

Painting Rail Parts:

Use **interior semi-gloss latex paint**. Details can be painted with ‘Samplers’, which may be a lower-gloss finish (harder to clean) or with craft paints. **For Railings**, I use 1” foam brushes and a 3/16” flat bristle brush.

Paint the parts the first coat. The first coat mostly soaks into the wood, filling and reinforcing the grain so the sanding step clips off the fibers and leaves the surface smooth. Resist sanding before painting - it will leave the surface fuzzy and make a smooth finish harder to achieve. The quality of your final finish is dependent on the quality of the sanding after the first coat. Do not go back to re-paint just because the paint has soaked in. Just a bit of paint left on the surface tells you you have put on enough to saturate the grain, which is the right amount. More paint than that will only make sanding harder.

Sand everything. Sand until the paint is smooth and “silky” feeling, transparent, and some of the wood is showing through. Fold the sandpaper as needed to keep it fresh.

Paint the second coat. The second coat goes on smooth and creamy with enough paint on the brush so it is quiet while you are brushing the paint out, but not enough to leave puddles or drips.

Primer is designed to help paint stick to an impervious surface or to join layers of dissimilar paints. In *this* application, the first coat of paint soaks right into the wood and fills the grain - you *could* do that with primer, but its job of being an interface between different materials doesn’t apply here. In *this* application, primer just adds steps and expense except as of a first-coat for white or off-white colors.

Assemble Rails

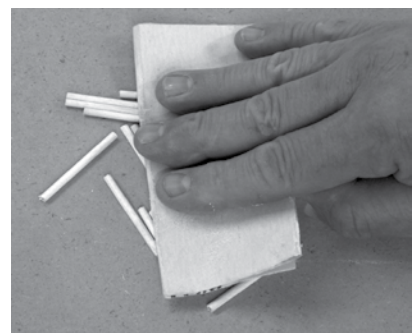
1. Paint and sand the rail parts before assembly.
 - a. Paint (first-coat) the Rails, wipe any paint out of the grooves, and do not paint the Rail ends at all.
 - b. Lay a hand full of Dowels on a sheet of paper. Dab and roll the Dowels with a foam paintbrush or small-celled sponge until they are lightly painted... less paint is better.
 - c. Spread the painted Dowels on waxed paper. Separate and move them around every few minutes as the paint dries.

Paint all of the Dowels; let the paint dry



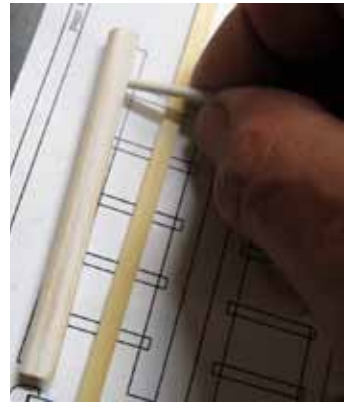
- d. Lightly rub the dowels around with sandpaper (a small handful at a time) to sand off the raised grain.

Second-coat the paint after the Railings are assembled



2. Assemble the Railings:

- a. Match Rails into assembly pairs (the same length).
- b. Set the first Rail of each assembly pair on the drawing, lined up on each end, and with a Stripwood support ready. Dip a Dowel in a puddle of glue for a scant dab on the end. Poke the Dowel into the groove to match the drawing; be sure all the Dowels are even, straight, and square and lined up with the drawing.



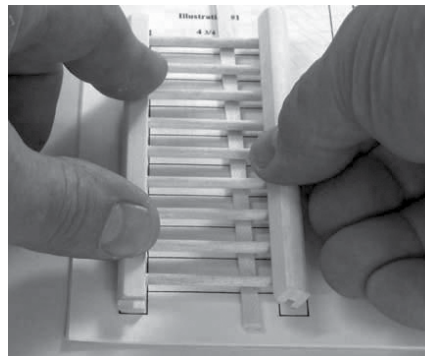
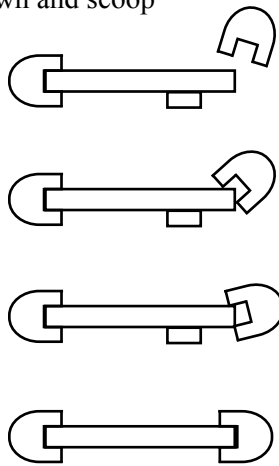
- c. Dab a little glue onto each Dowel's end. Hold the second Rail of the assembly pair over the Dowel's ends at an angle and lined up with the second rail on the drawing. Push down and scoop the Dowels' ends into the groove.



A dab of glue



Push down and scoop



Push down and scoop

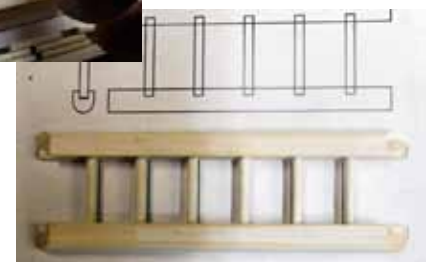
- d. Squeeze the Rails together so the Dowels are fully in the grooves. Set a window frame over the Railing as a square. Hold the Railing set on the drawing; make the Rail ends exactly line up. Use the Stripwood to lever the Dowels, first one end then the other, straight and square and lined up with the drawing. Repeat for the other Railings.

Leave the mitered Railing Set on the drawing to confirm that it's square while the glue dries.

3. Let the glue dry - Paint (second-coat) the Railings.



Straighten



Without glue set up the Railings and Posts.
 When the spacing is right, one-at-a-time remove them and glue them back in place.

Railing Assembly Patterns
DH77K:

	# of rails	length	dowels
A	8 Sets	2 ¹³ / ₁₆ "	4
B	11 Sets	2 ¹¹ / ₁₆ "	4
C	2 Sets	4 ¹ / ₄ " @45°	6
D	2 Sets	5 ⁷ / ₈ "	9
E	11 Sets	2 ⁷ / ₁₆ "	4

