

Plateway Models

Alpine - Balcony / Tourist Carriage

Introduction

Thank you for purchasing this kit. It is not a beginners kit but with a little patience it will provide a rewarding model. The model is formed up from multiple layers and parts, some of which are sandwiched, others are small and tricky or the position is not obvious. Preparation is therefore key, practice fitting is recommended! Note that some of the instructions are only relevant to some model versions.

Preparation Preparation Preparation

The kit provides all the parts needed except glue and finishes. The provided parts have been laser cut, some minor finishing may be required using simple hand tools. Some parts may benefit from having the surface finish (paint, varnish, oil, stain etc.) applied before assembly. Some glues may affect the finished surface (e.g. stain) therefore a trial of glues and finishes is recommended on a hidden surface.

Recommended glues are: PVA and Thick Cyanoacrylate (superglue) but any other suitable glue could be considered. PVA has the benefit of the modeller being able to part imperfect joints, whereas Cyanoacrylate is stronger.

Laserply uses a water based glue interior glue which cuts down on emissions and over-burn (scorch marks) when cutting. Occasionally, the laserply, a naturally based material may have warped or may warp when a finish is applied (e.g. water based stain). Dampening the piece and allowing it to dry naturally under a weight on a flat surface normally improves it.

Jigs - Your Reliable Friends

Fitters used to fettle, nuts and bolts used to be bespoke, mechanical contrivances used to be entirely innovative and cutting edge. However, not all were successful, unfortunately engineering is all about consistency, you can build ten or more examples and keep the final perfect one or perhaps you can follow a standardised method that takes the drudge and frustration out of construction.

Therefore the following jigs are included in the kit to aid the modeller:

1. Bottom Structural Assembly Jig for fitting the structural sides to the floor
2. Top Structural Assembly Jig for fitting the carriage ends and ensuring the carriage is square.
3. Gauge setting Jig to help align the chassis rails.
4. Handrail jig (part of the top jig)

The jigs are made of birch laserply and can be usually disposed of in garden waste where they will eventually compost. They also make good kindling, alternatively you can buy another kit!

Assembly

Having, read all the instructions, prepared the parts and trial fitted them the kit is finally ready for assembly. The following construction order is recommended:

First Sub-Assemblies

Windows: The windows are sandwiched between the outer layers of the sides when complete and cannot easily be removed, modified or painted once installed. Once the frames are finished (painted, stained, etc.) they can be glued with a tiny amount of Cyanoacrylate at the corners to the supplied clear sheeting. Once dry they can be cut out with a sharp pair of scissors.

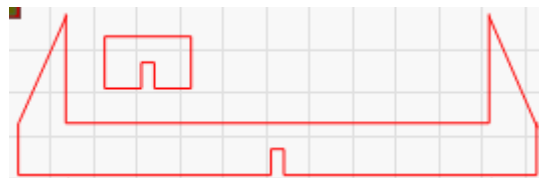
Carriage Ends: The ends comprise of two layers, a structural inner layer that is also planked as part of the internal finish and an outer thinner planked layer. These two layers should be glued together with a window that needs to be included between the two layers.

Carriage Structure & Jigs

The floor sits inside the two side walls, the floor is notched on both sides to accept the structural core and outer surface. The floor planking should face into the vehicle.

Three jigs are provided to assist, in building the model structure, two bottom jigs and a top jigs. The jigs are purposefully tight to provide some temporary structural support and ensure the structure is square. As plywood is a natural material of a nominal thickness the jigs may require a little easing with sandpaper.

Each bottom jig is in two parts and just slots together. The jigs allow for the glueing up of both structural sides to the floor, which sits between the sides.



The top jig is used when attaching the ends to ensure that sides are the correct distance apart and square. Glue one end at a time moving the jig between the ends. The carriage ends sit on the floor but cap the end of the structural core. Note it may be worth drilling the hole for the handles and fitting them now as access is tight. Be careful not to glue the jigs on. Vents are supplied to be fitted above the doors, internally and externally, these can be fitted before or after the fixing depending upon the finishes.

It is Important that the body is square and true otherwise it will not ride well on the track when finished. When dry/set carefully remove the jigs before adding the final outer walls.

Tips:

1. It is sometimes better to build the structure before painting or staining the floor or underside, particularly in the longer 3 compartment coaches, as perfectly flat straight floor can banana, if so wet, clamp/weigh flat, allow to fully dry and try again.
2. If the body is not square and you have use PVA, it is better to break it apart carefully, with a sharp craft knife and try again, see above.
3. Gluing up the sides and ends, applying light pressure with camps is ideal

Inner & Outer Cosmetic Layers

These layers not only make the carriage look good but also add strength to it. The next stage is to add the two outer side layers. These cover both of the ends and should be applied centrally and line up with any openings. Use a window frame for example to check that they are in the correct position.

The windows and glazing should be fitted next (if applicable), glazing inside window frame outside. They are a tight fit so that they cannot move out of alignment. **Tip:** A partially open window can be created by cutting off the bottom of the frame and glazing so that it appears to have been dropped into the door.

The two inner layers can now be fitted, minor adjustments to the size and open positions can be undertaken by sanding down an edge. Once fitted the inner layer should line up with the windows, hiding the inner side of the frame and cut edge of the glazing.

Tourist / Covered Version

The tourist / covered version has open sides instead of windows. Two top rails need to be fitted along the eaves of the coach. The roof arches can then be attached to these. Square uprights are also provided for the coach centre these fit between the coach sides and the top rails.

Second Sub-Assemblies (if applicable)

Partitions: The partitions are made up of two layers back to back which will require trial fitting between the compartments. If a little tight the edges can be sanded down.

Seats: The benches/chairs are best made outside of the carriage. Each bench is made up of three supports (ends and centre) and two bench/back, chairs only have the end supports. The bench/back can be carefully rounded with

sandpaper before fitting if required. The bench/chair seat being fitted first with the back sitting on top of it. Finish as required.

The partitions and seats can now be fitted within the carriage and glued into place.

Coach End Fittings

Before fitting the balcony ends fit the door handle and vent over the door. The handle is made by bending a length of wire into a suitable L shape and cutting it to length. Drill a hole in the door 43 mm above the floor centrally in the door edge frame. Note it is also possible to fit a door handle on both sides of the door

Balcony Ends

The balcony ends are made up of three pieces that when glued together will fit snugly around the end of the floor. The floor together with the chassis rails only offer a limited surface area for gluing and the connection is purposely tight and will require a little sanding to fit. Before fitting round the corners, the top caps can be rounded and fitted now or later. When fitting the balcony ends make sure that everything is square. Three diagonal gates fit in the openings, these are handed so make sure that they are all the same way up. Note that some of the original carriages before the advent of health and safety only had hinged bars across the top or simple triangular frames. These could be replicated with a match stick or paper-clip (not supplied).

A folded up walkway can then be attached to the end above the coupling, trial fitting of the coupling is recommended to ensure correct placement.

Roof

The roof can now be fitted, permanently glued into place or made removable with a little additional effort (not covered versions). The permanent roof is more robust but makes the interior inaccessible for the windowed version. The roof is marked on the inside with planking.

For a permanent roof: Glue the roof supports evenly along the carriage between end and partitions. Glue the roof down onto the supports, partition, sides and ends making sure that it overhangs evenly.

Removable roof: Glue the roof supports evenly along the carriage between the windows and doors. Additional structural roof supports (deep ones) have been provided at the ends and each side of the partitions. These need to be fettled so that they provide enough friction to hold the roof into place but not so much that the roof does not come out.

The end roof supports are each made using two normal roof supports (thin ones) and two 4 mm by 30 mm lengths, these should be constructed outside the carriage and added to the underside of the roof once dry and finished. If the roof has been made removable do not fit them too tightly or glue them against the end walls.

Hand Rails

The hand rails run up the sides of the balcony ends, the top hole should be 2.5 mm from top and central, drill the bottom hole to match the handrail, the drill size is 1.3 mm. The hand rails, are made from the copper wire provided, which needs to be formed into a U shape, 18 mm across. A hand rail jig is provided in the top jig used earlier. A hole can be found 18 mm from one end, thread the wire through the hole and bend over 90 degrees and then over the end a further 90 degrees to form a U shape. Use a pair of pliers to tweak if necessary. Ensure that all the handrails are consistent. Cut the U shape to length.

Brake Mechanism / Handle

The brake mechanism is made of copper wire, two tiny trapezoidal brackets (check the paper bag!) and a handle. The wire should be cut to length so that it runs from the buffer beam to just above the capping (65 mm), a short off cut for the handle arm (10 mm). The wooden parts are very small and delicate, 1.2 mm holes have been cut through them but typical wire diameter seems to 1.3 mm +/- 0.1 mm, so they will probably need opening out gently with a micro twist drill. Thread the parts on and fix with a dab of glue, paint as appropriate and fix on one balcony side centrally.

Wheels & Axle boxes

The two chassis members can now be fitted to the underside of the carriage. They should be spaced to the required gauge, the wheels are adjustable on the axles. The axle-boxes should be attached to the chassis members using Cyanoacrylate glue or similar for strength. Locations for the axle boxes are marked with rivet detail.

Finishing Touches

Couplings can now be fitted through the holes in the ends.

The running boards can be fitted using the brackets supplied to the underside of the carriage floor. Wire could be used as an alternative to the brackets for a lighter more prototypical touch, but they are more likely to suffer from damage.

Completion

Time to oil up the axles and set off on a test run. Enjoy.

Recommended Tools List

- Sharp craft knife and cutting board/mat
- Various grades of sandpaper / emery paper
- Steel rule
- Needle files
- Micro drills
- Clamps, clothes pegs, small weights, etc.
- Decorators tape
- Pencil
- Square
- Long nose pliers
- Side cutters
- Tweezers

More resources are available on the www.platewaymodels.co.uk website.

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