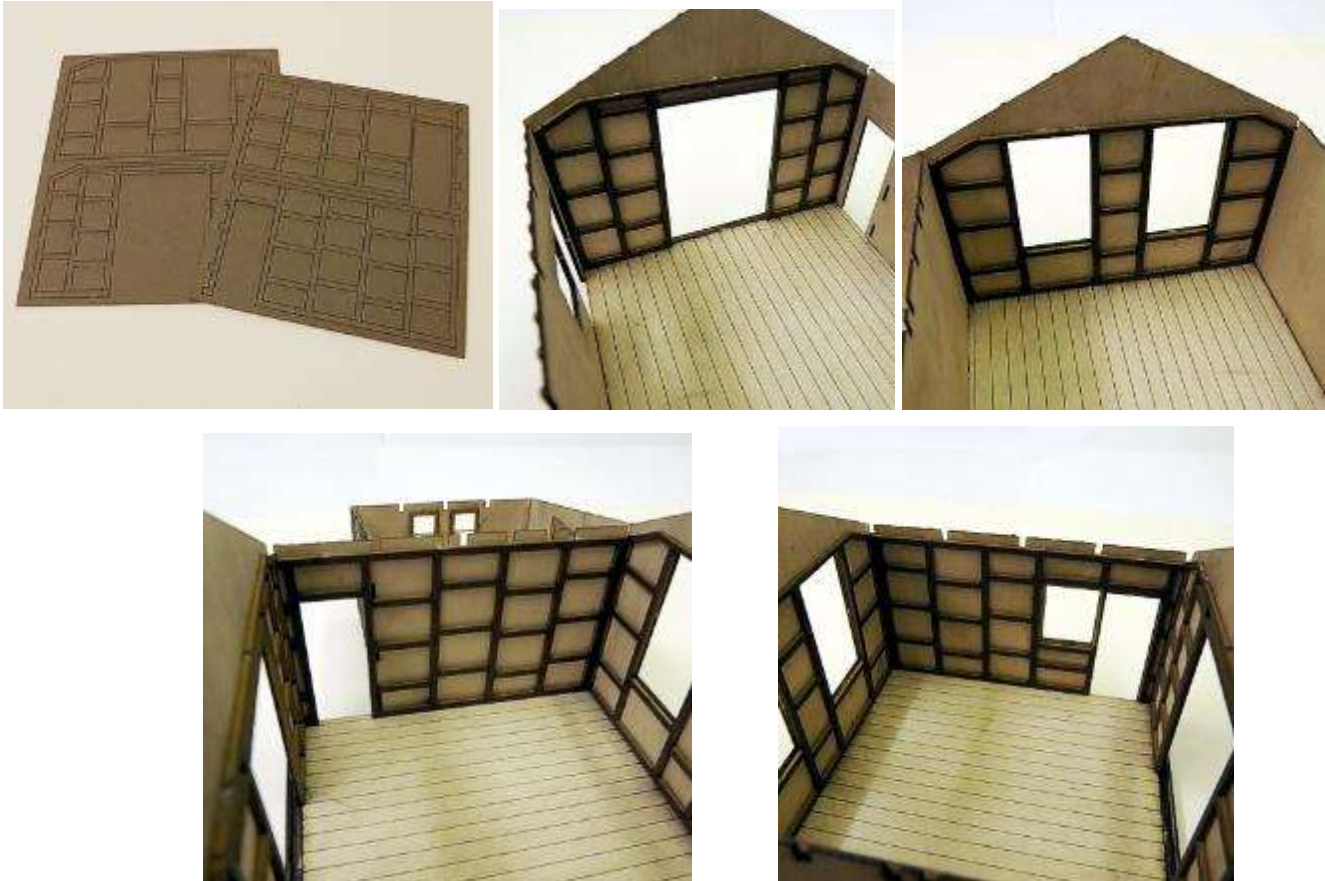
## 7. Workshop wall frames

I have to confess these were an afterthought for the kit. Which is why they are being fitted now – when the walls can guide their positioning. If you are not having a removable roof, and/or are keeping the sliding doors shut, then there is little point. But as I want to have the option to put something inside later I included them. Besides that, the sliding sash windows look better recessed so at the very least I suggest to include that part. I didn't cut any for the office – because I have no plans to put anything in there.

The frames are cut from mount-board and can be glued in place with normal household glue. I use a contact adhesive because I have little patience and it sticks fast (!). (I apply to one surface and fit immediately to allow a little bit of positioning.)

Apply front and back wall frames first, aligning with window and door openings. Then add the sides. Check out the pics below.

Do be careful when cutting them out from the panels – cut down through the tabs to prevent tearing.



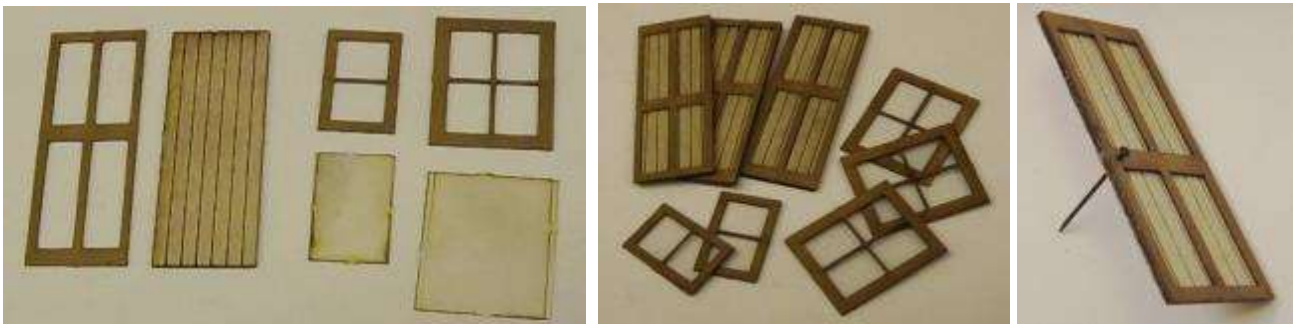


## 8. Windows and doors.

Make up the sliding sash windows and sliding doors as per the instructions that come with their packs. These are available as separate kits too.



Make up the other windows and doors in the window pack. Peel and stick assembly. Notice I drew plank marks on the back of the doors and added track pins (cut down!) for door knobs. OK, its only on the outside, but at least the little people can get in!



Fit the doors and windows into place. In the workshop they fit within the wall frames. Fit the sliding doors as an assembly so you get the runners the correct distance apart, then you can slide them out completely if you need to for painting.



One more step to go now! Treat yourself to a trial fit of the structure onto the upper deck before the final stage ☺

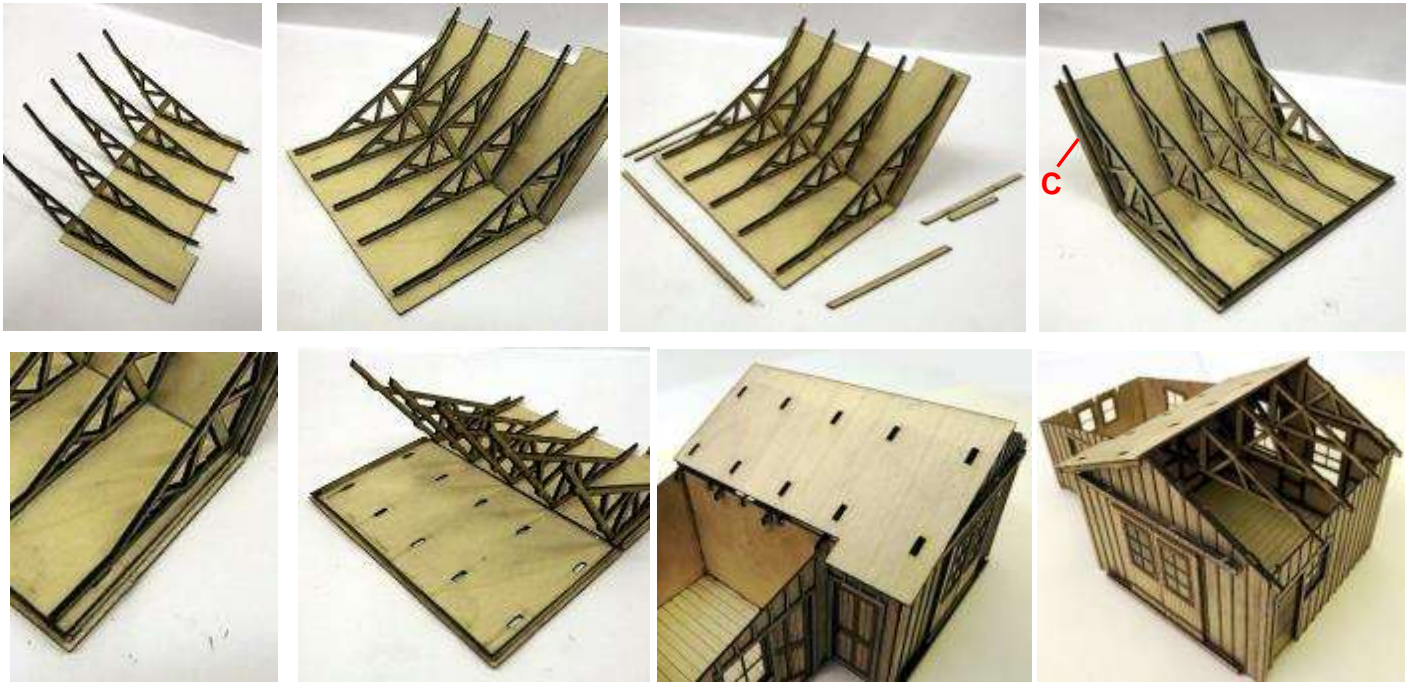


## 9. Roof assembly

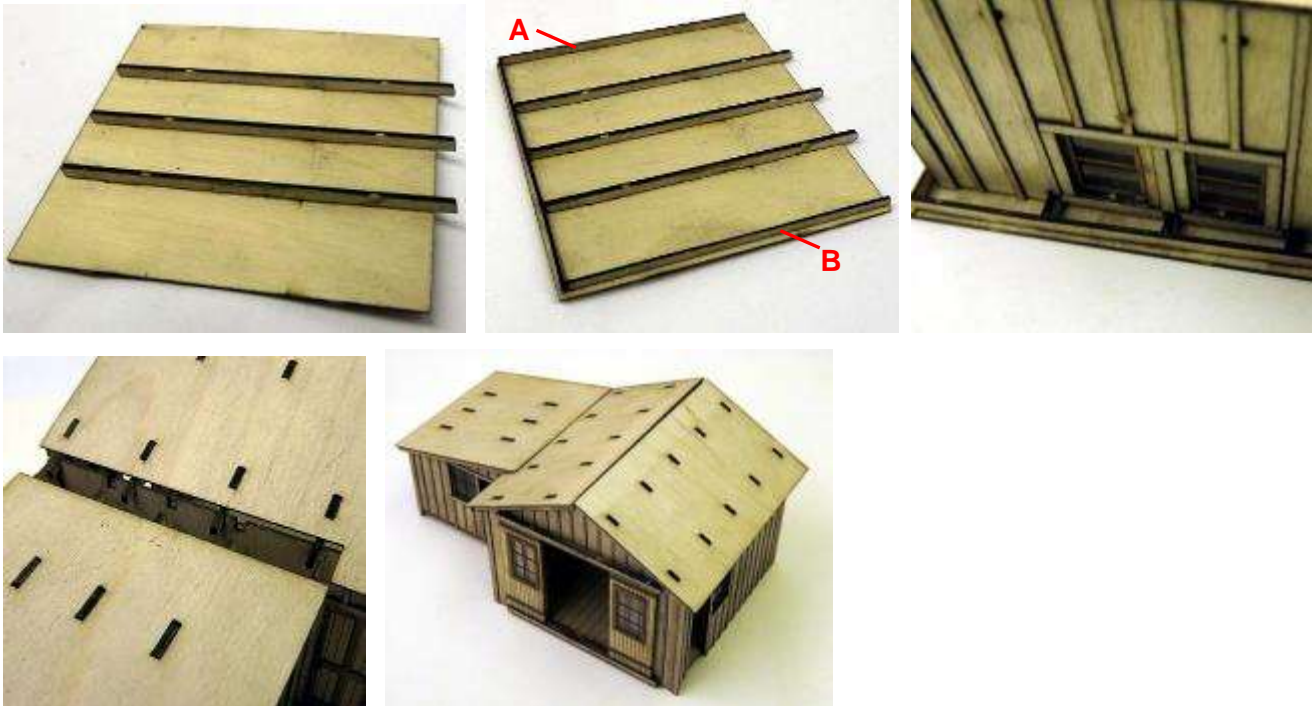
Main roof parts and office roof parts



Glue the rafters to one half of the main roof, then add the other side. Because I wanted one half removable I taped it into position along the ridge, rather than glue it in place. The valances are applied next as in the photos. Make sure to leave a gap between the outermost rafters and the valance to allow for the wall.



Glue the rafters to the office roof and fit the valance close to the edges, then fit the roof to the structure.





## 9. Roof covering

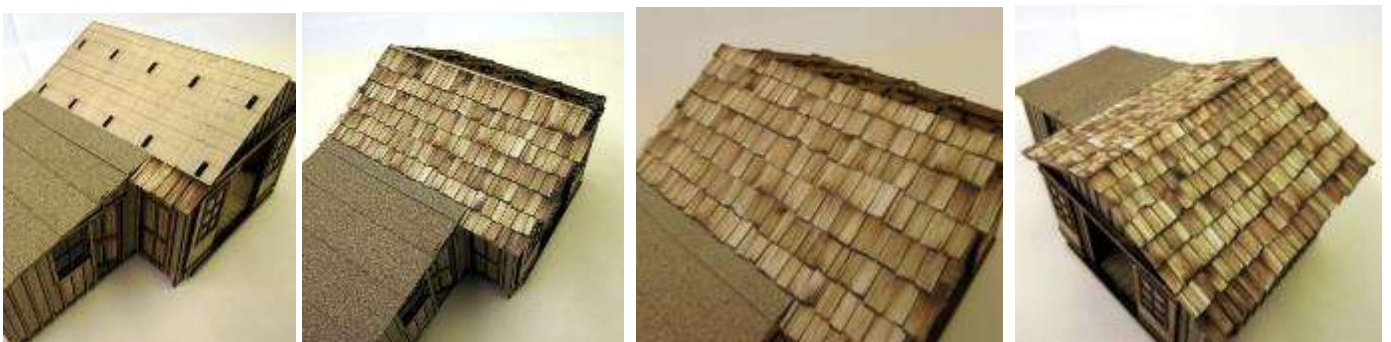
The kit comes with a roofing felt option and a laser cut shingle option. I chose a mixture of the 2 types for this model, roofing felt for the office roof, and shingles for the main roof.



Glue the roofing felt strips into place with contact adhesive. Create an overhang over the falling edge by folding against a rule. Start with the lowest and work up the roof, overlapping as you go. The final strip of felt goes under the lowest row of shingles. Note also the black strip from the shingle sheet at the edge of the roof. The instructions that come with the shingles explains more.



The shingle rows are built up as in the shingle instructions. The shingles will take weathering washes if you wish to tone down the colour. The stove pipe chimneys can be built up various ways.



Thank you for purchasing the kit. If you have any trouble during the build, or have constructive feedback, suggested improvements etc, then please contact me at [sales@kitwoodhillmodels.com](mailto:sales@kitwoodhillmodels.com).

Happy modeling! Simon Cox