

PO304 & PO305 00 Scale Low Relief Terraced House Backs Kit

**PLEASE READ THESE INSTRUCTIONS
BEFORE YOU START TO BUILD.**

It is important you familiarise yourself with all the components and building techniques.

PLEASE NOTE

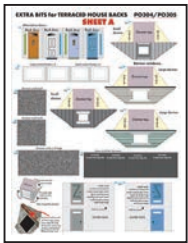
These instructions show the construction of the Stone Style Terraced Houses PO305.
The Red Brick version PO304 builds up in exactly the same way.

CHECKLIST.

- 1 x SHEET A. Printed 'Extra Bits' to enhance kit.
- 2 x SHEET B. Printed components for Main Building.
- 2 x SHEET C. Printed components for yard and shed.
- 1 x GREY SHEET D. Inner strengthening components.
- 1 x GLAZING SHEET.
- 1 x INSTRUCTION BOOKLET (this one).

Kit components at a glance.

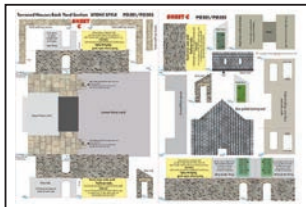
1 x SHEET A.



2 x SHEET B.



2 x SHEET C.

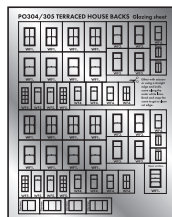


GREY SHEET D.



**GLAZING
SHEET.**

Clear plastic windows.



1 Tools to build this kit.

To build this kit you will need a few basic tools:

1. A modellers knife. We find that a Swann Morton knife with 10a blade is the best tool for the job.
2. A cutting surface - A cutting mat or thick card will do.
3. A sharp pair of scissors
4. A steel ruler.
5. Fine point tweezers.
6. METCALFE Ultra Fine Tip Glue Bottles (see 3)

INSTRUCTIONS

2 Glue.

We recommend using a combination of glue:
Speed Bond is slightly slow drying, ideal for where a little positioning is required as you build.

Rocket Card Glue is an instant and fast drying glue, great for where you need stuff to stay just where you place it. Supplied with its own fine tip applicator.

Also UHU All Purpose solvent free.

This is the **best** glue for fixing the plastic glazing to the window frames.

3 Ultra Fine Tip Glue Applicators.

An absolute 'must' when building this kit. When used with **Speed Bond** or **UHU** perfect amounts of glue can be applied to very precise areas without any mess.

Speed Bond in an applicator was used to build most of this kit.
UHU for fixing the glazing.

A METCALFE product supplied in packs of 3
Product code MT907 Glue not included

Care & Use of glue applicators

Always replace the pin if not using for more than a couple of minutes. The nozzle will block up from time to time, so simply tip the bottle up as shown here and push the pin inside, then vigorously push and pull the pin whilst squeezing the bottle at the same time. This allows the glue to moisten the dry glue in the nozzle.

If this doesn't help, then take the metal nozzle off and rod it out with the pin from the other end.

Speed Bond is a water based glue so running warm water over it as you go helps soften any hard glue in the nozzle.

ALWAYS store the bottles upside down when not in use.

This keeps the glue moist around the nozzle end of the bottle. See PAGE 5. for a good idea on storing bottles.

All Tools & Glues available at:
www.metcalfemodels.com

4 Extracting components from base sheets.

To stop the components falling off the base sheets, they are held secure with score lines (marked with blue arrows) that cut about 75% of the way through the card.

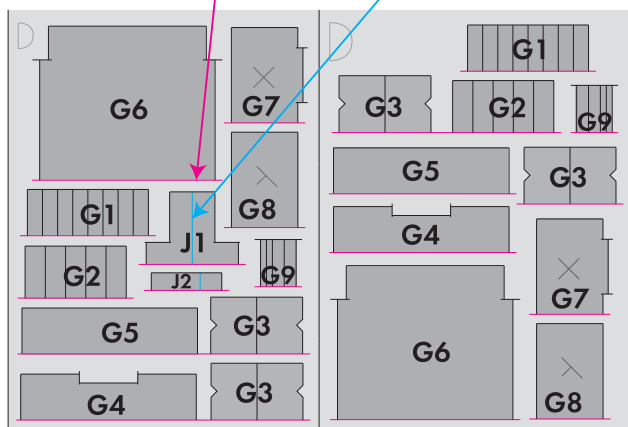
To release them run the point of your knife along these score lines and they will come seamlessly away.

WARNING, Cut with care to reduce the risk of the blade running out of the score and cutting the component.

5 GREY SHEET C Components.

RED lines indicate score rules you need to cut to release

BLUE lines indicate fold lines - Don't cut.



Key.

- G1.** Inner chimney spacers for main building.
There are 16 in total - 8 x for each building.
- G2.** Inner chimney spacers for rear gabled building.
There are 10 in total - 5 x for each building.
- G3.** Inner side wall supports for main building.
There are 8 in total - 4 x for each building.
- G4.** Upper inner first floors x 2.
- G5.** Upper inner 2nd floors x 2.
- G6.** Back wall x 2.
- G7.** Inner 1st floor for rear building (Marked 'X').
- G8.** Inner top floor for rear building (Marked 'Y').
- G9.** Inner wall thickeners for rear building.

J1. & J2. Jig components to make perfect chimney spacers.

6 OVERVIEW

There are two complete sets of house backs in this kit. Once built they are compatible with our house and shop fronts kits



It is best if you build each house separately to avoid getting in a muddle. From here on the instructions refer to building just one set of houses. Simply repeat for the next set.

However, if you do decide to extract all the components from all the sheets before you start to build the kit, keep them in a separate area or on a tray neatly piled and well away from your work space.

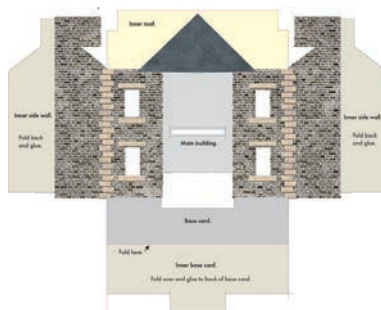
There are extra components such as chimney top stones and connection strips designed to aid connecting buildings either side by side or back to back. Most of these you won't need but they are there just in case.

START BUILDING

1 The Main Building.

Only extract the components listed below.

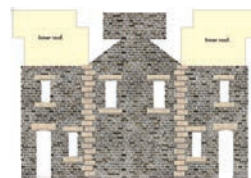
From **SHEET B** extract:



Main building.

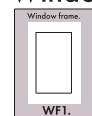
Complete with all its side walls base and inner roof attached.

Rear gable building.

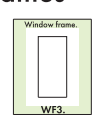


Gable floor & walls with WF5. windows.

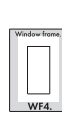
Window frames



WF1. x 4.



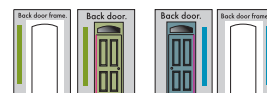
WF3. x 2.



WF4. x 2.

NOTE: There are no WF2 windows in the house backs kit.

Back doors x 2 with their matching door frames.



From **SHEET C** extract:

Ground floor spacer.

Not to be confused with similar spacers.



From the **LEFT HAND SIDE** of **GREY SHEET E**.

G3
x 4.

G5 Inner floor.

G4 Inner floor.



G1. Chimney spacers x 8.

Small wall thickeners.



G2. Chimney spacers x 5.



Back wall.

Inner floors for gable building.



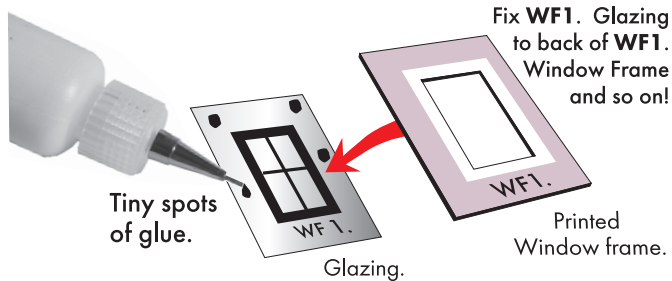
2 Windows.

Before any serious building work can start, we need to get the windows in place.

Start by cutting out 4 x WF1. 2 x WF3. 2 x WF4. and 2 x WF5. pieces of clear glazing from the glazing sheet.

There are a few different styles for you to choose from.

Each glazing has a corresponding window frame:

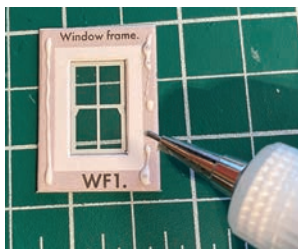


Using a fine tip applicator, place tiny spots of **UHU** glue on the edges of the glazing and then fix the window frame on top.

WARNING:

Using glues other than **UHU** to fix glazings risks them popping out later.

When fixing the glazing to the window frames, for a more permanent fix, rough up the surface of the areas of the glazing where glue is used with the point of your knife. Test before fitting into building.



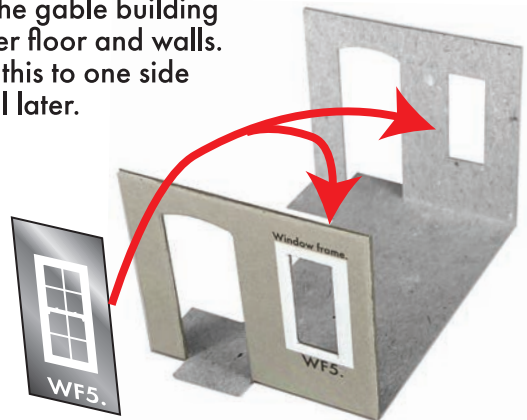
Then place tiny spots of glue around the edge of the frame and place the building on top with the window frame centred in the opening..



Once all glazings are fixed to the window frames, fix the four **WF1**. windows to the openings in the main building

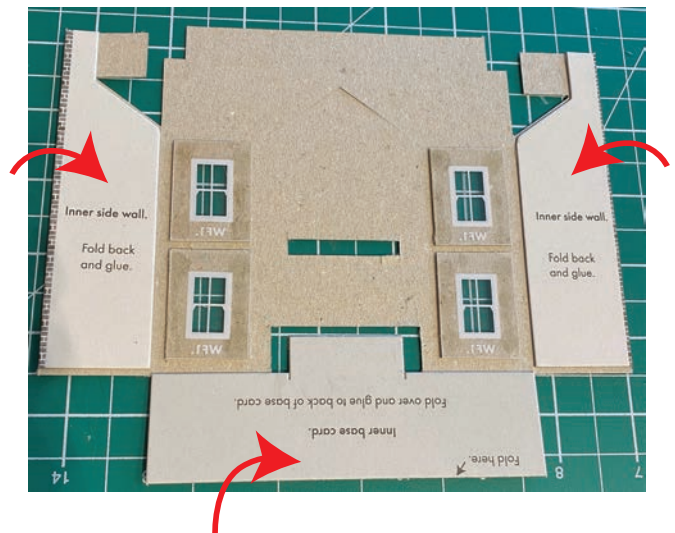
Then fit the **WF3. & WF4.** windows to the **UPPER WINDOW** openings in the gable building.

Fix the **WF5.** Glazings to the back of the window openings that are part of the gable building inner floor and walls. Put this to one side until later.



Once all the windows are in place now is a good time to fit curtains and blinds (see PAGE 11).

Now fold over and glue down the two Inner Side Walls and the Inner Base Card on the main building.

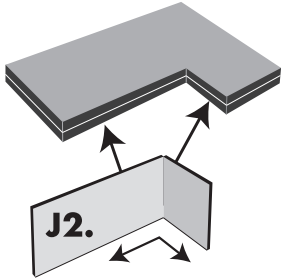
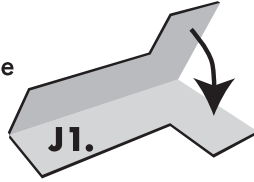


3 The Chimneys.

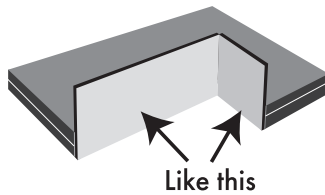
THE JIG and chimney spacers.

Especially designed for forming the layers of card that are glued together to form a solid block with all sides held at perfect right angles. These blocks are then used inside the chimney stacks to hold them squarely in place.

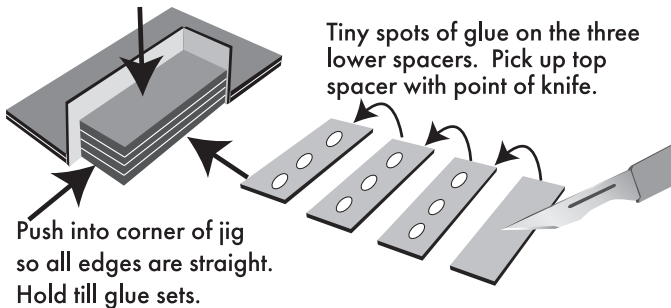
Fold grey **J1**. in half and glue to make double thick.



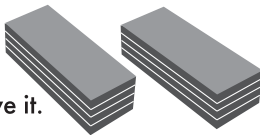
Then fit **J2**. folded at a right angle into the corner.



Each block is made using 4 x G1. spacers.



Tiny spots of glue on the three lower spacers. Pick up top spacer with point of knife.



And there you have it.

Two chimney spacer blocks.

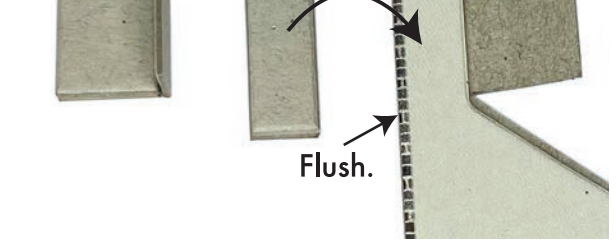
Now fix the chimney block to the inside wall flush to the top and back edge.

Jig.

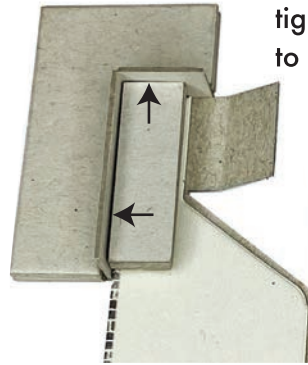
Chimney block.

Flush.

Flush.



Like this. Use the jig held tight against top and back to keep flush.

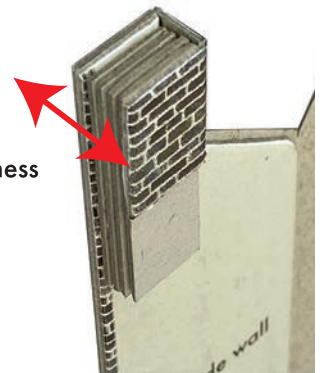


Then fold the outer wall around against the jig.

Like this. Back and top edges perfectly square.

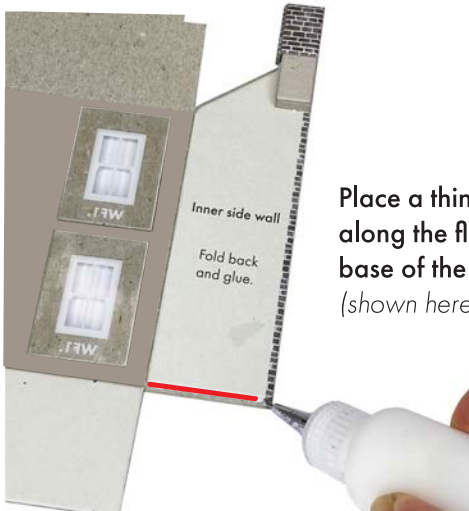


Thank goodness for the jig!

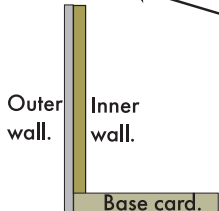
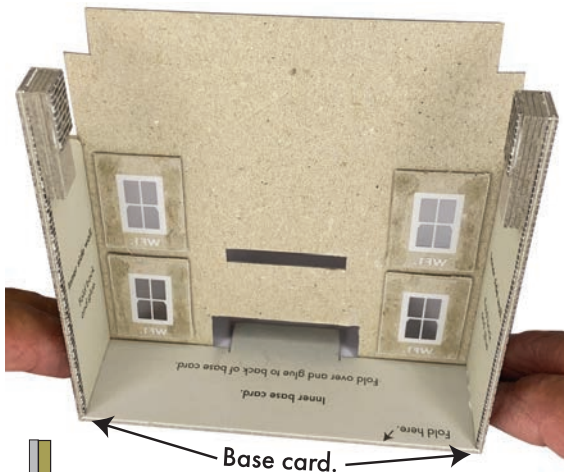


Now do the opposite chimney, the jig will be a little elongated on the top edge, but it works. It's important that the chimneys are all squared up. They need to line up when fastening the buildings together.

4 Assemble the walls.

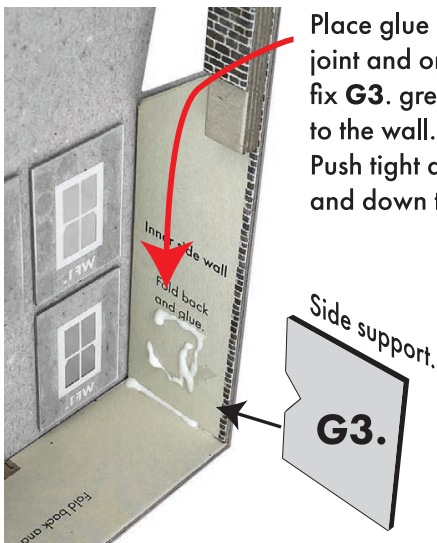


Place a thin strip of glue along the flange at the base of the side walls (shown here in red).

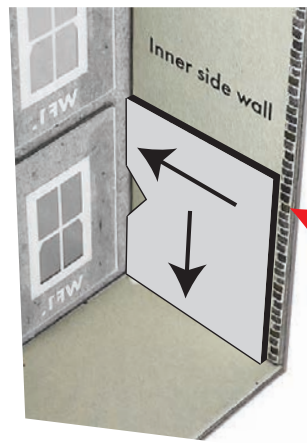


Fold the front wall up and the side walls around so that the ends of the base card fit into the flanged part of the side walls

Stand on a flat surface as you do this hold until the glue sets.

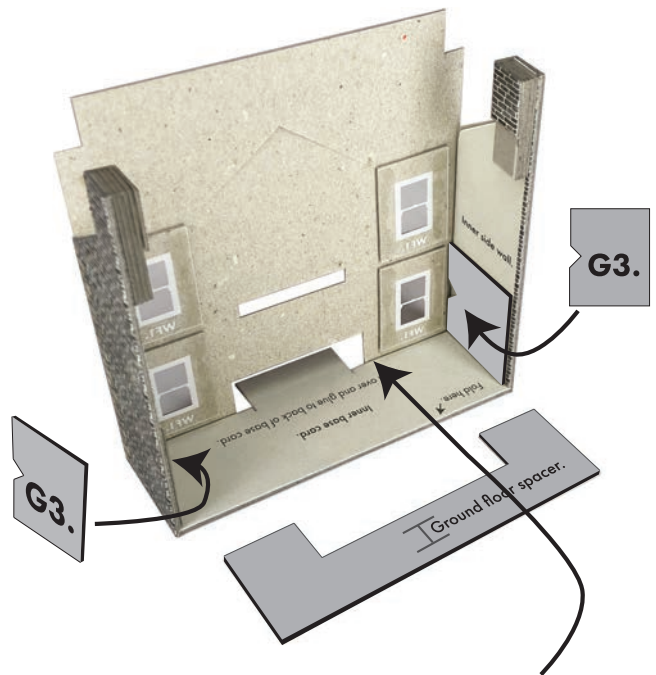


Place glue along the bottom joint and on the wall, then fix G3. grey side support to the wall. Push tight against front wall and down to base card.



Note the recess on the back edge this is to allow space for the back wall to fit in.

Fix a second G3. support to the opposite wall in exactly the same way.



After fitting the two G3. side supports, fit the ground floor spacer. Push it tight up against the front wall.

USEFUL HINT FOR FINE TIP APPLICATORS

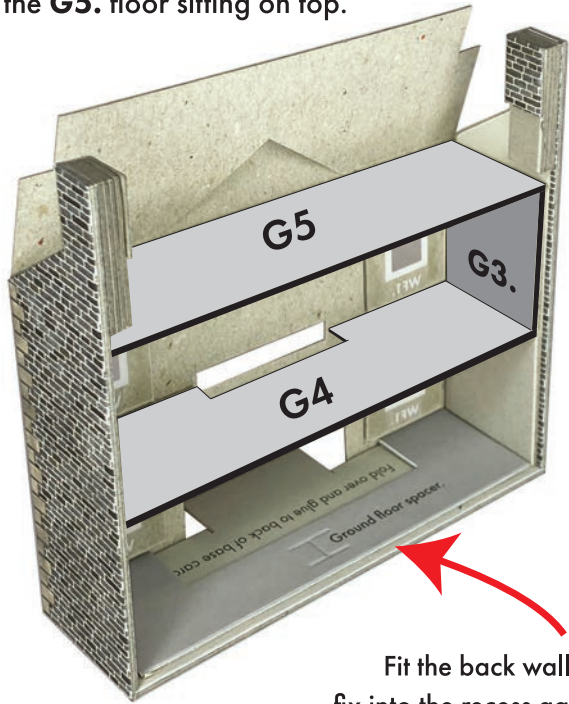
Storing the bottles upside down keeps the nozzles free from blocking.

This simple holder was made using hard foam corner packaging. You could also fashion one from styrene foam packing. When using the bottles stick the pin into the foam for safe keeping.

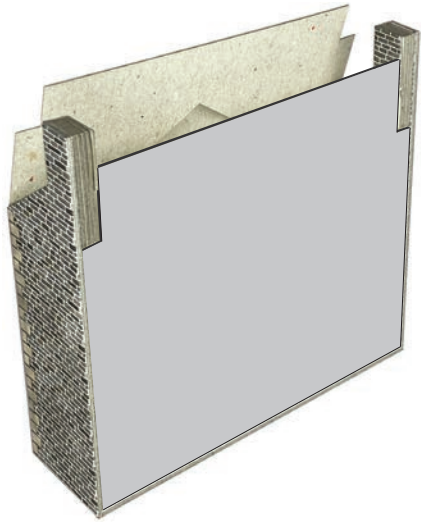


Fit **G4**. inner floor with cut away section facing the front wall.

Then fit the last two **G3**. side supports with the **G5**. floor sitting on top.

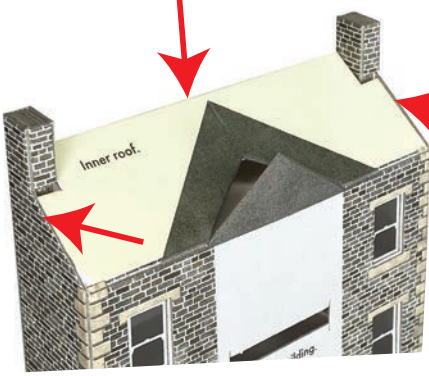


Fit the back wall **G6**. fix into the recess against the inner floors etc.



Like this. Pushed tight inside the building.

Fold the inner roof down on top of the inner walls with the back edge sitting on top of the rear wall.



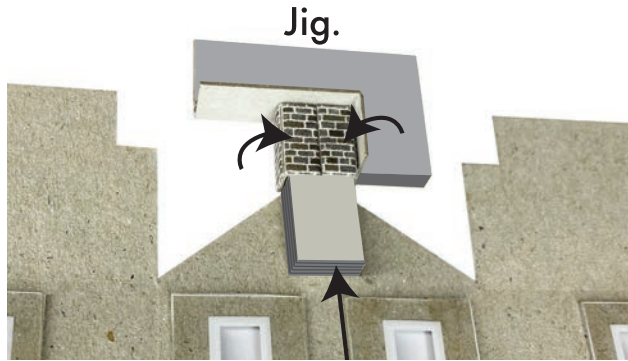
Flush with outer wall tops.

Put the building to one side. DON'T fit the roof tiles yet.

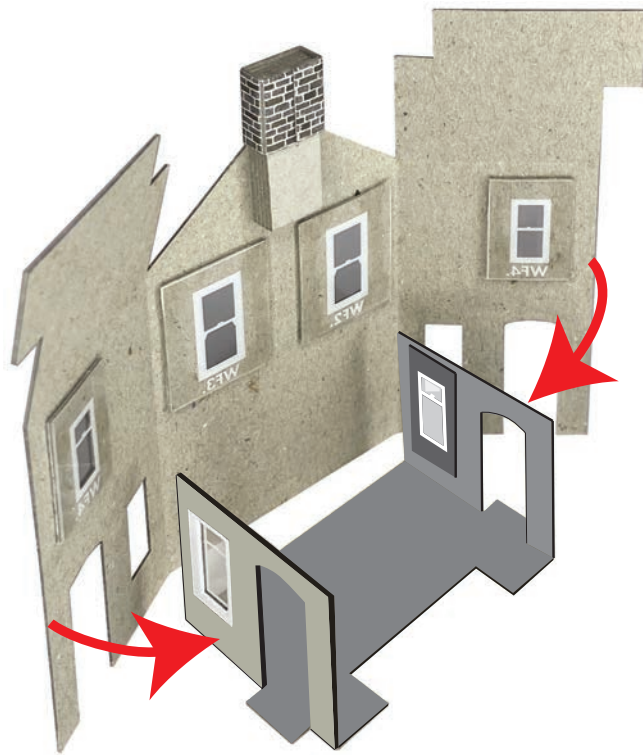
5 The Rear Gable Building

If you haven't already done it (page 3.) fit the **WF3. & WF4**. windows to the **UPPER WINDOW** openings in the gable building.

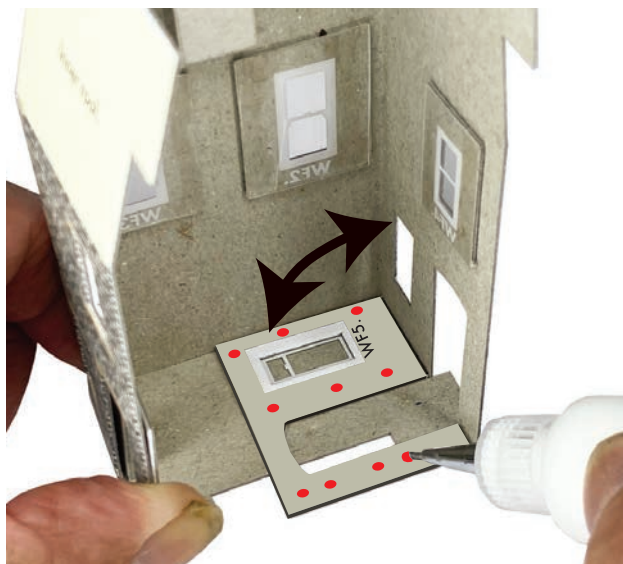
With the windows now in place, fix the chimney block so that the two sides of the chimney stack can fold evenly around it with all top edges flush. You can use the Jig to help keep it squared up.



Now for the fiddly bit. So pay attention!



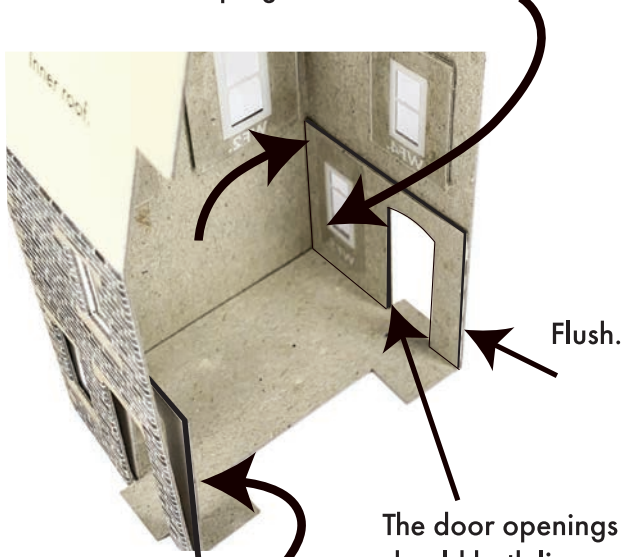
The gable building wraps around the inner floor and side walls.



Fit the inner floor and walls inside the building without any glue to start with.

Fold back one of the walls and place tiny spots of glue as shown around the doorway and window frame (in red) then fold the wall back up.

When you fold the wall back up, push tight into the corner and up against the end wall.

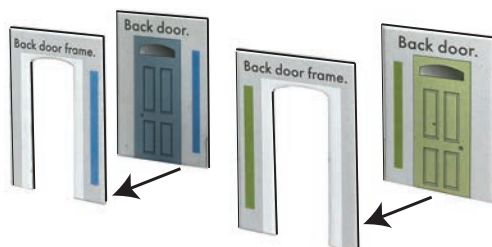


Now repeat with the opposite wall

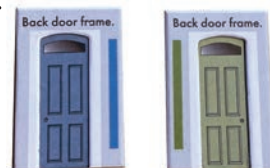
The door openings should both line up exactly.

The Doors.

Pair up the doors with their matching frames.

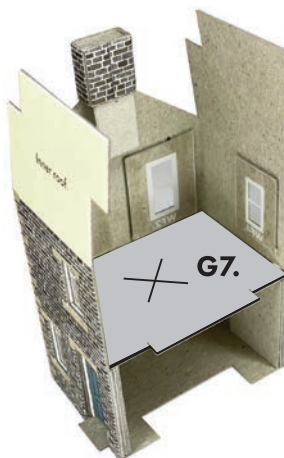


Fit so that the edges with the blue and green strips are towards the open end of the building flush to wall ends.

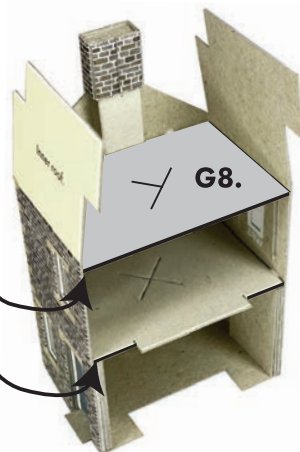


Fit the inner floors

Fit **G7.** first (marked X) sitting on top of the doors and pushed tight up to back wall underneath the window frames.



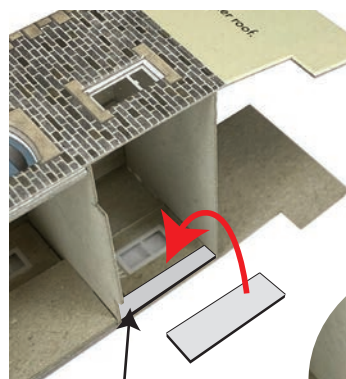
Then fit **G8.** (marked y) sitting on top of windows.



Push both floors in tight these back edges need to be flush to wall edges.

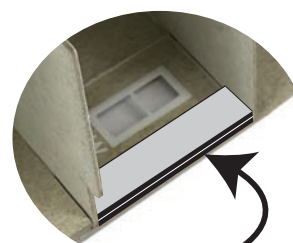
Wall Thickeners G9.

These tiny strips of card thicken the upper wall edges making it easier to apply glue when fixing buildings together.



Thin strip first next to window frame.

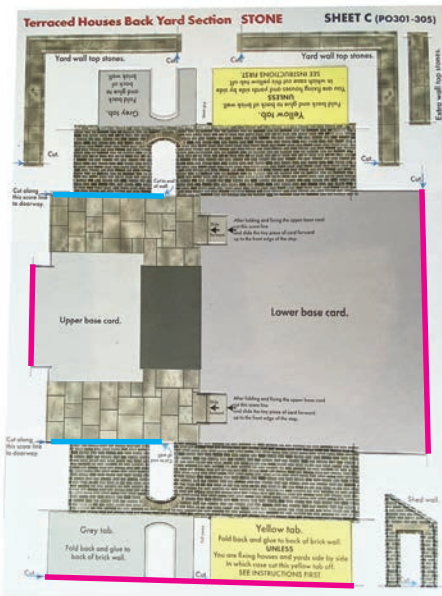
Thicker strip on top with edges flush to edge of building.



Put the building to one side until needed.

6 The back yards.

Extracting the large all in one base card needs care.
Located on the left hand side of SHEET C



1. Cut along the two score lines marked here in **BLUE**
See below.

2. Cut along the three score lines marked in **RED** to release the large base with the walls attached

Slice these two score lines as far as the doorways before you extract the base.



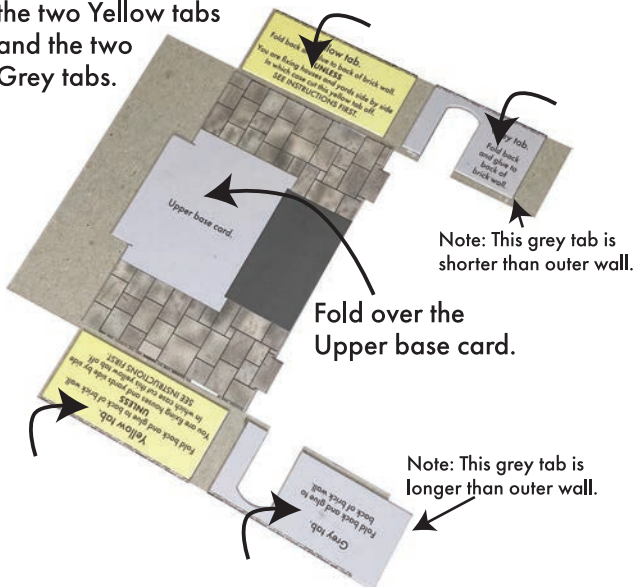
STOP

Before you go on to the next step,
see 'Joining Notes' opposite.

You may need to make small adjustments to the side walls below.

Turn base card over

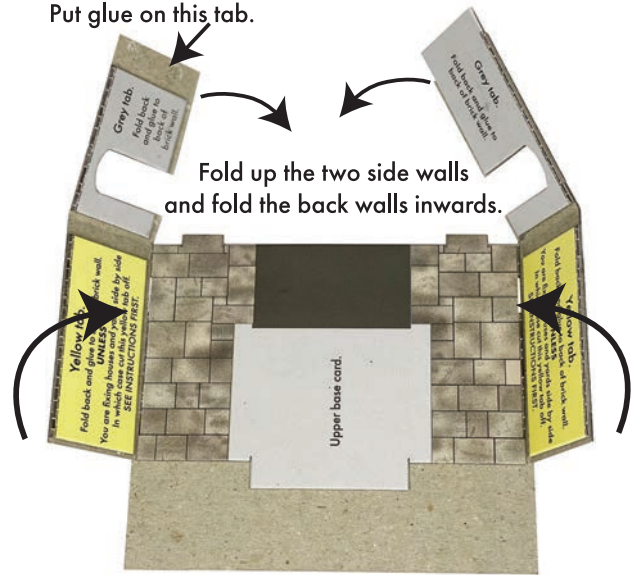
Fold over and glue down
the two Yellow tabs
and the two
Grey tabs.



Just a little thing: If you turn the base back over you will notice the two steps have small tabs that need cutting and sliding across to line up flush with the end of the steps.

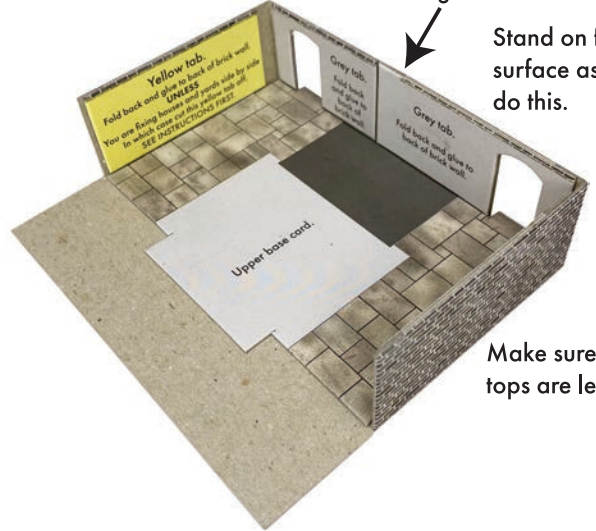


Put glue on this tab.



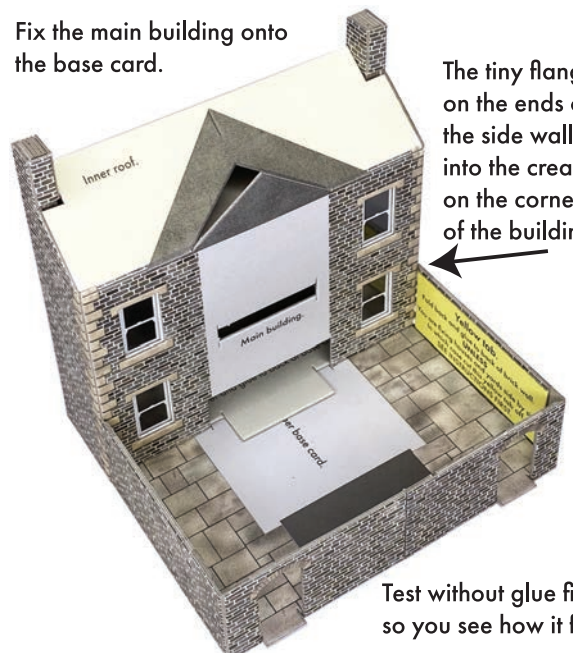
The back walls fix butt ended together

Stand on flat surface as you do this.



Fix the main building onto the base card.

The tiny flanges on the ends of the side walls fit into the creases on the corners of the building.



INNER WALLS

The side and rear walls all fold in half and glue to make double thickness. See 'Joining Notes' before gluing down the yellow tabs on adjoining side walls.

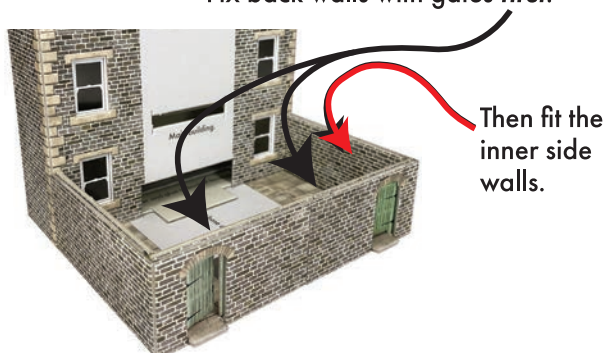


NOTE: The backs of the gates are plain card. Cut out the gates on page 11. and stick to the backs of gates.

There are alternative gates on SHEET A. If you are using these, cut the gates along with the surrounding grey card around and fix the alternative gates in their place.

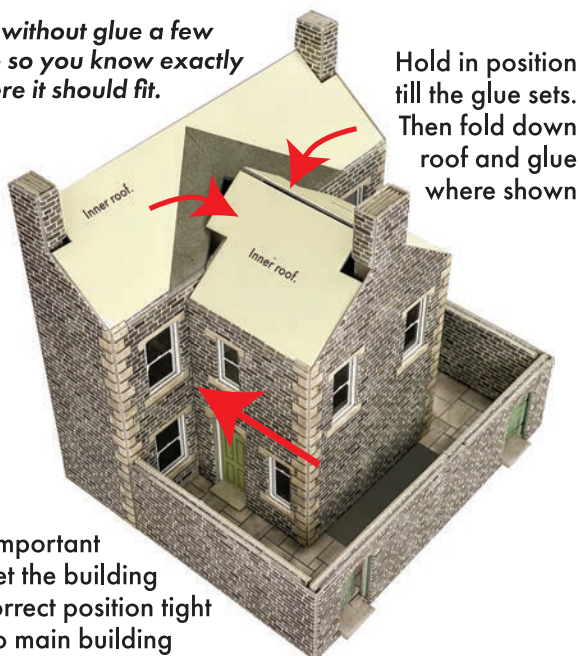


Fix back walls with gates *first*.



Fix the gabled building to the main building. There is a slot in the base to guide it into the correct position.

Test without glue a few time so you know exactly where it should fit.



It's important to get the building in correct position tight up to main building otherwise the roofs won't fit correctly.

Hold in position till the glue sets. Then fold down roof and glue where shown

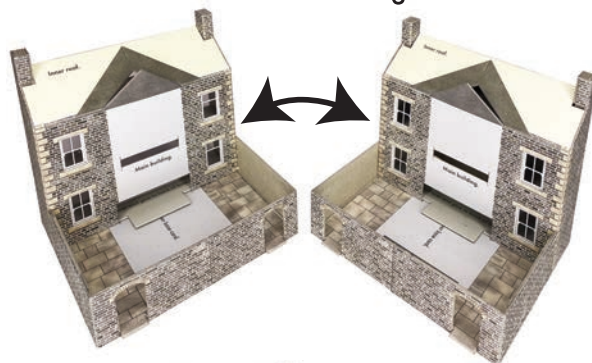
JOINING NOTES

If you are fixing kits together side by side you will need to make the adjoining yard walls a bit thinner. So cut the **YELLOW** tabs off inner and outer adjoining walls so they are only four layers thick in total when the buildings are fixed together and not eight layers. That way the top stone strips will fit correctly.

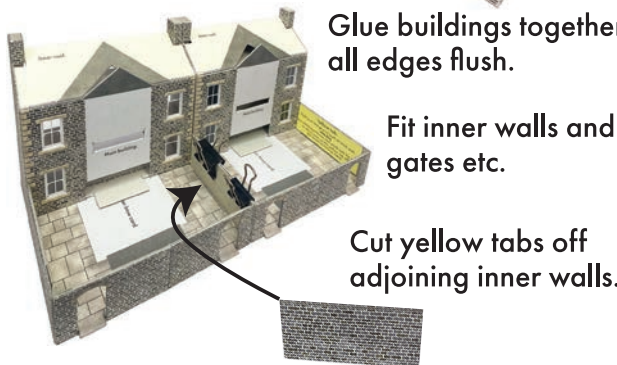
Cut off the yellow tabs on the adjoining walls.



Assemble the yards as previous page and fix to the buildings.



Glue buildings together all edges flush.



Fit inner walls and gates etc.

Cut yellow tabs off adjoining inner walls.

Carry on building as instructed in previous column

When you fit the main roofs (page 12.) they will need trimming down where they meet in the middle. Any gaps can be covered over with the small roof joiner strip.



Chimney capping TS2. with 4 pots to fit the double chimney.



7 The Shed & Wall Tops.

From SHEET C extract:



Shed walls x 2.



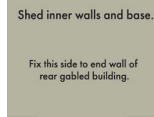
Shed doors x 2.



Shed roof.



L Shaped
top stone strips x 2.

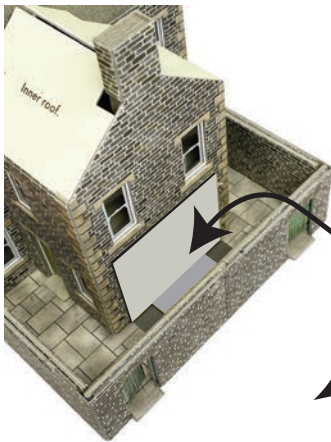


Shed inner walls and base.
Fix this side to end wall of
rear gabled building.

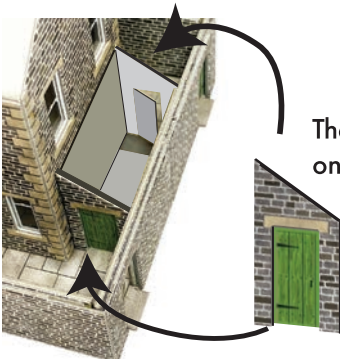
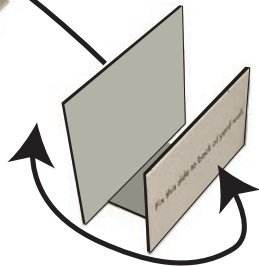


Base.
Fix this side to back of yard wall.
Inner walls & Base.

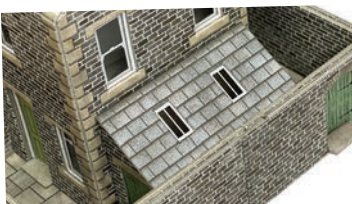
Fix the two doors to the
backs of the shed walls.



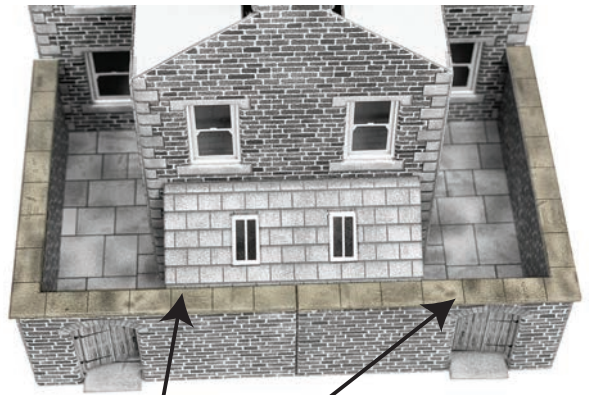
Fold up the inner walls
and fit down into the
space between gable
wall and yard wall.



Then fit the doors
onto each end.



Top off with the
roof with glazing
fitted.



Fit the two
L shaped top
stone strips to
the wall tops.

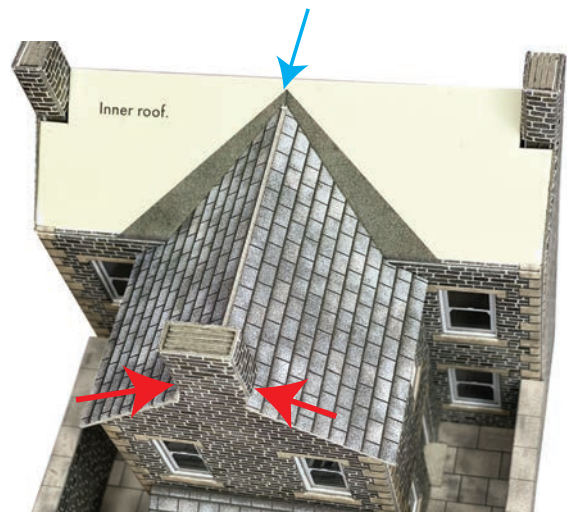
Note: If you are joining kits together side by side,
there will be a small gap in the centre where they meet.
There is a small piece of top stone on Sheet C to cover
over the gap.

8 Roofs and Ridge Tiles

Fit the gabled building roof first.

Fit over the chimney stack and then after pushing the
whole roof down onto the wall tops, push the gable
end of the roof back up under the small recess under
the chimney stack (see red arrows).

The pointed end of the ridge needs to line up with
the embossed groove cut into roof surface

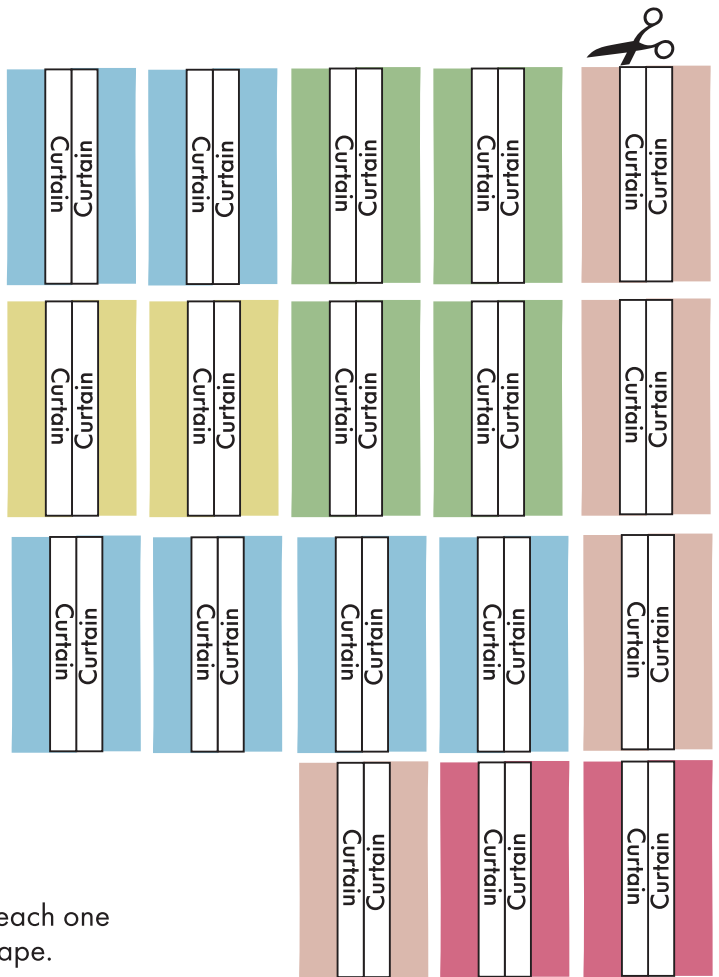
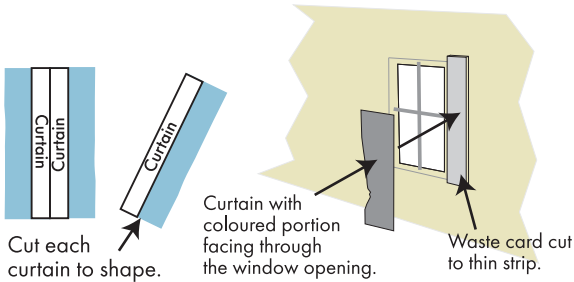


Continued on page 12.

9 Curtains.

After you have fitted the glazings, if you require curtains now is the time to fit them.

To fit curtains fix a small strip of waste card down each side of the window and attach the curtains either side so that a little strip shows through the window, the waste card will space the curtain back from the glazing.



10 Chimney Pots.

This job can seem a little tedious but well worth the effort.

It's a job best done whilst watching TV, listening to the radio or even a podcast!

Cut out the terracotta coloured strips (below) roll each one tightly around a metal rod to form a cylindrical shape.

Drill bits, nails or even small screw drivers (like this one right) which is 3.6 mm diameter are just right for the job. They need to be between 3 to 4mm. diameter for 00 scale.



Roll up tight and keep rolling until the paper is fully curled around.

Then unroll the end back out just enough to smear with a little glue, then roll back up and hold tight until the glue has set.

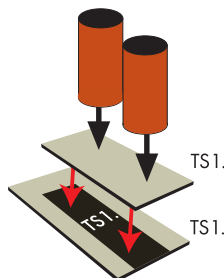
Make all the pots in one go.



Paint tops black to hide white card edges.

Mount the pots on to the chimney capping stones before fixing to the main chimney stacks.

Keep edges straight.



TS5. for gable building stack.

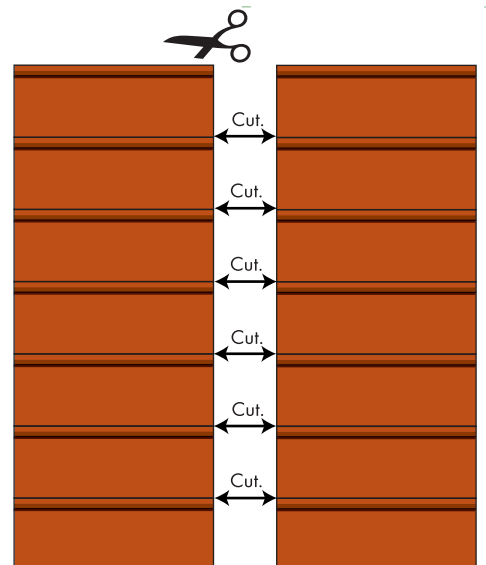
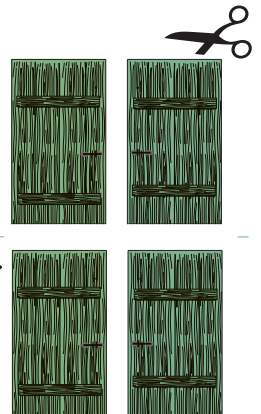


TS1. for main building stacks.

Capping stones TS2. & TS3. are where you are joining buildings together when adding more kits. There are no TS4. stones.

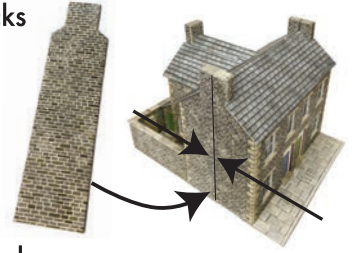
Gates

To cut out and stick over plain unprinted sides of yard gates. See page 9.



Side Wall Joiner.

Just in case you were wondering what this is for: It is to be used if you are fixing the house backs to our House Fronts kits PO300/PO301 or Shop Fronts kits PO306/307.



It covers the joint on the gable wall and is made to look like a chimney breast.

Roofs and Ridge Tiles cont'd

Fit the main roof and push back up under the chimney stacks (see red arrows). You will notice there is a gap between the two roof sections. Don't panic, this is intentional as it represents the leaded valley guttering as seen on real building



The long ridge tile strip is designed for use on whole buildings where roofs run front and back. With this low relief kit only half of the strip is visible. Fold the other half over the back of the building or simply cut it away after fixing..



The shorter pre-cut ridge tile strip fits on to the gabled building and shouldn't need trimming.