

1026 - Victorian Railways CW guards van.

Requires bogies/couplers to complete. Available separately from Spirit Design.

Thank you for purchasing this kit and I hope you get many hours of enjoyment from it. Chris Pearce (Spirit Design)



Class leader CW1 circa the late '70s to early 1980. Photo courtesy of Rob O'Regan

Basic history notes:

To complete the W series train a guards van was needed and Newport were up to the task of constructing 15 units during 1913-1914. These vans matched in beautifully with the then newly constructed W stock and were to be a favourite of Railway followers for many years to come as they also featured clerestory roofs and were based on the very successful CE van running around with the 'E' cars.

Their wooden bodies sat on steel underframes that were strengthened with truss rods. The guard's lookout was provided similar to the CE's then in service and one was at each end of the van. Screw handbrakes, emergency brake valves and pressure gauges were provided in the lookouts for operation by the guard if need be. Internally 4 sections were provided for storing goods and hinged shelves; desks and chairs provided extra comfort when attending to paperwork. All doors in the vans were of the sliding type with the twin main doors providing ample room to manoeuvre trolleys in and out at stations. Four dog boxes were available and entry was via the outside only. The dog kennel was located under the raised seat of the guard.

Before fitting auto couplers, electric lighting and removing the screw links, each body received a newly strengthened underframe. Steel panelling was added to the lower portions as the constant wear and tear with baggage handling had splintered the matchstick sides. Later on in life, most units were completely steel sheathed which altered their appearance. The sheeting didn't seem to be applied in the same way on any more than two vans hence the subtle difference in their exteriors. Vans had a tare weight of 26ton 11cwt.

During 1935 a further 5 vans were constructed but the roof was to be a semi-elliptical design rather than the earlier clerestory units. They also featured a newer more strengthened underframe resulting in their weight climbing to 28ton 9cwt.

As the 1980's arrived their importance had waned with guards vans being removed from trains and gradually most were scrapped. A few have survived into preservation and can be seen occasionally.

The Kit:

The kit can be put together in under 1.5 hours (when pre-painted) over a week. If you have already built one of my 'E' or 'W' cars this is even easier still. Only minimal tools and basic skills are all that is required to build a very accurate model of a VR guards van. It is suggested that you ***read through*** the instructions first to become familiar with the components and the essence of construction. There are a few steps that require close attention and they are highlighted in ***bold and italics!*** Parts referred to in the text are marked **P1, P2** etc. Please use prototype photos to aid

construction. Generally, the kit will fit together without any problems, however as wood is a natural product sometimes cut lines burn more rapidly than others do and as a result, a part might be fractionally shorter. **Please trial fit parts before gluing and make minor adjustments if necessary.** Where Super Glue is mentioned for the roof side parts it should be used in preference to other types of glue. The kit is based on a typical unit from the mid-1970s.

Equipment & Materials:

Exacto knife (blade No. 16 or similar), 800-grit aluminium oxide sandpaper, small flat needle file, emery board, and toothpicks for spreading the glue and a small screwdriver with a 3mm shaft. Fast-drying wood glue like Selleys Exterior PVA or Selleys water-based 'Kwik Grip', Super Glue for assembly (all recommended: usual disclaimers).

General Assembly notes: *The kit should be painted before assembly but can be after being built as well, I will leave it up to the modeller to decide. The roof, underframe and other components can be painted at any time. Any piece cut from the sheet should have the holding tag sanded slightly as there is always a slight bump when a knife cuts it free from the surrounding area. Also, become familiar with the prototype by studying the photos with the instructions before commencing the kit. Construction photos show painted and unpainted kits in assembly mode.*

Painting general:

The main laser etch should be **lightly coated** (2 passing light coats not 1 heavy one) with a pale grey primer, Tamiya Surface Primer is ideal for this step. This will enhance the top colour of the Steam Era passenger car red. Failure to do so will result in off looking colours. Other similar reds by other makers can also be used.

Sides, end walls and doors: Steam Era passenger red or equivalent.

Cupola window frames: Humbrol Matt 29 with a little white added. See prototype photos below.

Roof: Humbrol Matt 29, pale grey for the 1960s. **Tail disc:** Flat White

Underframe, generator, steps, air reservoir and battery box: Matt black, Floquil weathered black or grimy black.

Assembly Instructions

1. Glue **P2** to the back of **P3** making sure no glue escapes onto the door faces. There should be a 0.8mm gap between the edges of **P2** and **P3** at both ends. This will allow the end walls to slip into this spot. Also, make sure that the bottom edges of the two parts are in alignment. Note the orientation of the sides. See the photo below.
2. Repeat the same for parts **P4** & **P5**. See the photo below.



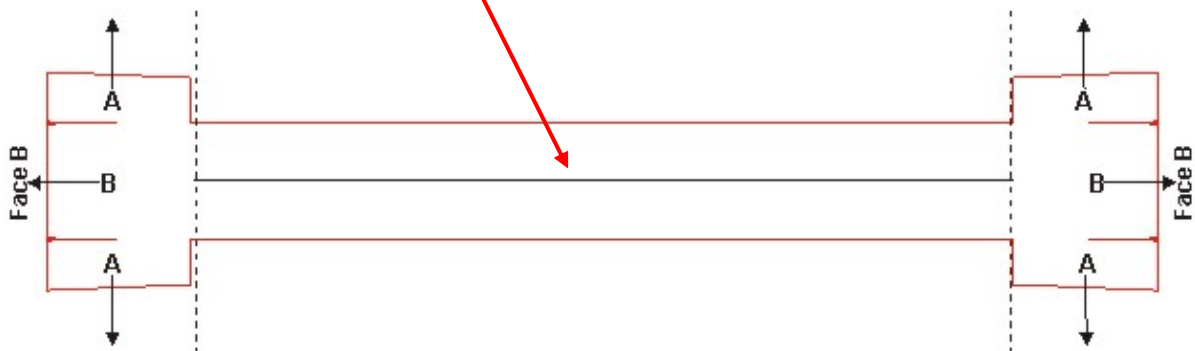
3. Glue **P6** to the LHS of the assembled unit in step 1. It should fit neatly in the 0.8mm gap provided.
4. Repeat the same procedure for **P7**.
5. Glue both 'L' shaped halves together making sure that they all lineup and are square to each other. Use squares or aids to accomplish this. Place a small dab of glue where cupola windows meet the end walls for added strength. Also, pay attention to the bottom edges of the newly formed box in that **All** edges are sitting flat against the workbench. Use weights if necessary. See the photo below.



6. Sand the MDF floor **P1** edges ever so slightly to remove the minor laser staining and to make the side edges a little more vertical. Test fit into the assembled unit above and when happy with the fit, glue in place. If you need to remove more than a slight amount then this is ok as well as your glue might have been slightly thicker than other types available. Once dry do a very light sand of the base to sit flat with sides and end walls of the completed unit.
7. Glue the cupola front pieces **P8** into the guard's cupola areas making sure that the face of **P8** is vertical and in line with the edge of the cupola forming a neat box.
8. Glue **P9** into each of the guard's cupola halfway between the end walls and the cupola front pieces **P8** making sure the partition is not seen in the window opening.



9. Glue roof supports **P10** against the face of each **P8** on the outside of the cupola area. Also glue **P10s** behind the centre line of each double door and one directly centred inside the car body, i.e. behind the line between the 5 & CW decal in the above photo. Sand the sides of the P10s if they are too tight a fit.
10. Glue 10-15grams of weight inside to the floor of the van using Selleys Kwik Grip Water-based glue.
11. Glue parts **P14** clerestory edging to outside edges of **P13** with **P14** oriented so that the row of rectangles engraved into **P14** are nearest the bottom edge of P14, not the top. See the above photo for guidance.
12. Test fit **P11** into the van roof space and then when happy moisten it with water and gently curve the scribed sides over a 12-13mm Exacto knife handle or similar size bar. The corrugations face inside the van when glued. Glue the roof in place and secure it temporarily with a rubber band provided.
13. Glue assembled clerestory sections **P13** & **P14** to the roof centrally between the two cupola end faces as per the photo above.
14. **The roof is the hardest part of the kit, which is why you have been given two units to help you achieve the finished form. Note that the scribed line faces outside when the roof is glued in place.**



Trial fit procedure: *Place the roof over the clerestory section and become familiar with where you have*

to bend the relevant parts to get them to follow the roofline shape. Using a small screwdriver with a 3mm shaft roll in the direction of the arrows all the edges marked 'A' in the diagram over the shaft to achieve a curved profile. Test fit the roof again and adjust items marked 'A' until they approximate the shape of the guard's cupola curve and only require glue to secure them, but don't glue yet!

Repeat for items marked 'B' in the direction of its arrows and trial fit again. You may have to manoeuvre items 'A' out of the way to achieve this.

When you're happy with the shape you may secure it with glue. There are several ways to do this.

Experienced modellers will use Super Glue for the entire process in one shot, securing all sides down using pressure and a toothpick to apply any extra glue.

All other modellers should glue the main section to the roof and secure only up to section 'B' where they start at the intersection of **P9** using either Selleys Water-based Quick-Grip or Super Glue. Once dry, the part 'B' faces can be glued down using Super Glue onto the edge where they meet **P6** and **P7**.

Each section marked 'A' should now be glued down using Super Glue, the folds made around the screwdriver earlier will help you achieve this angle. Take your time and don't rush this step.

If disaster strikes on attempt one: If you have an accident on attempt one with your roof, cut along the dotted lines shown in the diagram to separate the second supplied roof into 3 parts to allow easier application. However, you will need to patch the cut lines with suitable body filler afterwards. **See Item 15 below.**

15. Using a triangular file gently open out a **VERY Small** portion of the cut lines, which form the piece marked 'B' in the roof diagram. This will create a greater surface area for the body filler to patch the cut lines. Once dry sand gently with very fine sandpaper to produce a smooth surface. Recoat with filler until the desired surface finish has been reached and no cut lines are visible.
16. Tidy up any edges around the guard's cupola roofline so that the overhang is even. This may require some very fine filing to make the roof edge parallel with the cupola as the roof has a slight flare in the shape to allow for the curving process over the cupola ends.
17. Glue **P17**, the styrene (15thou x 30thou) strip along the scribed line of the newly completed roof.
18. Glue parts **P18** (Vestibules) to the end walls **P6** & **P7** matching the door lines engraved into the ends.
19. Glue **P12** to the van floor centrally using toothpicks as an aid to lining up the holes, scribed lines facing out.
20. Glue the 'U' channel parts **P15** to the outside of the underframe and along the van floor edge.
21. Glue **P19** to the floor of the van using the parts guide picture below. An arrow indicates its position.
22. Glue **P20** to the floor of the van using the parts guide picture below. An arrow indicates its position.
23. Glue the battery box **P21** to the scribed lines on the underframe.
24. Using the holes provided in the MDF floor, glue the truss rods **P22** in place.
25. Glue parts **P23** into the 'U' channel below each of the guard's end side doors. See the photo below.
26. Parts **P24** (spacers) are provided for Microtrains 1015 couplers if needed.



Completed unit awaiting Guards decals.



CW9. Photo courtesy of Mel Skinner.



Typical battered wear and tear on CW5. Photo courtesy of Rob O'Regan



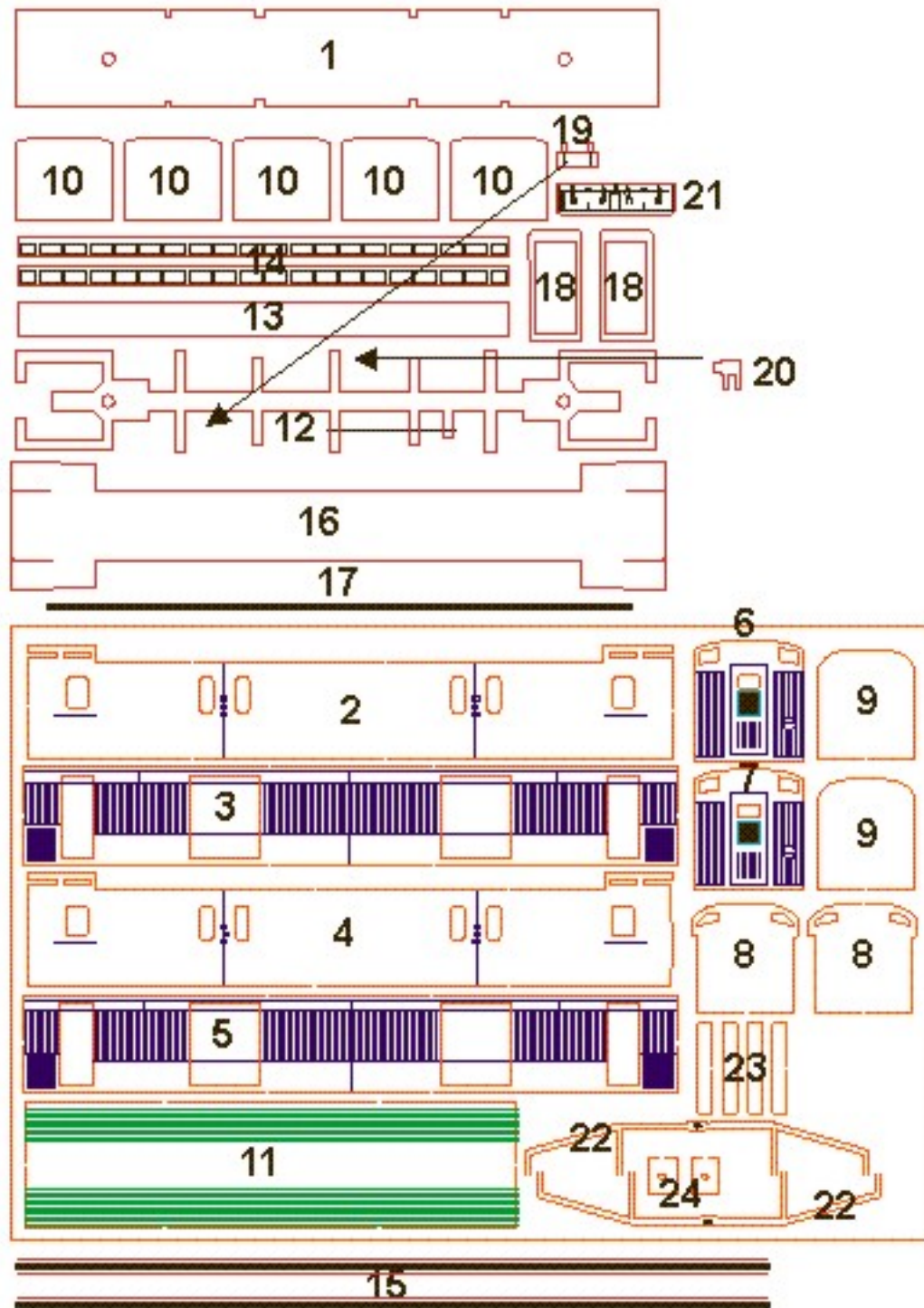
The bright red colour scheme on CW14 early 1980s. Photo courtesy of Mel Skinner.

Decals: Using the prototype photos above and the photo of the finished model, position the decals accordingly.

Weathering: Use pastels or paint to weather the van as per photos or to your liking. Don't forget the roof as smoke and diesel fumes stained it.

Bogies: Roundhouse bogies or similar. Greenmax TR11 is a good substitute as well. Or order Roundhouse bogies from Spirit Design (these units will need wheels – extra cost).

Windows: Use Microscale Kristal Kleer for the windows to achieve a flush finish after painting.



For more information and photos see www.spiritdesign.com.au, Rob O'Regan's website <http://www.robx1.net/> or Mark Bau's <http://www.victorianrailways.net/> or Peter Vincent's <http://www.pjv101.net/index.htm>.

Any alterations, suggestions or queries please contact me.

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