

Construction Notes for the G.A.L. Business / Tourist Car.

This document assumes you have read the "Construction Notes – General Info" - most of the info is not repeated here.



This kit is designed to replace the sides (plus ends and railings) on an Accucraft J&S coach. It produces a model of an elegant BB&K Business Car which became Pittsburgh & Western #1 until it was sold into tourist service to a western NG road. Here's the (partly conjecture) backstory:

The Big Level and Kinzua, which was part of the network in the NY/PA oilfields, built a neat Business Car for the President, which was sold to the East Broad

Top when the BL&K fell on hard times. (It became EBT #20, and you can still see it running if you visit the EBT: www.ebtrr.com.)

However the Bradford, Bordell and Kinzua took over the BL&K and decided they liked the idea, so they built another Business Car along the same lines, only this one was a little longer and had a modern roof. When the oilfields declined, the Pittsburgh & Western took over and sold the car to a Colorado RR for use in tourist service - for which the large windows are ideal. The new owner reconfigured the seats and used it for many years.

The car could be re-configured as a Business car, as the original inspiration, the BL&K Business Car, had two lounges separated by the bathroom. One was a private area for the President to relax, do paperwork, read, etc., and the other was more of a meeting room where he met with visitors. The private end had a desk, plush chairs and a day bed, and the other end had a table and 4 chairs - in white wicker! [There's a suitable set available from Oakridge Hobbies.]

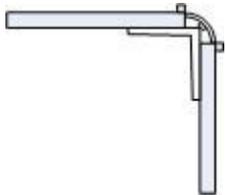
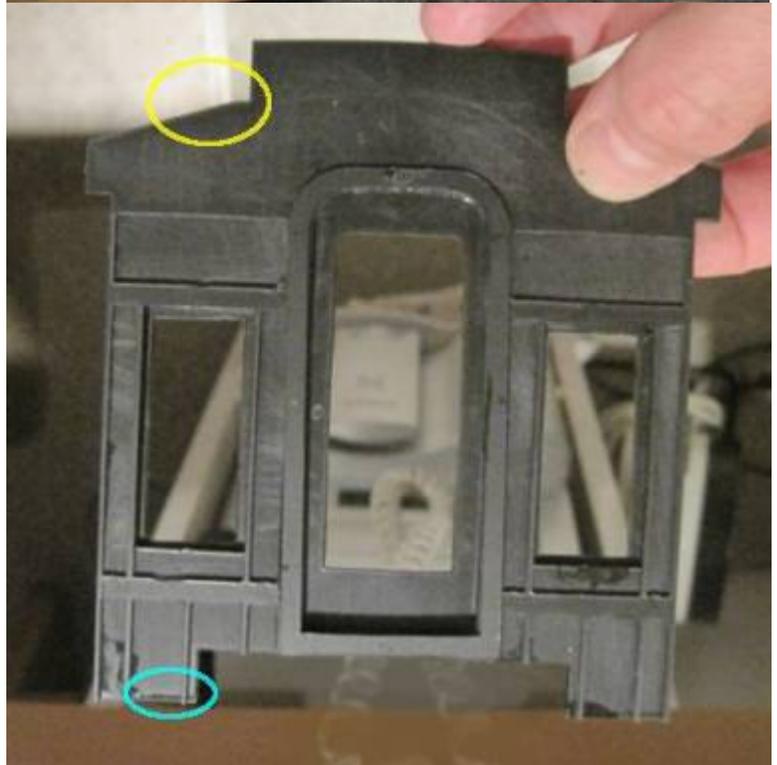
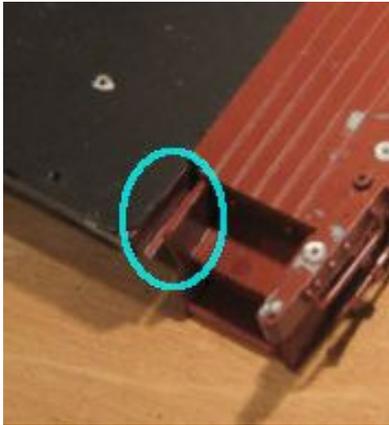
Note: The Accucraft coaches come in two versions, described in the 'General Info' notes that accompany these pages. They are referred to as (ver1) and (ver2) where differences are apparent. Basically, pre summer 2010 (ver1) the coach had a ridge along the side of the underframe that fit in a slot in the coach side. The metal floor was wider, so these sides don't fit perfectly upright on the (ver1) coaches

Ends

This being a board-and-batten coach, the first job is to separate the thin batten overlays and clean them up with a small file and sandpaper.

They can then be glued to the ends. I also glued the window sashes and doors in place as I was going along (see the General Info for gluing jigs.)

Here's the completed end (photo right.) On my prototype, the profile at the top was a bit square, so I filed it to match the roof (yellow ring.) There is also a conflict with the bottom of the slots in the platform where the end sits (light blue ring, and see small photo below,) and you may have to trim the end to make it fit.



The corners are rounded, which presents a slightly tricky problem, as I couldn't find any 1/4 round strip of the right size. I used a tube and cut it – see below.

The drawing (left) shows the basics of the corner joint. I originally intended to use 3/8 "L" styrene, but it interferes with the window sashes, so I used 1/4" square tube instead. The tube needs to be 2mm proud of the end (see *note* below) of the wall (photo right.) You may need to trim the window frame to squeeze it in. It must be short enough to allow the sides to hang down clear of the floor – about 0.45", but you can test-fit it on your floor.



Once you have the two ends complete, put them aside and make the sides.

Construction Notes for the G.A.L. Business / Tourist Car.

I cut the side battens out using the thick sides as a guide, and keeping it in place with a window jig (see small photo below.)



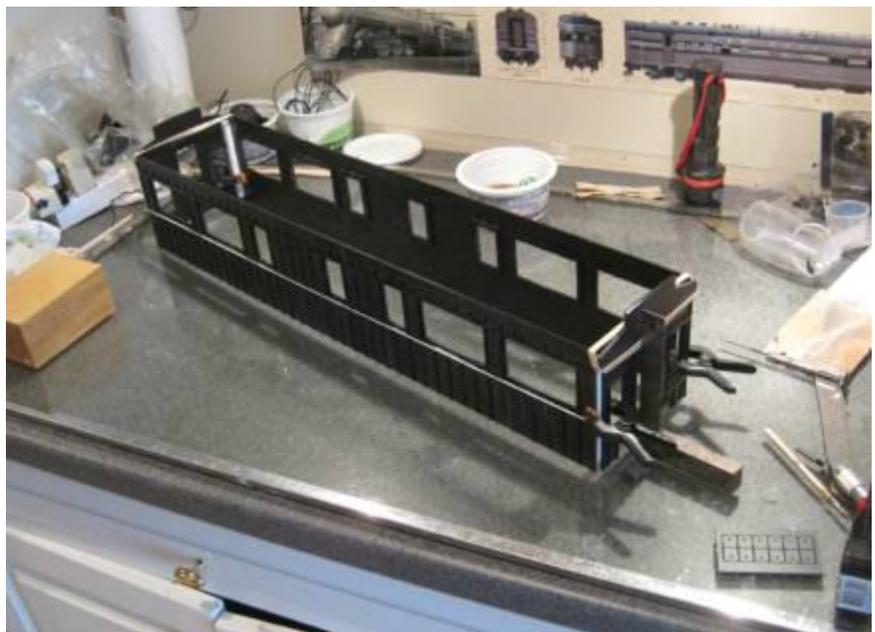
If you lightly score the ends of the battens, you can then lift the sides and put them safely away while you finish the cut using a metal straight edge.

I then glued the battens to the sides, using lots of the window jigs to keep it in place and care to keep the glue from spreading all over the car. In practice, I ended up cutting the batten overlay again (using a chisel blade, right,) after it was glued to match the letterboard on the roof, so the side would fit snugly behind the letterboard.



I glued the windows inside before painting, again using the jigs made up of scrap pieces that came out of the openings.

Now glue the sides to the ends. Use a flat surface (I have an old glass table top,) and use lots of squares and rulers to make sure it is square, the sides are at the correct angle to the ends, and the whole thing is level. You'll need some elastic bands and clips, I expect. Leave it to dry at least overnight.



Construction Notes for the G.A.L. Business / Tourist Car.

The corners, as noted, should be rounded. I have had success cutting wooden dowel on a table saw, but this time I used a plastic tube and cut it into 4 parts.

The tube I used was 8mm, about 5/16 diameter which is on the small side. (If you measure an Accucraft end, the curve is almost 1/4" radius.) After building this, I found some Plastruct 9.5mm diameter half-round strip, which is a better size and also reduces the number of cuts.

You can assume that lots of the tube will be junked, and only about half or less will be usable, so start with plenty. As shown in the photo, I glued and clamped two tubes together and carefully cut them down the center on my small table saw.

Cutting the half-tubes in half again was trickier, as my tubes were quite thin. I have a minimum-clearance throat for the blade to support the cut, and I used a small piece of scrap the guide the tube through the saw, running at its lowest speed, of course. [I also have a motor speed control that I use to slow it down further.] Just be careful and wear eye protection.

After that, the corners are easy. Pick the pieces that are best and sand off the edges. Cut them to size and glue them into place. (You may also notice on the photo a white stripe along the waistline. That's a piece of Evergreen 1/2 round that I had, so it got added as trim.)

Note The above section about making the ends suggests 2mm as the overlap of the square end support to the side. That is because the side is 2mm thick, so the radius of the curve needs to be about 4mm, or 8mm diameter like my tube. If you use 9.5mm diameter tube then the corner will be 4.75mm wide, so the square corner support tube needs a 2.75mm overlap. This affects the width of the coach body once you glue the sides to the ends. If using the 9.5mm tube, you will find the width just about right. The critical dimensions, which you should check, are the width of the metal floor and the width of the roof behind the letterboard (on ver2 coaches they are 4.52" and 4.72" – the roof is wider by the width



Construction Notes for the G.A.L. Business / Tourist Car.

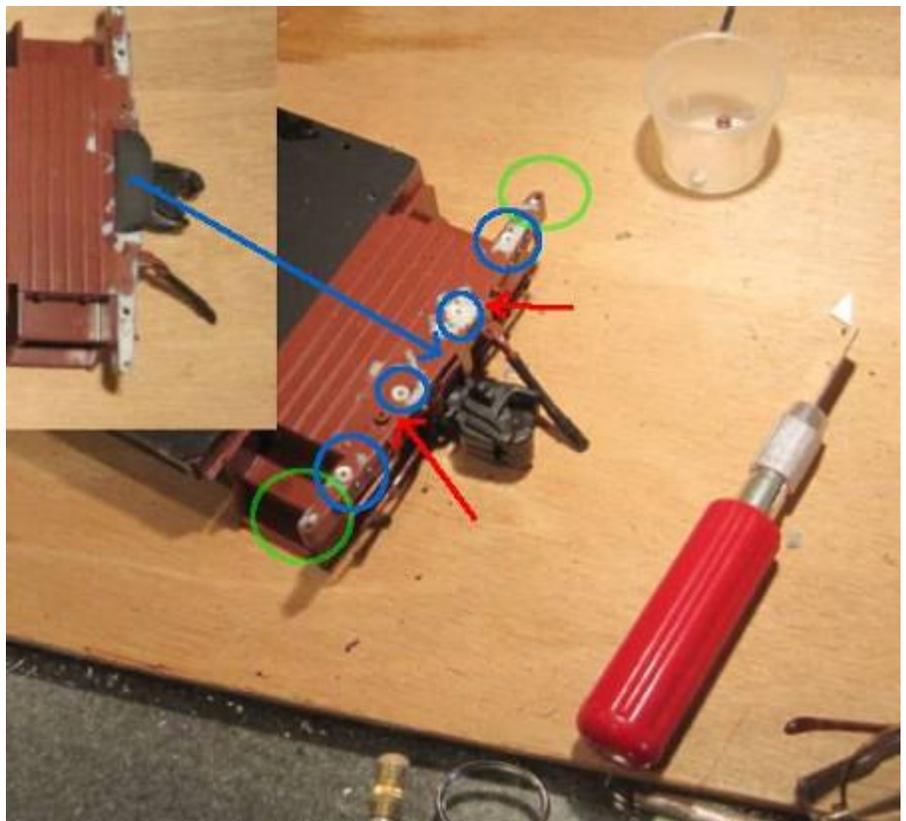
of the two sides.) The 9.5mm half-round should be perfect, but I haven't tried it. Note also that the wider floor on the ver1 coaches will need a wider corner.



Starting to look like a coach! This is a test fit on the underframe - still to be done are the railings and interior. This would be a good time to add the tabs to attach the roof to the sides, and the sides to the floor (See General Info Notes.)

Pull the railings out of the underframe, (I lever them out with pliers or a small cutter – but don't cut through and leave a piece behind.) I cut the bosses off the platform with the chisel blade as I wasn't sure I would re-use them, but I did, so I could have left the outer ones. (green rings on photo.)

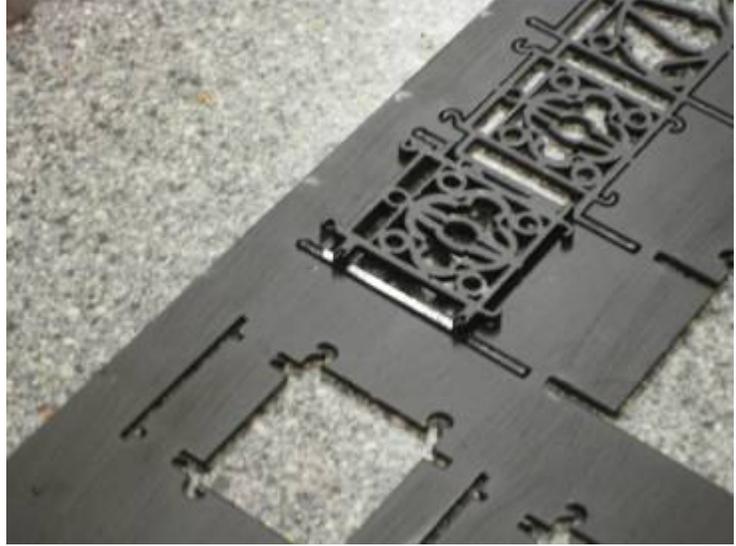
There will be another 4 holes in the wrong places for the new railings (blue rings.) The outer ones I filled with an nbw and the inner pair are hidden by a metal platform extender, made from a piece of curved plastic that came out of the middle of the end door (blue arrow.) Finally, the red arrows point to where holes need



Construction Notes for the G.A.L. Business / Tourist Car.

to be drilled for the new railings. I opened them out with a 5/16 drill in a pin vise by hand, and I did the same with the plastic bosses I had cut off.

The railings kit includes the complete fixed portion – railing/gate/railing - plus 4 gates for the sides of the platforms, and some thin railing support/pivots that fit the back of the fixed piece. I glued the thin support strip onto the back of the railing upright while it was still in the sheet. The gate helped to keep it at the right height. (See photo, right.) Note that the side gates have slots in the tabs on one side, designed to fit on the support strip. They may need deepening or easing to get the gates as close to the railing upright as possible.



The long legs need rounding to fit the 5/16 holes in the bosses and platform, and the knobs on the top also need rounding.

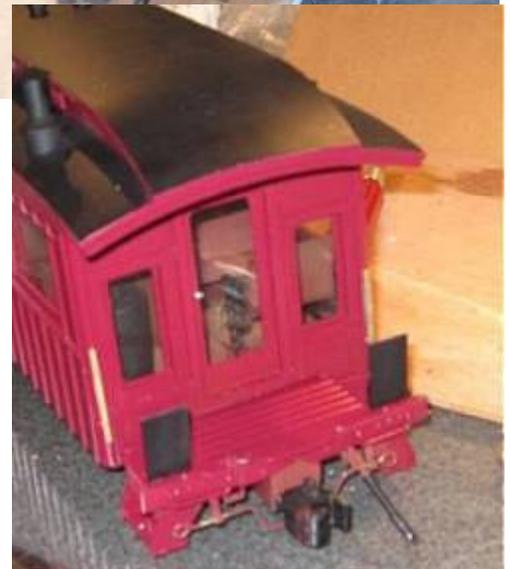
The next photo shows a test fit of the fixed piece to figure out where to drill the new holes.



At this point you need to decide whether the gates are open or closed. [Unless you decide to make the hinges actually work.] If they are closed, the drop plates would be down – I used some 0.5mm left-over styrene to make the plates, and they are down at one end but up at the other, tucked between the gates and railings. I also painted some strips gold and pinned them to the curved corners to make a stop for the gate.

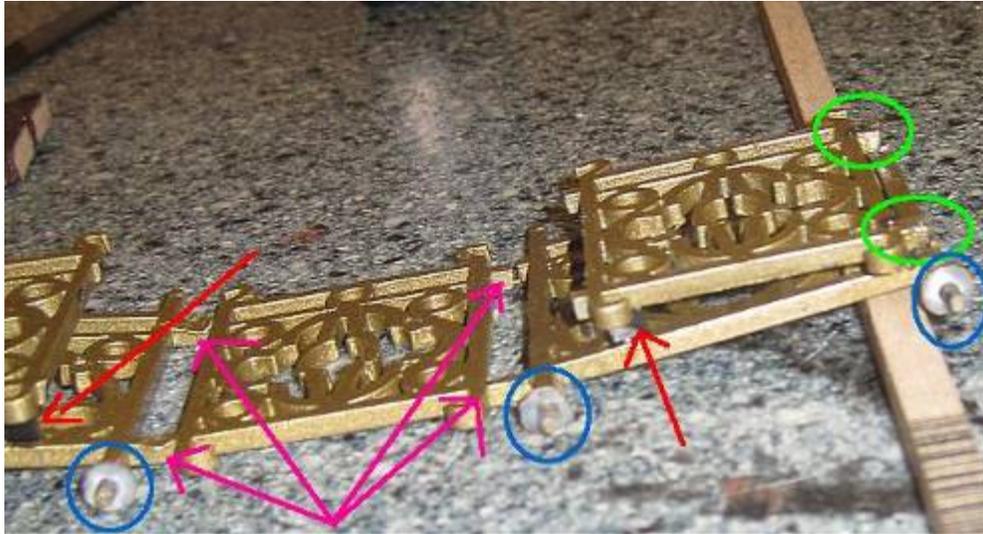
Fixing the closed gates was a little more complex, as the gap isn't very wide. I ended up drilling a tiny hole with a pin vise and inserting cut pins through the end railing upright into the side gate upright to hold it more securely.

(As you will note, by now the coach has been painted.) I added a door knob on the end door.



Construction Notes for the G.A.L. Business / Tourist Car.

Open gates can be glued on the support strips and I added a small piece of styrene to hold them in place. In this photo you can see the support strips (red arrows) and the bosses that were chiseled off the end platform (blue rings.) The support strip 'hinges' are visible (green rings) and the pink arrows point to the joints between railings and the center gate. These have to curve a little to match the platform – you can see on the left where I tried to help the bend with my soldering iron.



Interior

All the comments about seating units and floor/wall tabs in the General Notes apply, but this coach has some interesting wrinkles. The bathroom is in the center, and one of the side windows is offset as it is the bathroom side.



I glued the two pieces of bathroom from the original seating unit together and added a styrene wall. The seats were moved to face each other – in the photo, the bottle is holding down a seat that has just been glued.

Here's the complete interior, with painted central bathroom and door, water fountain, and seats with black frames. The pictures are printed on my inkjet on sticky labels. Inside the bathroom is the wiring for the lights – I moved the wires in the roof to the center to keep them out of the way.

Construction Notes for the G.A.L. Business / Tourist Car.

The interior walls were painted dark brown before glazing, and after the clear styrene glass was glued in place, I painted the glued part with the same dark brown. These big windows give a decent view of the other wall, so this covers the unsightly glued area.

The bathroom window is etched glass with a picture – I found a drawing and printed it on a clear label then stuck it inside the bathroom window.

Final touches included adding grabs on the sides, consisting of brass bars with an nbw in a hole at the top (the well-known way to fake a grab bar.) Photo right shows the holes being drilled – I used a pin vise to make two pairs of holes, then opened up the middle pair to take the grab bar.

This photo also shows the brown details under the end platforms. Paint them flat black to blend with the rest of the undersides.

And that's about it. A spectacular piece of rolling stock for your narrow gauge empire's President!

Please contact us if you have any questions.

