version 1.1 May 2014

EASY-BUILD" BR INSPECTION SALOON ASSEMBLY INSTRUCTIONS.

SAFETY FIRST! CONSTRUCTING THIS KIT REQUIRES THE USE OF VOLATILE SOLVENTS, ALWAYS FOLLOW THE MANUFACTURERS INSTRUCTIONS AND ENSURE ADEQUATE VENTILATION. YOU WILL ALSO REQUIRE SHARP TOOLS AND THE EDGES OF THE ETCHED PARTS CAN BE VERY SHARP SO TAKE CARE WHEN HANDLING. WORK STEADILY AND SAFELY AT ALL TIMES.

KIT CONTENTS

1x	Floor moulding	1x	Inspection Saloon Etch		Styrene micro rod 1mm
1x	Roof moulding	1x	Glazing strip	2x	Roof fixing captive nuts
2x	Side moulding (1x left, 1x right)	1x	Moulded window glazing pack + single kitchen pane	2x	Turned aluminium bogie mounting
3x	Moulded body stretchers	1x	Pewter castings pack	2x	Underframe detail moulding
2x	Bufferbeam moulding	1x	Moulded angle strip	1x	Bogie pack inc. wheels
	Brass wire and rod	1x	Etched interior details	3x	Large sofa (resin cast)
1x	Small sofa (resin cast)	5x	Swivel chairs (metal cast)	4x	Dining chairs (metal cast)
1x	Guard Comp cupboard (metal cast)	6x	Closed window curtains (resin cast)	14x	Open window curtains (resin cast)

INTRODUCTION

In order to get the most from your kit we recommend you read these instructions in full prior to commencing construction making notes as to any assembly options, or changes to the suggested order you think would suit your method of building better. However, we suggest you do follow to the order of construction as we know it works! The general idea for assembly is to construct a box with a removable floor.

Let's get started by inspecting the components supplied. Start with the large moulded parts (floor, sides, roof and bogie stretchers) checking for severe warping and/or twisting. The floor and roof sections will have a degree of bow along their lengths due to the production process, but you should be able to flatten out the bow without any real effort. Any severely mis-shaped parts will be promptly replaced upon return to Easy-Build. Once you're satisfied with the contents, wash all the plastic components with a household detergent to remove oils and contaminents left from the manufacturing process.

PREPARING THE SIDES

1) Check the ends of the side moulding are true and square, it is essential that the ends will make a good joint with the sides, adjust as necessary - with care. Also check all window openings

for cutting burrs and remove as necessary.

2) Drill through all the holes in the body sides as follows:

0.7mm - Door hinges.

1.0mm - Door bump-stops (these are the holes in the middle of the door panels with a corresponding hole to the left, or right of the door).

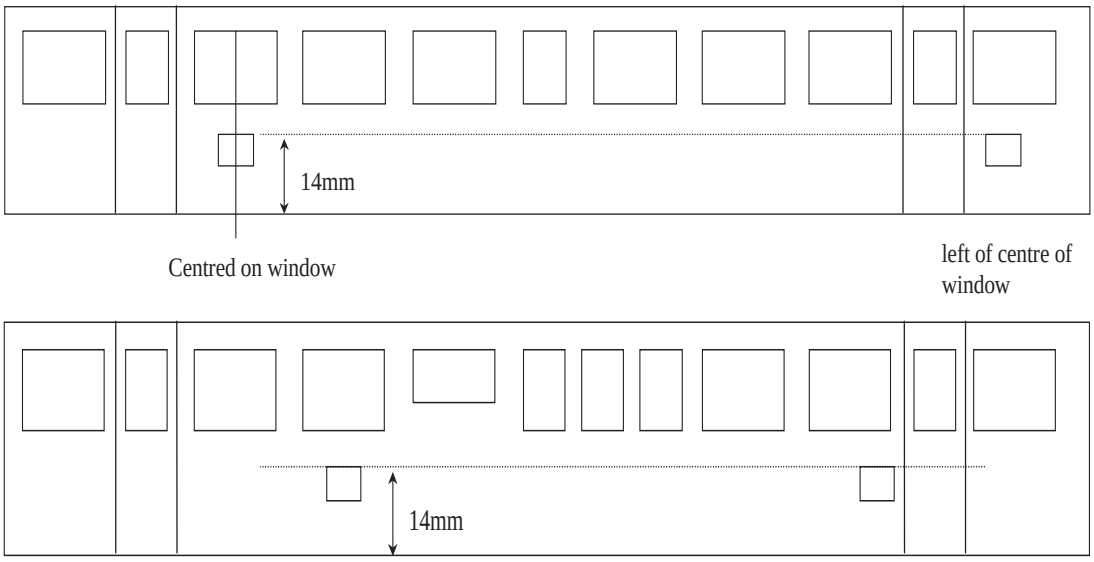
0.6mm - door handrails.

1.2mm - All other door handles (T-handles).

3) Carefully remove the raised burr from the door opening scores, work steadily and re-open score marks as necessary until desired effect has been achieved.

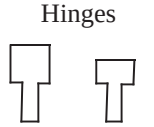
***TIP - Use a gentle scraping action followed by fine wet-n-dry (wet is best) for these two operations. Alternatively, a small chisel can be used to shave off the burrs. Old flat needle files can be ground into chisels and are ideal for this purpose. Be careful not to dig into the surrounding surface of the sides.*

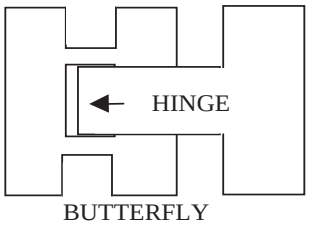
4) If you intend to model a vehicle with side heater vents you will need to cut openings in the appropriate places. It appears the positions of the heaters did vary over time so check prototype photographs for accurate positioning for your vehicle. However, one arrangement, as used on our demo model, has the as shown. The vents require an opening 10.3mm x 7mm.



5) Give the sides a rub down with fine wet & dry to really see what the job looks like. At this stage you can go over any of the previous body prep. operations quite easily until you are fully satisfied with the results. Once the door hinges are in place it is much more difficult to do so.

6) Remove 2 tall hinges and 1 short hinge per door, parts E16 (both types share the same part number) with the short hinge in the centre and tall hinges top and bottom. That works out at 12 tall and 6 short hinges. Also, remove an equal number of 'butterflies' from the etch, part E17 one for each hinge. The hinge piece is pushed through a butterfly shaped backing piece then through the appropriate hole. Applying superglue to the hinge peg from the rear will secure the hinge in the body side thus trapping the butterfly in place.



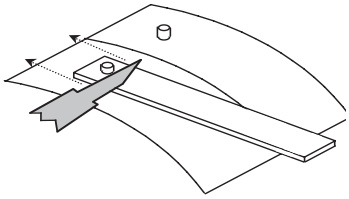


***TIP - You will find that the application nozzle on many brands of superglue will fit neatly over the hinge's spike. Once pushed through the body side push the nozzle over the protruding spike and gently squeeze a small amount of glue into the hole.*

7) Using the 1mm micro rod 'plug' the holes in the door centres and those to the left of the

doors to represent the door stops. The stops should be trimmed so that they protrude not more than 1mm from the sides. Do not fit door handles until after painting.

***TIP - To ensure all the bump stops are trimmed to the same length: drill a 1mm dia. hole in a piece of 1mm (40 thou) thick scrap styrene (or other sheet material), then place the scrap styrene over the bump stop so that it protrudes through the hole and gently pare back the excess with a sharp knife, followed by a fine file. Remove the styrene and, once all bump stops have been so treated, give them all a gentle rub over with fine abrasive paper to round the edges slightly.*



8) This vehicle has frameless windows, so check that they will fit in the openings. Occasionally some openings can be a little too tight for a good fit after the sides have been painted. Make any adjustments to the windows NOT the openings.

That completes the sides for now.

ROOF PREP

9) Clean off any burrs of plastic then put a strip of masking tape down the centre of the roof onto which you can mark the positions of roof vents etc. from the drawing provided on page 13.

10) Drill the marked detail positions approx. 2.0mm dia. to accept the roof vents, approx. 1.2mm for the water fillers and 0.6mm for the water pipe mountings then remove tape.

11) Rub down the whole of the roof down with 600 grit wet-n-dry to smooth out any surface imperfections from the manufacturing process. Don't forget the inside if you're planning to paint the interior.

ENDS PREP

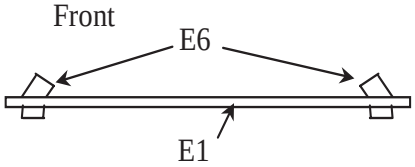
12) Remove the etched saloon ends E1 from the main etch and remove the parts etched inside the window openings.

13) Carefully remove the saloon end window frames E2 from the main etch leaving the centre in place for strength. Very carefully clean off the tabs from the outer edge of the frame. Some spare frames have been provided 'just in case' you damage one beyond repair.

14) Affix the frames into the half etch around the window openings in the saloon ends. The frames can be soldered in place without too much difficulty by applying the solder and heat from the rear. Once secure, low melt solder can be used from the front to fill the edges. Clean up with a glass fibre brush as required.

15) Remove the centres from the window frames and carefully clean up the inner edges of the frames and the remains of the fixing tabs.

16) Fold and solder the water filler mounting brackets E6 into the slots near the outer edges of the ends as shown right. Once in place file the back of the mountings flush with the rear of the end.



17) Decide which type of windscreen wipers you are to fit and drill out the mounting holes 0.4mm (half etched dimples above and below the window openings). Single arm wipers have a single hole below the window and the double arm type has two holes above the window - DO NOT FIT THE WIPERS YET.

18) Abrade the inside face of the etched ends E1 with course grade wet and dry (400 grit for instance) and clean off.

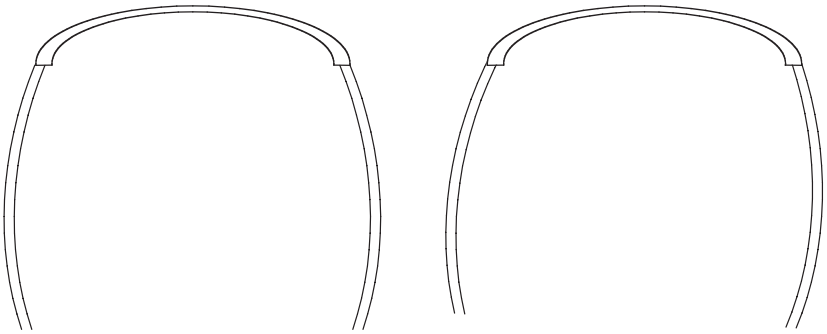
BODY ASSEMBLY

19) Take the roof and one side and tack together with solvent ensuring the ends are flush. Repeat with the other side

20) Affix a plastic body stretcher between the sides (resting on the bottom 'lip'), again flush with the end of the sides. Repeat at the other end.

21) Check that the sides are 'square' relative to each other and that they are absolutely flush with the ends, adjust as required before the joints have become fully hard.

Ensure sides are 'square' relative to each other as shown here (exaggerated).



22) Insert a roof fixing captive nut into the roof channel and approximately centralise it.

23) Lay an etched end face down on a flat surface and stand the roof/side assembly in position, aligning the outside edge of the side with that of the etched end and the bottom of the side with the bottom of the etch. Now apply solvent to the inside of the roof/side where it abuts the etched end.

24) When the solvent has had time to weld the parts together, inspect the alignment of the end with the sides and roof. Pay particular attention to the outer edges of the sides and the alignment of the bottom of the sides with that of the end. Adjust as necessary to achieve the best fit.

***NOTE: The top of the etched end does **not** go right to the top of the roof moulding, so don't use the top of the etched end as an alignment edge.*

25) Now fit the other etched end in a similar manner, starting with the etched end face down on a flat surface and now introducing the partially completed shell on top. Apply solvent and adjust as required.

You now have the basic body shell welded together with solvent, it sounds odd, but it does work.

26) When you are satisfied with the appearance of the basic shell, reinforce the brass/plastic joints on the inside with superglue

LEAVE TO SET HARD AND BUILD THE BOGIES

27.1) Remove two bogie frame stretcher plates from the casting sprues and cut off the ends level with the inside edge of the molded angle (see right). Clean up and square off as necessary.

27.2) Push brass bearings into the axle holes making sure they are an easy sliding fit, but not sloppy - if necessary clear the hole with a 2.5mm drill. Do not fix in position as adjustments will be made later.

27.3) Using a pin, add a tiny drop of oil (NOT WD 40) into the bearing surface.

27.4) Place two axles in the bearings of one side frame and, ensuring correct orientation of bogie frame stretcher plate (reinforcing cross members down), assemble the side frame to the frame

stretcher.

27.5) Once the first frame is reasonably firm, assemble second side frame onto frame stretcher in the same manner. When the side frames are secure enough to hold themselves in place, make certain all is square and in line, minor adjustments can still be made at this stage by applying more solvent to soften the joints and adjusting as required. Note: wheels should be a loose fit in the bearings at this stage. Leave the bogie to set for at least 1 hour, 2 is better.

With the joints set hard you can now set the axle bearings:

27.6) With the joints set hard we can now set the axle bearings:

NOTE: Do not over-pack the wheel sets as this might cause the sides to spring when you remove the card later resulting in stiff wheel movement.

27.7) Centralise the wheel set and insert a thin piece of card between each wheel and the side frame to prevent lateral movement.

27.8) When satisfied that the bearings are (just) against the pinpoint ends fill the bearing hole with the 2.5mm sprue supplied, or micro-rod (not supplied) and fix with liquid solvent from the outside and leave to harden.

27.9) When set, remove spacing card and trim any excess rod flush with axle box face

27.10) Remove the bogie pivot mountings from the casting sprue and remove any flash. Test the bogie pivot bolt is an easy sliding fit in the mounting hole. If tight, open the slightly with a 3.5mm drill to ensure a smooth swivel movement.

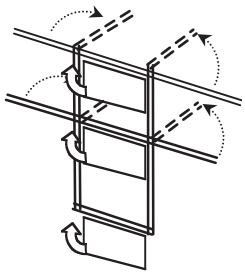
27.11) Drop the bogie pivot mounting into its locating holes in the top of the bogie stretcher plate and, using only sufficient glue to attach the plates, fit keeper plates over pivot spindles. Ensure pivot remains free to move until the liquid solvent has evaporated.

You may prefer to use a larger piece of sheet styrene (not supplied) rather than the molded keeper plates supplied.

27.12) If desired, fit the brake shoes on the inside of the sideframe. They should be positioned just off the wheels with the circle detail on the shoe just visible below the bottom of the side frame.

27.14) Fit the axle box covers.

27.15) carefully remove the bogies steps (E25) from the etch and fold up as shown right. The half etched lines are a little too narrow, which means the step treads are a bit reluctant to fold. Start by folding the step treads, centre tread first, then top and finally the bottom, folding bars are ideal for this, otherwise flat-blade (relay) pliers can be used successfully. Finally fold back the mounting pins.



27.16) To mount the steps, drill four small holes in the bogie sideframe (0.6mm), the top two are directly under the top channel of the bogie and positioned so that the steps are about 1mm from the edge of the centre bolster detail. (See photographs on disk)

THE BODY SHOULD NOW BE STRONG ENOUGH TO WITHSTAND HANDLING, SO…

28.1) You now need to fit the two ABS dividers, these give the body much more strength and rigidity. Some adjusting of their size will be required. First cut the bottom corners so that they will miss the moulded rib at the bottom of the side moulding. Now slightly open up the cut out at the top that

will fit over the central channel in the roof. Re-profile the edges of the divider until it can be inserted into the body without pushing the sides out of alignment - it should just sit there. Note: if your body sides have bowed inward then use the dividers to re-establish a straight character to the sides.

28.2) Secure the dividers in place approx. 143mm from each end, but ensuring the dimension between the inner faces of the dividers is 108mm. Alternatively, use the corridor partition (IE1) as a guide having folded the outer edges to form fixing surfaces. Make sure the bottom of the dividers do not protrude below the the bottom of the moulded side ribs as that will prevent the floor from being fitted correctly later.

28.3) Reinforce the joints as required.

29) Now would be good time to fit the roof vents and fan, not least because they allow the body to be stood on it's roof, which will be handy very soon…

FLOOR PREP

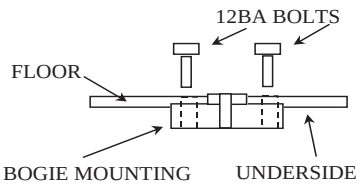
30) Check the floor moulding for flatness - if it appears too distorted (some curvature is quite normal) gently bend it in the reverse direction to correct.

31) The floor moulding may need to be reduced in width to obtain the best fit inside the body - the finished size of our demo model was 58.3mm. To reduce, shave off small amounts evenly from each side to keep the floor central to the body until the floor with fit snugly in place against the moulded body side rib.

32) Locate the two aluminium bogie mounting turnings (C4) and prepare them by scoring their upper surface (the spigot faces upwards when fitted). Treat the mounting areas likewise. Use a strong adhesive fix the two round turned bogie mounts in the holes in the floor.

***TIP - Bogies present quite a load to their mountings mainly due to the ease by which they get knocked and twisted when the model is off the tracks, it is therefore necessary to select an adhesive capable of withstanding such shocks. Two part epoxy resins are more suitable than superglues.*

32a) (Optional, but highly recommended) To make a much stronger job of fixing the bogie pivots in place, you might consider a 'belt and braces' approach by adding a mechanical fixing to the mounting. Good results have been achieved by drilling two 1mm holes through the bogie mountings and floor (once the mounting has been fixed in place) either side of the bogie pivot bolt and tap 12BA. Now secure the bogie pivot in place by bolting down through the coach floor with short 12BA bolts (see bogie mounting diagram right).



33) Fit the floor in place and drill 2x 1.8mm holes at each end through the floor and the body stretchers about 6mm from the end and 8mm from the sides. Also drill a 4mm hole in line with the toilet window opening and centrally across the floor width (See underframe layout for position). This will be used to support the floor with a long bolt up into the previously fitted roof captive nut. Adjust nut position accordingly.

34) Remove floor from body and open out the newly drilled end holes to 3mm as clearance holes for the self tapping screws provided.

BODY ASSEMBLY CONTINUED…

35) Create the roof overhang by attaching strips of 2mm x 0.5mm styrene to the ends of the roof. Pre-form the strips by drawing them gently over a blunt edge (a fingernail works well). Starting

at the centre line of the roof, align the strips with the top of the roof surface and follow the roof contour around to the gutter applying solvent from the underside.

36) Once the roof overhang is secure, you might wish to apply a small amount of filler to the upper surface and rub over with abrasive paper to blend the joint with main roof.

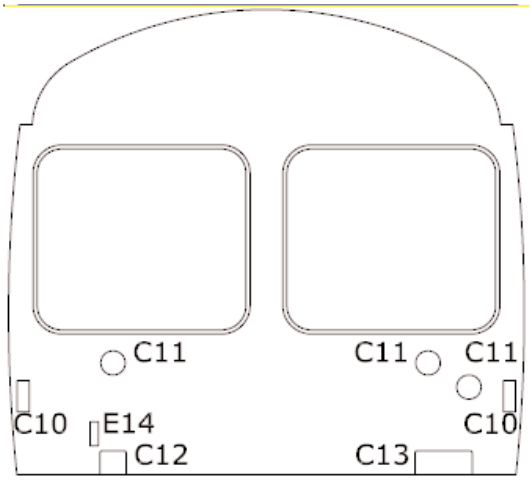
37) Cut the roof extensions off levels with the underside of the gutters and slightly round the bottom corners.

38) If required, apply filler to the underside of the roof extensions to blend the joint between the top of the etched ends and the roof extensions

39) If not previously fitted, cut the roof vents from the spurs leaving no more than a 2mm spigot with which to attach the vent to the roof. Fix in place with superglue; the roof fan can also be fitted at this stage, but leave the water pipe brackets until later.

40) Drill small holes into the bottom of two of the C11 casting and the tops of C12 and C13 and fit short lengths of soft wire to represent cables.

41) Add the details to the etched ends as shown opposite.

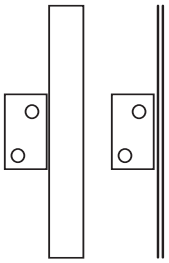


42) Drill small holes into the tops of C10 to accept the water pipes to be fitted later. Notice that the water filler casting are meant to be angled inward.

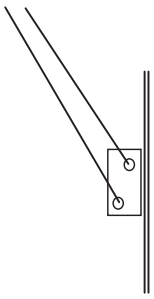
43) Decide which type of windscreen wipers you intend to fit; two types are supplied: two arm and single arm. For the single arm type drill through the half etched 'dimple' (0.4mm) below each window. For a two arm type drill through the two half 'dimples' (0.4mm) above each window.

44a) The single arm simply required the blade bending through 90° and then mounting on a pin affixed into the holes below the end windows. These are better soldered

44b) The two arm wipers take a bit of assembling - they're very fragile and fiddly and, to be honest, have not come out as well as had been hoped. However, the two-arm wipers on the demo model were constructed using only the etched parts supplied so it can be done. First bend the tab on the 'blade through 90° (see right). Now hook the two arms into the holes and secure with a very small amount of solder noting that the two arms are of different lengths, the longer one goes into the left hand mounting holes. Push the other end of the arms into the holes in the saloon end and again solder in place.



Fixing a piece of card behind the window openings for the blade to rest on makes fitting the wipers much easier. Obviously, keep the area around the actual mounting hole clear to enable soldering to be achieved!



44.1) File the inside face of the ends to remove the wiper blade pins - necessary to allow the windscreens to fit flush.

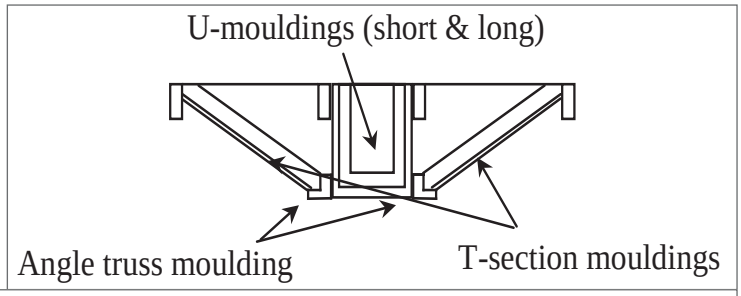
UNDERFLOOR ASSEMBLY

45) Place the floor moulding top side down on a flat surface to begin detailing - the bottom is that with the moulded ribs on, not the grooves.

***TIP - Fixing the floor down on to a piece of melamine, or glass with double-sided tape*

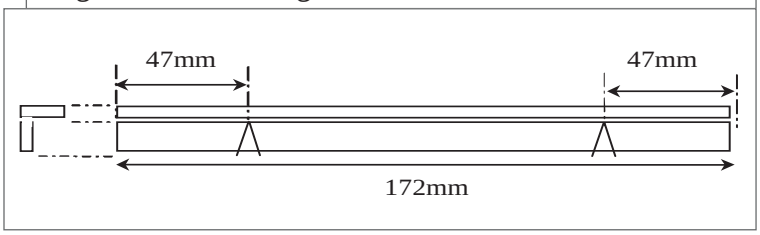
works very well.

46) Remove the U-shaped and 'T' section mouldings from the sprue, cleaning off any flash as necessary. The 'U' shaped moulding are in fact slightly too tall and should be shortened by approx. 2.5mm at this stage.



47) Using the locating 'dots' on the floor surface, affix 5 of the 'U' mouldings to the floor between the raised centre beams in the order of 1 short, 3 tall, 1 short. Allow joints to fully harden before continuing.

48) Cut 2 lengths of angle truss moulding 172mm and make a notch in one side of the angle 47mm from each end (see diagram right) - a simple cut with a junior hacksaw will create a sufficiently wide notch for our needs. **Check measurements against your underframe before cutting.**



49) Gently bend the ends of the trusses (closing the notches) to pre-form to shape. Attach the formed trusses to the outside edges of the centre 'U' shaped mouldings with the notches aligned with the centres of the outer tall 'U' mouldings and the ends aligned with the edges of the shorts 'U' mouldings. Allow the solvent to harden on the centre 'U' mouldings before attaching the ends to the short 'U' mouldings as these may need bending a little more to achieve good alignment of the parts. The top of the angle should be level with the tops of the 'U' shaped mouldings.

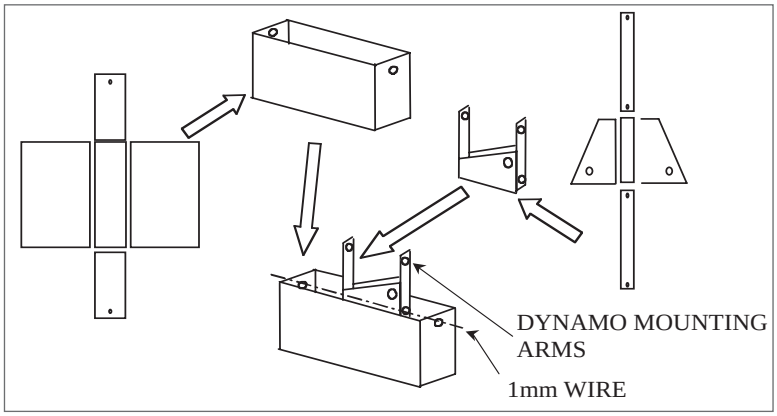
50) With the angle trussing firmly in place affix the T-section mouldings as shown in the diagram (above) between the truss angle and inner face of the solebar. There are long and short T-section mouldings supplied, the short ones are fitted against the short U-shaped mouldings (closest to the bogies), the longer ones being fitted to the centre U-shaped mouldings. The centre T-section moulding on the corridor side foul's the side step casting so leave this off until the casting is in place. It can then be fitted by shortening and supergluing it between the casting and the truss angle.

51) Fit the buffer beams to the floor ends. The buffer beams should be aligned with the top of the solebars, but this means there's not much to glue to. Tack in place initially and use the body to adjust position to ensure the buffer beam sits firmly against the bottom the ends and centrally aligned. DON'T GLUE THE FLOOR AND BODY TOGETHER! Ensure the buffer beams stand vertical.

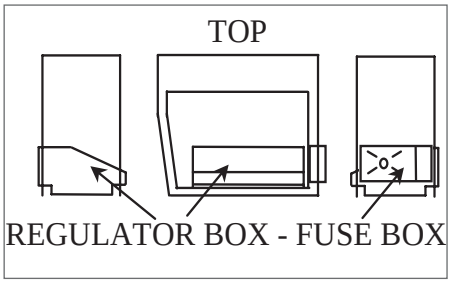
52) Reinforce to buffer beam joints from behind, remember the buffer beams will be holding the train together when in operation!

UNDERFRAME DETAILS

53) Clean up all the metal under-floor casting as required. Fold up and assemble the etched brass dynamo mounting brackets (E11 E12) and attach dynamo casting (C20). Drill the dynamo mounting lugs 0.7mm and hang the dynamo on the etched mounting arms with brass rod.



54) Remove the Regulator Carrier Frame (E9) from the etch and fold along the half etches to form a U-shaped bracket. Fold in the fuse box mounting plate (away from half etch) and mount the cast metal regulator box (C22) and fuse box (C19) as shown right (see photos on our CD).



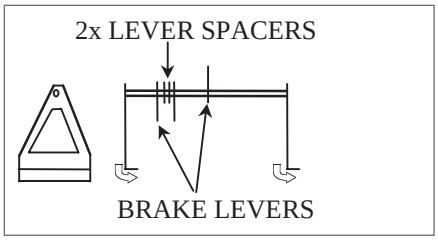
55) Before removing the floor, drill holes through the floor and moulded body stretchers, these will be used later to secure the floor in place. Drill small holes (1mm dia.) initially and then open the holes in the floor to 3mm and the holes in the stretchers to 2.2mm.

See the diagram for the underframe layout for the dimensional positions of the various underframe components.

56) Cut two brake lever pivot bars 39mm long from 1.6mm brass rod and thread the levers and spacers as shown right. The first brake cylinder lever (longer lever, E20) should be about 8mm from the end of the rod and the brake pull rod lever (the shorter lever, E21) about 11mm from the other end, which should be the floor centre line (adjust as required). (see photos on our CD). The two sets of levers should be form a right angle relative to each other.

57) Drill a 0.9mm dia. hole into the centre of the brake cylinders (C25) and insert a short piece of 0.9mm (about 20mm) wire as the actuator rod.

58) Fold the bottom of the brake hangers (E15) 90° and assemble the brake lever/pivot bars onto the brake lever hangers. The hangers are positioned against the inside edge of the solebar and the outside edge of the opposite truss rod (see underframe layout diagram). Use the brake cylinder as a guide for positioning the lever-bar so that the levers align with the cylinder actuator rod.



59) Fit the casting in place according the underfloor plan. The brake DA valves (C21) mount on the sloping parts of the truss bars. Affix the brass mounting (E10) onto the rear of the casting and then onto the truss bars. The etched mounting is angled to ensure the DA valve is vertical once fitted. Position the valves about 10mm from the brake pivot bar (towards the end of the floor). If required, a short length of soft copper wire can be fixed to the top of the valve and into the bottom face of the brake cylinders (see photos on our CD).

See Drawing 1 for layout of the interior of the car including the partitions as described in the following steps.

60) Attach to the central brake lever a pull-rod and adjuster (E23) that would actually pull the bogie brake gear (see right). The pull-rod length should be trimmed to length just forward of the inner axle of the adjacent bogie.

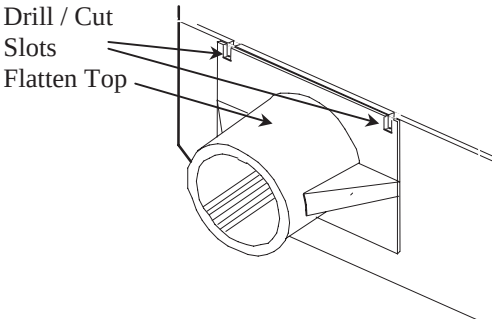
61) Create the handbrake assemblies from brake wheels (E18), brake shaft mountings (C17) and brass wire. See the underframe layout diagram solebar and chassis ribs as a guide for positions.

DETAIL THE BUFFER BEAM

62) Assemble the dummy corridor striker plate (C16) and mountings (C15) ensuring the tops of the mountings are horizontal and parallel with the top of the striker plate. See buffer beam photos on disk to better illustrate what is required.

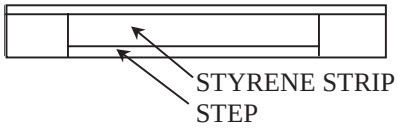
63) Using the buffer top steps (E7) for dimension, drill and cut (or file) two small slots into the top of the buffer stocks. The holes should allow for the steps to be mounted flush with the top of the

buffer beam, which will also require the top of the buffer stock having a flat filed on the top.



64) Affix the steps and striker plate in place making sure they do not stand above the top of the buffer beam as this will prevent the floor from being fitted in place correctly. Refer to the buffer beam photos on the disk to add the remaining buffer beam details (C8, C9, C26, E8, E13), although the vac pipes might be better left off at this time because they are easily damaged.

65) Finally on the underframe, insert the floor into the body and mark the positions of the doors onto the solebars. Cut 6 20mm long steps from the material provided and Affix in place. The step can be easily reinforced by gluing a thin styrene strip (0.5mm) above the step tread as shown right. Once painted the strip the strip is hardly noticeable.



ROOF DETAILING

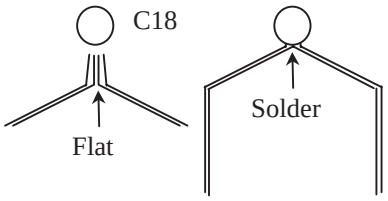
66.1) Drill a hole (~1mm) into the body of the two roof water filler casting (C18).

66.2) File the end of the wire for the water pipes down and bend to about 120°. Solder the two pipes together

66.3) Create the water filler pipes runs from 0.7mm wire and the pipe mountings (E24) and Affix into the holes in the roof water filler casting.

66.4) Shape the pipe ends so that they curve down the fronts and into the holes in the top of the end filler casting (C10). See photographs for a typical pipe formation. It is recommended that the water pipes are not fitted at this stage as they do make painting the ends more difficult.

67) Fit the roof horns, see Roof detailing table for positions. The smaller horn goes on the left (when viewed from front).

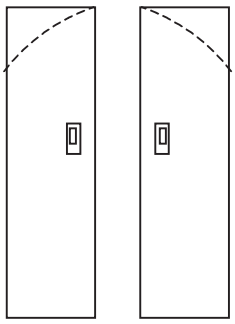


INTERIOR DETAILS

The interior details are quite straight-forward, so the instructions here will be fairly basic; the main items being how to correct a couple of minor faults in the etched parts - sorry!

Error 1) The compartment walls (IE6) are too wide, reduce by about 4mm before assembly. Contrary to what you might think, remove the material from the curved edge because that edge will need to be filed anyway to snugly fit against the inner side wall profile.

Error 2) The two internal doors (IE7 & IE8) need to have their tops rounded to fit the curve of the underside of the roof. Note the doors are handed, so you will need to make sure you keep them the right way round.

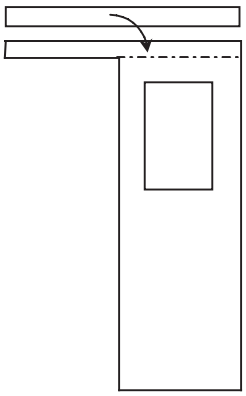


68.1) If you didn't use the main corridor partition to space the two ABS dividers earlier, remove IE1 and fold 90° the outer ends at the first half etch marks. These right angle flats will be used to fix the corridor wall between the two ABS dividers later.

68.2) Attach the two modified compartment walls into the half-etched grooves on the back of the corridor wall. The back is the side with the door with window outline on, not

that with the two doors without windows. The walls are creating the guard's compartment. Make sure the walls are kept at 90° to the corridor wall.

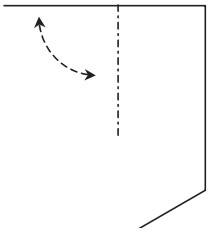
68.3) Add the door sliding rail covers (IE2a & IE3a) to the tops of the doors (IE2 & IE3). The runners go to the left of the door with the rail covers on the front face as shown right.



68.4) You can fit both doors (IE2 & IE3) into position now, or leave the guard's door (the one with the window) until the wall and doors are painted. You can then cut a copy of the doors and slide-rail from clear styrene and sandwich it between the wall and door thus glazing the window… Whatever you decide, the doors go on the opposite side of the wall to the previously fitted etched compartment walls. Use the window as an alignment guide for the guard's door and half etch outline for the other.

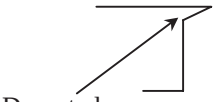
68.5) Assemble the two tables (IE9, IE10) using the appropriate 'legs' which attach in the half etched recess under the table top. Extra etched legs are provided to beef up the legs' appearance, these are simply laminated over the outer face of the main leg etch.

68.6) Fold up the end benches (IE4) noting the the centre of the bench can be left straight, or folded down along the underside half etch. The foot shouldn't be folded 90° (another small error), but left angled so that the top of the table can be positioned accurately to the bottom of the end windows - very useful that error!

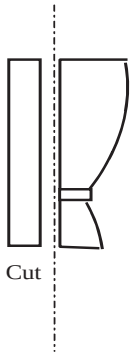


68.7) Fold the remaining bench (IE5) 90° and form the separate table for use in the guard's compartment as shown right.

68.8) Clean any flash from the seats and cupboard casting. Do not fit any of these parts before all painting has been completed.



68.9) Both open and closed curtains are supplied sufficient for all main windows (excluding the corridor, kitchen, toilet and guard's comp) allowing you the opportunity of modelling all open, or a mixture of open and closed. The open curtains need to be cut in half down the centre prior to painting. Some fettling will be required (although some basic fettling has already been done) especially around the edges of the open curtains. clean up but do not fit. During final assembly it was found that the curtains immediately adjacent to the ends fouled the (as yet not installed) end desks. Also the casting are very visible through the end windows. So, cut the centre section off the curtain and thin down the edge that's visible from the end window. You will also need to trim back the corners of the end desks to clear the curtains.



FINISHING

With the main construction now complete it is time to prepare the model for painting. Whilst this consists of mainly cleaning and washing of all the parts, it also gives you another opportunity to check the security of the various fittings. Anything that cannot stand cleaning will probably not withstand long-term use, so it's better to have bits falling off now than later - refit as required!

Whilst painting the main assembly, don't forget to paint the opening lights of the windows. This is best done by hand with quite thin paint, do not be tempted to over-brush too much. Start by applying a primer (Humbrol No.1, Pheonix PQ5, or similar) then cover this with black marker pen. Now apply your main colour, again in quite thin layers. If you get paint on the 'glass', or if the frames become a

bit thick due to paint running into the joint of the glass/frame, use a sharpened cocktail stick (or similar) to gently remove the excess paint.

FINAL ASSEMBLY

69) Install the glazing into the window openings from the outside of the body. Fit dry and secure in place by running dilute canopy glue around the *inside* edges with a small brush. Dilute the canopy glue to the consistency of milk and add a single drop of detergent to aid the flow of the glue into crevices.

70) Cut and fit glazing (supplied) for the observation windows (the end windows!) and the door window glazing followed by the curtains as required.

71) Install the corridor partition in place ensuring the guard's comp, kitchen and toilet are aligned with the appropriate windows.

72) Use the interior layout diagram and the actual body to arrange the interior components remembering that you've got to be able to get the body on after all the bits have been fitted! Secure as required.

73) Fit the door T handles and handrails (E10).

74) Fit the coupling hook and (if required) hang the cast buckeye from it.

75) Fit the floor and secure in place with the self tapping screws into the body stretchers and a long bolt up into the roof fixing for the centre

76) Mount the bogies ensuring they are free to rotate.

77) Finally, install the roof water pipes and secure into the holes in the cast filler ends.

We hope you have enjoyed building this kit and welcome your comments.

SHAWN KAY SEPTEMBER 2013

NOTES

TECHINICAL INFORMATION

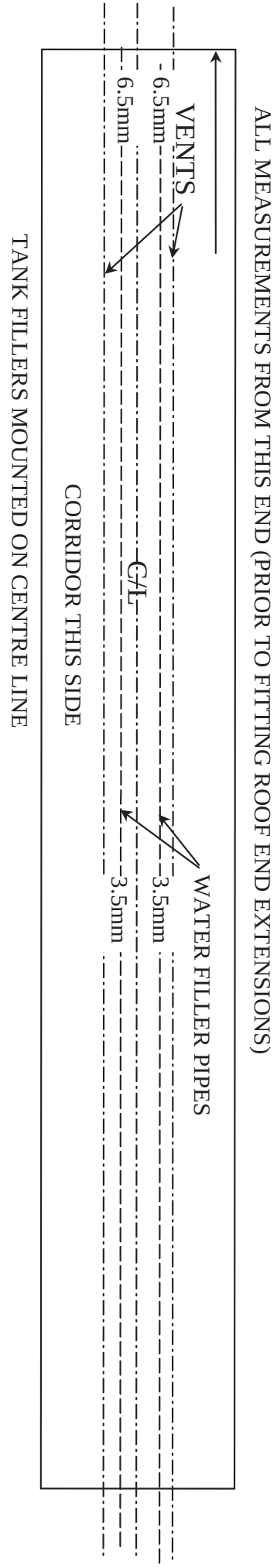
Buffer centre height from rail head: 3ft $5^1/_2$in 24.2mm

Body height (bottom) from rail head: 4ft 1in 28.58mm

Overall body height to apex of roof (not vents, pipes, or periscopes) 12ft $4^1/_2$in 86.6mm

ROOF DETAILS MEASUREMENTS (in mm). VENTS AND WATER PIPE MOUNTINGS ARE ARRANGED IN PAIRS. NOTE A ROOF FAN REPLACES A VENT ABOVE THE KITCHEN

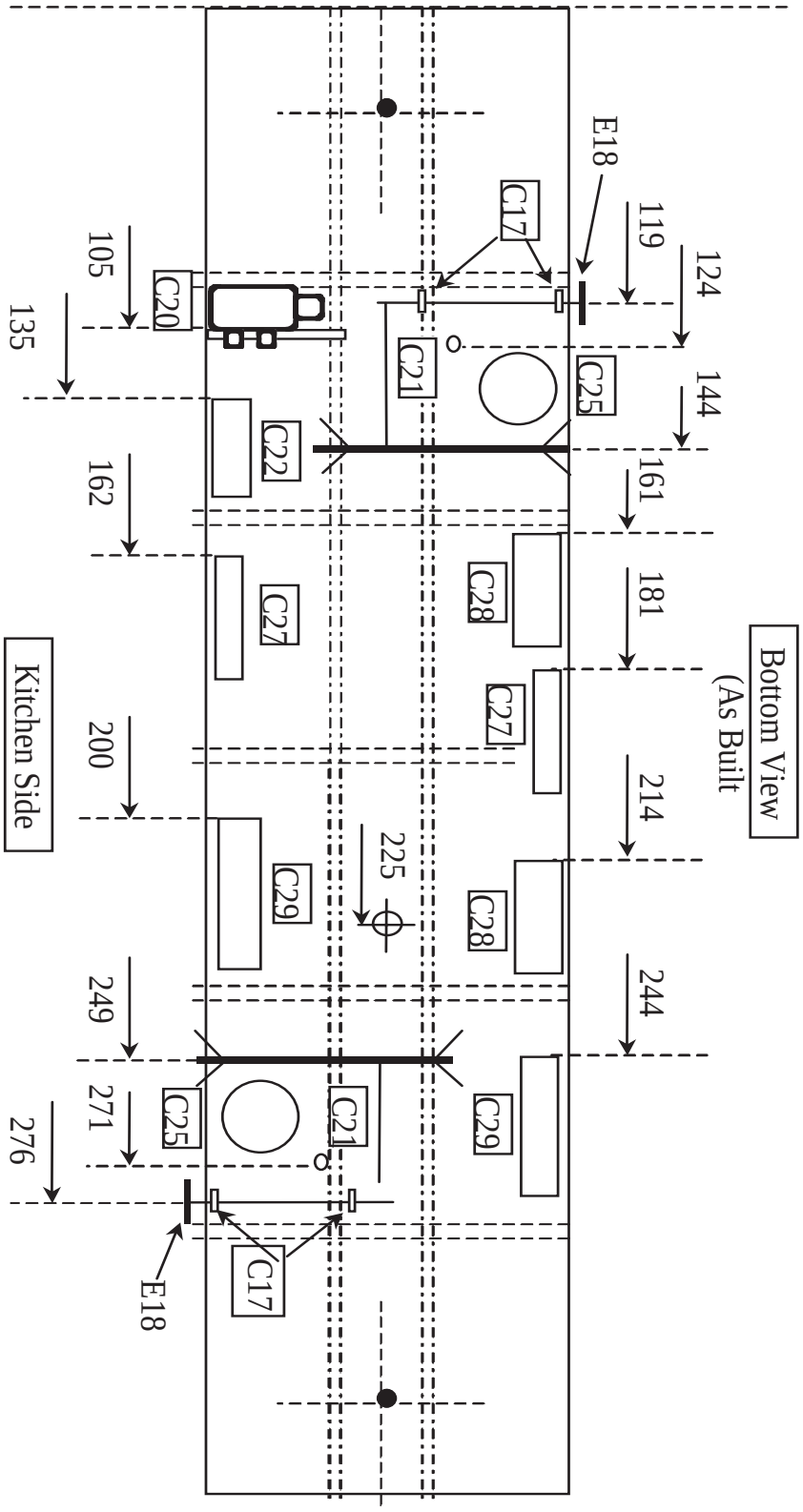
Vents	Water Fillers	Water Pipe Mountings
19	188	10
70	**239**	**60**
121		110
172		240
226 (CORRIDOR SIDE ONLY)		300
277		350
328		388
379		
Horns		
12	8mm from ctr line measured to mounting pin	
Roof Fan		
226	15mm from Centre Line Towards Kitchen Side	



ARRANGEMENT OF COMPONENTS OF THE UNDERFRAME AS YOU WOULD BUILD IT (NOT TO SCALE)
All measurements in mm taken from one end.

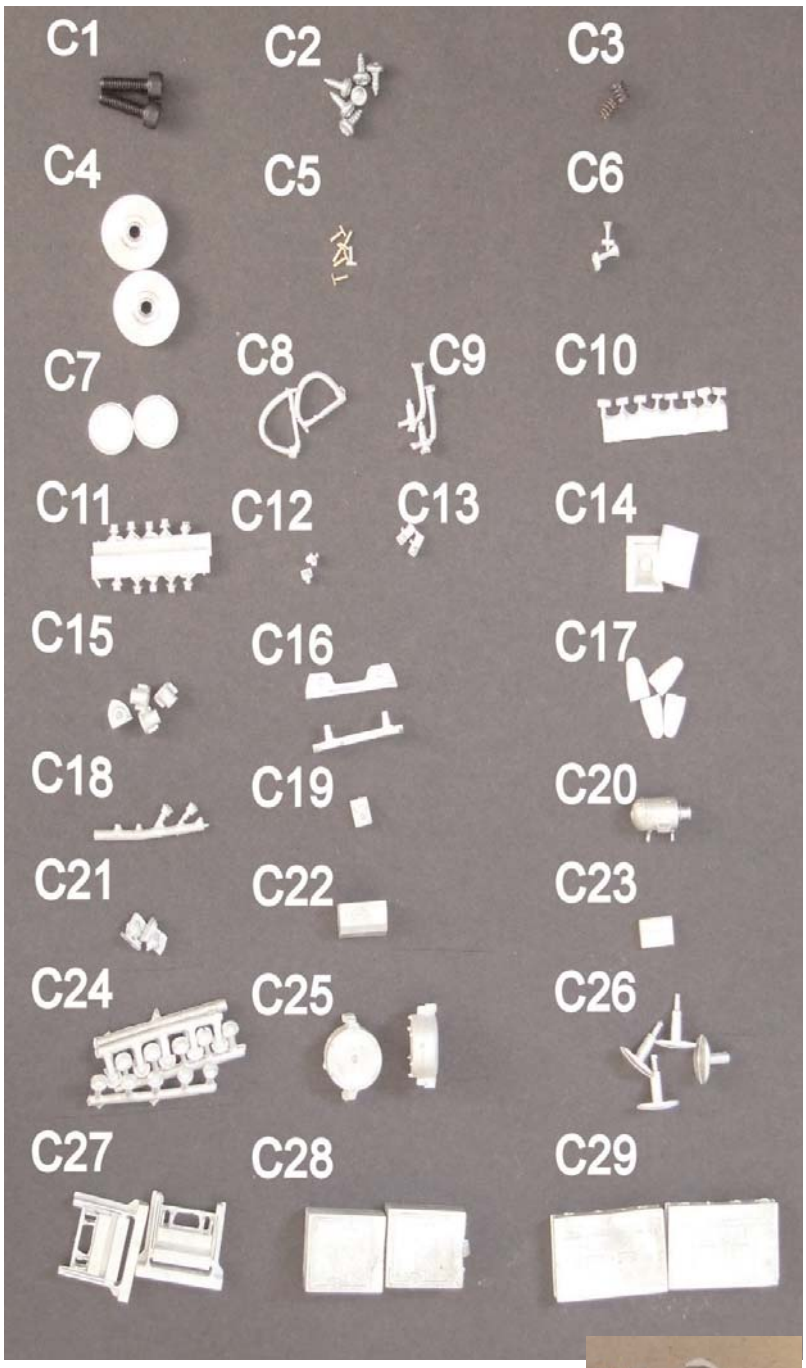
Key To Components

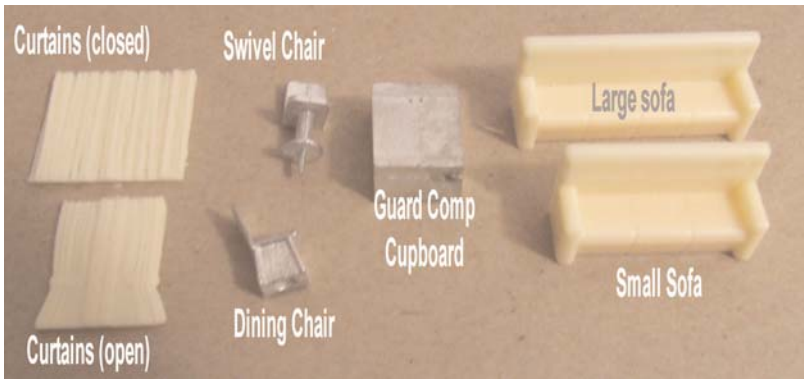
C17: Hand Brake supports
C19: Fuse box
C20: Dynamo Assembly
C21: DA Valve
C22: Regulator
C25: Brake Cylinder
C27: Folded Steps
C28: Gas Tank Box
C29: Battery Box



CASTINGS

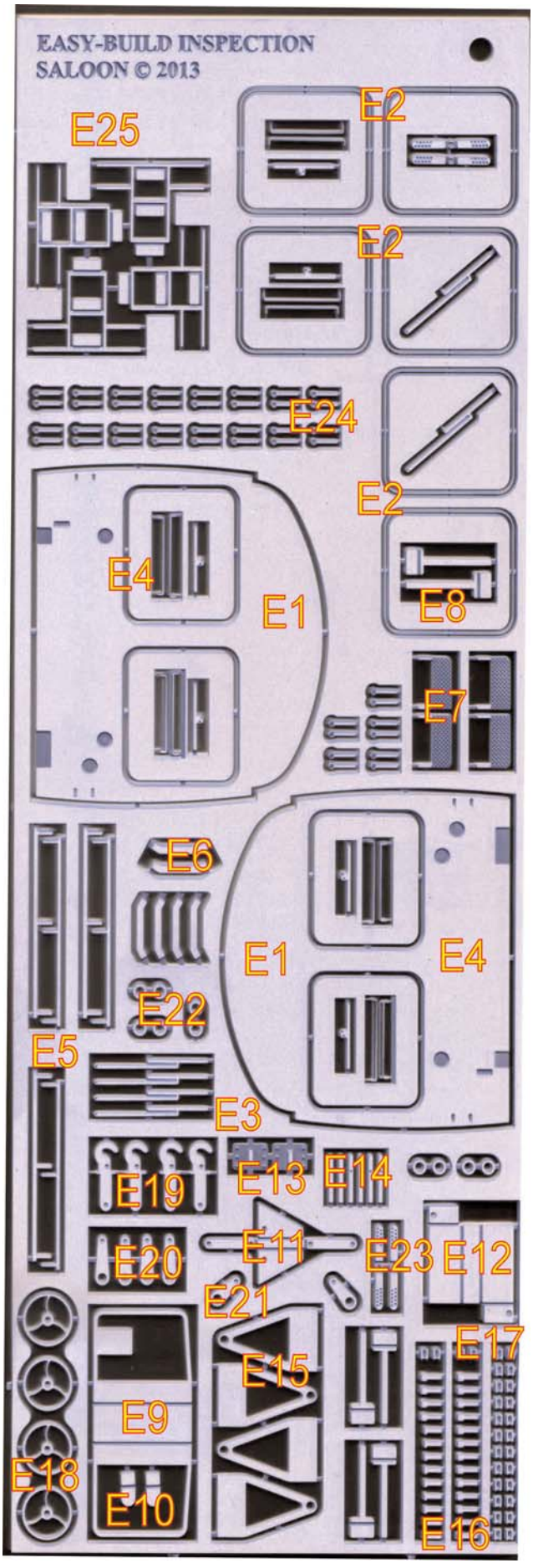
C1) Bogie mounting bolts
C2) Body fixing screws
C3) Coupling Springs
C4) Bogie mountings
C5) Door T Handles
C6) Air horns (x4)
C7) Roof fans
C8) Vac pipes
C9) Steam heating pipes
C10) Water fillers for ends
C11) Electrical junction boxes
C12) Small electrical jumper plugs
C13) Large electrical jumper plugs
C14) Heater exhausts
C15) Buffing plate mountings
C16) Buffing plate
C17) Handbrake shaft mountings
C18) Water fillers for roof
C19) Regulator fuse box
C20) Dynamo
C21) Brake DA valves
C22) Regulator box
C23) Relay box
C24) Roof vents
C25) Brake cylinders
C26) Buffer heads
C27) Folding side steps
C28) Gas bottle boxes
C29) Battery boxes
C30) Dummy Buckeye coupling





ETCHED PARTS

Key:
E1) SALOON END
E2) END WINDOW SURROUNDS
E3) SINGLE ARM WIPER
E4) DOUBLE ARM WIPER BLADE
E5) SIDE HANDRAIL
E6) WATER FILLER MOUNTINGS
E7) BUFFER OVER-STEPS
E8) END CORNER STEPS
E9) DYNAMO MOUNTING CRADLE
E10) DA VALVE MOUNTING
E11) DYNAMO
E12) DYNAMO MOUNTING BRACKET
E13) COUPLINGHOLE DETAILS
E14) LAMP IRONS
E15) BRAKE HANGERS
E16) DOOR HINGES
E17) HINGE BUTTERFLIES
E18) HAND BRAKE WHEELS
E19) COUPLING HOOKS
E20) BRAKE LEVERS (LONG)
E21) BRAKE LEVERS (SHORT)
E22) BRAKE LEVER SPACERS
E23) BRAKE ADJUSTER
E24) ROOF PIPE SUPPORTS
E25) BOGIE STEPS

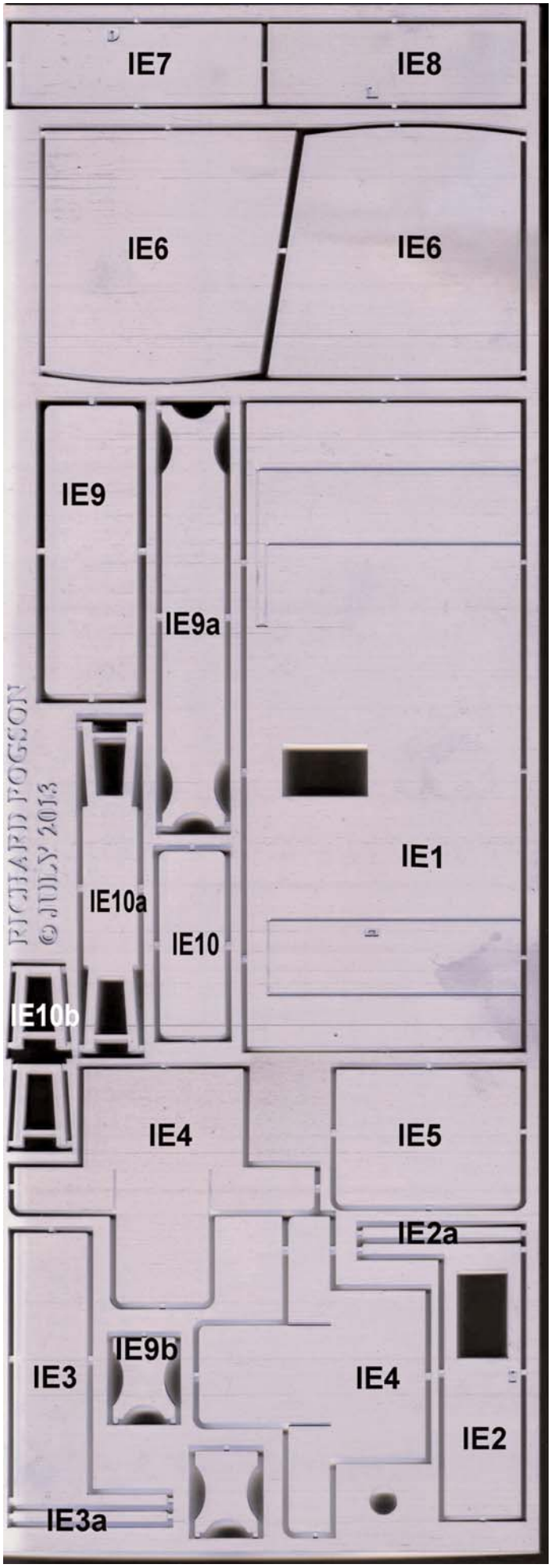


ETCHED INTERIOR COMPONENTS

(next page)

Key:
IE1) CORRIDOR WALL
IE2) GUARD COMPARTMENT DOOR
IE2a) DOOR SLIDING RAIL COVER
IE3) KITCHEN DOOR
IE3a) DOOR SLIDING RAIL COVER
IE4) OBSERVATION END TABLES
IE5) CENTRAL WORK DESK
IE6) KITCHEN/GUARD COMP. WALLS
IE7) SALOON DOOR RH
IE8) SALOON DOOR LH
IE9) LONG TABLE TOP
IE9a) L/TABLE SUPPPORT
IE9b) L/TABLE LEG STIFFENERS
IE10) SHORT TABLE TOP
IE10a) S/TABLE SUPPORT
IE10b) S/TABLE LEG STIFFENERS

INTERIOR ETCHES AND LAYOUT DIAGRAM



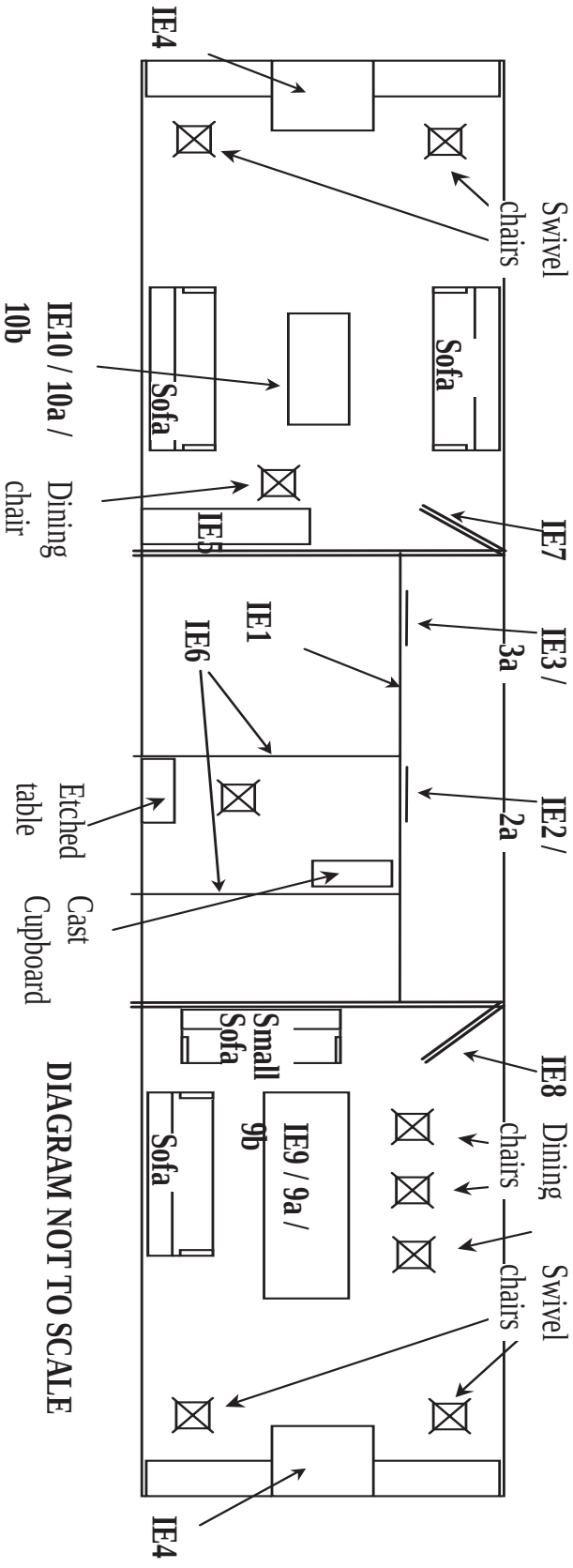


DIAGRAM NOT TO SCALE