

# PO430 OO Scale Small Signal Box

## CHECK LIST

This kit should contain the following:

- 1 x SHEET A. Printed kit parts.
- 1 x SHEET B. Printed kit parts.
- 1 x GREY CARD. Inner Strengthening
- 1 x RED CARD. Laser cut parts
- 1 x CREAM CARD. Laser cut parts
- 1 x BROWN CARD. Laser cut parts
- 1 x GLAZING sheet.
- 1 x INSTRUCTION BOOKLET.

## READ THROUGH ALL THE INSTRUCTIONS BEFORE YOU START.

This is a complex kit that requires particular attention to detail, so proceed with care!

To construct this kit you will need the following:

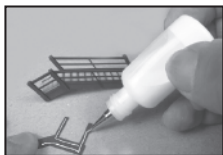
- 1. A modellers knife.
- 2. A pair of sharp scissors.
- 3. A steel ruler.
- 4. Glue - See *glues*.
- 5. Ultra Fine Tip Glue Applicator, see below.
- 6. A cutting surface - a sheet of card or cutting mat.
- 7. Fine point tweezers.
- 8. Water colour paints and a very fine brush for painting edges and corners.

## METCALFE Ultra Fine Glue Tip Bottles.

These bottles are essential for gluing the smaller components in this kit.



Tiny strips and spots of glue can be accurately laid down with precision.



## INSTRUCTIONS GLUES

### UHU Solvent Free All Purpose Adhesive Glue

Works superbly well in our fine glue applicators. Dries quickly, but allows time for positioning of kit parts as described further on in the instructions.

Also Deluxe Materials 'SPEEDBOND'  
A fast drying PVA.

see [www.deluxematerials.com](http://www.deluxematerials.com)

## GETTING STARTED

### 1 EXTRACTING COMPONENTS FROM THE BASE SHEETS.

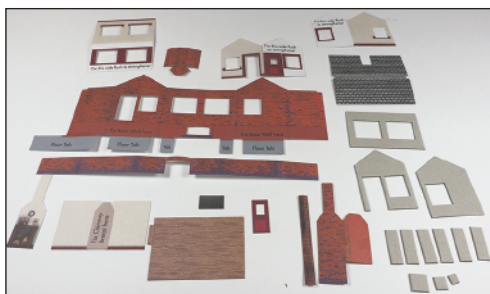
To stop the components from falling off the sheets, they are held secure with score lines. These are cuts that only go about 75% of the way through the card.

To release them run the point of your knife along these score lines and they will come seamlessly away. These score lines are marked with blue arrows: WARNING, Cut with care using a knife that is not too sharp, this will reduce the risk of the blade running off the score and cutting the components.

### 2 MAKE YOUR 'BUILDERS YARD'.

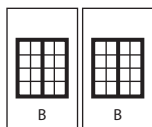
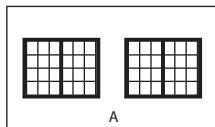
As you extract the components from the base sheets they need to be kept away from your working area on a thick piece of card or a tray until needed.

Leave the laser cut parts on the sheet until required.



## 3 GLAZING

Cut out all the clear glazing components and place on a separate sheet of dark card so they don't get lost. Note which window frames the glazing matches to.



Glazing for  
Base Window



Glazing for  
Door

Glazing Main Window    Glazing for Side Windows

## 4 PAINTING CORNERS & EDGES.

The white card that shows on the corners and edges is best painted **before you build the kit.**

All you need is a simple set of water colour paints and a fine brush.

Something like this set of 'Reeves' watercolours or even simple child's watercolours.

As long as it contains a warm red, a brown and black, you will be able to match the colours in this kit.



Mix your colour with lots and lots of water, apx. 1 part paint to 5 parts water or more. **TEST ON WASTE CARD FIRST UNTIL YOU HAVE THE CORRECT SHADE & COLOUR.**

Fold the edges of the card back fully and gently run the point of your brush along the exposed white card.  
(Excuse my messy paintbrush)

Only tiny amounts of paint on your brush. It's better to have to go over it a few times than to flood it with paint.

**Paint the outer edges too.**

Before the paint dries, run your finger along the edge to rub the colour into the absorbent white card.

Then wipe away any paint that has run onto the printed surface before it dries.

Remember, you only need to just slightly tint the card with a little colour.

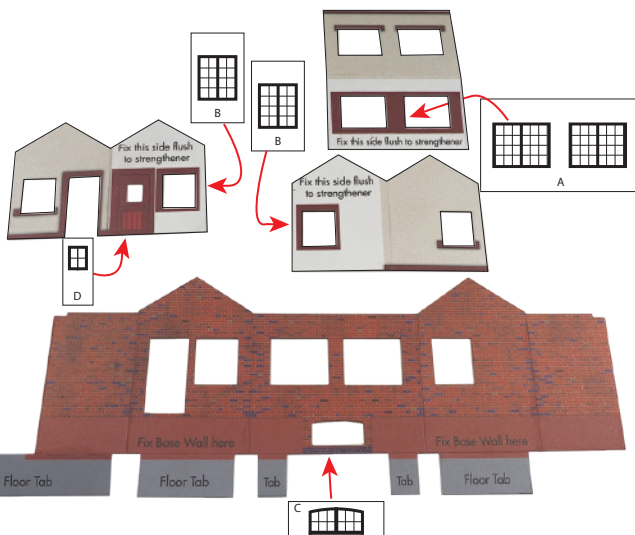
**DON'T** paint a thick solid line down the edges, you will only make it look worse.

## LET'S START TO BUILD!

### Fig.1. WINDOWS

Start by matching the glazing to the window frames.

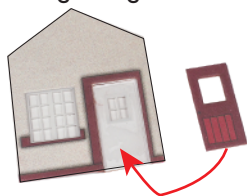
Carefully align the glazing with the matt side facing through the frame. With the front, side and door walls, have the matt side facing the side that fixes to the strengthening.



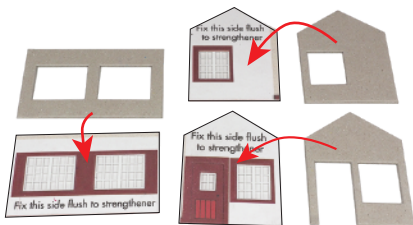
Like so.



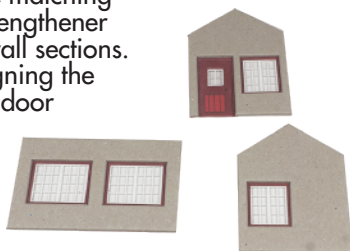
Fold back and glue back to back the side, door and front wall sections, 'sandwiching' the glazing in between.



Carefully align and glue into place the inside door to the rear of the door glazing. Note the space along the fold line, this is to allow the door to be swung open when complete.



Now add the matching thick grey strengthener card to the wall sections. Carefully aligning the window and door frames flush.



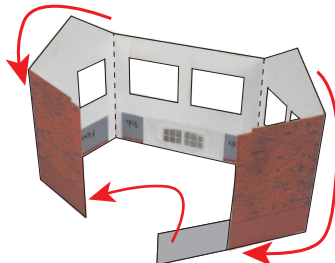
Like so.

Put back into the builders yard until needed.

## Fig.2. WALLS

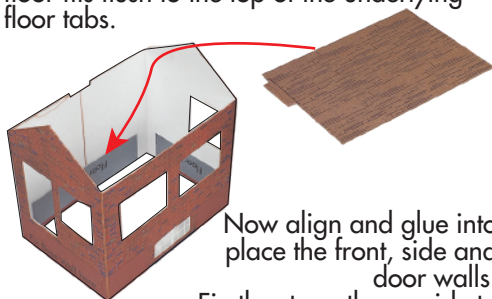


Fold back and glue the grey floor tabs flush to the inside of the main wall.



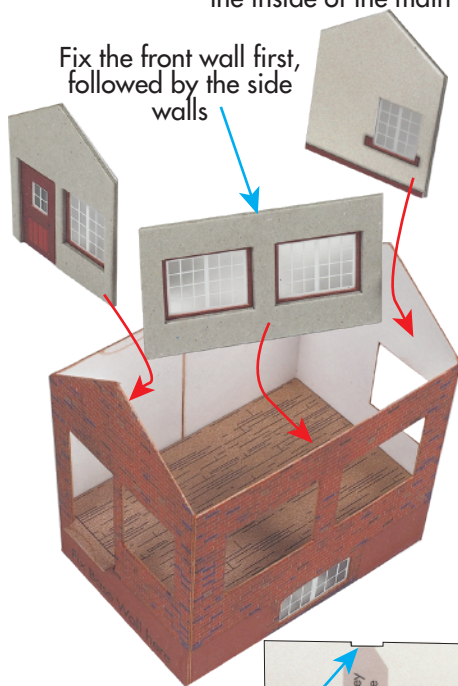
Now fold the walls around and using the rear floor tab connect the walls together.

Next, add the floor. Position so the door step fits through the doorway and the whole floor fits flush to the top of the underlying floor tabs.

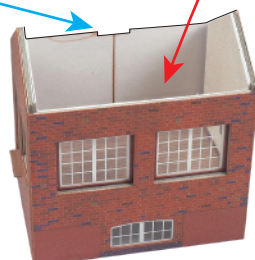


Now align and glue into place the front, side and door walls. Fix the strengthener side to the inside of the main wall

Fix the front wall first, followed by the side walls



Now add the rear wall, making sure the central slots align flush.



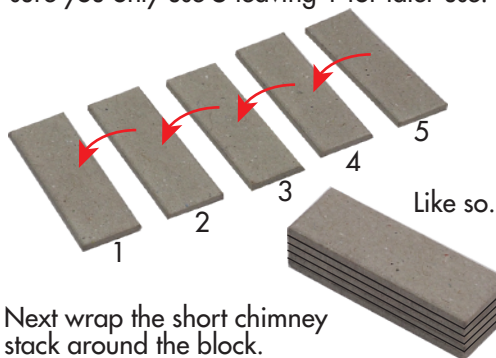
Lastly wrap the base wall around the bottom of the main wall.



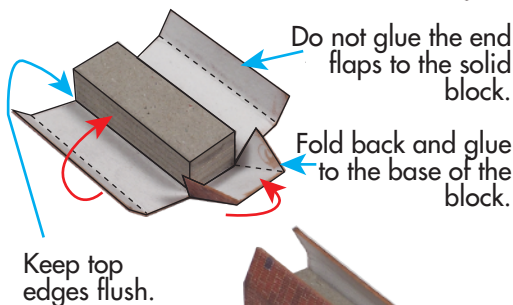
### Fig.3. CHIMNEY

Read through this whole section before building the chimney.

Start off by gluing flush together **5** of the 6 grey spacers to make a solid block. Make sure you only use **5** leaving 1 for later use.



Next wrap the short chimney stack around the block.

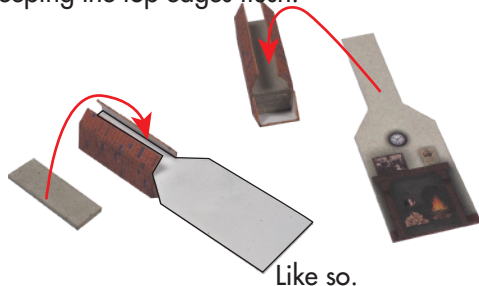


Keep top edges flush.

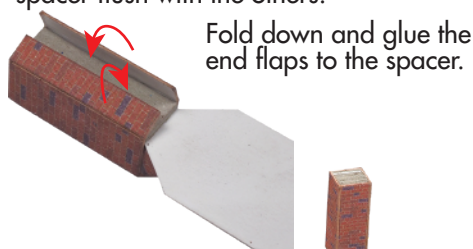
Like so.



Now, choose a chimney breast and glue **face down** to the chimney block, again keeping the top edges flush.

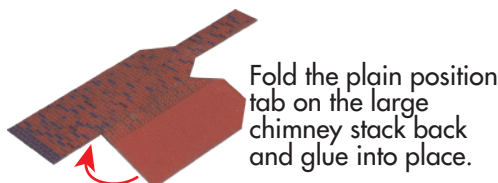


Complete the chimney stack by adding the last grey spacer flush with the others.

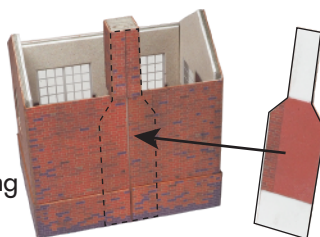


Glue the complete chimney breast to the rear wall with the chimney stack resting centrally in the slot on the top of the rear wall.

Then add the hearthstone flush to base of the fireplace.



This tab then slots in between the base wall and the overhanging chimney covering the joins.





## Fig.4. ROOF

If you want to add an interior, do this now before adding the roof!  
Our Signal box interior mini kit is code PO580.

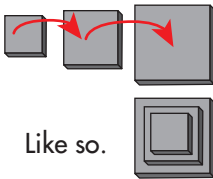


To add the roof start by carefully slotting the roof around the chimney then glue into place.

Glue flush together 2 of the laser cut barge boards keeping the etched details facing outward.



Then glue into position on either end of the roof.



Like so.

Glue the 3 grey chimney capping stones together, each smaller stone centred on top the larger.

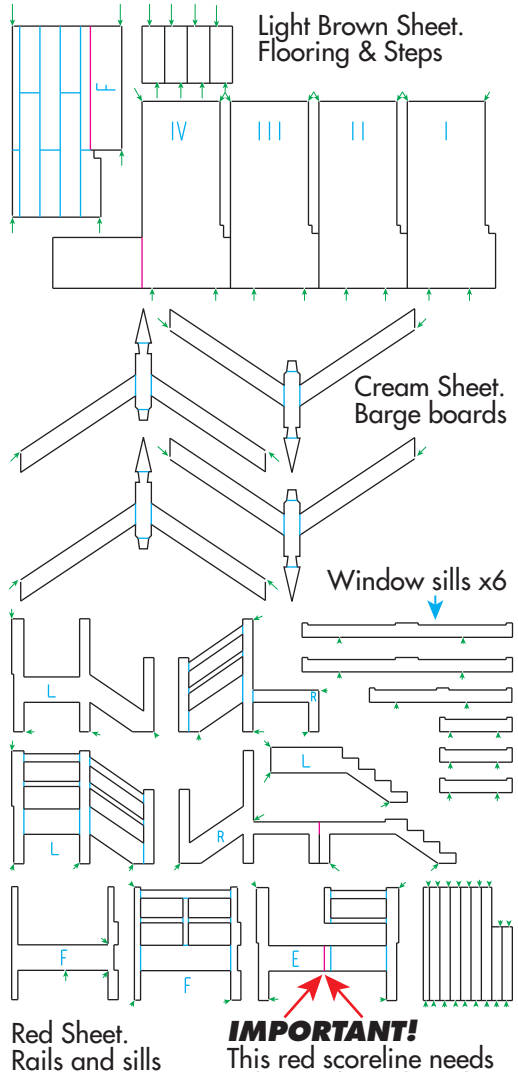
Then glue into place atop the chimney stack.



## Fig.5. STEPS - SETUP

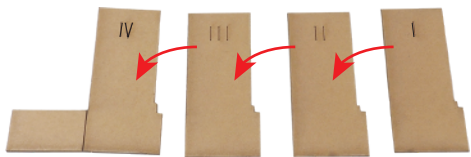
*The steps are complex to build. Have patience, test fits before committing glue, make sure edges are flush and allow time for glue to set before moving on.*

Below are plans of each of the laser cut parts. The Red lines indicates folds, blue detailing. The small green arrows show the tacks that hold the parts to the sheet.

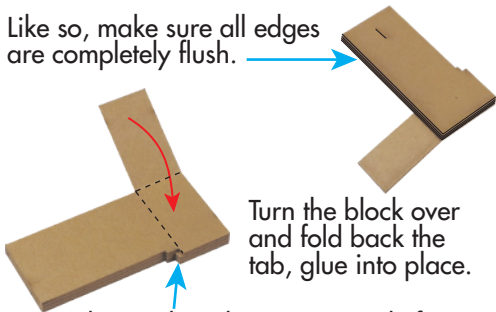


## Fig.6. STEPS - DECKING

Start with the brown decking. Combine the spacers labelled I, II, III, & IV flush together keeping IV to the bottom of the pile, I on the top.



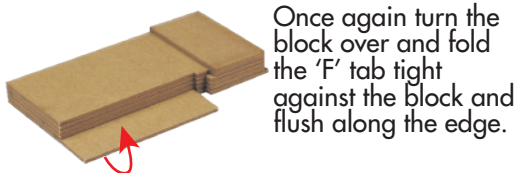
Like so, make sure all edges are completely flush.



Turn the block over and fold back the tab, glue into place.

Note: The notch in this corner made from spacer IV is required later. Make sure the folded tab lines up flush to it.

Make sure the 'F' tab folds easily and glue flush to spacer I on the top of the combined block.



Once again turn the block over and fold the 'F' tab tight against the block and flush along the edge.

Like so.

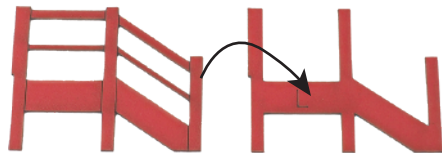


## Fig.7. HAND RAILS

While the decking is drying, let's assemble the various hand rail parts.

### HAND RAIL - 'L' (left hand rail)

Align the outer rail over the inner rail (L) and glue flush together.

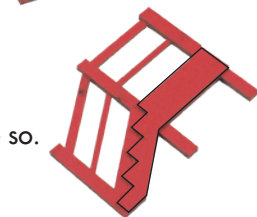


Like so, the light laser etched detail faces outwards.

Flip the rail over and add the stepped component 'L' flush to the inside

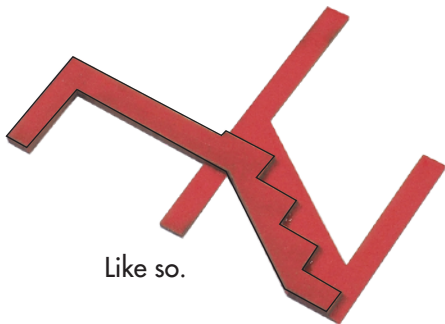
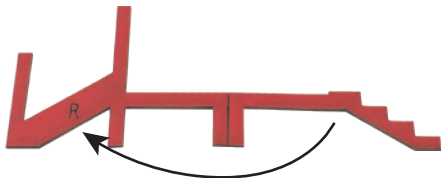


Like so.



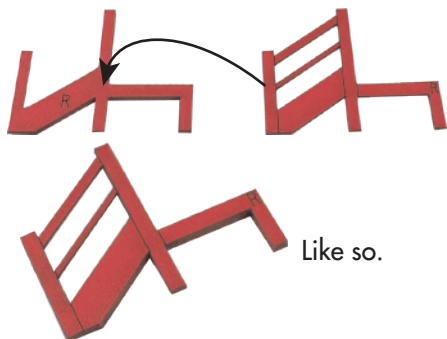
### HAND RAIL - 'R' (right hand rail)

Fold back the and glue together the inner part of rail 'R'



Like so.

Now add the outer rail 'R' to the inner. Make sure edges are completely flush.



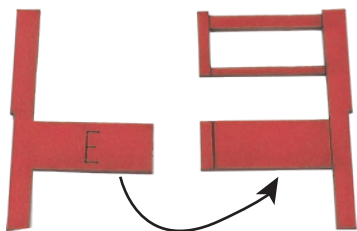
### HAND RAIL - 'F' (front rail)



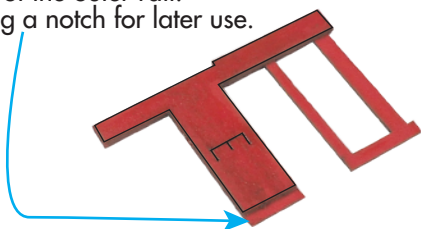
Combine the outer rail to the inner rail 'F' again taking care to have all edges flush.



### HAND RAIL - 'E' (end rail)

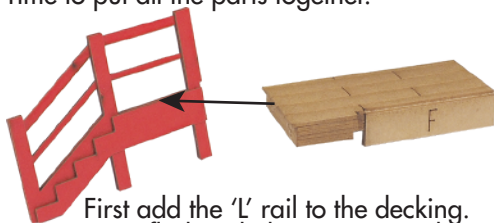


Make sure part 'E' is in 2 parts! Cut along the scoreline closest to the etched 'E' to separate the components. Then flip the inner rail around and glue flush to the inside of the outer rail. Leaving a notch for later use.



## **Fig.8. PLATFORM**

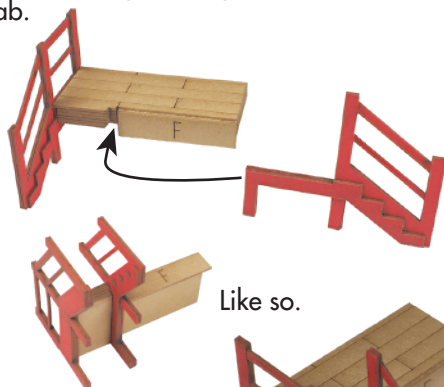
Time to put all the parts together.



First add the 'L' rail to the decking. Keep flush with the top step and rear edges. The overhang on F sits on top of the inner stepped component.



Next slot the 'R' rail into the notch next to the 'F' tab. With the supporting rail leg section sitting flush against the underneath tab.



Like so.

Allow the glue to dry before continuing.



Now add the 'F' rail. Glue to the 'F' tab and tight against the 'R' post.



Like so.



Note the notches that rail 'E' slots into.

Align and glue into place the 'E' rail.



Allow time for the glue to set before continuing.



Like so.

## Fig.9. CHIMNEY POT

Cut out the strip below, then roll tightly around a nail or drill bit approx. 4mm diameter, then fix with a tiny spot of glue.

Curl strip slightly first.



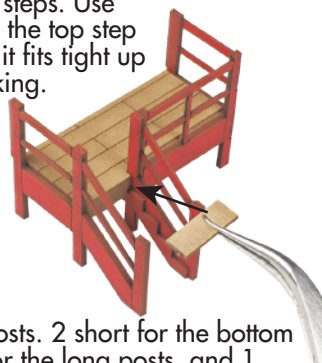
Roll up tight, then unroll the end enough to add a little glue, then re-roll and hold until set.



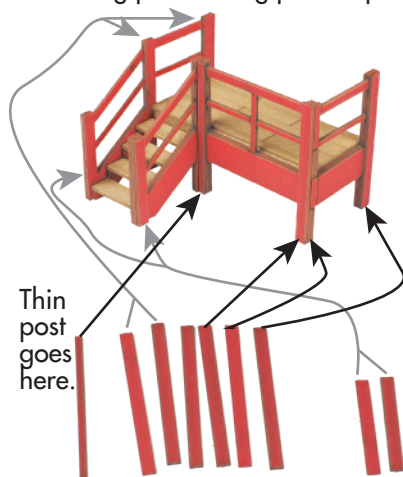
8%

## Fig.10. STEPS & FINISHING TOUCHES

Time to add the steps. Use tweezers to add the top step first. Make sure it fits tight up against the decking. Allow to dry, then add the next step down.



Lastly add the posts. 2 short for the bottom of the steps, 5 for the long posts, and 1 thinner long post. 1 long post is spare.



Add the completed steps/platform to the signal box, add a chimney pot (see fig. 9) ridge tiles and the window sills

