

## 1032 - Victorian Railways ZLP / VVBP guards van.

Requires Micro-Trains 1144 BX bogie 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)



Photo 1 ZLP 30 note the white-painted brake indicator squares. Photo courtesy of Peter Vincent

### **Basic history notes:**

Originally classed as ZF when built they were soon to lose this code and replaced with the familiar ZLP. Construction began in 1961 and continued through to 1968 when 80 vans were in the group built by Ballart North and Newport Workshops. The first 7 vans built were coded ZF and these were later recoded ZLP and carried the numbers 74-80.

A very versatile van that could run fast freight and when needed would also provide guards with a nice ride when used on infrequent passenger haulage. Van goods could be carried in the compartments at each end of the van and the wide doors (4' 6") offered easy access as they slid towards the end walls. Two large periscopes offered great views of the train in tow. Amenities included a desk, hinged seat, stove for winter months, washbasin and a toilet. Fresh air circulated the cabin via Flettner ventilators. Originally, they were built with twin windows in each main door but these were progressively replaced in later years. It is not known if all units managed to get the single window treatment before scrapping began in earnest once guards' vans were eliminated from VR freight trains. One van ZF32 ran around in a bright yellow colour scheme during the mid-1960s for the fashion express.

Numbering started at 1 and went through to 80. They were recoded to VVBP in the 1979 renumbering scheme however not all vans were recoded with the same numbers as their original ZLP numbers as scrapings had taken some.

### **The Kit:**

The kit can be put together in under 1.5 hours (when pre-painted) over a week using either the original build twin window door version or the later single window version. 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.

### **Equipment & Materials:**

Exacto knife (blade no 16 or similar), 800-grit aluminium oxide sandpaper, small flat needle file. Fast-drying wood glue like Triton PVA (which is sandable and goes off in under 5 minutes, all recommended usual disclaimers).

**General Assembly notes:** *The kit sides and walls should be painted (see painting general notes below) before assembly with only minor touch-ups needed after assembly. The reasoning behind this is that it is easy to paint the window frames whilst the components are still lying flat in the lasered sheet. 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.*

### 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 wagon red. Failure to do so will result in off looking colours.

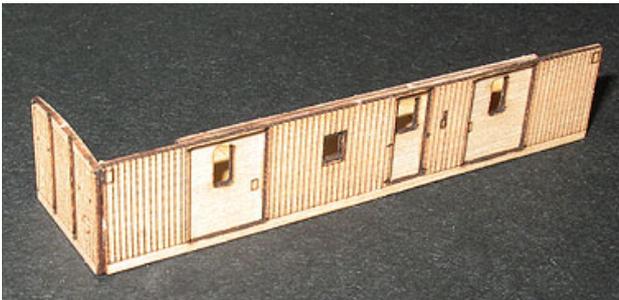
**Sides, end walls and doors:** Steam Era wagon red or equivalent.

**Roof:** Humbrol Matt 29, pale grey for the 1960s

**Underframe, generator, steps, air reservoir, periscope window only and generator stitch panel:** Matt black, Floquil weathered black or grimy black. Note the periscope can be done easily with a 'Texta' once the unit is painted.

### Assembly Instructions

1. Sand the MDF floor **P1** edges ever so slightly to remove the minor laser staining and to make the edges are a little more vertical and place the floor face up (you should see 2 scribed lines) on the workbench
2. Glue a van side **P3 (there are 2 types)** behind the van side **P2** making sure that the bottom edges are flush and that the square hole is over the small window in the side with an equal spacing all around. Approximately 9mm on each side will be between the edge of **P3** and the ends of **P2**.
3. Glue completed assembly **P2-P3** to the MDF base making sure it is straight and vertical on all edges. The inner piece of the van side **P3** will fit neatly into the recess on the MDF floor.
4. Glue an end **P4** to the MDF floor making sure the wall is square and straight with the base and side assembly above.



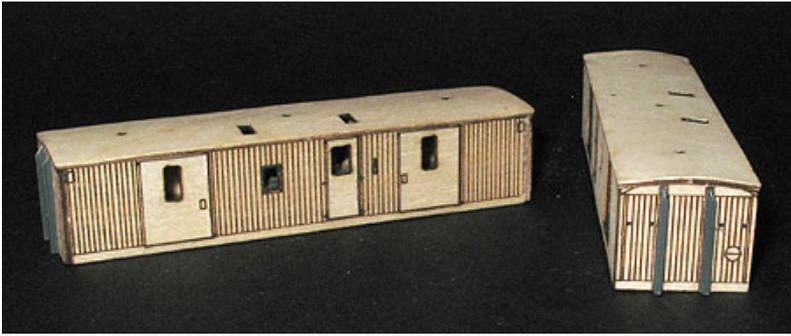
5. Glue the other corresponding inner sidewall **P5** chosen in step 2 to **P6**.
6. Glue this assembly to the MDF base making sure all walls of the van are square and even.
7. Glue the remaining end wall **P7** to the MDF base and make sure all walls are in alignment, square and vertical.
8. Glue roof supports **P8** up against each of the end walls internally of parts **P4** and **P7**.
9. Glue secondary roof supports **P9** onto the MDF base where the scribed lines are marked approximately 20mm from each end.



*Roof supports glued in place.*

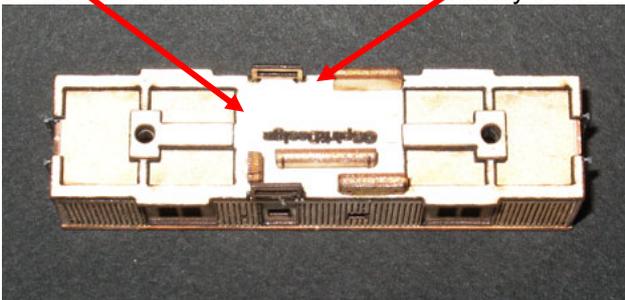
10. Add weight to the inside and glaze the windows if you wish to at this step.
11. Moisten the roof back (ribbed section) with water and gently form it around a 12mm dowel or Exacto knife so it has a slight curve to match the roof. Glue the edges of the van where the roof meets and the 4 supporting roof units. **Special Note: make sure that the roof goes down in the correct orientation. The 2 rectangular holes go above a side (starting from left to right) and containing a large door, small window, thin door and a large door. Use rubber bands provided as an aid to holding the roof squarely down.**
12. Cut 4 x 13mm wall strengthening 'H' beams from the length provided. At one end of each unit, trim it at 45 degrees no further down than 1mm from the top.

13. Glue an 'H' beam piece into each of the end walls (**P4&P7**) into the groves provided. You will have to open up the / remove the minute bit at each wall bottom so the 'H' beam can recess in easily.



*'H' Beams and roof glued in place.*

14. Lightly sand the assembled sides and base before adhering to the underframe to remove any unevenness.
15. Glue the 1.2mm underframe **P11** to the MDF base making sure that the doorsteps match the openings and that the 2 notches for the small door ladders are under their corresponding doors. Use weight to hold the underframe in contact with the assembled body whilst drying.
16. Next glue the 2 bolster spaces **P12** onto the underframe where they match the same shape.
17. Glue the battery boxes **P13** onto the underframe where the 2 thin lines are scribed making sure the detail on the battery box faces towards the outside of the van. The flat edge goes up against the underframe and the rounded corners away, i.e. hanging down when viewed right side up.
18. Glue the air reservoir **P14** onto the 11mm line scribed onto the centre of the underframe not as shown in the photo below.
19. Glue a ladder **P15** into the notches provided in the underframe, which should be located under the narrow door openings.
20. Glue the generator **P16** onto the 3mm scribed line provided on the underframe. **Note it is at 90 degrees to all the other components attached to the underframe so far.** In addition, glue **P18** not marked on the sheet below where this arrow is next to the battery box.



*Underframe components.*

21. File a 45-degree chamfer onto the periscope unit **P17**. The side that has the rectangular oval window is the 0 mark and the 45 chamfers should go down 1.5mm to the opposite side. 3 periscopes are provided in case you muck one up. Test fit each unit in the roof before gluing. They are pushed all the way in the van until they touch the floor. They will then be at the right height above the roofline (4mm to the apex). If your wagon weights were placed in this area, trim periscope to the above recommendation. See prototype photos.
22. Use 3 pins provided and glue these into the centre 3 holes of the van roof making sure that at least 1mm is sticking up.
23. Glue a pin to act as the chimney, which is the hole closest to the edge of the roof again making sure that at least 1mm of the pin is protruding above the roofline.
24. Cut the head of the last pin and glue this into the remaining hole opposite the small window (car body side) leaving 1.5-2mm protruding above the roof, as this is the toilet flue pipe.
25. Using part of the laser etch (or styrene sheet) cut 4 blocks from the sheet each 1.5mm X 1.0mm to act as lamps. These are glued up near the roofline towards the van ends. See the photo below as a guide.



**Finishing the van:**

If you haven't already done so previously paint the van sides and ends in Steam Era wagon red. The roof is painted Humbrol Matt 29 or a suitable dirty colour. Using a 'Texta' fill in the periscope windows and dab a bit on top of the chimney. The underframe and associated components are painted black. Affix decals as per photos above. Paint the white handbrake marker squares as per photo 1 above.

**Super detailing:** There are 4 small rectangular markings near the edges of the sidewalls. Small pieces of styrene can be made and attached to act as lights. Shunter steps can be affixed to the ends of the van as in the photos if so desired as well as handrails in the holes provided.



2-window door version. Photo courtesy of Peter Vincent



Single window unit 43 ZLP after refurbishment. Photo courtesy of Rob O'Regan



ZLP end view showing handrails, white handbrake marker, tail disc and 'H' beam strengtheners.

Photo courtesy of Peter Vincent



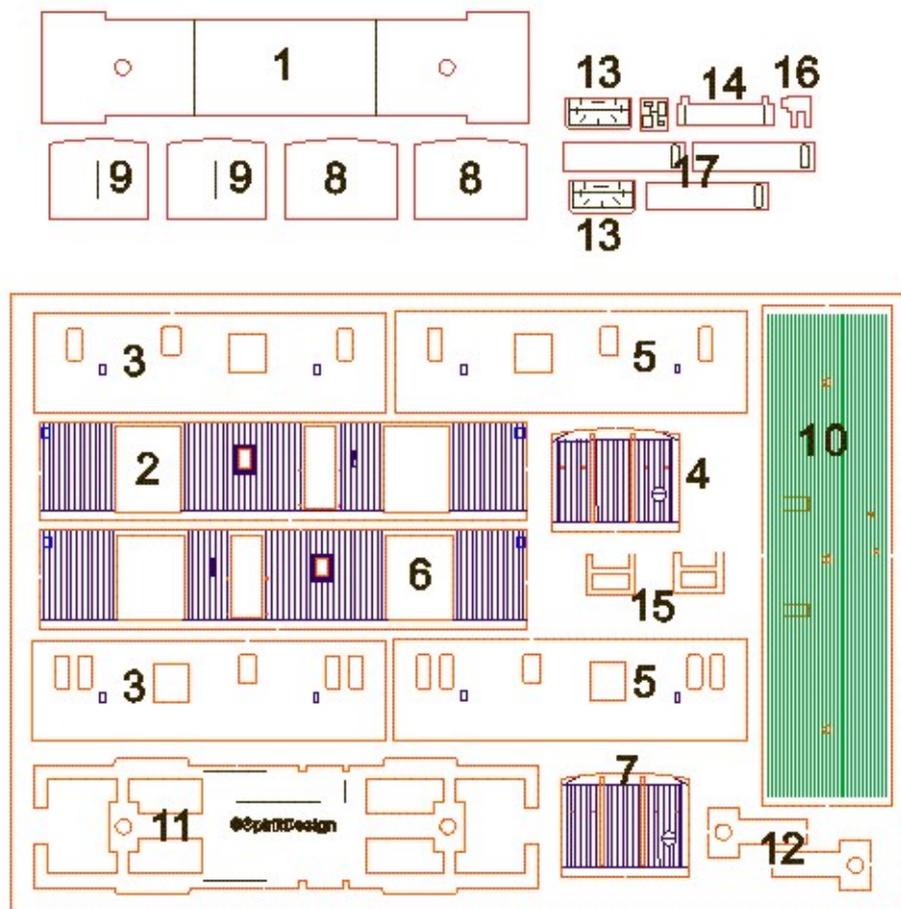
47VVBP in the new 4 letter coding. The vans didn't last all that long into the VVBP coding as guards vans were dispensed with by the Victorian Railways in the mid-1980s.

Photo courtesy of Peter Vincent

**Decals:** Using the prototype photos above and the photo of the finished model, position the decals accordingly. In addition, you can make use of the spare BE sets from the numbers provided.

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

**Bogies:** Micro trains make the correct bogie for the guard's van. It is a 'BX express Truck' no 1144 with couplers. I am not sure of the exact number of the coupler less version.



For more information and photos see [www.spiritdesign.com.au](http://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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