

# PN181 N Scale Service Station

## 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.

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



### CHECK LIST

This kit should contain the following:

- 1 x SHEET A. Printed kit parts.
- 1 x SHEET B. Printed kit parts.
- 2 x SHEETS. Printed kit parts.
- 1 x GREY CARD. Inner Supports.
- 1 x CREAM SHEET. Laser cut parts.
- 1 x GLAZING sheet.
- 1 x Ridge tiles card.
- 1 x INSTRUCTION BOOKLET.
- 1 x SIGNS & PETROL PUMP SHEET

### 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:

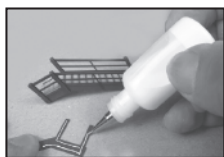
- 1. A modellers knife.
- 2. A pair of sharp scissors.
- 3. A steel ruler.
- 4. Glue - See *glues*.
- 5. Ultra Fine Tip Glue Applicator, see below.
- 6. A cutting surface - a sheet of card or cutting mat.
- 7. Fine point tweezers.
- 8. Water colour paints and a very fine brush for painting edges and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



### 3 PAINTING CORNERS & EDGES.

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

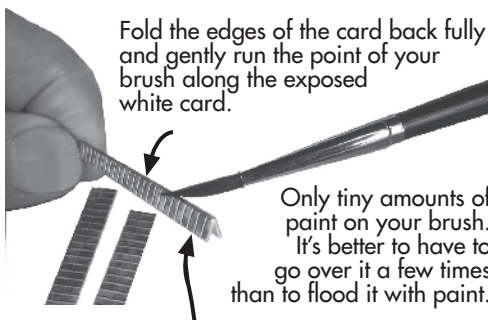
All you need is a simple set of water colour paints and a fine brush.

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

As long as it contains a warm red, a brown, a green and a 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.

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.

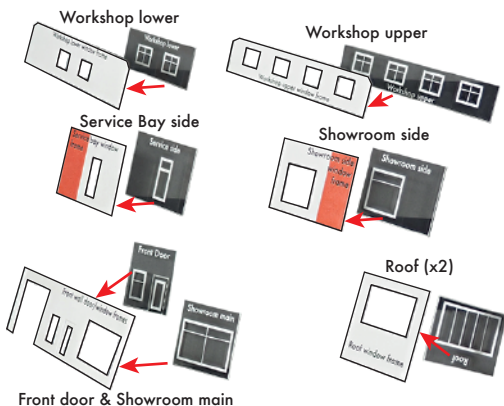
This will take some time but the results are well worth the extra time and effort.

**LET'S START TO BUILD!**

### 4 WINDOWS

Start by matching the glazing to the window frames. (the windows are shown with a black background below for illustrative purpose) Carefully centre the windows to the back of the frames.

If you'd like the front door to open, carefully cut along the solid white line and gently score the dashed line.

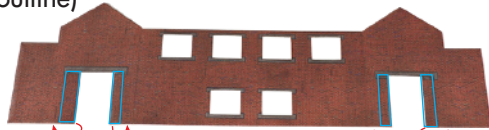


Then put the frames back into the builders yard until they are needed.

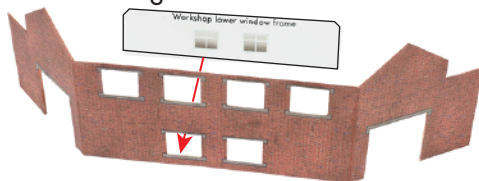
Like so.

### 5 WORKSHOP

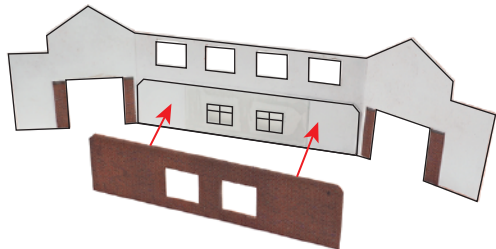
First build the rear workshop. Start by folding back the door flaps and gluing flush back to back. (marked below with a blue outline)



Now add the lower window frame keeping the bottom edges flush.

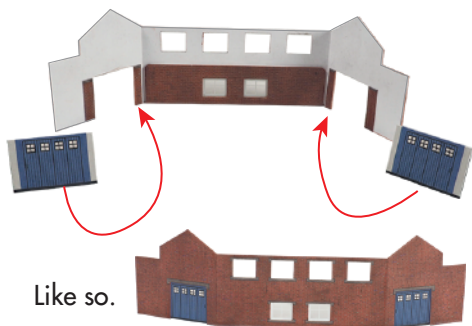


Next add the workshop inner wall to the back of the lower window frame, again keeping the bottom edges flush and aligned with the windows.



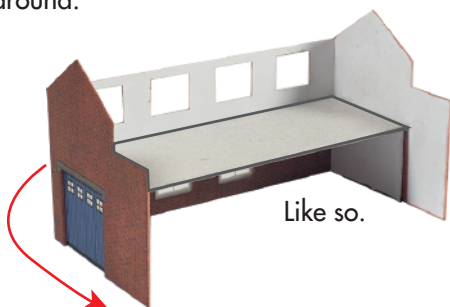
Now add the workshop garage doors, if you wish these to be open carefully score the card to concertina the door.

Alternatively use the paper versions found at the end of this booklet. (These can also be glued to the inside of the inside of the doors)

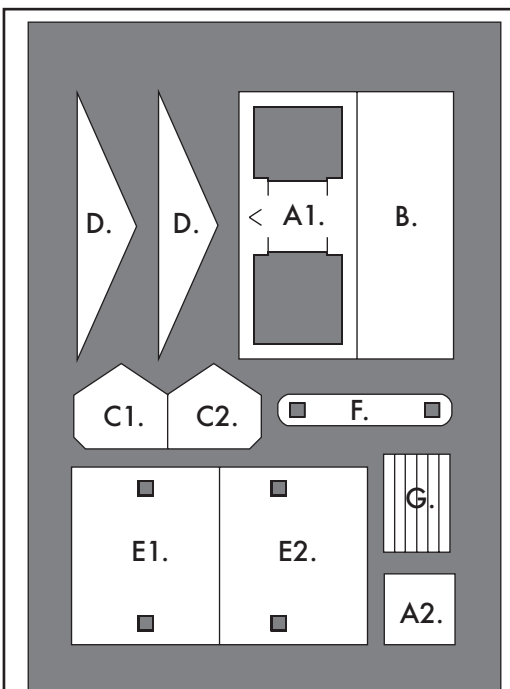


Take strengthener B from the plain grey sheet (see opposite)

This fits flush on top of the workshop inner wall and window frames and also the workshop doors on either side. Glue tight to the rear wall, and fold the side walls around.



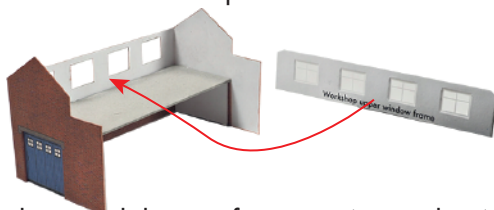
Like so.



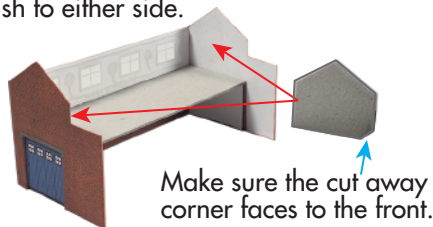
#### Strengthen Key

- A1 - Showroom/Service bay support
- A2 - Inner wall spacer
- B - Workshop floor support
- C1 & 2 - Workshop roof support
- D - Showroom/Service roof support (x2)
- E1 & 2 - Petrol Canopy roof support
- F - Petrol pump base support
- G - Petrol canopy legs (x6 - 3/leg)

Next carefully align the workshop upper window frame into place.



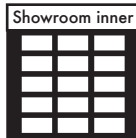
The 2 workshop roof supports (C1 and C2) fit flush to either side.



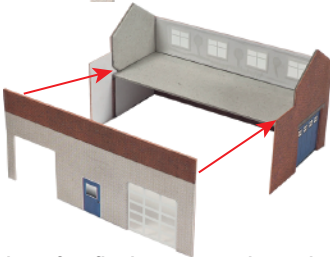
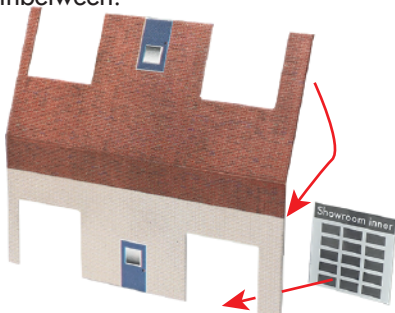


Like so.

Now the inner centre wall. First add the showroom inner glazing (from the windows sheet) into place.



This is on the right hand side facing the back of the lighter brickwork. Then fold the wall in half and glue to make double sided, sandwiching the glazing inbetween.



The inner wall then fits flush against the side and floor supports with the lighter brickwork facing forward.

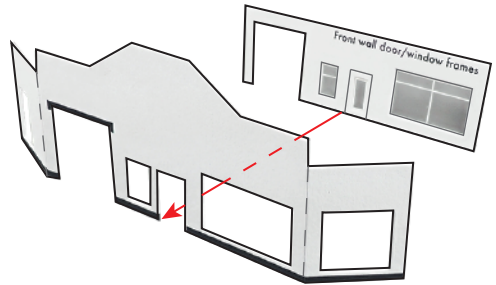


Like so.

Now put this part of the building to one side and move onto building the front section.

## 6 FRONT SHOWROOM

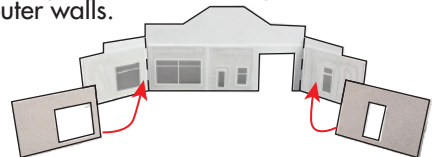
Start by fixing the front wall door/window frame flush and aligned with the front wall.



The service bay window on the left and the showroom window to the right. The red tabs will extend past the outer walls. These are required to join the 2 halves of the building together later.



Add the showroom and service bay inner walls keeping the bottom edges flush with the outer walls.



Like so.



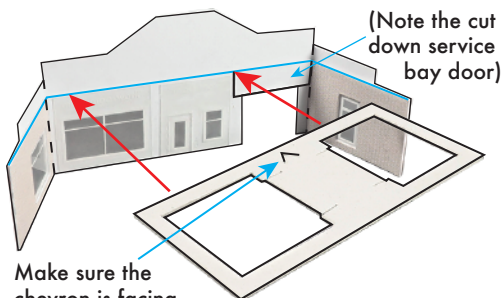
Now fit the service bay door, trim the door to the desired height if you want to have the door open etc.. Make sure the door does not extend above the inner frame and side walls, as the support will need to rest here.



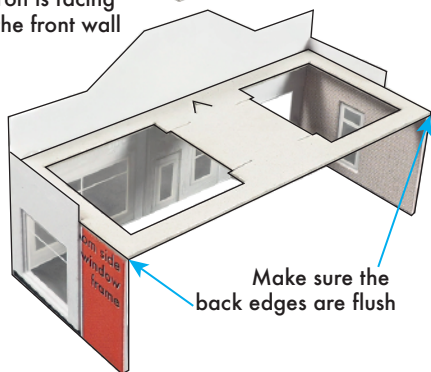
(During this build the door will be open with a small amount of the door showing)



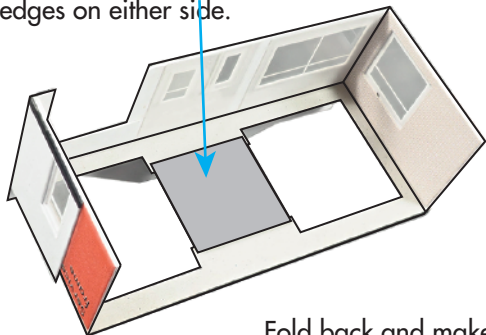
Now add the showroom/service bay support (A1) this rests on the inner frame and side walls. (marked blue below)



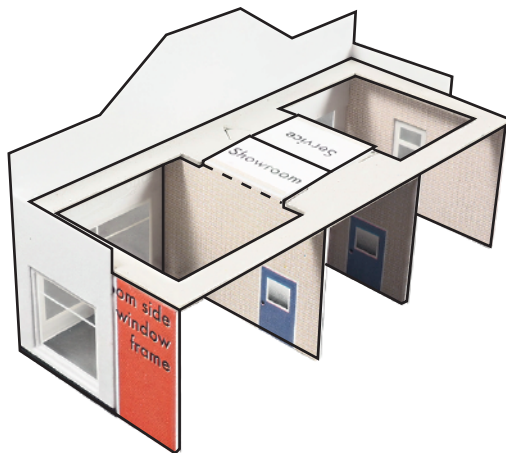
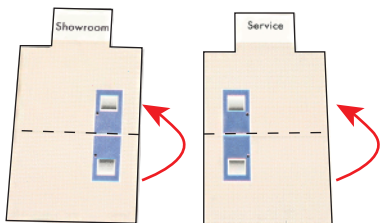
Make sure the chevron is facing into the front wall



Flip the building over and position the inner wall spacer (A2) central inbetween the spaces and flush with the 'notched' inner edges on either side.



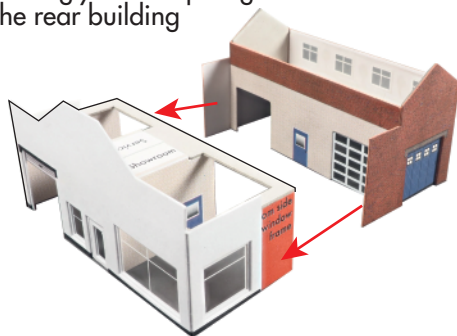
Fold back and make doubled sided the Service and Showroom inner walls.



Test this fit first, so you know where to apply glue. The 2 inner walls (showroom and service) have tabs that sit flush on the top of the support (A1) and the walls then hang underneath either side of the central support.

Carefully position the walls so they are straight and allow time for the glue to set.

Once dry, join the two halves of the building together. The red tabs of the window frames fit snugly behind jutting brick side walls of the rear building.



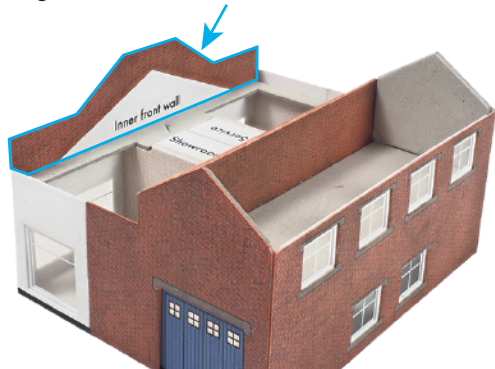
The brick walls slide tight against the side of the front wall so that none of the underneath red tab shows. Glue into place.

Like so.



## 7 ROOF

First add the inner front wall, keeping the edges flush with the outer front wall



Then the 2 small strips of inner roof wall to either side, again keeping the top edges flush.



Next drop in the 2 Showroom/service roof supports (D). One flush to the rear building and the other to the Inner front wall.



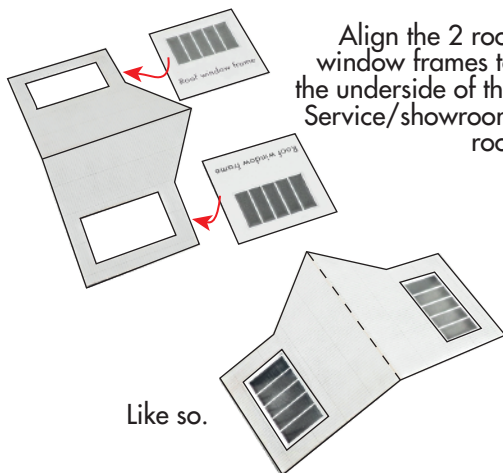
These will centre themselves inbetween the inner roof walls.



Like so.



Align the 2 roof window frames to the underside of the Service/showroom roof

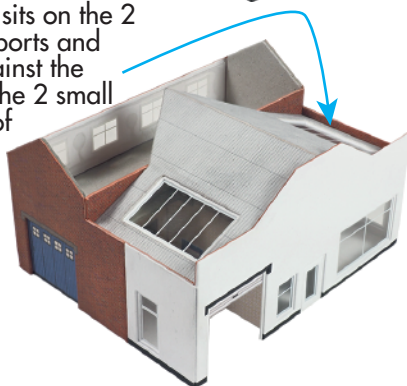


Like so.



Test this fit first!

The roof sits on the 2 roof supports and flush against the base of the 2 small inner roof walls.



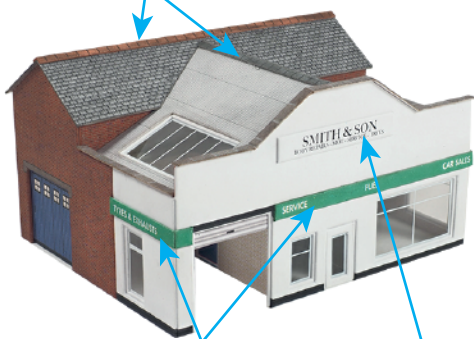
Now fit the workshop roof.



Glue into place the centre, side and edge capping stone strips.



Also add the ridge tiles



And a banner sign strip and a garage sign.

**Note!** If fitting the petrol canopy as a 'lean to' against the front of the station, make sure the sign is situated high enough, or simply add the sign after attaching the canopy.

Lastly, fit the shop display, carefully cut out the display from extras found on the signs sheet, glue a small piece of waste card to the glue tab area.



Then glue into place behind the glazing



Like so.

## 8 PETROL CANOPY

The canopy can be built in 2 ways. Either as a free standing canopy or a 'lean to' canopy which will need to be attached to the front of the station.

Both are built in a similar way.

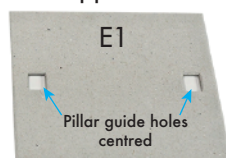
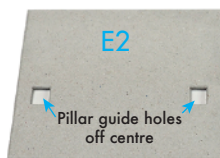
Where the method is different the 'lean to' build will have **blue** text.

First build the roof section. This comprises of 3 layers.

Petrol canopy roof.

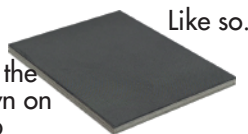


Petrol canopy roof supports

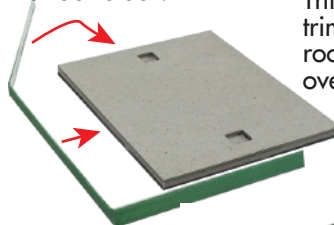


If building the free standing version: sandwich the E2 support inbetween the E1 and roof.

If building the lean to version: sandwich the E1 support inbetween the E2 and roof.

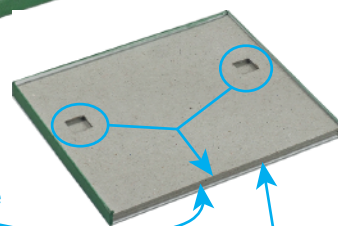


Flip over and keeping the roof artwork face down on your workspace, wrap petrol canopy trim around the roof block.



This will keep the trim flush with the roof and leave an overhang to the grey card underneath.

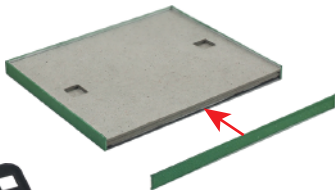
Make sure the lean to version's pillar guide holes are furthest away from the uncovered side.



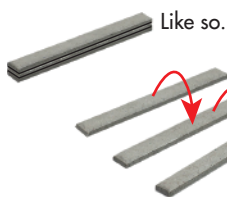
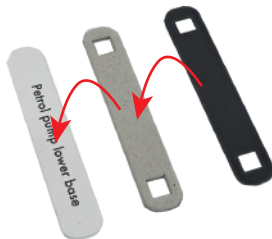
This edge to be attached to station front wall.



Add the shorter piece of canopy trim to the uncovered side.  
 There is no need to add this if making the lean to version.

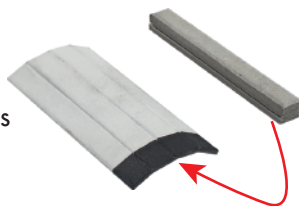


Now make the petrol pump base. Start with the lower base, add the base support (F) and finally the top base, keeping all edges flush.



The canopy legs or pillars consist of 2 blocks made up of 3 canopy legs glued flush together.

The petrol canopy leg then wraps around the block. Keep the top edges all flush.

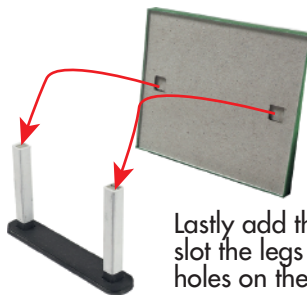
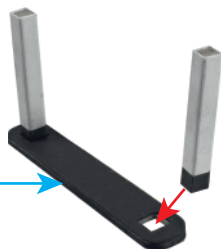


Like so.



Slot the completed legs into the base with the black end fitting snugly into the guide holes.

Paint the base edge black.



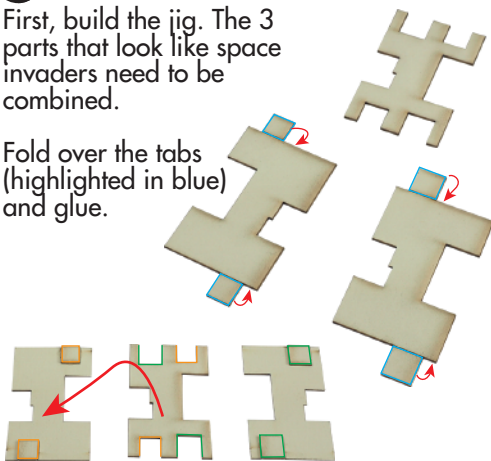
Lastly add the roof, carefully slot the legs into the guide holes on the underside.

**Note:** don't glue the roof on just yet, you'll find it easier to add the petrol pumps with the roof off.

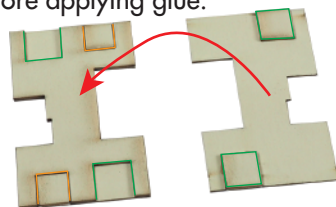
## 9 PETROL PUMPS

First, build the jig. The 3 parts that look like space invaders need to be combined.

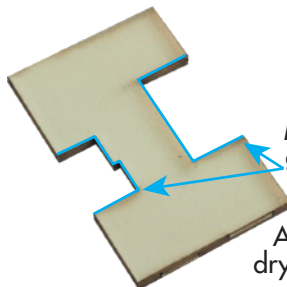
Fold over the tabs (highlighted in blue) and glue.



The tabs are different sizes that fit into slots on the centre part. Test the fits before applying glue.



The finished jig, all edges flush and 3 layers of card thick.

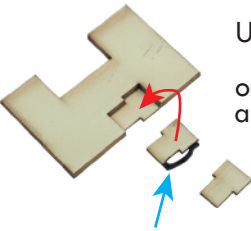


Make sure there's no glue along the areas marked in blue.

Allow the glue to fully dry before using the jig

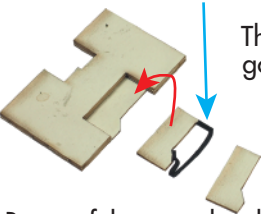


Each pump is made up of 3 layers of card. 2 identical outer parts that sandwich the nozzle and pipe section.



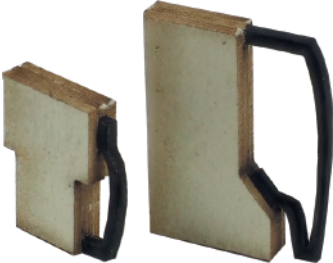
Using the jig to keep the edges flush, slot in an outer part, then the pipe and nozzle section then finally the third outer part.

Paint the pipe and nozzle black before assembling the pump.



The modern style pump goes together the exact same way.

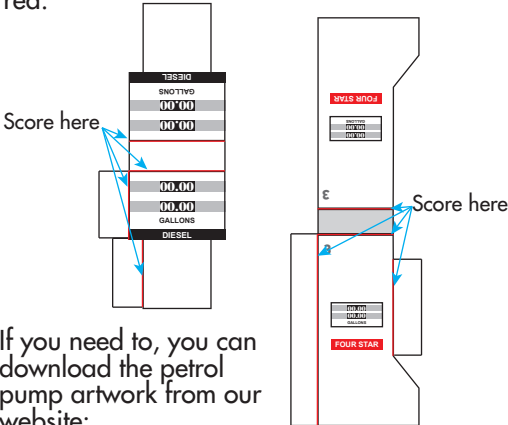
Be careful not to glue the pumps to the jig!



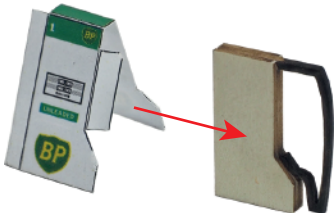
Like so.

Now for the fiddly bit!

Below are enlarged versions of the pump artwork, you will need to carefully cut out and apply some scores. Take your time and practice first on a style you don't want to use. The lines you need to score are shown in red.



If you need to, you can download the petrol pump artwork from our website:  
[www.metcalfe-models.com](http://www.metcalfe-models.com)

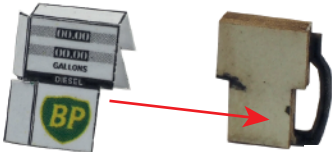


Now wrap the pump artwork carefully around the pumps folding the side tabs flush.



Like so.

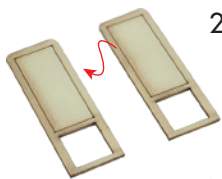
Finally place under the canopy (and glue down the roof)



Like so.



## 10 FINISHING TOUCHES



To build the sign, glue the 2 displays together back to back with the scored rectangle facing outward.  
(This is a guide for positioning a display)



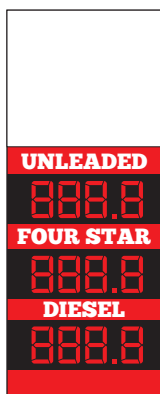
The base folds back and glue to become double thickness.



Add the display and slot into the base.



Like so.



You'll find some displays that have straight 8's.

These are so you can make your own prices. Simply black out the sections you don't want to create a different number for example:

888.8 → 246.7

Carefully align the building to the base and add posters and signs to suit.



Carefully attached the lean to version to the front of the station.



These instructions and signs are available on our website to download.  
[www.metcalfemodels.com](http://www.metcalfemodels.com)

## Spare Doors.

