P0330 00/H0 Scale GWR SIGNAL BOX KIT

INSTRUCTION SHEET 1

READ THROUGH ALL THE INSTRUCTIONS BEFORE YOU START.

To construct this kit you will need the following:

1. A Modellers knife.
2. A pair of sharp scissors.
3. Glue and Ultra Fine Applicator Bottles - SEE BELOW.
4. A cutting surface - a sheet of card or a cutting mat.
5. Fine point tweezers to hold the smaller components.
6. Water colour paints and a very fine brush, for painting the edges and corners (optional).
7. Good Eye Sight - or a magnifier, for tiny components

CHECK LIST

This kit pack should contain the following:

1 x SHEET A - Main walls for building.
1 x SHEET B - Roof, doors and base card.
1 x LASER-CUT CARD **A** Signal box timber & Bargeboards
1 x LASER-CUT CARD **B** Stairs sides, steps and jig.
1 x LASER SHEET **C** Stairs handrails and posts.
1 x GLAZING SHEET.
2 x INSTRUCTION SHEETS.
1 x Ridge Tile Sheet.

GETTING STARTED

1 EXTRACTING COMPONENTS FROM SHEETS.

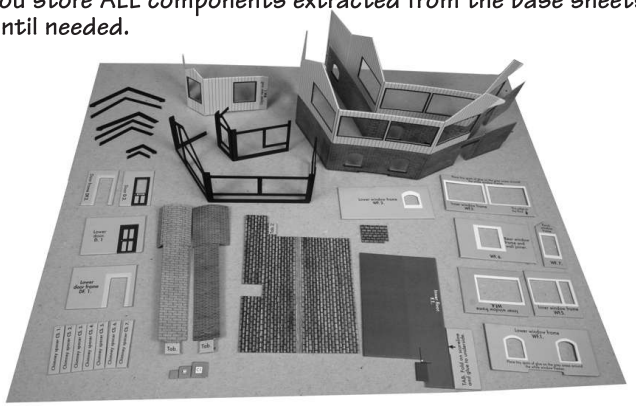
To stop the components from falling off the sheets, they are held secure with scorelines. These are cuts that only go about 75% of the way through the card.
To release them simply run the point of your knife along the scorelines and they will come seamlessly away.
These are indicated with blue or black arrows: →
WARNING, Cut with care using a knife that is not too sharp, this will reduce the risk of the blade running out of the score and cutting the kit components.

LASER CUT SHEETS.

There are three plain card laser cut sheets marked A, B & C.
The scorelines you need to cut to release the components are shown on the descriptions for each sheet opposite.
Cut each scoreline with your knife very gently. Don't try to cut in one go, just run the point of your knife along the score lines a few times until you eventually cut through.
Only cut the larger brown sheet 'A' to start with, leave the other two sheets until you are making the steps.

2 MAKE YOUR 'BUILDERS YARD'.

This is an area kept away from your working surface, where you store ALL components extracted from the base sheets until needed.



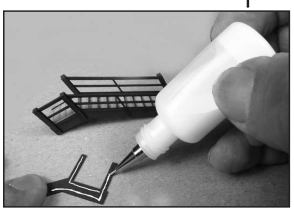
Use a piece of thick card or a tray to make your builders yard.
Only extract the components from the two printed sheet and the dark brown laser cut sheet '**A**' to start with.
Leave the two smaller laser cut sheet for the steps until later.

Your WORKING area should have a clean flat surface, and should only contain the kit parts you are actually working on.

EVERYTHING ELSE SHOULD BE KEPT NEATLY ARRANGED IN THE BUILDERS YARD, UNTIL NEEDED.

PLEASE NOTE: Don't throw anything away. Keep all offcuts and waste card in a box until the kit is finished, just in case you can't find anything. The chances are that it will be there.

The METCALFE UltraFine Tip Glue Bottles are essential for gluing the fine laser cut components in this kit.



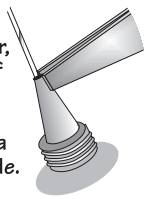
Tiny strips of glue can be Accurately laid down with precision.

Always replace the pin after use and store the bottles upside down to keep the glue moist.

UHU GLUE

The best glues for the job are UHU All Purpose Adhesive which is available In standard form or Solvent Free.
Although the tubes of UHU have narrow nozzles, they are still a bit too big, so if you don't have the 'ULTRA FINE' bottles you can narrow the nozzle down like this:

To make the nozzle smaller, put a piece of wire from a medium size paper clip or a large pin inside.



Then with a pair of pliers nip one side of the nozzle tightly, so that it squeezes the soft metal around the pin.
Keep the pin in the nozzle when not in use to stop it from blocking up.

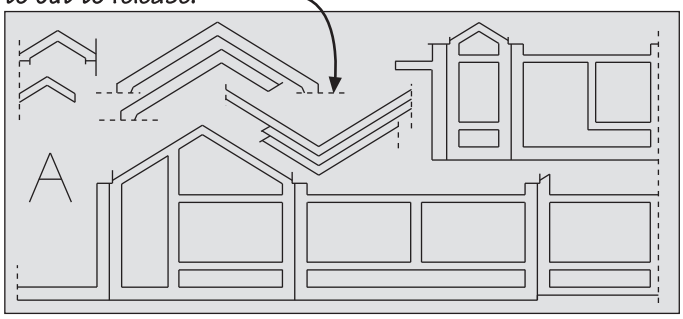
If using the glue frequently, it is not necessary to keep replacing the pin in the nozzle. Simply place the tube upright in an empty cup when not in use.

PVA Glue

Is OK but takes longer to set, and not good for gluing the glazing to the window frames, you will still need a stronger glue like UHU or Bostik.

LASER CUT COMPONENTS

There are three plain coloured cards with fine laser cut components. The dotted lines are the score lines you need to cut to release.

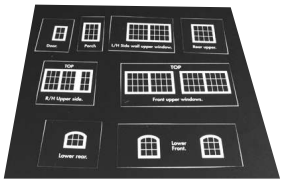


This is sheet 'A' which contains the timber frame for the main building and the three bargeboards and spacers.

Sheets 'B' and 'C' are dealt with in Fig.13.

Fig. 1. START WITH THE WINDOWS.

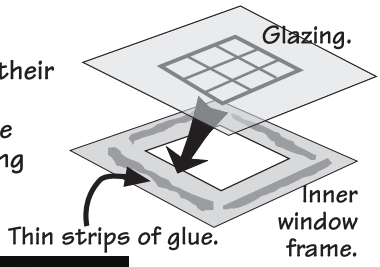
Start by cutting out all the clear plastic window sections.
Cut along the thin white lines that mark them out.

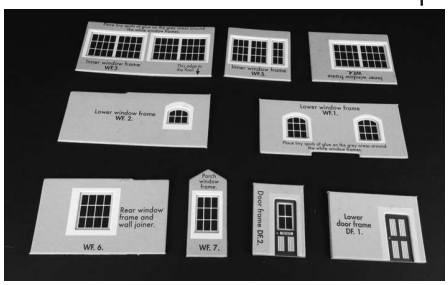


Place on a dark piece of card so you can see them.

NOTE: The descriptions on the glazing's differ from the card window frames. We decided to put identity code numbers on each printed component after the first batch of glazing sheets had already been printed. Although it is obvious where they fit, here is the order they go: **WF.1.** = Lower Front. **WF.2.** = Lower rear. **WF.3.** = Front upper windows. **WF.4.** = L/H Side wall **WF.5.** = R/H Upper side **WF.6.** = Rear upper **WH.7.** = Porch **Door D.2.** = Door **ALSO NOTE:** **WF.4.** Window frame description is printed upside down. BE CAREFUL.

Fix each of the glazing sheets to the back of their corresponding inner window frames with the matt printed side facing through the openings.





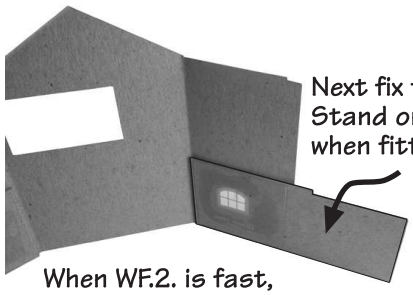
Place the windows back in your builders yard until needed.

Whilst you are at it, the door frames can be attached to the corresponding doors as well.

If any of the edges of the glazing are showing over the edges of the card window frames, trim them off flush with the card edges.

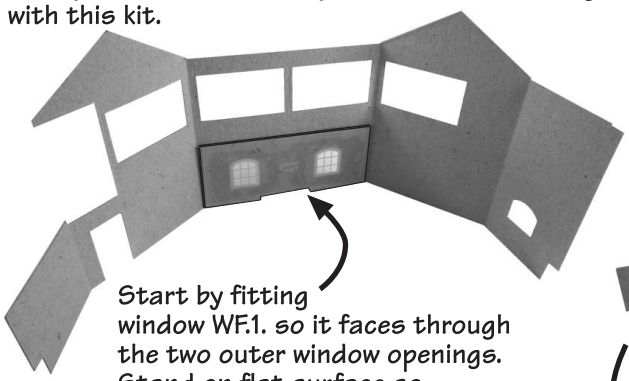
Fig. 2. MAIN WALLS & LOWER WINDOWS.

Brick or Stone ? That is the question. Whichever you choose, throw the other one away, same with the chimney stacks. It may seem a waste but you can't make two signal boxes with this kit.

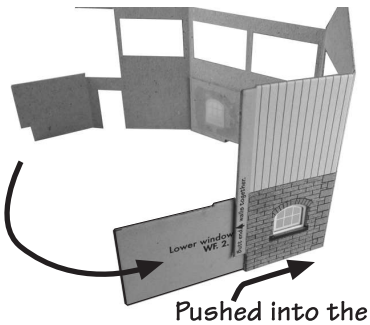


Next fix the window WF.2. Stand on flat surface when fitting.

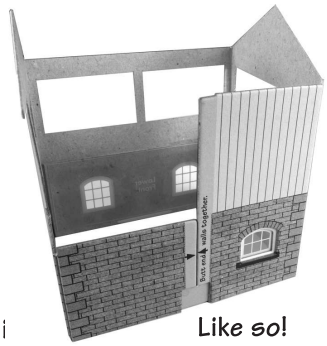
When WF.2. is fast, fold the walls around and fix so the two arrows meet butt ended.



Start by fitting window WF.1. so it faces through the two outer window openings. Stand on flat surface so bottom edges are level with base of outer wall.



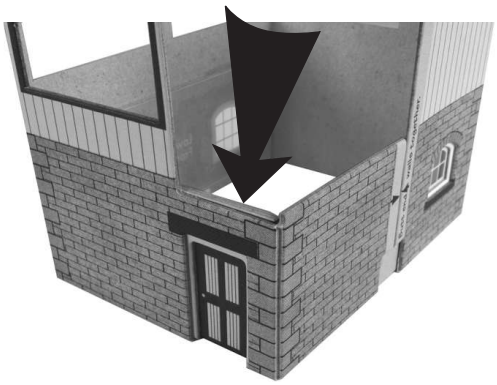
Pushed into the corner, i should line up the window frame with outer window opening.



Like so!

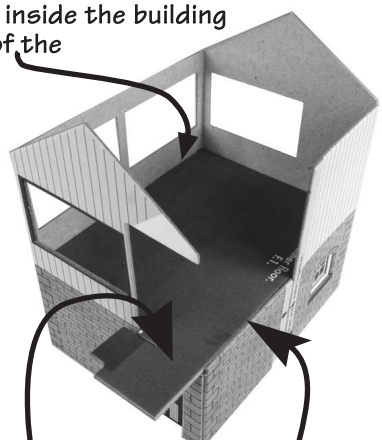
Fig. 3. LOWER DOOR & INNER FLOOR.

Fit door with its frame DF.1 behind the lower door opening stand on flat surface and push down so its top edge lines up flush with the top edge of the recessed wall



Fold the grey tab underneath the floor and glue.

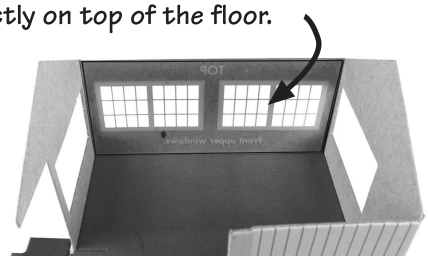
Fit the floor F.1. inside the building sitting on top of the lower windows.



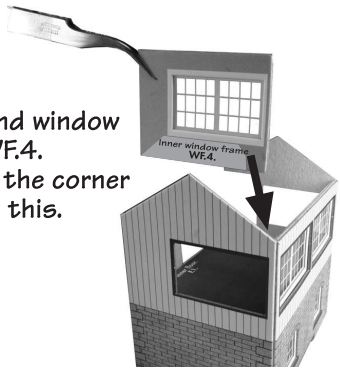
Make sure it is pushed down into the recessed bit over the door so that the rear edge is level with the wall top.

Fig. 4. UPPER WINDOWS.

Start with front window FW.3. which sits directly on top of the floor.



Left hand window WF.4. fits into the corner like this.



Right hand window WF.5. fits at this end like so.

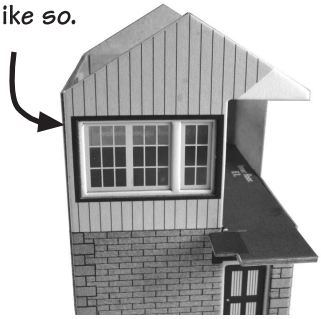
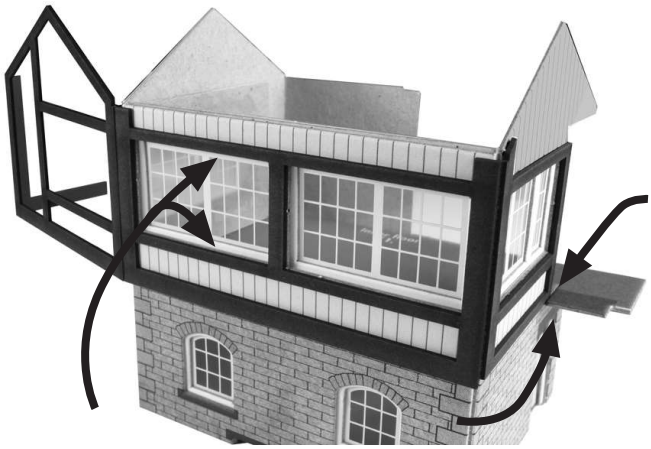


Fig. 5. TIMBER FRAME.

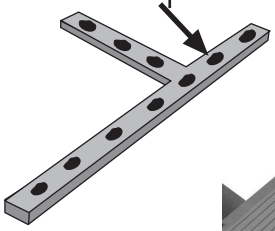
This is a tricky bit. Fold it around the building without glue to start with so you get a feel for how it fits. Then glue just the front and right hand sides and fit.



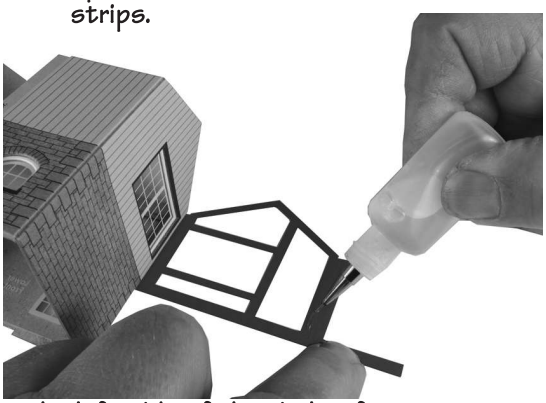
Slot into small gap between floor and wall so that bottom edge of timber is flush with underside of floor.

Line up inner edges with the window frames on front wall first, then fold the right hand side around and line up also with window.

Glue spots



GLUING THE TIMBER FRAME
This is best done with a fine tipped glue applicator. Simply put tiny spots of glue along the thin card strips.



Next, glue the left side of the timber frame and fold around and fit. The top edges of the frame on this end of the building should be flush with the gable wall top.

Like this.

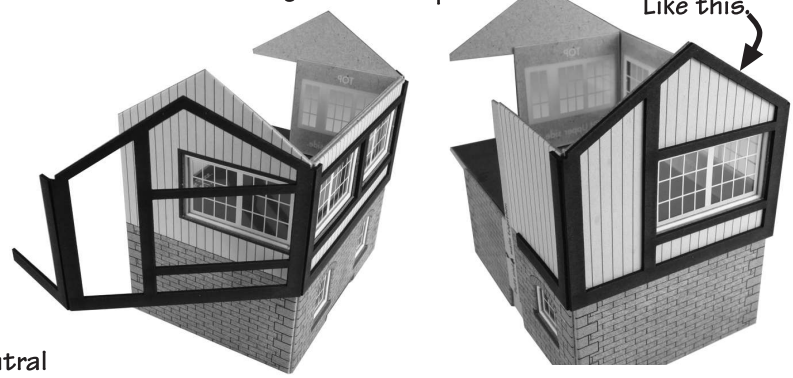
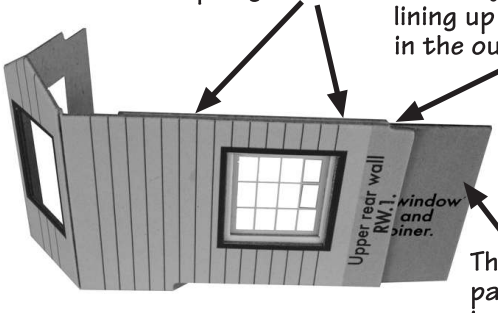


Fig. 6.

UPPER REAR WALL RW.1.

Next, fit the window WF.6. Fit so the window is central inside the window opening, it should also be flush along the top edge here, with the tiny recessed nick lining up with the one in the outer wall.



This overhanging part of the window is the fixing tab to attach it to the rear wall of the main building.

Bend the two corners fully before fitting the porch window WF.7.

Fit so the top edges line up with the outer wall.

This is important because the lower recessed part sits on top of the floor, allowing the outer wall to fold around the outer edges of the floor.

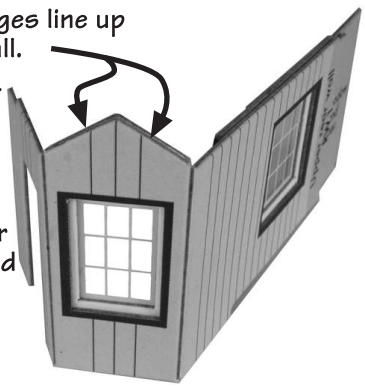
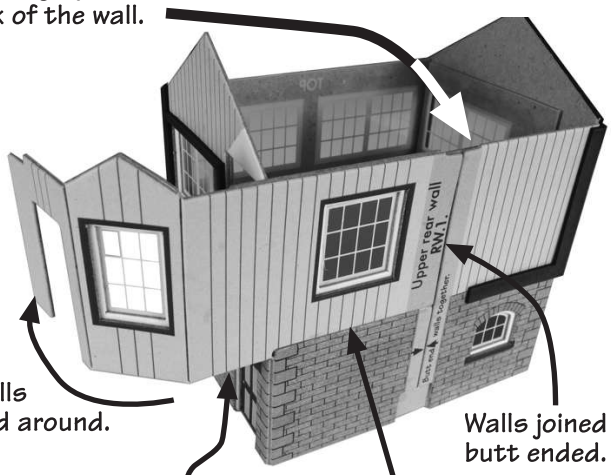


Fig. 7. FITTING UPPER REAR WALL RW.1.

Fix the grey tab on the window sheet to the back of the wall.

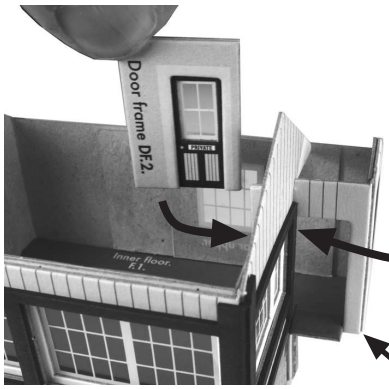


Walls fold around.

Walls joined together butt ended.

The overhanging part of the walls are stepped down a little to allow the wall to fit against the edges of the inner floor as it is folded around it to form the entrance porch.

The bottom edge of the wall sits directly on top of the lower wall.



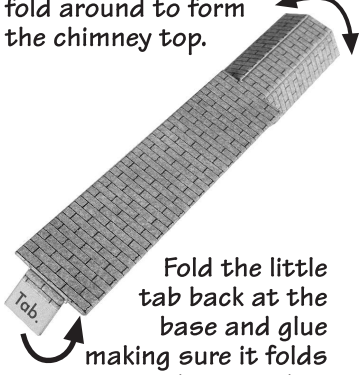
Door side slots into the building. Fix to window end with tiny spots of glue.

Fix walls to edges of floor as it is folded around.

Fit the door DF.2. as shown above.
Spots of glue on the grey areas around the door frame, then carefully slot into place from inside.

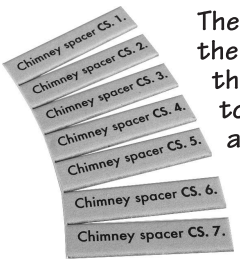
Fig. 8. CHIMNEY STACK.

The top of the stack has 3 scores that fold around to form the chimney top.

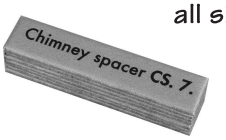


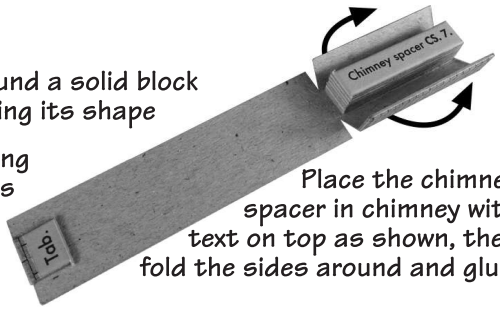
Fold the little tab back at the base and glue making sure it folds squared up to edge.

The chimney top folds around a solid block that holds it in place keeping its shape



The block is made using the 7 chimney spacers that are glued together to form a solid block.





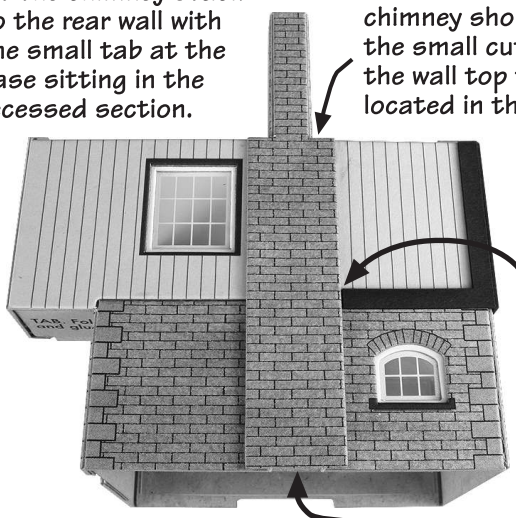
Place the chimney spacer in chimney with text on top as shown, then fold the sides around and glue.

It must be absolutely squared at rightangles on all sides

The chimney stack must be squared at right angles when viewed from above otherwise the roof won't fit properly.

Fit the chimney stack to the rear wall with the small tab at the base sitting in the recessed section.

The bottom of the squared chimney should sit inside the small cut out recess in the wall top to ensure it is located in the correct position for the roof to fit around it.

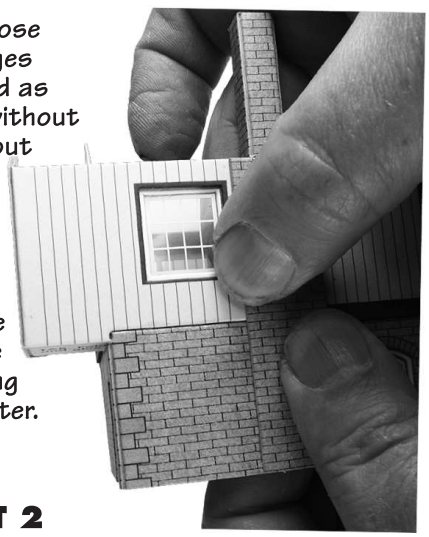


It should fit neatly up against the timber frame.

Tab sits in recessed section.

Glue as close to the edges of the card as possible without it oozing out and hold until dry.

This will reduce the risk of the card curling back up later.

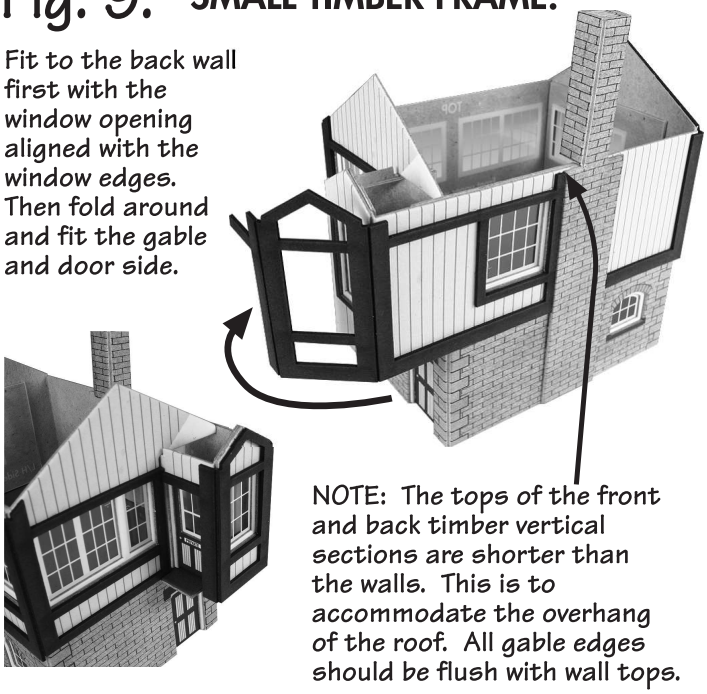


CONTINUED ON SHEET 2

PO330 GWR SIGNAL BOX INSTRUCTION SHEET 2

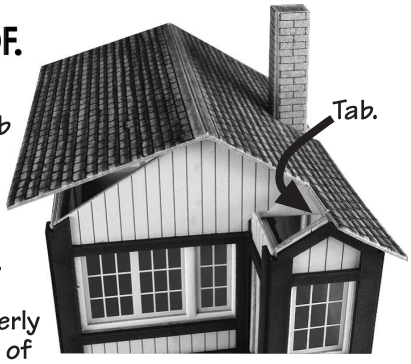
Fig. 9. SMALL TIMBER FRAME.

Fit to the back wall first with the window opening aligned with the window edges. Then fold around and fit the gable and door side.



NOTE: The tops of the front and back timber vertical sections are shorter than the walls. This is to accommodate the overhang of the roof. All gable edges should be flush with wall tops.

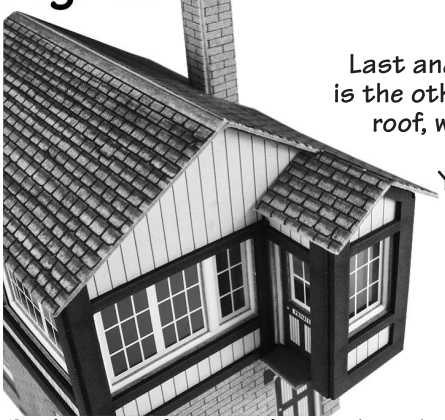
Fig. 10. ROOF.



Start by folding and gluing back the grey tab on the porch roof.

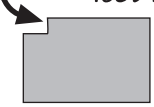
Carefully fit the roof around the chimney fixing the rear half first. Make sure the chimney stack is pushed in properly against the three sides of the slot and that it is standing vertically. Make sure that the folded ridge sits exactly on the pointed tip of both gable walls. When the front half of the roof is folded down upon the walls it should overhang equally at each gable side. Try without glue first so you can see how it fits.

Fig. 11. ROOF.



Last and by all means least is the other half of the porch roof, which sits as shown.

You may need to cut a very tiny nick out of the recessed bit to get it to fit correctly. Test first

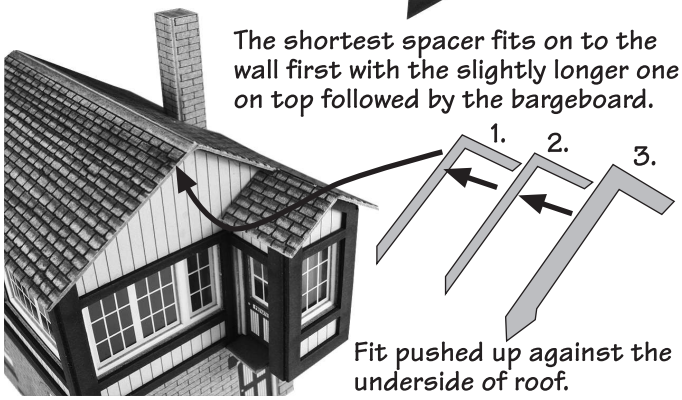


Don't worry if you can't get the ridge to fit absolutely. This is covered over later by the ridge tile strip.

Fig. 12. BARGEBOARDS.

Lets start with this right hand gable. The bargeboard and two spacers are cut short to accommodate the porch.

The shortest spacer fits on to the wall first with the slightly longer one on top followed by the bargeboard.



Fit pushed up against the underside of roof.

The porch and left hand bargeboards have just one spacer each and fit in the same way as shown here.

Fig. 13. THE STAIRS.

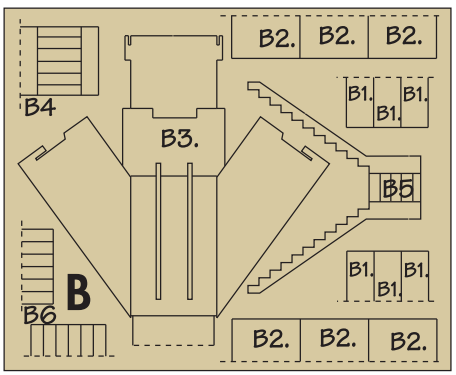
Now its time to get to the really intricate bit.
All the components are located on laser sheets B & C.
Cut carefully from sheets and place in the builders yard.

LASER CUT CARD 'B'.

Dotted lines indicate the scorelines you need to cut to release components from base sheet.

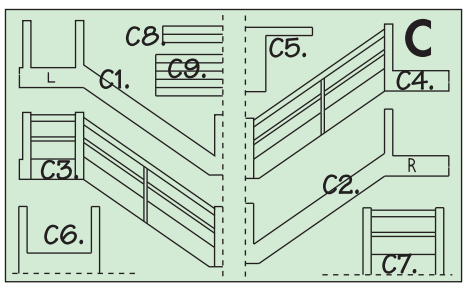
Components are:

B1. Small spacers x6..
B2. Large spacers x6.
B3. Jig for holding stringers when fixing steps.
B4. Walkway base.
B5. Stringers and stairs top.
B6. Steps x 12 (1 extra).



LASER CUT CARD 'C'.

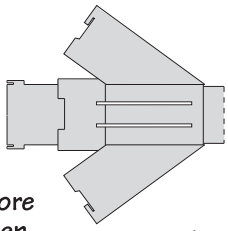
Components are:



C1. Left hand outer stringer.
C2. Right hand outer stringer.
C3. Left side hand rails.
C4. Right side hand rails.
C5. Right hand side top post and spacer for stairs.
C6. Walkway Inner posts.
C7. Walkway handrail.
C8. Short posts x 2
C9. Long posts x 5.

Fig. 14. THE JIG 'B3'.

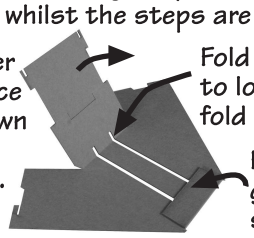
A very important part. This is used to hold the stringers (stairs sides) in place whilst the steps are attached.



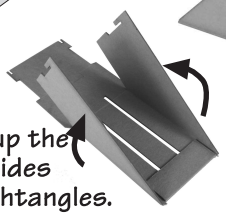
Turn over and place face down on work surface.

Fold up this score to loosen it, then fold back flat

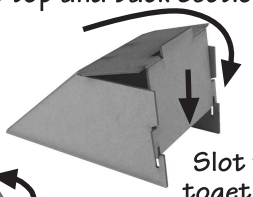
Fold over and glue down the small end tab.



Fold up the two sides at rightangles.



Turn over and fold down the top and back sections.



Slot the notches together and push down the back so that the top is sitting down on the side walls. Fix with spots of glue.

This is what you should end up with.

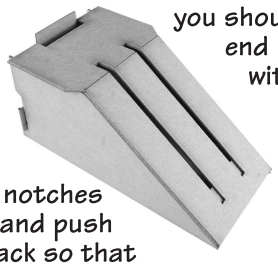
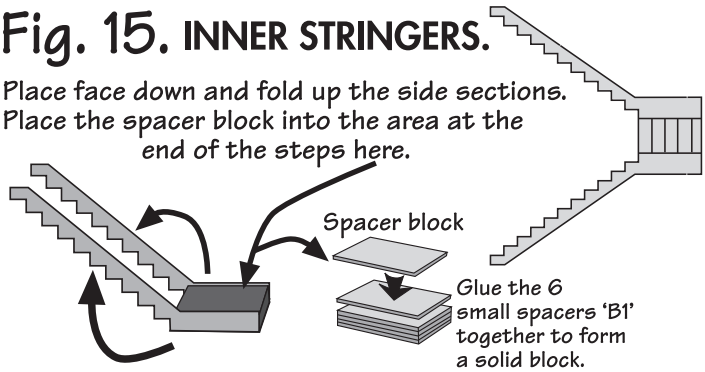


Fig. 15. INNER STRINGERS.

Place face down and fold up the side sections. Place the spacer block into the area at the end of the steps here.



Spacer block

Glue the 6 small spacers 'B1' together to form a solid block.

The sides of the stringers must be at rightangles when the spacers are fitted. Push up against a square piece of card to square it up. This is best done whilst glue is still wet to allow repositioning.

Your inner stringer should look like this.

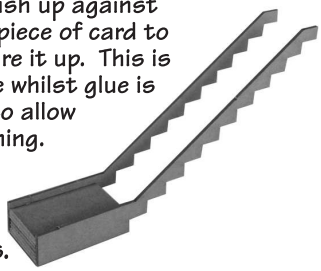
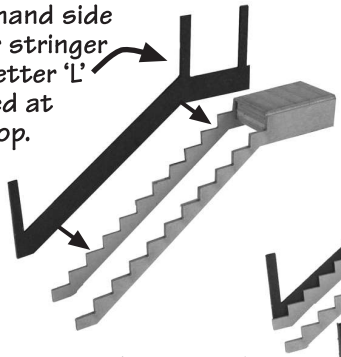


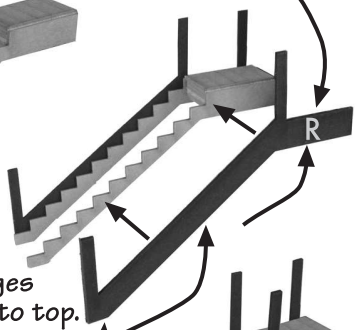
Fig. 16. OUTER STRINGERS.

The two outer stringers are attached to each side of inner stringers as shown.

Left hand side outer stringer has letter 'L' etched at the top.

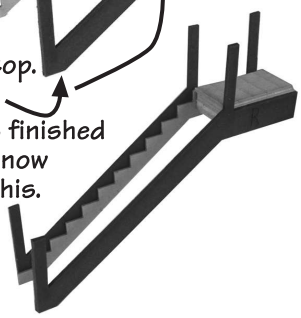


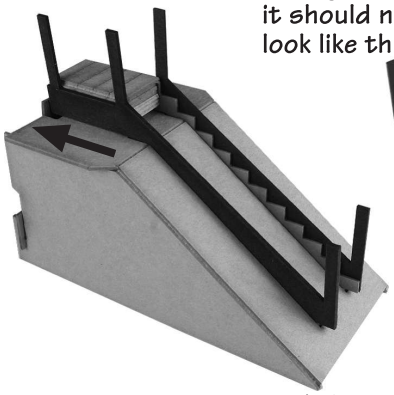
Right hand with 'R'



Fit stringer so bottom edges line up flush from bottom to top.

Stringers finished it should now look like this.





Place on the jig with the stringers sitting in the two slots. Slide it back until the top of the stairs hits the back stop on the jig.

It is now ready to fit the steps.

Fig. 17. FITTING THE STEPS.

There are 11 tiny steps 'B6'. Fit the bottom step first. Hold the step with fine pointed tweezers and apply a tiny spot of glue on the top of each end, then turn it over and gently sit it on the first cut away step of the inner stringer.

With the point of your tweezers, very gently push the top of the step down and back into its position. Now fit the other 10 steps in the same way.

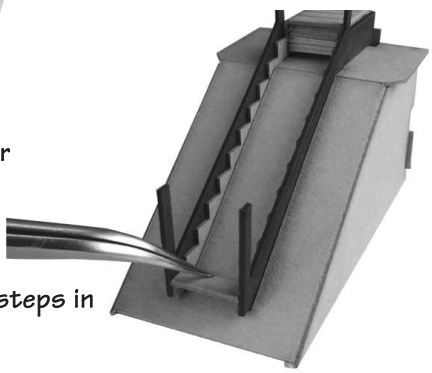


Fig. 18. HANDRAILS.

These fit onto the outer stringers, line up bottom edges as you did when fitting outer stringers.

The vertical posts on the stringers fit to the posts on the handrails. Use only the smallest spots of glue.

After the bottom edges are lined up, check that all the posts line up too. Press firmly together until glue is set.

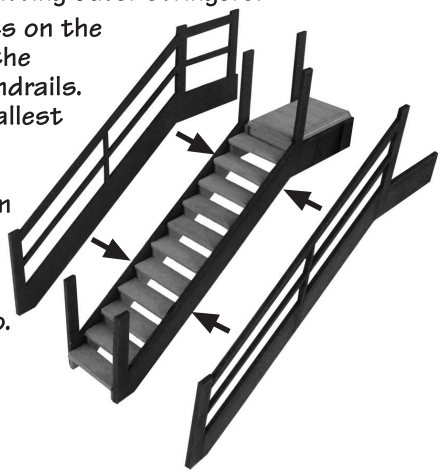
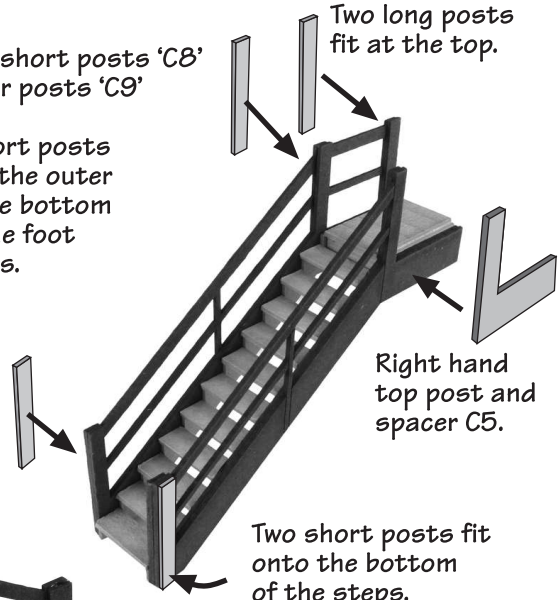


Fig. 19. OUTER POSTS.

There are 2 short posts 'C8' and 5 longer posts 'C9'

The two short posts fit against the outer edges of the bottom posts at the foot of the stairs.

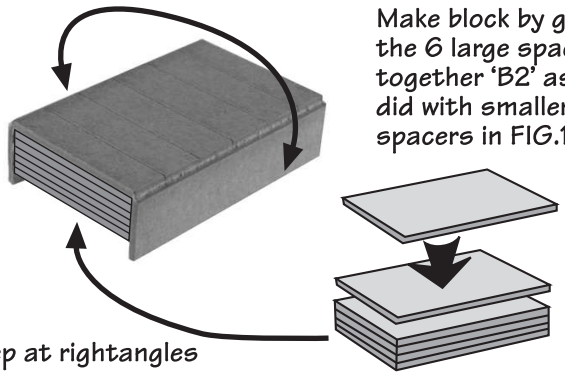


The outer posts are optional you don't have to fit them if you think it is too difficult.

Fig. 20. WALKWAY.

The walkway is an optional part that can be fitted at the top of the stairs (see photos below).

The sides of the walkway base 'B4' fold down and are held rigid by the large spacer block which is inserted underneath.



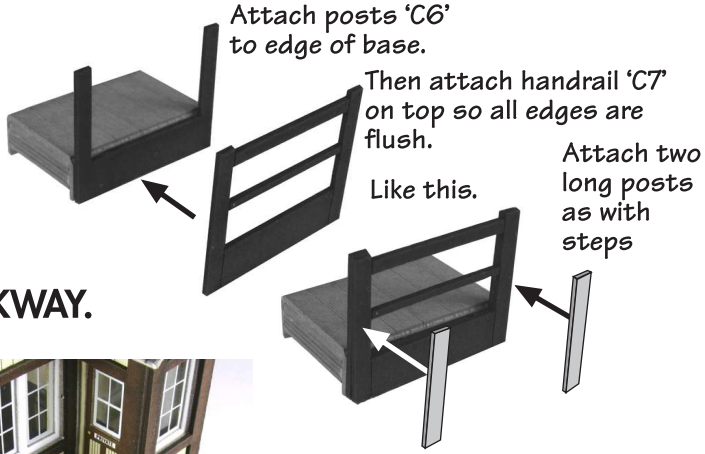
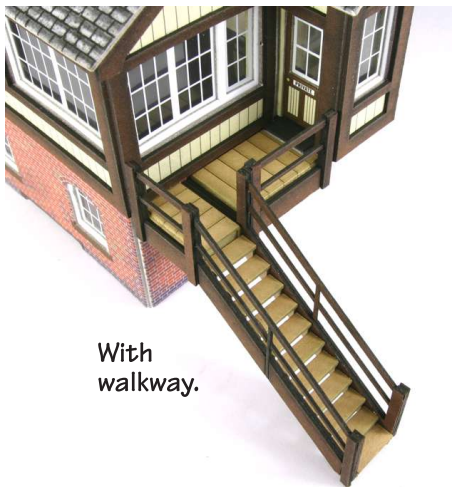


Fig. 21. FITTING THE STAIRS AND WALKWAY.

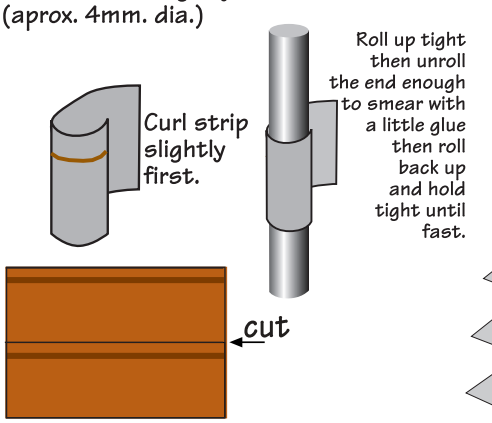

Without walkway.


With walkway.

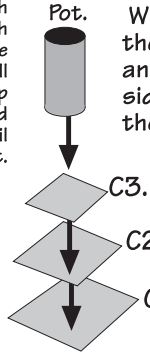
The walkway and steps fit to the building against the lower wall and pushed up under the overhanging timber frame and the doorstep.
You have a choice to fit with the walkway or without.

Fig. 22. CHIMNEY POTS.

Cut out one of the terracotta coloured strips below and roll tightly around a nail or drill bit (aprox. 4mm. dia.)



Glue the three chimney top stones together as shown with each one centred on the one below.
When fast, attach the chimney pot and set to one side to dry thoroughly.



Finish off your kit with the chimney pot and ridge tile strips.
If you feel the need to paint any corners do it with very much watered down watercolour paints and apply with a fine brush. Test on waste card first until you have a colour that matches.