Caledonian Railway Drummond 6-wheel coach kits

Coach body assembly

Please read through these notes before beginning the assembly of the coach body.

These are generic notes covering the construction of the coach bodies. Reference should be made to the drawings for each individual coach type. Some kits contain etched interior partitions, seat ends and side panels. Some variations are covered in the notes.

1 Identify the body-to-chassis attachment tags on the bottom edge of the body sides. Remove the sides from the fret - taking care to leave these tags intact and unbent.

2 While the sides are still flat, solder the Third or First class droplights, as appropriate, behind the doors. The droplights can be fitted in the open or closed position. If fitted to represent an open window, you may have to re-drill the holes for the door and/or commode handles. If fitted in the closed position, ensure they are fitted the right way up – the bottom cross-piece is deeper.

3 You can now form the tumblehome in the sides. Tape a ruler to the bench, bevelled side up, place the side (preferably upside down) against the edge of the ruler and roll the tumblehome with a piece of tubing such as copper plumbing or central heating pipe.

4 Now form the top and bottom folds and re-adjust the tumblehome if necessary. Do not bend down the body-to-chassis attachment tags just yet.

5 Detach the ends from the fret and form the tumblehome in the ends. Refer to Steps 11 to 13 before proceeding further.
Identify the end whose etch shows the location of the gas control valve.
For non-brake vehicles the ends do not appear to have been handed.
For brake coaches with duckets the end with the gas control valve is that closer to the ducket.
For brake coaches with no duckets the end with the gas control valve is that further from the brake/luggage compartment doors.
Check the fit against the sides and solder the body together – note that the ends fit inside the sides.
One approach to joining sides and ends is as follows:

Slightly under-form the tumblehome in the sides and slightly over-form the tumblehome in the ends. Lay an end flat on a piece of wood and the side held vertically against a square block of steel using a magnet. Align the side and end at the top edge and spot solder the top and bottom of the straight-edged sections of the end and side. Check the fit of the tumblehomes and adjust to get a good fit before fully soldering the joint. It may be necessary, if a good fit cannot be achieved, to separate the side and end and restart the process after making adjustments to the tumblehomes.

6 You can now fit the lower panels to the body sides. If you have a fibreglass brush, thoroughly clean the coach side and the rear of the panels then fit them with contact adhesive, superglue or solder paste to choice. It is best to separate them from the fret as a strip for one side of the coach, form the tumblehome, separate them one at a time and then fit them, in the correct order, along the coach side.

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7 This step applies to Diagrams 9 and 10A.
Note that for Diagram 10A, although two Third class compartments were converted to First class, you still have to fit Third class droplights and door vents. The same applies in reverse to Diagram 9 coaches.

Diagram 10A coaches have a unique 2-window brake-end. When fitting this end the grab-handle attached to one edge must be carefully bent round at 90° to the end.
Also for Diagram 10A, when the sides and ends have been soldered together, fold up the simplified parcel rack and solder in place on the internal luggage compartment partition. Check the fit of this partition in relation to the fit of the body and chassis and locate the partition so as to clear the hole in the chassis for the fixing bolt. Solder this partition in place at the end of the luggage compartment.
The vents on the fret, underneath the parcel rack, should be soldered on the Diagram 10A body sides on the panel marked "X" on each side.
On the Diagram 10A body sides the small raised square in the top side panel above the side window nearest the brake-end marks the position for a lamp – if you wish to fit one. (Lamps are not supplied with the kit.)

8 For vehicles with side duckets, fold the duckets to shape and slot into the side. Solder on the inside. Any gap at the bottom of the ducket can be filled from inside using a spare strip of material from the fret, folded into an angle and soldered from the inside.

9 To detail the sides:

Fit the door vents, either with solder, or adhesive.
Fit the bottom door hinges by bending to shape, inserting through the slot in the door and soldering on the inside.
Detach the commode handles from the fret one at a time keeping the attachment tags on the handles. Insert the tags through the holes, hold the handle with masking tape with a card spacer behind the handle and solder on the inside.
Solder on the door handles.

10 Fit a lamp iron on each side of the coach in the position indicated in Figure B-1. Before detaching the side lamp irons from the fret, impress the "rivet detail" on the rear before bending to shape and soldering to the body.

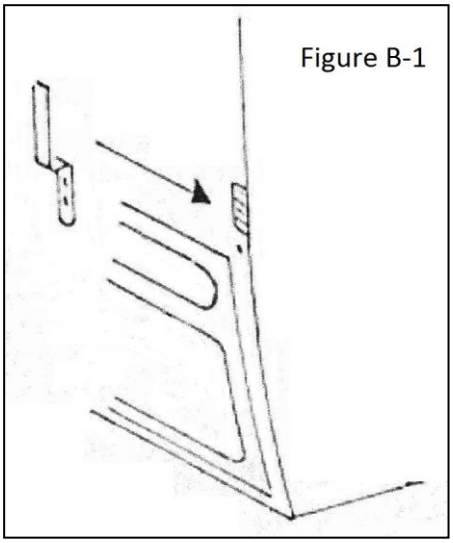
Figure B-1

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11 Now detail the ends with steps, handrails, gas lamp controls and alarm gear as appropriate. For the steps there is a choice of method:

Detach the step, pass through the slot in the end and solder in place. If you choose this simplified method, "rivet detail" the rear of the step supports on the ends before assembling the body.

If you wish to spend a little time to produce more authentic looking steps, first of all solder on the step supports. Hold those with tape, place the (bent to shape) step on to the support, hold it away from the coach end with a taped-on card spacer and solder to the step support. This may sound fiddly, but it is easy to do, especially if the step support has been pre-tinned with solder.

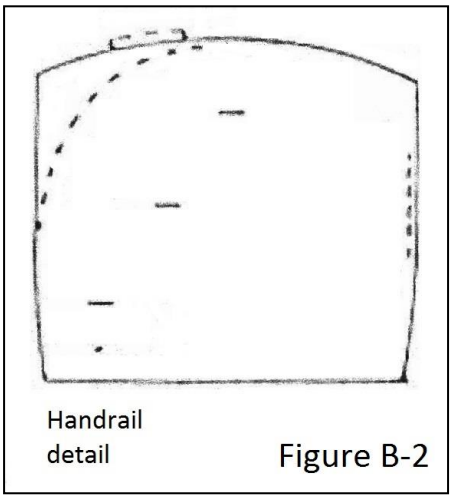
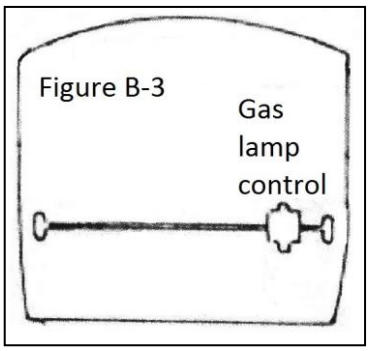


Figure B-2

12 Fit the handrails, made up from brass wire, to the ends – see Figure B-2.

13 Fit the gas lamp control rod to the appropriate end – see Figure B-3. Hold away from the coach end with a card spacer, pass fuse-wire round the rod and through the 3 tiny holes in the end and secure from inside with a dab of solder. Now fit the cast lamp control box in the marked position.



14 On the other end fit the alarm ears into the very fine slots at the top corners of the end, fit the alarm paddle and then the small cast box. Bear in mind that the alarm gear was retrofitted circa 1895. See Figure B-4.

15 Tack solder a piece of scrap etch to the top of the chassis such that it is just proud of the outer buffer beam face.

16 On the underside of the chassis mark a point 8mm from the buffer beam and 4mm from the chassis side and drill four holes, one in each corner large enough to accommodate an 8BA bolt; insert an 8BA bolt and solder a nut to the upper side of the chassis on the scrap etch. Now un-solder the etch from the chassis and reattached and secure using the bolts.

17 Fit the body over the chassis ensuring correct orientation of the body to the chassis and mark off the internal body floor on the scrap etch bolted to the chassis, trim the scrap etch so that the body fits snuggle over it then solder the body to the etch with the bolts.

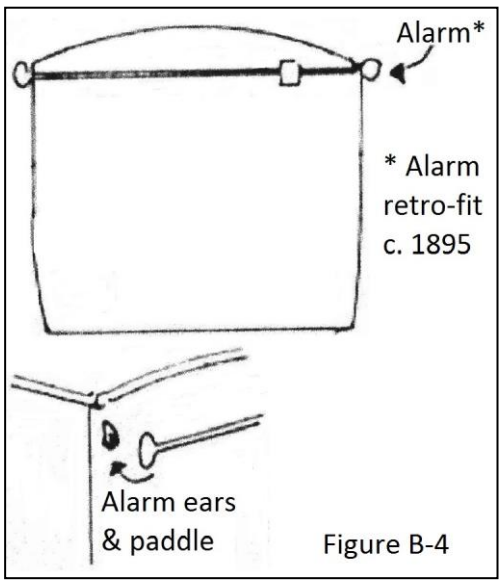


Figure B-4

18 Using then brass roof supplied, mark a centre line and drill lamp holes in a central position over each compartment. Fix the roof to the body from the inside and then fit the roof detail.