Final assembly

Carefully lower the body down onto the underframe, so that the bottom edge of each side sill is flush with the lower edges of the headstocks, and cement it in place.

Install a suitable weight on the floor, so that the total weight of the model will be about 50g with bogies and then cement the roof on top of the body.

Couplers

The kit is designed to use either Kadee No5 or No58 couplers (not included). Assemble the couplers in their draught gear boxes and clip the ears off each side. Attach the couplers to the underframe with cement and/or #2 x ¼" pan head screws (not included) using the dimple moulded between the centre sills at each end of the floor as a guide for drilling a suitable hole.

Bogies.

Brake shoes are provided for bar frame and diamond frame bogies. Cut each brake shoe and hanger moulding from the runner, as shown on figure 6.

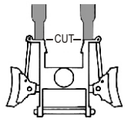
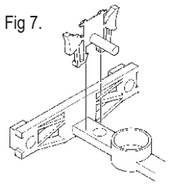


Fig 6.

Fig 7.



Prepare the bogie mouldings by shaving off any flash that may be present around the ejector pin marks on the bottom surface of the bogie bolster. Press the brake shoe moulding into position on the bogie so that the moulded claws clip around the bolster. Check that the wheels will still turn freely and secure the mouldings to the bolster with ACC or contact cement.

Attach the bogies to the underframe with the #2 x ¼" screws provided.

Painting and Decals

The wagon should be painted overall VR wagon red with white lettering. We recommend Steam Era Models Wagon Red spraying enamel. For a short period the UP vans were painted passenger car red and, whilst not certain, it is probable that the underframe was painted black at this time and the roof remained wagon red.

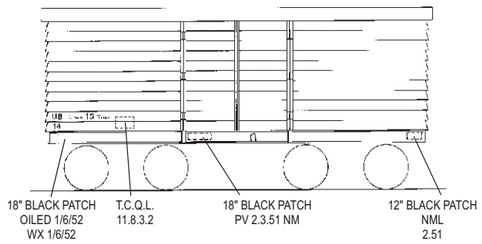
UP number	Date of conversion from UB	Date passenger car red enamel	Date of reversion to UB
14	April 1955	December 1958	October 1960
28	December 1955	September 1959	November 1960
32	February 1956	November 1958	December 1960

The other members of the UP fleet had narrow doors and cannot be represented by this kit.

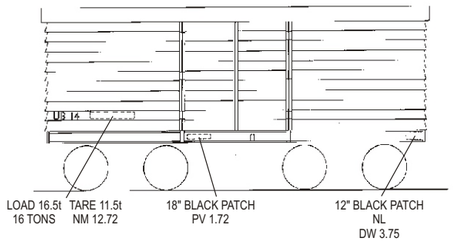
Decals are provided for both metric and imperial load/tare and codes. Refer to figure 8 for the placement of lettering.

Fig 8.

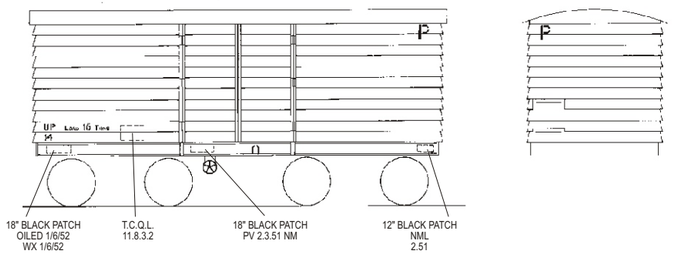
UB VAN PRE 1972 STYLE CODE & NUMBER 5 INCH



UB VAN POST 1972 STYLE CODE & NUMBER 7 INCH



UP VAN



To Apply Decals

1. Trim the decals close to lettering to remove excess film.
2. Immerse in water for 10 to 15 seconds, then set aside on the model until the decal straightens out.
3. Slide the decal into position. If it is necessary to adjust the position, use a small brush that has been dipped in water.
4. Use a damp cloth to soak up excess water.
5. Use a decal setting agent e.g. 'Solvaset' to assist the decals to snuggle down over raised detail such as rivets.
6. Apply a flat finish such as Humbrol Mattcote or Estapol Matt to hide the decal film and provide a uniform Appearance.

Note: Decals adhere best to a gloss surface.

Steam Era Models
C/- P.O. Rhyll, Victoria, 3923.

VICTORIAN RAILWAYS 'UB' & 'UP' VAN

Prototype Notes

During the 1930s there was a program to fit the six wheel U vans with automatic couplers and as part of the process they were converted to four wheel underframes. In order to retain the capability of operation as luggage vans on passenger trains, sixty vans were rebuilt with bogie underframes utilising 6' 0" wheelbase swing motion diamond frame bogies and coded UB. Lamp irons were added to the corners of the van as well as to the headstocks at each end, with provision made by the simple expedient of hammering the louvres flat in the general area. UB vans remained on diamond frame bogies until 1958-1960 when there was a program to change to bar frame bogies. A further change was made to transfer many of the UB vans to 40 ton cast steel bogies in 1973-1975. They were largely withdrawn and scrapped in the mid to late 1970s.

Problems with the ride quality of the diamond frame bogies led to a directive in 1949 that UB vans were not to be attached to passenger trains where the speed would exceed 40mph, effectively limiting the vans to goods train use. This loss of luggage van capacity led to eight vans being fitted with TT30 bogies in 1955/56, allowing them to be used on passenger trains once more. These vans were also fitted with locomotive style folding tail discs at each end and a large P was stencilled on the upper right side / upper left end corners to denote suitability for use on passenger trains and the van code was changed to UP. The UP vans were painted with passenger car red enamel in 1958/59, but the arrival of the larger capacity VP vans spelt the end of the UP vans and they were placed back on freight bogies in late 1960 / early 1961, reverting to UB code and goods train operation.

This kit includes wide doors and a corrugated roof, so it is representative of vans numbered 1-41, 43, 44 and 50. A more detailed history of these vans can be found in the October 2000 Australian Model Railway Magazine.

☐ *UB van with swing motion diamond frame bogies. 1955 - 1960*

☐ *UB van with bar frame bogies. 1958 - withdrawal.*

☐ *UB with 40 Ton cast steel bogies. 1973 - withdrawal*

☐ *UP van with TT 30 bogies. 1955 - 1961*

Models illustrated have been fitted with couplers (not included).

Assembly

It is recommended that this kit be assembled with a liquid solvent cement, such as Testor's or Microscale Microweld. A number of details are provided in etched brass, which should be attached to the model with ACC (superglue). Some parts have hooks moulded on the back to assist with removal from the mould. These should be removed carefully with small side cutters or a sharp knife.

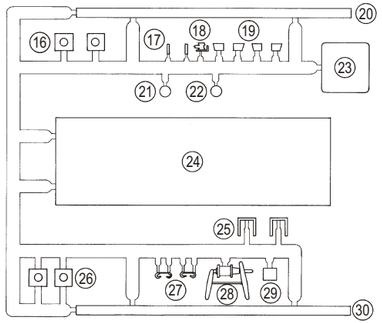
Body Assembly

Commence construction by cementing one side to an end to form an 'L' shaped subassembly. Repeat for the other side and end and allow a few minutes for the joints to gain some strength before cementing the subassemblies together to form an open box. Temporarily place the roof on top of the body to ensure that the assembly is square and true.

Underframe

While the joints of the body harden, go on with assembly of the underframe. Figure 1 shows the components to be used. Note that the floor is not symmetrical and the two side sills are different. Refer to figure 2 to ensure that the parts are orientated correctly on assembly.

Fig 1.



Parts List
16. Bogie spacers, 0.8mm thick
17. Packers for lamp irons
18. Triple valve
19. Brackets for door pillars
20. Side sill, reservoir side
21. Auxiliary reservoir body
22. Auxiliary reservoir end
23. Bending jig
24. Floor
25. Brake lever supports
26. Bogie spacers, 1.1mm thick
27. Rope hitches
28. Brake cylinder
29. Base for brake cylinder
30. Side sill, brake cylinder side

Commence construction by cementing a bogie spacer to each pivot location on the floor. Use the thin spacers (16) if the model will have diamond frame bogies and the thick spacers (26) for all other bogies.

Assemble the two sections of the auxiliary reservoir (21 & 22), taking care to keep the moulded strapping orientated the same for both parts. Cement the reservoir to the saddles on the back of the side sill for the reservoir side. The gap in the moulded strapping on the reservoir allows it to fit closely into the saddles. Install this side sill with reservoir attached to the appropriate side of the floor, ensuring that the ends of the side sill are flush with the ends of the floor. There are small ribs moulded on the back of the side sill, to compensate for the draught on the ends of the transoms moulded to the floor, so that the side sill stands up perpendicular to the floor.

Cement the other side sill (30) to the floor, taking care that the ends are flush with the ends of the floor.

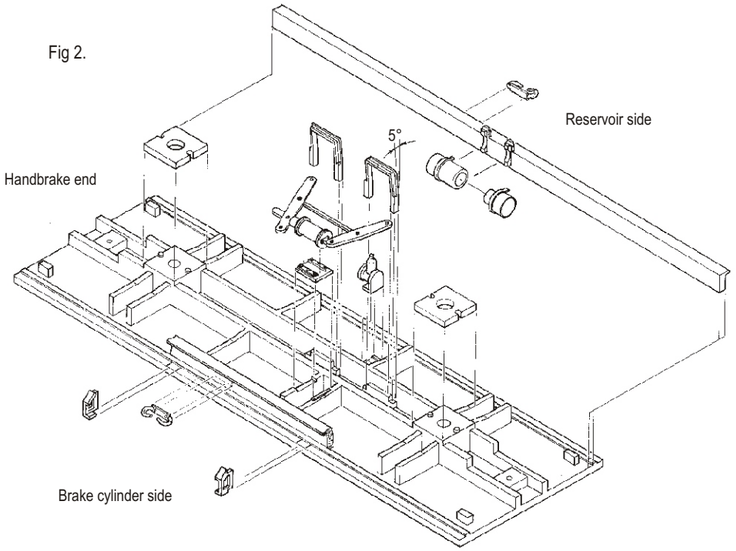
The base for the brake cylinder (29) is not quite symmetrical, so make sure that it is orientated as shown on figure 2 when it is cemented to the transoms. The edge where the part was cut from the moulding fret will be faced towards the adjacent side sill. One end of the bracket should be flush with the plain transom and the other end flush with the shallow rib moulded to the tapered transom.

Cement the brake cylinder (28) to the base and allow a few minutes for the joint to harden before ***gently*** putting pressure on the levers to move the plane of the levers away from the floor, so they are angled down by about 5°.

Carefully hold a brake lever support (25) in a pair of smooth jawed pliers and ***gently*** bend a small kink of about 5° halfway along each leg, as shown on figure 2. Cement the support to the centre sill, located by the lumps moulded on the inside face. Repeat for the second brake cylinder support. The brake levers should rest on the horizontal section of each support.

Cement the triple valve (18) to the support moulded on the floor, orientated as shown on figure 2.

Fig 2.



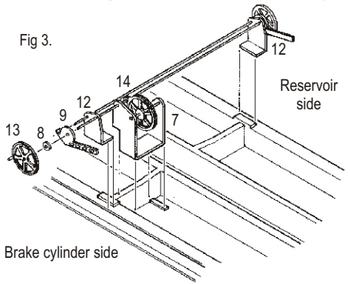
Cement the brackets for the door pillars (19) to the floor and the adjacent side sill, located by the small ribs moulded on the floor. Note that the brackets are handed and should be orientated as shown on figure 2.

Cement a rope hitch (27) to the web of each side sill, as shown on figure 2. Note that each hitch is displaced away from the centre line towards the hand brake end.

Handbrake

Parts for the hand brake are provided in photo-etched brass and part identification numbers have been etched into the fret. Fold lines have been half etched into some parts and these should be orientated towards the ***inside*** of the fold. Check that the 0.4mm diameter wire can be threaded through the holes etched in the brake components ***before*** removing them from the fret. If necessary use a small taper broach, or a 0.4mm or #78 drill to enlarge the holes slightly.

Fig 3.



Bend the sides of the gearbox (7) up at 90° and attach it to the floor with ACC, hard up against the transom and between the ribs moulded to the floor, as shown on figure 3

Bend the handwheel support brackets (12) at 90° and attach one bracket to the side sill on the reservoir side. There is a small raised area on the bottom flange of the side sill and the bracket should be located against this raised area. The brackets are handed, so make sure the appropriate bracket is glued to this side sill, as shown on figure 3. Now thread a 32mm length of 0.4mm wire through the hole in the bracket, through the gearbox and over the side sill adjacent to the brake cylinder, using it to assist with location of the second bracket when it is glued in place.

Tin the back faces of the gearwheel (14), fold it double and sweat the two layers together, ensuring that the holes in both layers are in alignment. Alternatively the two layers can be bonded together with ACC. If that is too complicated, it is possible to just use one of the layers, since the gear is primarily seen in silhouette.

Thread two 32mm lengths and a 10mm length of 0.4mm wire through the handwheel brackets and gearbox, making sure to trap the gear within the gearbox. The gear should be positioned closest to the gearbox plate adjacent to the side sill, as shown on figure 3. Secure the wires in place with low-melt solder or ACC and trim the short wire flush with the sides of the gearbox.

Position a ratchet/pawl lever (9) over the pairs of wires at each handwheel bracket and secure with low-melt solder or ACC. Trim the outer wire flush with the pawl lever.

Thread a washer (8) over the inner shaft on each side. The handwheels (13) have a detailed face, which goes to the outside of the model. Bend up the handle at 90° to the circumference of each handwheel and reinforce the bends with a small amount of solder or ACC. Place a handwheel over the wire shaft on each side and attach with low-melt solder or ACC, then trim any excess wire flush with the face of the handwheel.

Body Completion and Detailing

After allowing about 12 hours for the joints between the sides and ends to harden use a triangular needle file to smooth the joins, but take care not to damage the raised ribs moulded on the louvres. Take the model away from the work area and also give the joins a rub with fine steel wool to further smooth the joins.

Handrails

A vertical handrail needs to be formed for each end from the 0.25mm wire supplied. Refer to figure 4 for use of the bending jig. Attach the handrails to the ends with ACC, so that there is about 0.5mm clearance between each handrail and the tips of the louvres.

Brass etchings (5) are supplied for the horizontal handrails, which fit in the holes moulded in the ends. To attach the handrails, apply a small amount of ACC on the end of a pin to each hole and add the handrails with fine tweezers.

Fig 4.

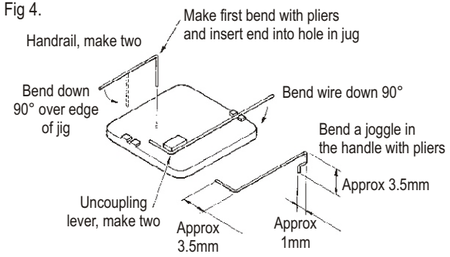
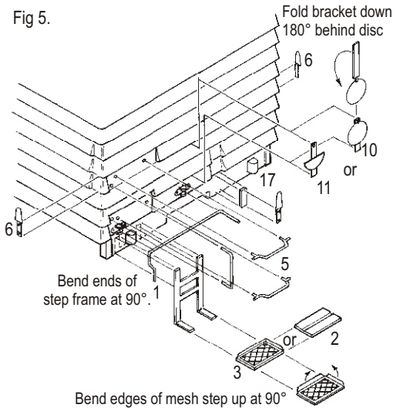


Fig 5.



Uncoupling Levers

Form two uncoupling levers from the 0.3mm wire, as shown on figure 4. Install the uncoupling levers on the ends of the wagon, secured in the moulded brackets with ACC or little cubes of 0.015" polystyrene.

End Details

Attach a tail disc to each end of **UP vans only**. Use a folded disc (11) at both ends, or a folded disc at one end and an open disc (10) at the other. Bend the bracket for the open disc double, behind the disc.

Lamp irons were attached to the UB vans and provision was made by the simple expedient of hammering the louvres flat in the general area. These flattened areas can be simulated by careful use of a Dremel tool with a ball nose burr or a scalpel with curved blade to flatten an area about 1.5mm wide at each end of the 4th, 5th and 6th louvres at each end of the sides, as well as an area of the bottom two louvres, centred about 1mm to the right of the coupler opening.

Cement a spacer (17) to the headstock at each end, located below this flattened area of louvres. Use ACC to attach an etched brass lamp iron (6) to the 4th louvre at each end of the sides and to the spacer on each headstock, as shown on figure 5.

For shunter's step treads, use the wooden style (2) for a model prior to 1968 and the mesh style (3) after 1968.