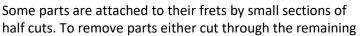
## **Grounded Van**

This model is based on a sight so often seen on narrow gauge or light railway. An old van body up on bricks being used as a store, office or even as a tea stall.



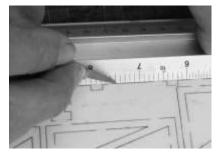
## **General Assembly Instructions**

Do take time to read through the instructions and understand how the parts fit together before reaching for the glue pot.





material from the front with a thin sharp blade (e.g. a scalpel) on a cutting mat or turn the whole fret over and with the aid of a steel ruler aligned with the pieces side, cut lightly with a knife to break through the remaining wood.



DO NOT simply try and twist the parts out of the fret, there is a risk that the part may tear. The laser cutting process will leave a degree of edge discolouration. If you plan to leave you model unpainted now is the time to lightly sand the edges to remove this discolouration.

Grounded Van Assembly Instructions: Page 1

## Gluing

Wood and MDF parts may be glued with PVA wood glue, Cyanoacrylate adhesive (super-glue) or epoxy resin (Araldite). Beware of vary cheap glues, their joints may fail! If you do use a "super-glue", go for one which takes a few seconds to set rather than an instant "grab" one. This will give you a few seconds to adjust the parts position before it is too late.

Nylon parts (e.g. the mounting lugs) are best fixed with a multi-purpose contact adhesive. The Vacume formed roof is best glued to its wooden supports with expoxy resin glue.

## **Painting**

This is very much a matter of personal choice. As poplar plywood is used for the body, leaving the model mostly unpainted can be very attractive however if you plan to run your trains in all weathers, some form of protection will be needed; a couple of coats of acrylic matt varnish from a "rattle can" is easy way of achieving this. If you are going for a painted finish we suggest that you prime and rub down all the parts before you glue them together. Trying to rub down the plank work after you have glued the outside framing on is challenging to say the least!

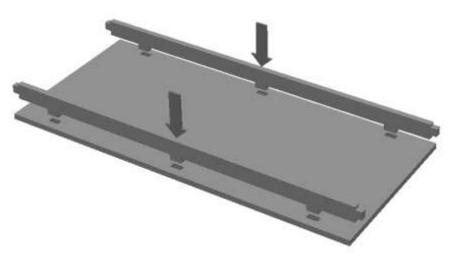
### **Tools**

The following tools will be required:

- A sharp modelling knife or scalpel
- A cutting matt
- A 12 inch steel ruler
- A long nosed pair of pliers
- A small cross point screwdriver
- A small file, glass paper or an emery board "nail file"

The following tools are recommended

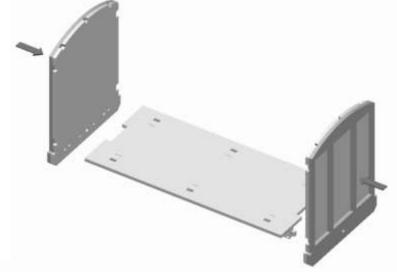
- Some small clamps, bulldog clips or rubber bands
- A round section "needle file"
- A pin or 1.5mm drill bit
- A clean "medium" tooth brush
- A 6mm spanner
- A fine tipped black permanent marker pen.



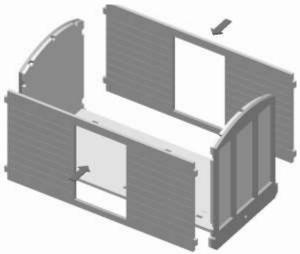
Step 1
Glue the 2 ply sole-bars into the locating sockets of the ply floor under floor. The engraved planking should be on the opposite sides to the solebars. Make sure the parts are squeezed together properly. Wipe off any glue that oozes out of the joints.

Step 2 Glue the end overlays onto the ends.





Step 3 Now glue ends onto underframe from step 1.



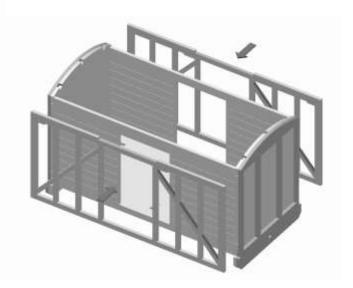
Step 4
Glue the two sides in place.

Note that the door "lintel" (i.e the top) is deeper than the door "step" (bottom).

Stand the completed body on a flat surface, pass a large rubber band around it or lightly clamp and allow the glue to set

Step 5 Glue the two side overlays in place.

Note the cut out for the rain strip goes at the top and the mounting holes for the door rails go to the left.





#### Step 6

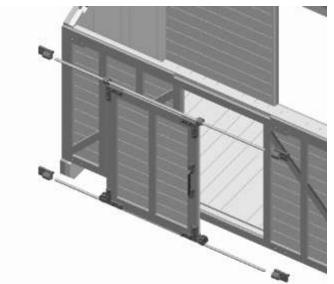
Prepare the door detail components by removing the "sprues" (the light sections in the picture) that hold the parts together with a sharp modelling knife or miniature side cutters. If necessary clean any printing dust off the "castings" with a toothbrush. "Twizzle" a 1.5 mm drill bit in the holes in the top door runners so that they slide on the supplied door rods.

TIP. Trimming off the sprues can leave little patches of white nylon visible. This can be removed by simply "colouring in" the area with a fine tipped black permanent marker pen.

Step 7
Assemble each of the doors.

Slide the two upper door hangers onto a door rod to keep them aligned while you glue the hangers to the door but don't get any glue into the hangers' holes.

Note that the "wheels" on the lower hangers point to the sides, not down.





Step 8
Push the door rod ends into the rod mounting brackets. Then glue the mounting brackets into their locationg holes in the van sides.

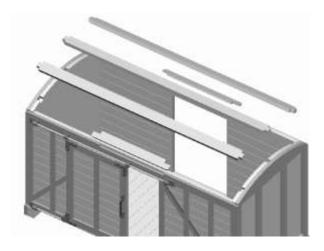
The lower hangers' "wheels" should just rest on the lower door rail.

### Step 9

Glue the two "rain strips" into their cutouts above each door lintle. They should be angled down slightly but not too much as to stop the doors sliding on their runners.

Next glue the three roof mounting strips into their sockets in the top edge of the van ends.

Let the glue set completely before attempting to glue the roof in place.





Step 10

Take the vacume formed roof and with a sharp knife and a steel rule, trim the long sides first by pushing the steel rule hard against the side of the lip and running the shark knife done the edge.

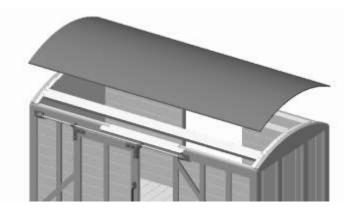


Now trim the two short sides by placing the steel rule across the "bow" of the roof and push down so its flat on the mat and then trim with your sharp knife. Align the rule right at the end of the textured pattern against the the slight ridge to get the right roof length.



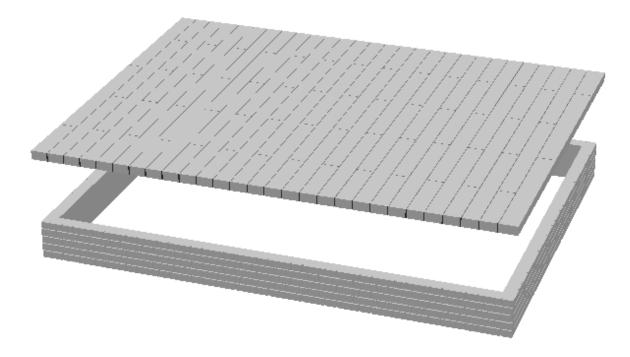
We suggest you use epoxy resin glue for this bit:-

Now glue the roof to the van. Put plenty of glue on the three mounting strips and a thin bead around the top edges of the van sides and ends. Clean off any excess glue that oozes out. Make sure no glue gets onto the door runners. (Infact why don't you put a bit of making tape over them to make sure  $\odot$ ).

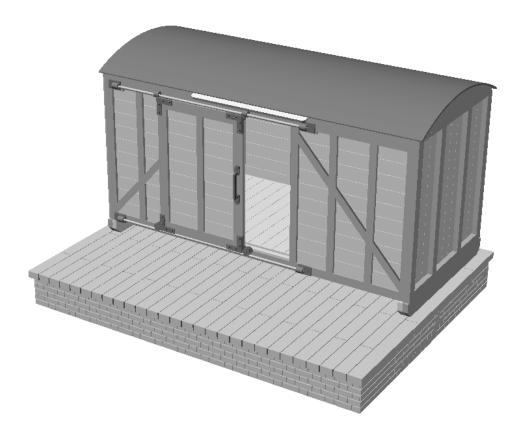


Leave until the glue is set.....

Step 13 Glue the 4mm engraved plywood platform to the 3D printed brick plinth



Step 14 Glue the completed body onto the platform



Job Done!

Grounded Van Assembly Instructions: Page 7

# **Packing List**

Platform	4mm plywood	1
Brick plinth	3D printed plastic	1
Body Floor	3mm plywood	1
Side walls	3mm plywood	2
End wall	3mm plywood	2
Side wall overlays	3mm plywood	2
End wall overlays	3mm plywood	2
Sole bars /roof supports fret	3mm plywood	1
Door fret	1.5mm birch	1
Roof overlay	Moulded HIPS	1
Door runner set	3D printed nylon	1
Door runner rails	1.5mm piano wire	4