

# PO331/2 00/HO SINGLE TRACK ENGINE SHED

## 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 pointed scissors.
3. A steel ruler.
4. Glue - UHU Clear Adhesive is our favourite.
5. Ultra Fine Tip Glue Applicator, *see right*.
6. A cutting surface - a sheet of card or a cutting mat.
7. Fine point tweezers to hold the smaller components.
8. Water colour paints and a very fine brush, for painting the edges and corners.
9. A large heavy book to use as a weight to press glued sheets together and stop card from warping.

## 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 scorelines are indicated with blue 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.

### 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.

**Cut out all the components from sheets A, B, C, D, E & the grey strengthener sheets and place inside your builders yard.**



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.

# INSTRUCTION SHEET 1

## CHECK LIST

This kit pack should contain the following:

- 1 x SHEET A - Outer walls with piers.
- 1 x SHEET B - Outer and end walls.
- 1 x SHEET C - Doors and chimneys.
- 1 x SHEET D - Inner side and end walls.
- 1 x SHEET E - Window frames walls and small roof.
- 1 x PLAIN GREY CARD - Interior strengthening parts.
- 1 x Dark brown card with self adhesive roof trusses.
- 1 x Stone coloured card with self adhesive lintels & sills.
- 3 x INSTRUCTION SHEETS.
- 1 x Glazing sheet. 1 x Roof Sheet.

The **METCALFE Ultra Fine Tip Glue Bottles** are essential for gluing the smaller components in this kit.



Tiny strips or spots 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 All Purpose Adhesive Glue

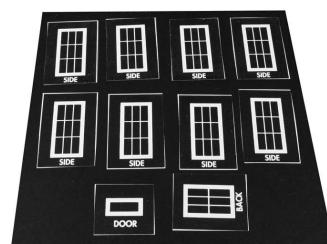
Is available in standard and solvent free. Both types are fine for use in our glue bottles, even though the instructions on the back of the packs warn against solvent based glues, we have tested the UHU solvent based glue and it works fine. The solvent free glue doesn't string as much, but can be a little harder to clean off if it drips onto unwanted areas.

## Speed Bond by Deluxe Materials

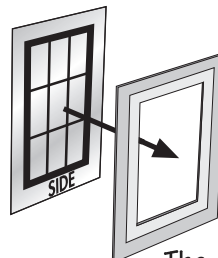
This is an excellent PVA. based glue that dries quickly, but also allows time to get parts into position. It has the added advantage that it dries clear leaving little evidence if it oozes out of joints etc. Used in our fine glue applicator bottles a 112g bottle lasts for ages. [www.deluxematerials.com](http://www.deluxematerials.com)

## GLAZING

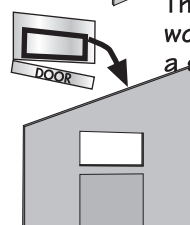
Cut out the glazing sheets along the outer white printed lines and place them on a separate piece of card or on small plate until needed.



**NOTE:** The matt printed side of the glazing is the side that looks best facing through the window openings.

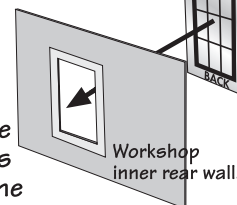


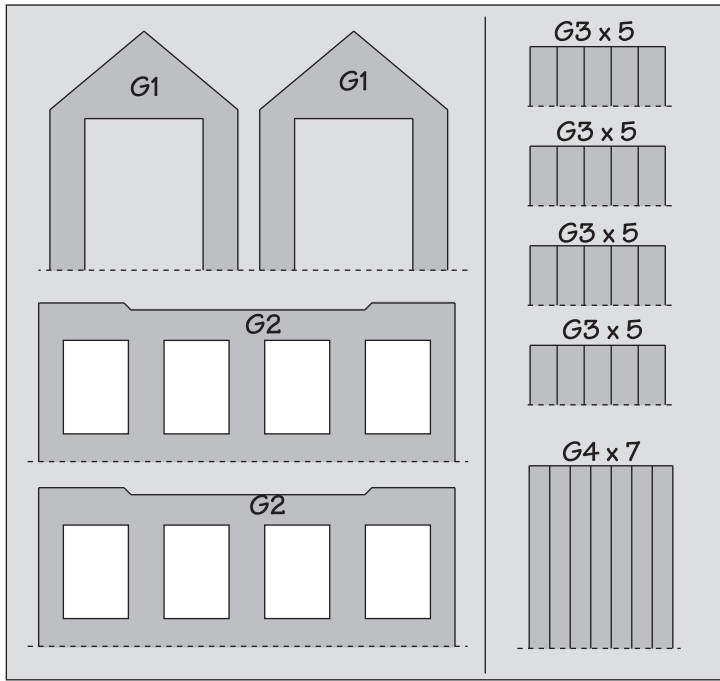
Attach the eight side windows to the backs of the window frames, and the back glazing to the workshop inner rear wall.



The glazing above the workshop door needs a strip cutting off the bottom edge if you want the door to open.

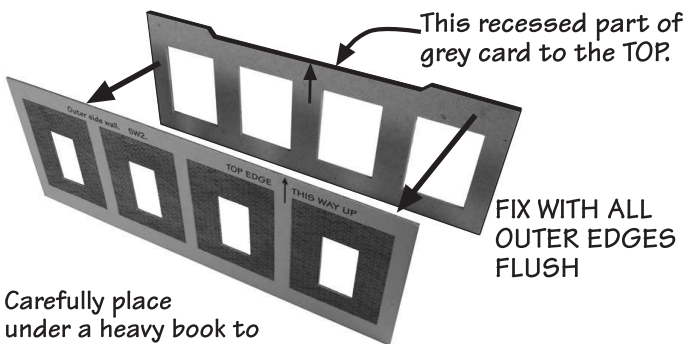
Place back in builders yard.



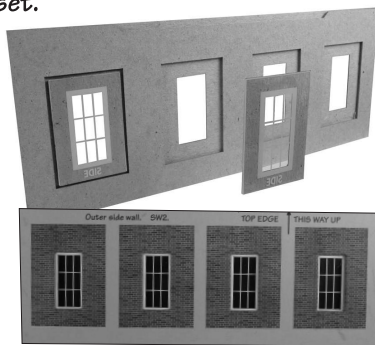


**Fig.1. SIDE WALLS.**

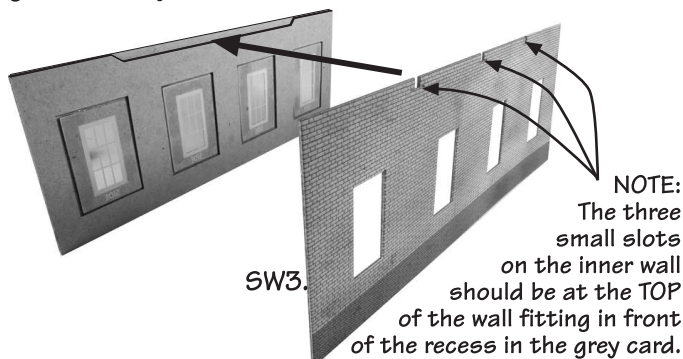
Take the two outer side walls SW2. and attach the two grey card inner spacers (G2) to the back of each.



Carefully place under a heavy book to hold flat until glue has set. Make sure outer edges of cards stay flush with one another. Then attach the windows into the recessed sections in the back of the wall making sure that the frames are centered in the outer opening.



Finally, fit the inner side wall SW3. to the back, making sure all outer edges are absolutely flush. Place back under heavy book to hold flat until the glue has fully set.



## GREY CARD STRENGTHENERS

This sheet contains all the un-printed components that fit inside the building to strengthen and hold it together.

Here is the key to what each item is:

G1. Inner front doorway gable spacers x 2.

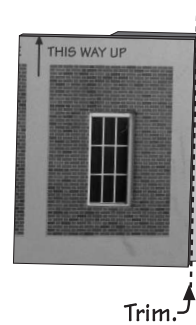
G2. Inner side wall spacers x 2.

G3. Smoke vent inner spacers. Four sets of 5.

G4. Workshop chimney inner spacers x 7

**Fig.2.**

## CHECK OUTER EDGES OF SIDE WALLS.



ALL outer edges of the side walls must be absolutely flush for the wall unit to fit into the building.

If any have slipped (even slightly) out of alignment, trim them back to line up with the edges of OUTER WALL.

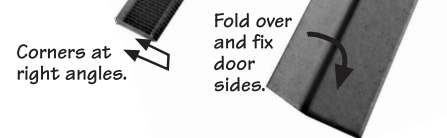
**Fig.3.**

## FRONT GABLE WALL.

Take the two grey gable inner wall spacers (G1) and glue them together ALL EDGES FLUSH.

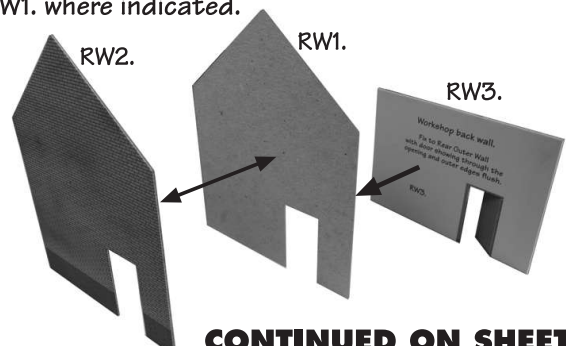
Then fix to the back of the gable wall FW1. Again all outer edges flush.

Now fold the two door side sections back and around to fasten to back of gable wall. Keep all corners right angles so edges are nice and squared up.



**Fig.4. REAR GABLE WALL.**

This is quite simple, glue rear walls RW1. and RW2. back to back with all edges flush. then attach RW3. to RW1. where indicated.



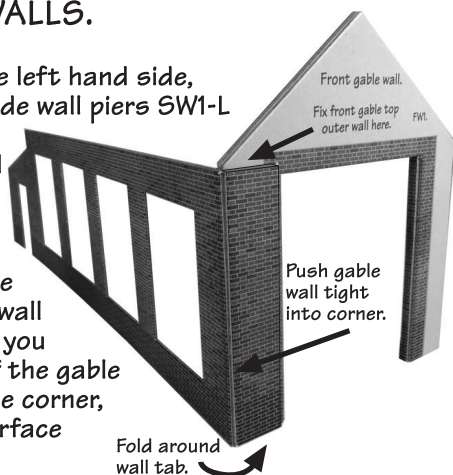
**CONTINUED ON SHEET 2**

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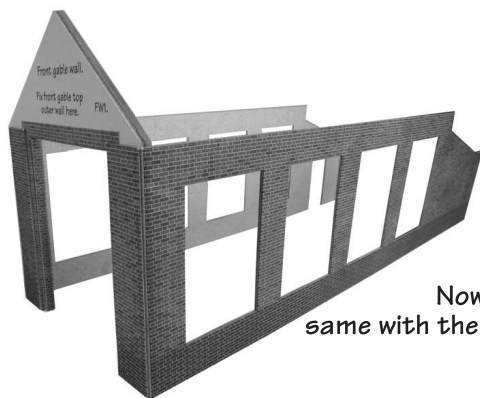
**Fig.5. FIX FRONT GABLE TO OUTER WALLS.**

Starting with the left hand side, take the outer side wall piers SW1-L and fold the wall tabs at each end to right angles.

Now attach the front gable to the back of the long wall tab, making sure you push the edge of the gable wall tight into the corner, Stand on flat surface until glue is set.



Fold around wall tab.

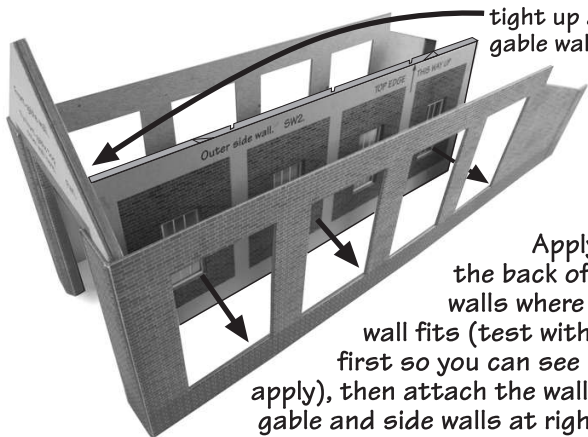


Now do exactly the same with the right hand wall

**Fig.6. FIX SIDE WALLS.**

The side walls you assembled in Fig.3. are now fixed to the back of the outer pier walls.

Push end of wall tight up against gable wall.



Apply glue to the back of the pier walls where the side wall fits (test without glue first so you can see where to apply), then attach the wall, holding gable and side walls at right angles until the glue has only PARTIALLY SET.

## IMPORTANT

Then open out and lay on a flat surface and weight down with a heavy book to hold it flat until the glue has fully set. If you don't do this, you risk the walls bending and warping out of shape, so please be patient, go make a cup of tea while you wait, you need to give it a good ten minutes to dry.

Now repeat with the other side wall.

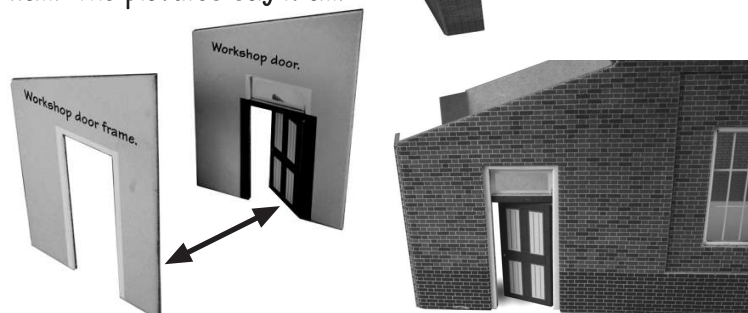
**Fig.7. REAR GABLE WALL.**

The rear gable sits inside the building up against the ends of the inner side walls



**Fig.8. WORKSHOP DOOR.**

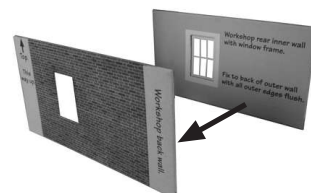
Fit the frame to the door then fix inside workshop wall. The pictures say it all!



**Fig.9. WORKSHOP BACK WALL.**

Fit the inner rear wall with glazing to the back of the outer wall, all edges flush.

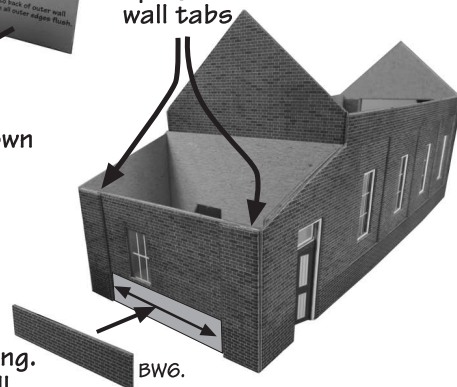
Now fit the wall into the back of the workshop up against the two short wall tabs



Fit the roof as shown below with sides overhanging evenly.

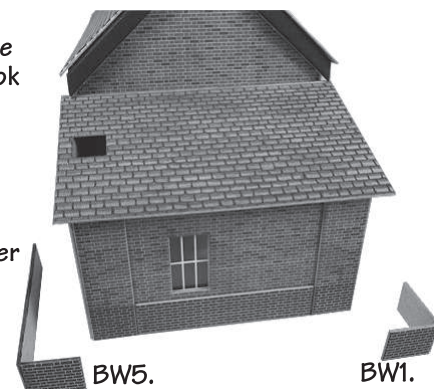
## BASE WALLS.

These small walls add a nice relief effect to the building. Start with rear wall BW6 which fits on the back wall in between the vertical wall tabs.

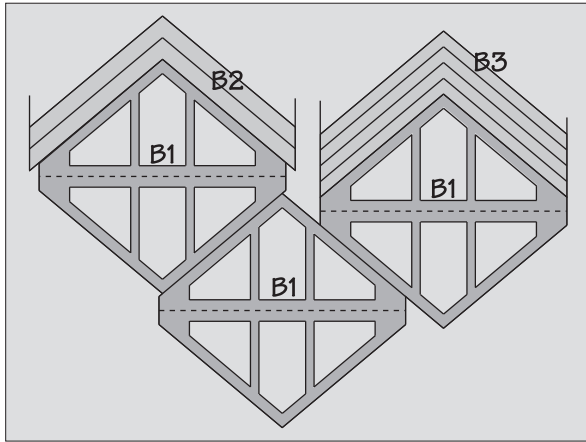


Before fitting these base walls, they look much better if the edges are painted to hide the card. See painting tips.

Fit these two corner base walls around the back corners as shown. They fit over BW6 and cover the gaps.



## DARK BROWN SELF ADHESIVE SHEET.

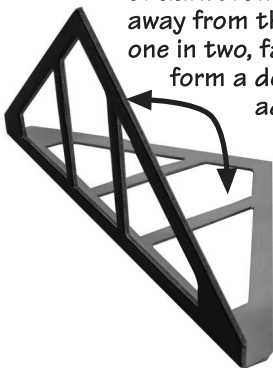


Key: B1. Roof truss x 3.  
B2. Bargeboard x 2.  
B3. Bargeboard spacer x 4.

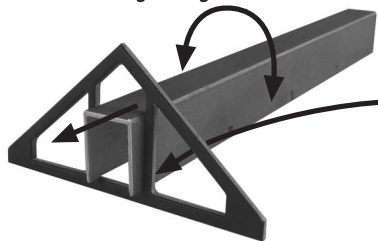
Although these components have adhesive backing its main purpose is to hold the sheets on the card. You will still need to apply glue for a permanent fix.

## Fig.10. ROOF TRUSSES & SMOKE DUCT.

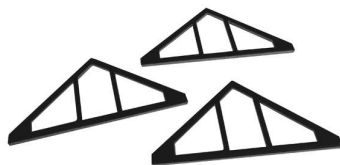
The three trusses are located on the sheet of dark brown self adhesive card. Peel carefully away from the backing sheet and fold each one in two, fastening them back to back to form a double sided truss. Although self adhesive they will need a few spots of glue here and there to stop them peeling apart later.



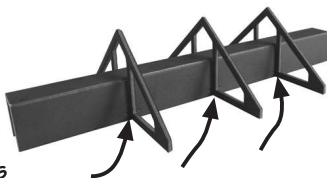
Fold at right angles.



Fold the two scorelines on the smoke duct to form box type structure then insert into the truss as shown.



Thread all three trusses on to the duct and slot the bottom 'tiebeams' up fully into the tiny slots on the base of the duct so that the bottom edges of duct and all three trusses are level.



Now fit the whole unit into the shed so that the truss ends sit down into the three slots in each inner side wall.

Push them fully down so they are seated to the bottom of each slot. The ends of the trusses should be touching the outer side walls.

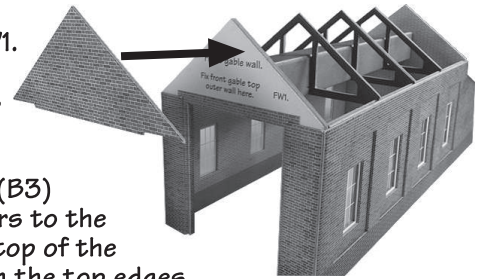
Fix with tiny spots of glue.



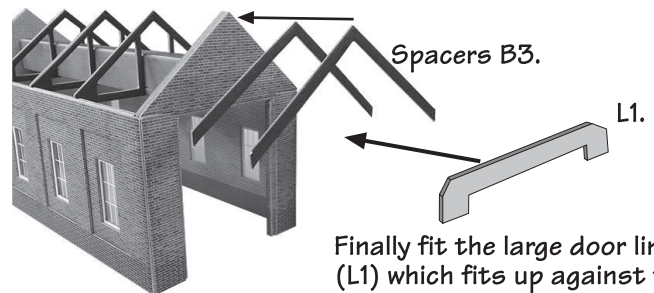
## Fig.11. UPPER FRONT GABLE & BARGEBOARDS SPACERS.

The upper wall GW1. sits on top of the two side wall tabs and flush with wall tops.

Next, attach two (B3) bargeboard spacers to the gable wall one on top of the other and flush on the top edges with the gable wall. Repeat with the rear gable.

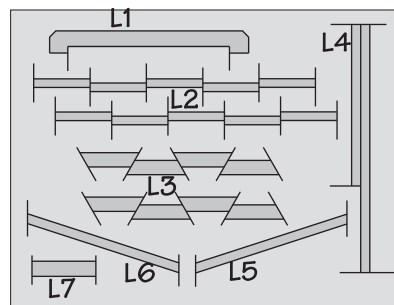


Don't fit the bargeboards yet



Finally fit the large door lintel (L1) which fits up against the underside of the bargeboard spacers and across the top of the big door. Fix with spots of glue.

## LIGHT BROWN SELF ADHESIVE SHEET.



Key:  
L1 Main door lintel.  
L2 Window sills x 10  
L3 Window lintels x 8  
L4 Workshop upper stone strips.  
L5 Workshop upper side strip left.  
L6 Workshop upper side strip right.  
L7 Workshop door lintel.

## Fig.12. FIT THE ROOF & BARGEBOARDS.

Fit the roof so that all four corners overhang equally, making sure the walls of the building are square.

Fit the bargeboards up under the roof overhang against the spacers.



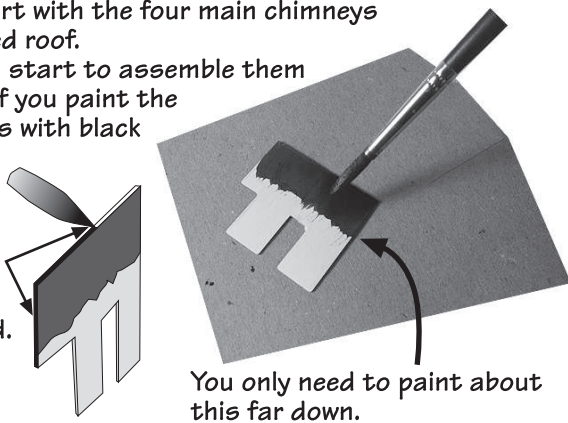
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## Fig.13. SHED CHIMNEYS.

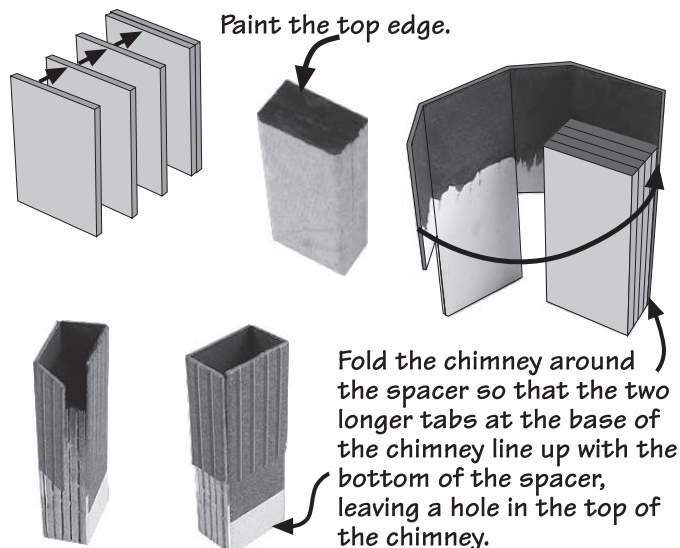
We will start with the four main chimneys on the shed roof.

Before you start to assemble them it is best if you paint the inside walls with black paint.

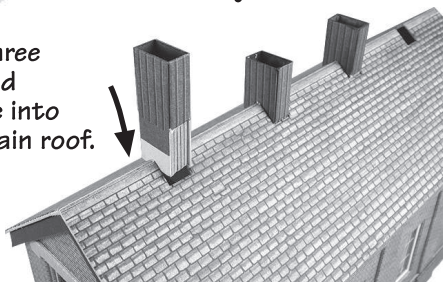
Also paint the edges of the card.



Glue five of the small chimney spacers (G3) together to form a solid block. Make sure all edges line up flush so they are squared up at right angles.



Repeat with the three other chimneys and then slot each one into the holes in the main roof.

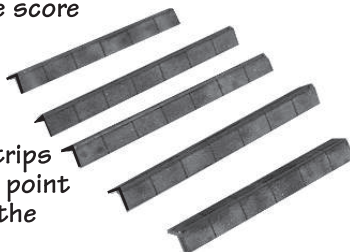


## Fig.14. RIDGE TILES.

Fold each of the five ridge tile strips in half down the centre scoreline and paint the white card that shows along the score with matching paint.

Water the paint down quite a lot and test on waste card first.

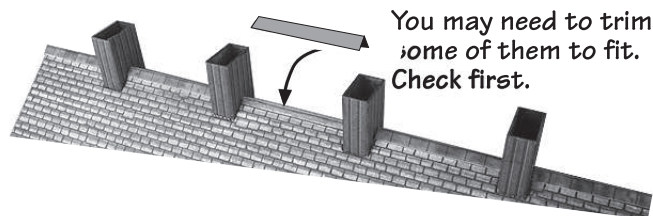
When painting, hold the strips with tweezers and run the point of a very fine brush along the exposed scoreline.



# INSTRUCTION SHEET 3

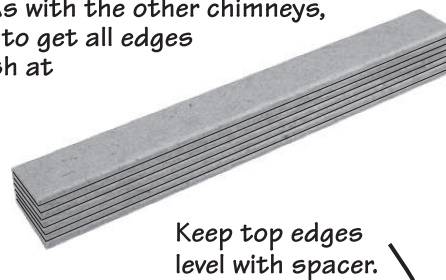
## Fig.15. FIX THE RIDGE TILES.

The two shorter ridge tiles fit at each end of the roof with the three others sitting between the chimneys.

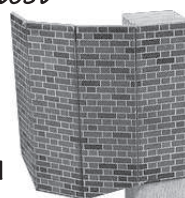


## Fig.16. WORKSHOP CHIMNEY.

Glue the seven long spacers (G4.) together to form a solid block. As with the other chimneys, it is important to get all edges squared up flush at right angles.



Next, fix the shortest of the four chimney sides to the flat edge of the block with the top edge flush with the end of the spacer.



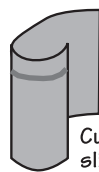
Now wrap all the way around the spacer, holding tightly until glue sets.



Test without glue first so you can see how it fits.

## Fig. 17. CHIMNEY POTS.

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



Curl strip slightly first.

Roll up tight then unroll the end enough to smear with a little glue then roll back up and hold tight until fast.



There are two pots in case you mess up.

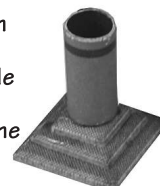


Pot.

Small.  
Med.  
Large.

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 before fitting to the chimney stack.



## Fig.18. WORKSHOP EDGING STRIPS.

Located on the light brown self adhesive sheet are two straight strips of card (L4.). These fit along the top edge of the rear workshop wall. The shorter strip fits in the recessed part of the wall with the longer one sitting on top of it. Push then up against the underside of the roof. Fix with spots of glue and make sure the ends are flush to the side walls.

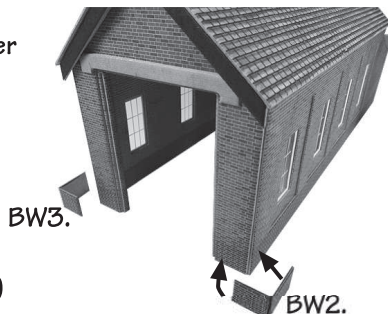
Next fit the two angled side strips (L5. & L6.) Fit up against underside of roof overhang as shown Repeat on other side.

NOTE:  
Chimney stack fitted down into the hole in the roof.

## Fig.19. FIT THE BASE WALLS.

Do you remember how you fitted the base wall sections around the corners of the workshop walls in Fig. 9 ? Now is the time to fit the rest of them.

Carefully paint the upper and side edges of each wall before fitting. Then fit BW2. & 3. to the front and side corners as shown.



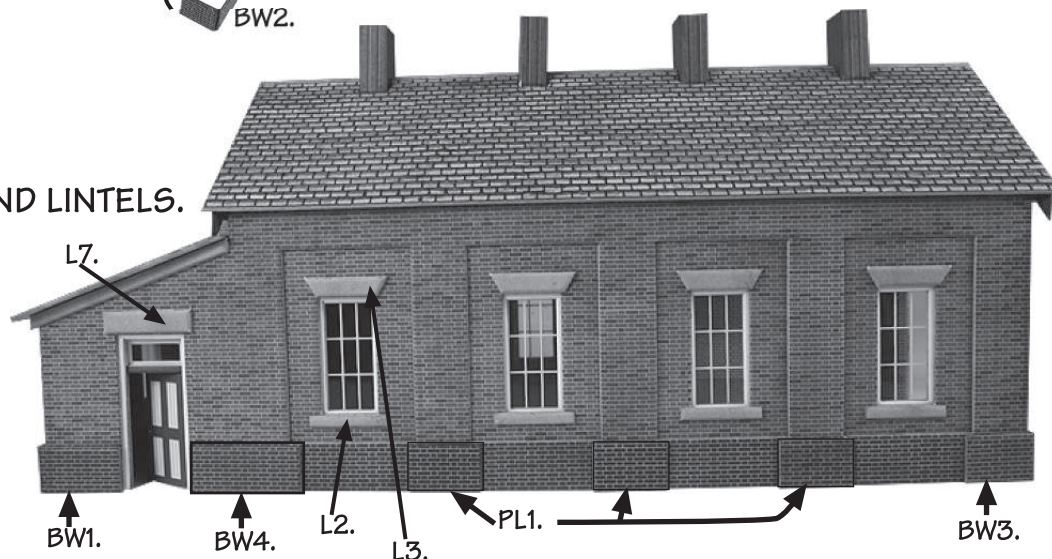
The six base walls (PL1.) each fit at the base of the three pillars on each side wall. See photo to your right.

## Fig.20. SILLS AND LINTELS.

Extract from base sheet and fit as shown to all windows and door.

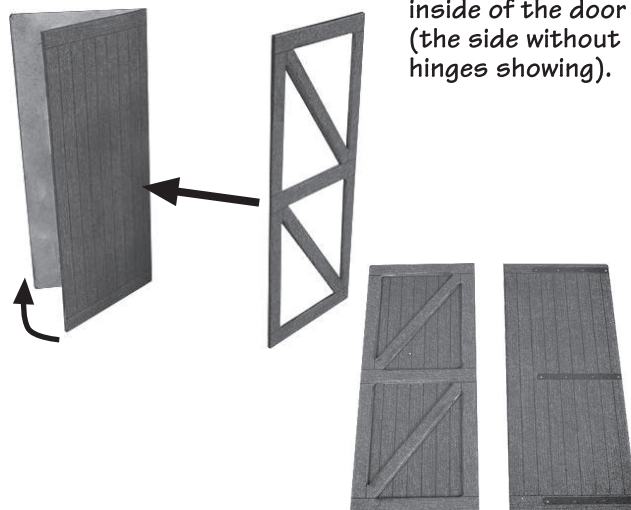
Fix each with tiny spots of glue to hold them on permanently.

The self adhesive backing is not strong enough to hold them on its own That is only used to hold the tiny components in place on the backing sheet during manufacture.



## Fig.21. DOORS.

Fold each door in half and glue back to back to make double sided. Next attach the inner timbers to the inside of the door (the side without hinges showing).



Fit the doors into the small recessed bit down the doorway sides and pushed up against the underside of the lintel in either open or closed position as required.



## PAINTING TIPS, Corners & Edges

Watercolour paints are the best for this job. Always mix colours and water down before applying to the corners and edges using the point of a very fine paint brush. Always test on waste card first. It is best to make colours a little too light to start with as you can always darken later.