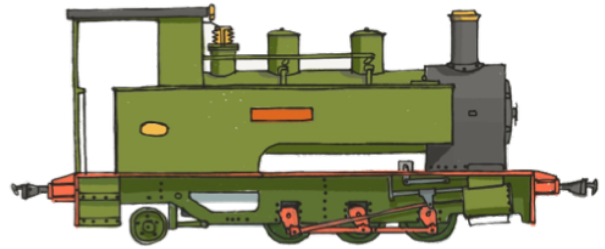


Bowaters

MODELS

specialising in distinctive 16mm models



Bowaters Models – BMH Series Instructions



Requires

- Accucraft Chopper Couplings (Z1 or Z2)
- IP Engineering Large Laser Cut Bogies (Own Choice of Gauge)
- 2-3 A3 pieces of Craft paper
- Glazing Material

Required Tools

- Fine Sandpaper/Emery Paper or Boards
- Small Files
- PVA Glue
- Super Glue
- Sharp Craft Knife

Version 2.0

Prototype Information

For the opening of the rebuilt Welsh Highland Railway, a set of 5 new coaches were built. These consisted of 1 Semi Open (2020), 3 Saloons (2040-2042) and 1 brake coach (2090). All 5 were built by Winson Engineering. The Brake Coach was later rebuilt by the WHR into a half service car/passenger coach in 2009. The original Semi-Open was rebuilt into a sister of Service Car '2010' being renumbered '2011' in 2010-2011. Bar the rebuilt '2020', all coaches can be modelled by the Bowaters Model Range.

A few years later as traffic grew, two additional Semi Opens were built by Alan Keef in 2002 numbered 2021 and 2022. These were both rebuilt over the winters of 2012-2014 to include central glazed sections and vinyl covered seats. This marked the end of WHR being completely built by outside contractors. Both forms of these coaches can be modelled by the Bowaters Models Range

In 2006-2007, Boston Lodge built 3 longer saloons numbered 2043 to 2045. These were 1m longer than the Winson Coaches. These haven't been majorly rebuilt at the time of writing so they are considered to be in 'as built condition'. In 2013-2014, a additional coach was built to a modified design with panramic windows numbered 2046. This coach was later cloned between 2016-2017 with the latest Saloon number 2047. All 5 of these coaches can be modelled by the Bowaters Models Range.

Built between 2043 and 2046, the WHR built a pair of coaches: Service Car 2010 and Pullman 2100 'Glaslyn'. 2010 was a change of direction for the combined FR/WHR in that all the facilities needed for the train were now in one coach and as a result, there was no need for a guards compartment in the end coach. Glaslyn was built as a end of train Observation Coach featuring a unique curved end. 2010 can be modelled by the Bowaters Models Range. Glaslyn is being considered as a future release.

Built at the same time as the original Winson Coaches, the WHR's first Pullman Coach 'Bodysgallen' entered service in 1998 after its Winson sisters. The coach was used to test the bogies for 2010 and 2100 having been converted from SAR bogies to Romanian bogies. After a period of time, it was switched back. The coach can be modelled as part of the Bowaters Models Range.

About the Kit

The kit is a wooden kit comprising of a set of laser cut wooden parts. If you have a BMH-010 kit, you will also have a pair of 3D printed sections for part of the roof.

Chassis Fitting

This kit is designed for IP Engineering Large Laser Cut Bogies. These are assembled as per the instructions with no modifications required. On the top chassis piece, normally distinguishable by the laser cut detailing on the top surface, flip it over so the detailing is facing down. Then draw a straight line down the centre of the piece lengthways. This is needed so that once the chassis has been assembled, the correct position of the bogies can be achieved. They should normally be added once the chassis has been assembled and should be placed 90mm along the line from each end of the coach. Alternatively, you can attach the bogies closer to the end of the coach to dramatically reduce the minimum radius.

Couplings

This kit is designed to take Accucraft Chopper Couplings (available separately as Accucraft part number Z1/Z2). These should be attached into the flat sections below the main coach bodies. These have been positioned so as to be at the correct height for the 16mm Association standard coupling height. We strongly recommend setting the coupling height against your existing motive power fleet.

Instruction notes

With these instructions, there are images which show various stages of the construction of one of our coach kits. They are of the Prototypes for BMH-007 and BMH-002 which aren't representative of the kit you have bought. They are for reference purposes only. We have also included a section from our FR instructions as some of the kits use the same style of construction.

Painting

Over the time period the coaches we have produced have operated, they have carried only 1 paint scheme.

- 1997 - Present - Modern WHR/FR Coach Paint Scheme of Cream and Maroon (Closest matches are Humbrol 20 (Crimson Gloss) and 41 (Ivory))
- Bodysgallen – Classic Pullman Livery of Cream and Brown

Please Turn over

Please read though these instructions before beginning to assemble your kit

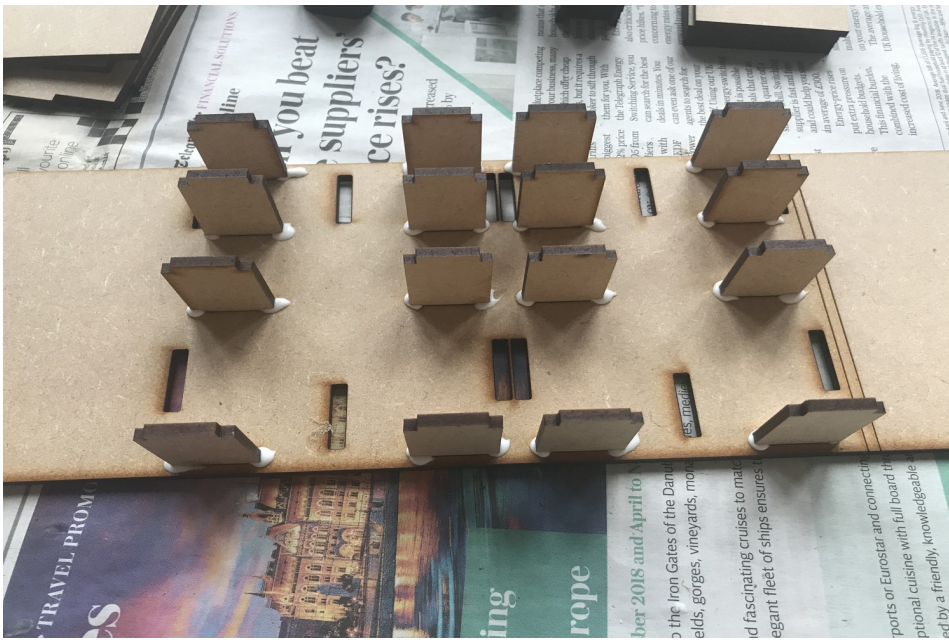


The Kit as you will receive it.
We will start with the sides.

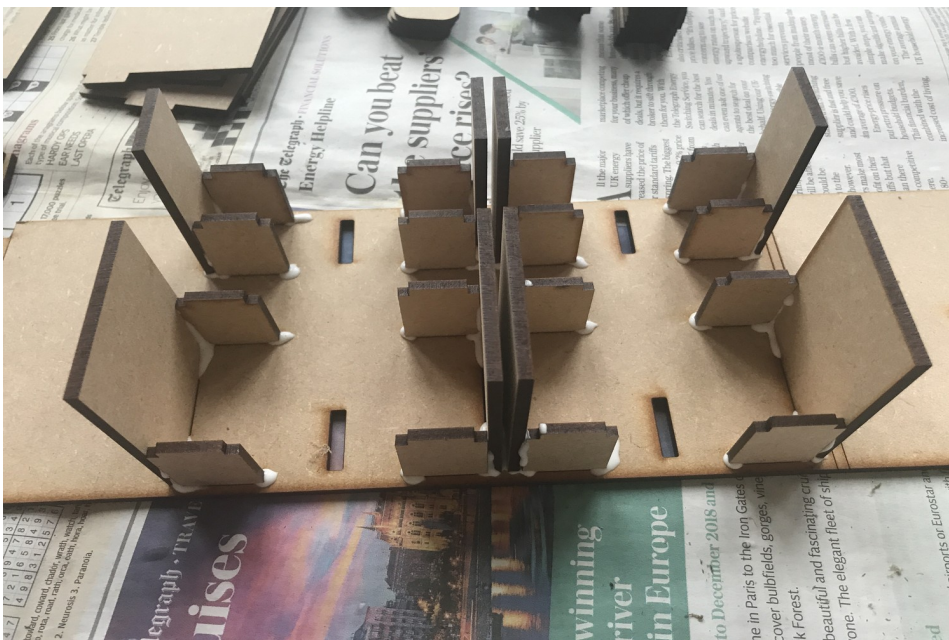


The sides simply attach onto each other. The same gaps are on the sides (3mm each side) with the top being a flush fit. The interior pieces also double up at the mounting points for Window Glazing.

Time to start assembly of the interior. Although the kits are designed to slot together, we strongly recommend gluing the interior together. Start by splitting the parts into separate piles for each specific type.



Start with the seat uprights. These are the smaller pieces (there are two sizes of the same shape) and slot into the floor.



Then slot in the backrest pieces. These will form the supports for the seats within the coach.



Then add the table uprights.



Once the backs have been inserted, glue in the seat tops between the two uprights. Also glue the table tops into place. There are two sizes, one for each side. The majority of your interior is now complete. Your kit may come with some internal walls. **DO NOT** glue them into place yet. Only do this once you have assembled the body together. This is a ideal time to paint the interior if required.

Moving onto the coach beading. Please note there are two styles of assembly. There is the one piece section and the multi piece option. This will depend on which coach you have ordered and can be worked out by looking at the contents of your kit. The multi piece option is included on the next page from our FR coach instructions. These are the exact same as on our WHR coaches.



To demonstrate the beading, we will use Coach 106 as our demonstration model. All 5 kits follow the same procedure for assembling the beading. Start by splitting up the beading parts into piles based on size.



Once the parts are split, lay the pieces on top of the coach side to make sure you have everything you need. Each kit is supplied with suitable spares where deemed necessary. If you have any issues, let us know.



Glue the beading on, starting with the uprights and door details.



Next, attach the longer sections onto the coach sides.



Finally, attach the smaller sections onto the small areas. Note, these parts vary in size slightly depending on their intended location. We strongly recommend trialling and fitting these parts before gluing to avoid any gaps on the beading.



And just like that, your coach sides are now complete ready for assembly.



To start assembling the main body, glue one side onto the floor making sure the parts sit on the lip within each part. Once the glue has started to dry, attach the other side and make sure the coach is kept flat.



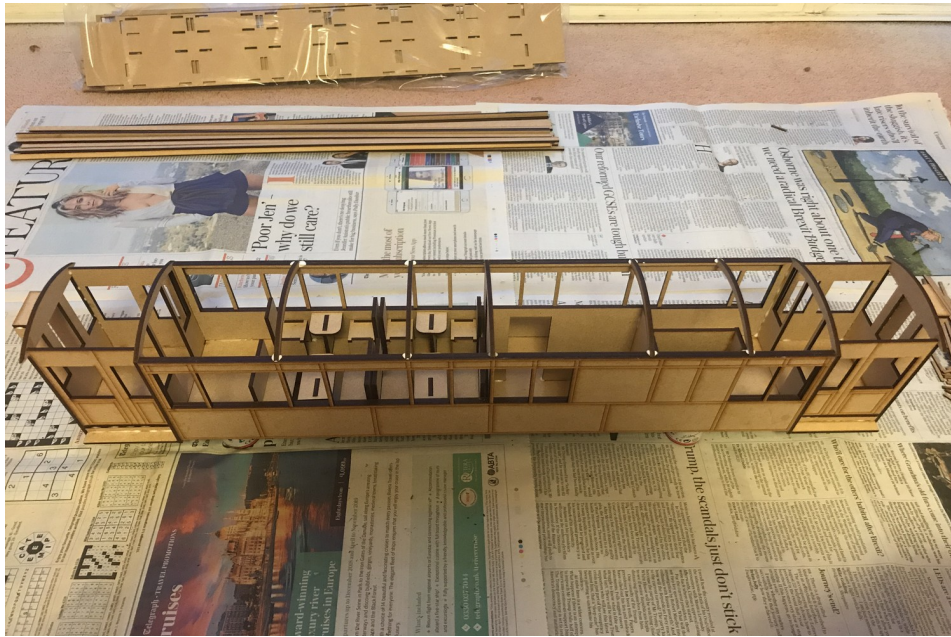
Once attached, leave to dry.



Next, install the end section of the passenger compartment to one of the ends. Once dry, attach the doors to the section beyond the end section.



Next, glue on the coach end section. The etched section at the bottom of the piece should be in line with the bottom of the main coach floor.



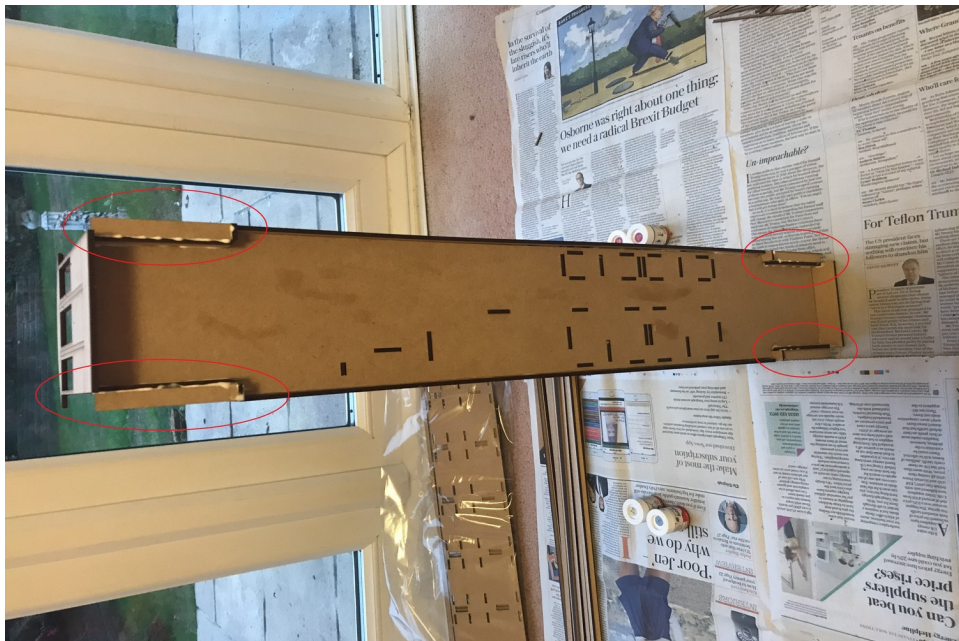
Next, glue on the roof supports. On the Non Pullman Coaches, these need to be spread along the length of the coach. On the Pullman Coach, these need to be spread along the central length of the roof planks finishing 80mm from the windowed ends of the coach.



Next step, attach the roof planks to the roof supports. See overleaf for the recommended gluing location. We recommend covering the roofs with craft paper to give the effect of canvas. This when painted gives a effect of a canvas roof the prototypes currently feature in service. Alternatively, you can use masking tape or Tissue paper.



Time to do some quick work on the underside. Glue the four long thin planks on the ends of the coaches in the sections between the end of the coach and the end of the passenger section.



Next, glue on the footsteps onto each coach. There are 3 or 4 per coach.



Once everything else has dried, now is a good time to attach the bogies. Our image shows the recommended position (A smaller Radius will require the bogies to be moved towards the end of the coach)



The final two steps are to attach the couplings of your choice along with the corridor connections to the ends of the coach.



The completed coach.



We hope you enjoy your Bowaters Models kit! If you have any questions, don't hesitate to contact us on info@bowatersmodels.co.uk

We thank you for your custom.