



Thank you for purchasing this kit.
We are a small designer / manufacturer and we really appreciate your support.

To complete this kit you will need:

Sharp knife or scalpel
Files and sandpaper
Cutters and pliers
Super glue (activator recommended)
Filler, paints and transfers

This kit can be built with 16mm pinpoint axle wheels, or 14mm/ 16mm wheels with plain axles.
Please follow the instructions carefully for each option.

Study the diagrams carefully!

Before you start, there are a few things you need to know with regard to handling and working with resin 3D printed items:

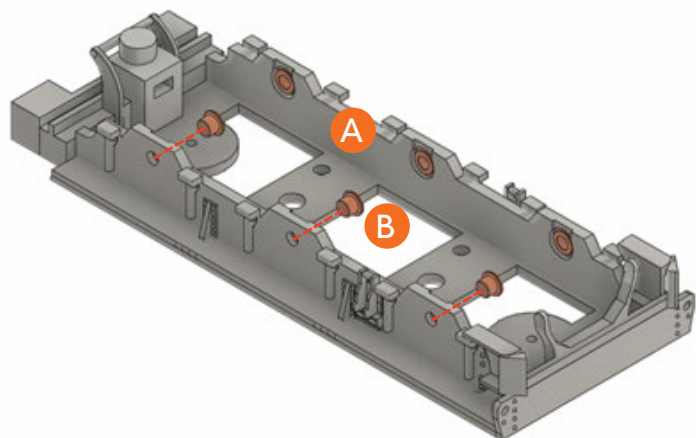
- 3D printed components (particularly resin) are very brittle. They should not be roughly handled or dropped.
- Resin prints can be glued with cyano adhesives such as super glue. Solvent adhesives such as MekPak, Plastic-weld and Liquid Poly are **not** suitable.
- Resin prints cannot be trimmed with knives, scalpels, or trimmers. Attempting this will result in a shattered piece.
- Prints can be shaped and trimmed using files (we recommend diamond files) and sandpapers.
- Prints can be painted with acrylic and enamel paints.
- We strongly recommend the use of slurry filler (filler paste mixed with water and a drop of IPA to the consistency of milk) followed by a filler primer to correct any surface support blemishes or layer lines which are an inevitable inherent side-effect of the processes of manufacturing.
- As resin printing is a wet process, some minor shrinkage of components is inevitable. Whilst we engineer this in at the CAD stage, some manufacturing shrinkage is inevitable and can be corrected with fillers. We highly recommend Vallejo Liquid Putty or Revell Plasto.

If you are using 16mm pinpoint wheels, **proceed to step 1**.

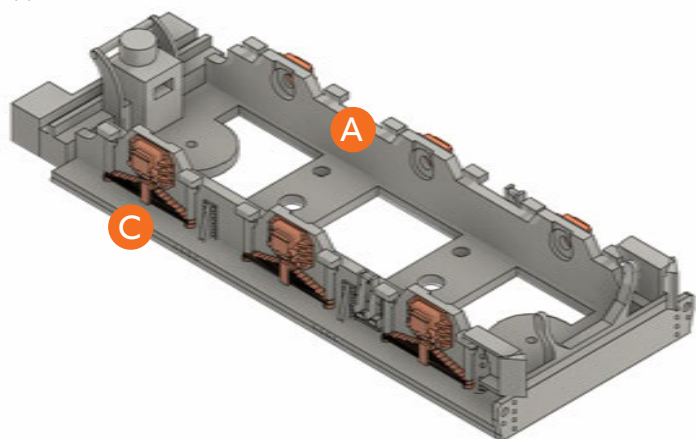
If you are using plain axles with 14mm/ 16mm wheels **proceed to step 2**.

1) **16mm pinpoint wheels only**: Glue the six brass pinpoint axle bearings (B) in to the inside of the frames on the chassis (A). These need to be inserted as far as they can go, so the shoulder face is flush with the back of the frame.

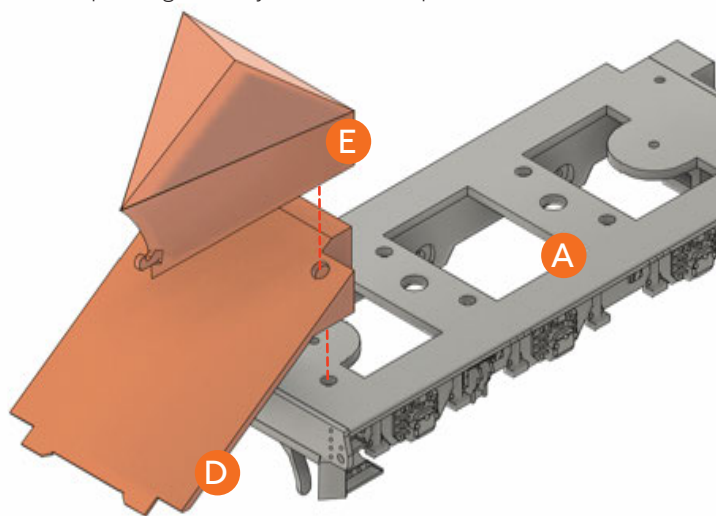
Do not force the bearings in to the apertures. If they are a tight fit, open up the hole very slightly with a round file until they are a snug fit.



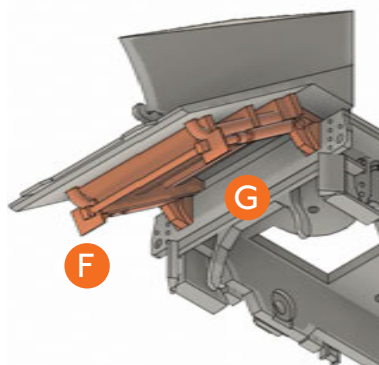
2) Glue the six Axlebox/Springs (C) to the chassis frames on the Chassis (A) in the positions shown, covering the brass bearings (if fitted). The extreme ends of the springs should sit on top of the moulded droppers on the chassis frame



3) Glue the Ramp (D) on to the front top of the Chassis (A) using the pegs and holes as guides. Glue the Plough Blade (E) on to the Ramp using the pegs and holes as guides. The drag hook on the Plough Blade should be pointing centrally down the Ramp.

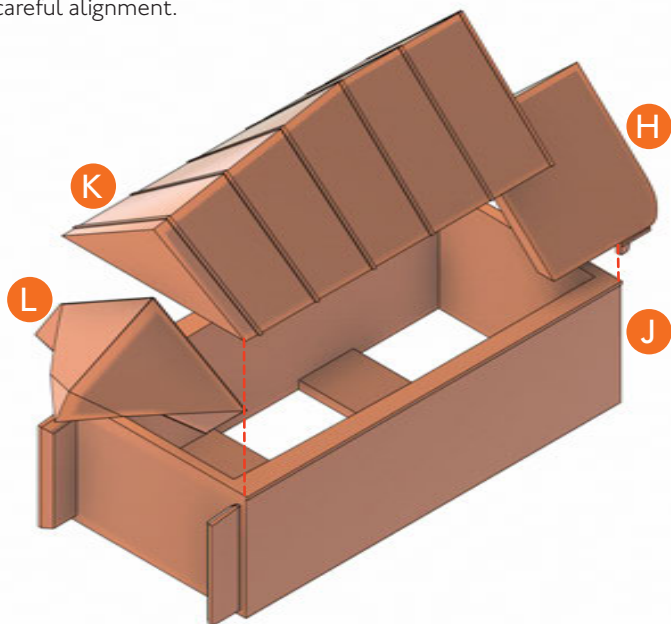


4) Glue the Rams (F) on to the underside of the Ramp using the slots as guides. The pivot brackets on the Rams should sit flush with the bufferbeam (G).



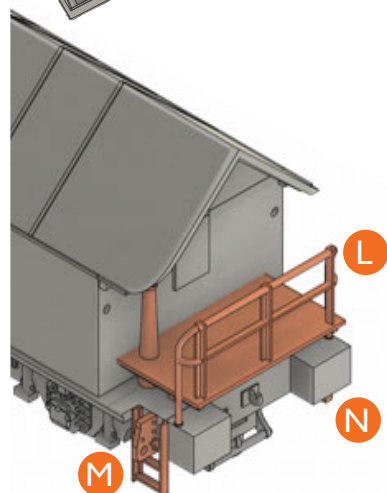
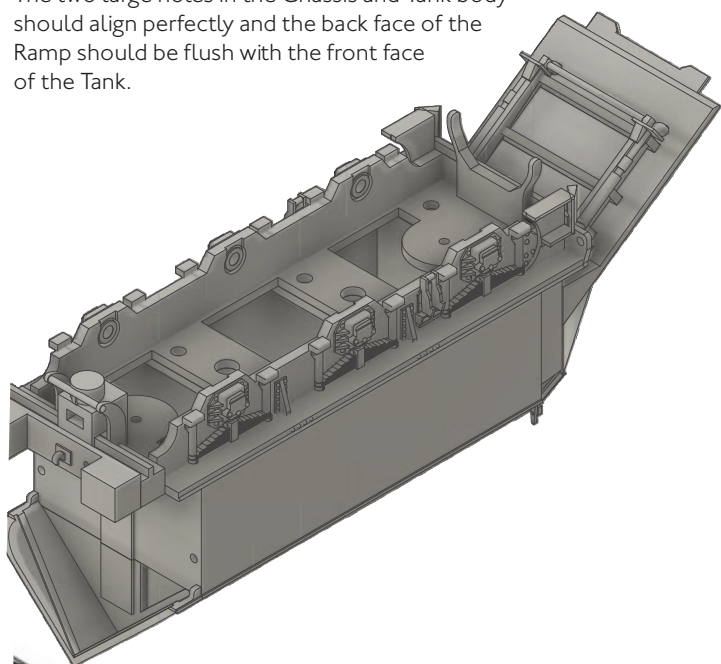
We recommend painting this assembly at this stage.

5) Glue the Verandah (H) on to the top rear of the Tank (J) taking care to align the join on the access door. The brackets for the handrails should sit flush against the rear of the Tank. Glue the Main Roof Section (K) on to the Verandah and Tank taking care to align everything straight, central and true. Glue the Visor (L) to the Main Roof Section, again ensuring careful alignment.



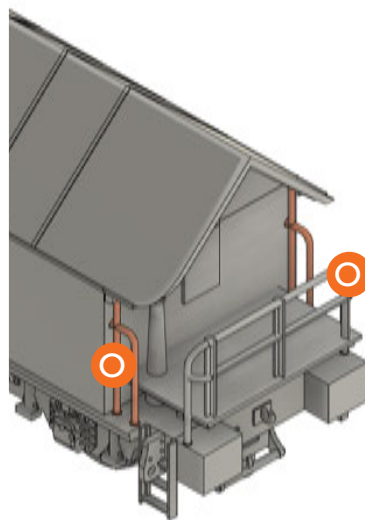
We recommend painting the Tank / Roof assembly at this stage.

6) Glue the assembled Tank body to the chassis. The two large holes in the Chassis and Tank body should align perfectly and the back face of the Ramp should be flush with the front face of the Tank.



7) Glue the Rear Deck (L) on to the chassis in the position shown. The front lip of the deck immediately fore of the handbrake stanchion should be flush up against the back wall of the Tank.

8) Glue the Rear Steps (M) and (N) on to the chassis as shown. **NOTE:** The rivet detail should face towards the buffers, **NOT** the front of the snowplough.



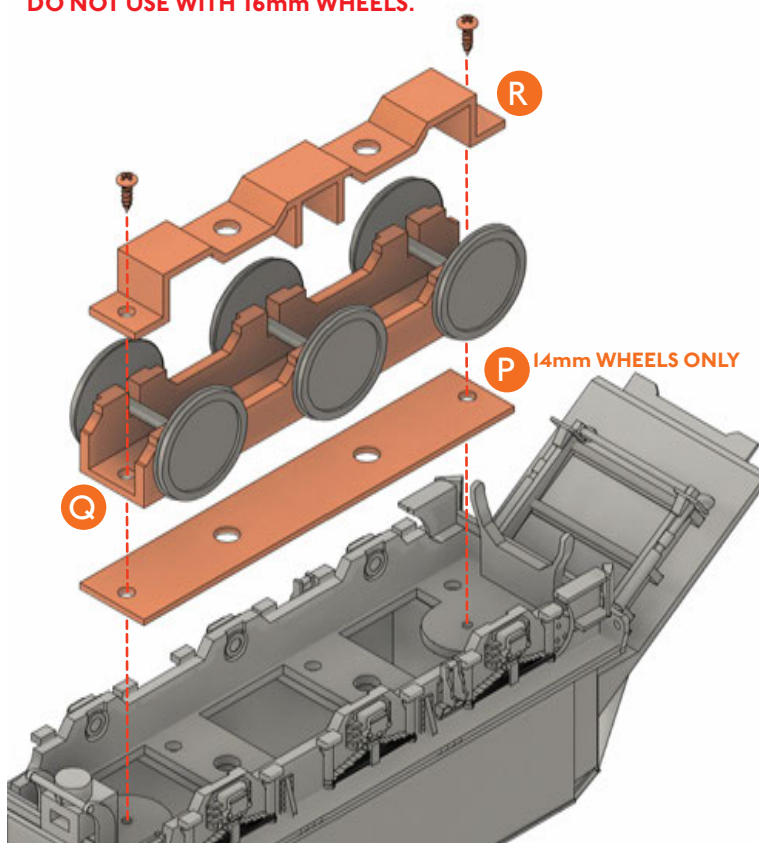
9) Fit handrails (O) between the Verandah and the Chassis, posting the horizontal bar in to the hole in the Tank.

10a) 16mm pinpoint axle wheels only:
Take great care when inserting wheels in to the bearings as not to break the Chassis Frames. The best method is thus:

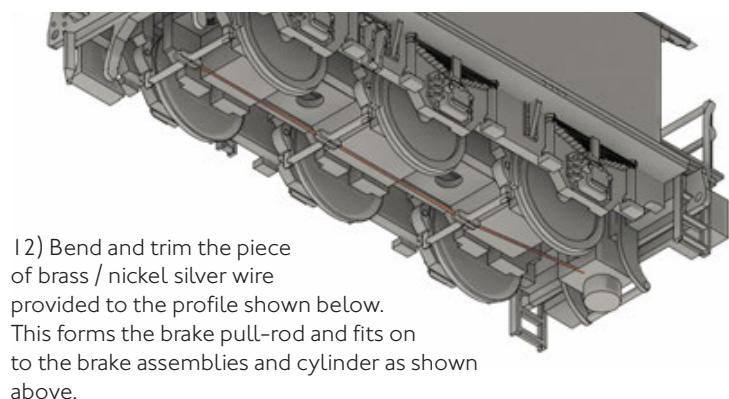
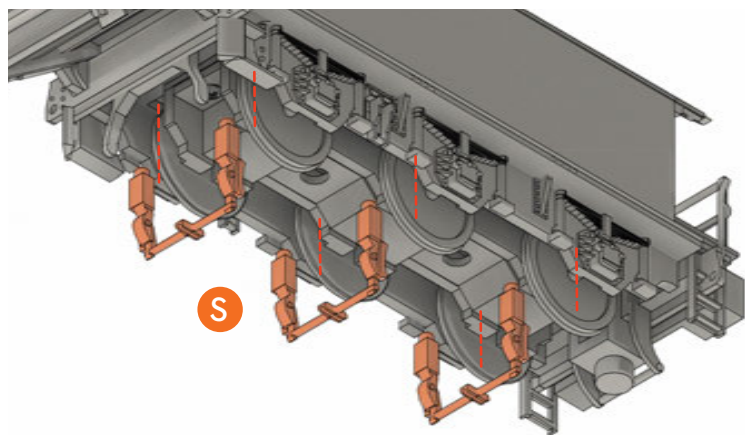
Locate one pinpoint axle fully in to the brass bearing cup. Lower the other side towards the bearing and **GENTLY** and **SLOWLY** ease the opposing frame out **VERY SLIGHTLY**, supporting it with your finger until the remaining axle point eases in to the bearing.

10b) 16mm and 14mm plain axle wheels only: Place wheels in to Inside Frames (Q) and align the Keeper Plate (R). Secure to the Chassis with the two M2x6 screws provided. Do not over-tighten.

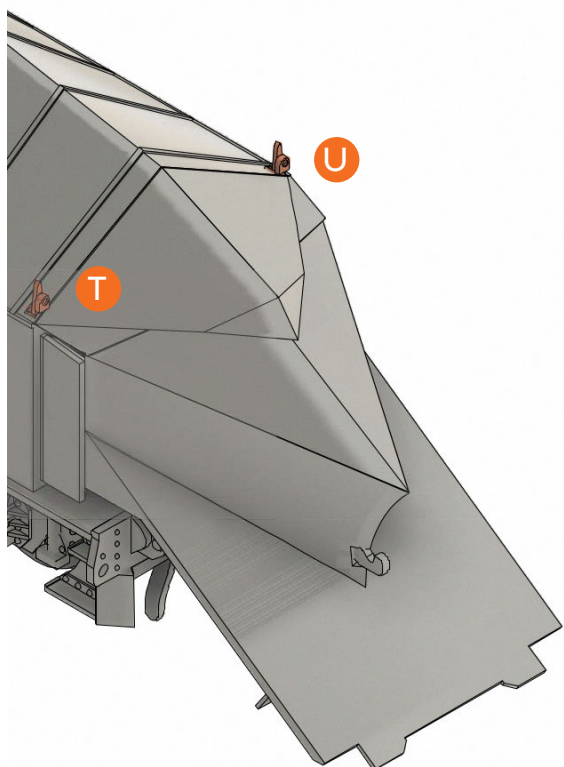
THE 1mm SHIM (P) IS ONLY REQUIRED WHEN USING 14mm WHEELS TO BRING THE MODEL TO THE CORRECT RIDE HEIGHT. DO NOT USE WITH 16mm WHEELS.



11) Fit three Brake Assemblies (S) in to the holes provided. We recommend these are fixed with a small blob of varnish or PVA glue so they can be easily removed if the wheels ever need to be removed in future. Ensure the brake blocks face the wheels!

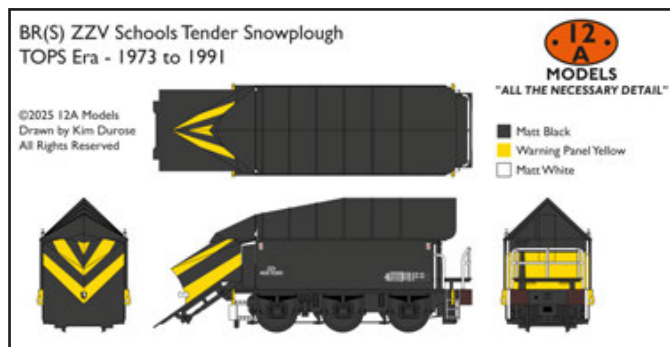
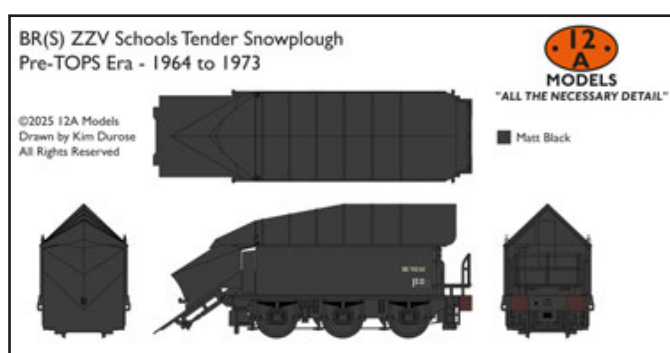


13) Glue the marker lamps (T) and (U) on top of the roof in the positions shown. Be very careful as these are very vulnerable fragile parts!



For your convenience, we have produced a painting guide on our website over at <https://l2amodels.co.uk/paint-guides-for-l2a40094-brs-zzv-schools-snowplough-kit/>

Or simply scan the QR code!



A short history of the prototype

At the end of steam in the early 1960s on the British Railways system, the 40 members of Maunsell's "V" class or "Schools" class locomotives were found to be redundant. Class 201 diesel electric multiple units had taken over much of their work on the Hastings route and withdrawals were complete by 1962.

During 1964, eight tenders were selected to be converted at Eastleigh in to independent snowploughs. Initially numbered in the Departmental Series "DS" numbering scheme, all were later renumbered with the addition of an "A" prefix from 1973 under the TOPS system. At this time they were also classified wagon code ZZV. Withdrawal came in the early 1990s.

Number	Allocation
DS70210 / ADS 70210	Ashford
DS70211 / ADS 70211	Ashford
DS70224 / ADS 70224	Eastleigh
DS70225 / ADS 70225	New Cross Gate
DS70226 / ADS 70226	Salisbury
DS70227 / ADS 70227	Salisbury
DS70228 / ADS 70228	Eastleigh
DS70229 / ADS 70229	New Cross Gate

Packing List

- x6 Axleboxes/ Springs, Resin
- x1 Rear Step (L), Resin
- x1 Rear Step (R), Resin
- x1 Rear Deck, Resin
- x1 Hydraulic Ram Unit, Resin
- x1 Marker Light (L), Resin
- x1 Marker Light (R), Resin
- x3 Brake Assemblies, Resin
- x1 Snowplough Blade, Resin
- x2 Handrails, Resin
- x1 Tank Body, PLA
- x1 Tank Roof, PLA
- x1 Visor, PLA
- x1 Verandah, PLA
- x1 Chassis, PLA
- x1 Inside Chassis Frame, PLA
- x1 Inside Chassis Retainer, PLA
- x1 Inside Chassis Shim for 14mm wheelsets, PLA
- x1 Ramp, PLA
- x2 M2x6mm Self-Tapping Screws
- x6 Shouldered Brass Pinpoint Bearings, Brass
- x1 Brass/Nickel Silver Rod 0.3mm x 76mm