

# BASIC TIPS FOR SCALE MODELING

## BY

### MIKE ASHEY

#### GENERAL TIPS

Review the kit instructions and become familiar with the kit parts.

Do not remove small parts until you are ready to work with them.

Decide what details you want to add to the model before you start building it.

Decide what colors you are going to use and develop an assembly sequence that will allow you to paint and construct subassemblies as necessary.

Clean parts in warm water and ivory soap using a soft toothbrush.

Assemble the main components of the kit with masking tape. I call these “tape ups”. This initial step gives you a sense of the model's appearance and it also allows you to identify any fit problems, gaps and voids.

Use the kit's instructions to make notes on seam, fit and blemish problems that you identified from the “tap up” and how to fix them.

Have good tools. Cheap tools will not last long.

Always use sharp blades.

Prep time is important. It's like the old carpenter saying – “measure twice and cut once”.

Keep a note book on your modeling projects, ideas and lessons learned.

Always wear eye protection when necessary.

Be patient and if you get frustrated set the model aside.

#### TO MINIMIZE SEAM WORK

Use plastic snipers to remove parts but be sure to leave a little of the attachment tree on the part.

Use a sharp number 11 X-Acto blade to carefully remove the remaining tree attachment point and then carefully wet sand the area smooth.

Use indelible markers to mark part numbers.

Remove mold lines from around the perimeter of parts by carefully scraping it off using a sharp number 11 X-Acto blade.

Always check gluing surfaces to be sure they are flat. Run parts across a stationary piece of sandpaper to smooth the gluing surfaces.

Fill voids and gaps with plastic strips and apply super glue to both sides. The super glue will seep down into the seam creating a strong bond. Trim off the excess plastic strip and then scrap and sand smooth.

## **GLUING TIPS**

Tape part halves together using small strips of masking tape.

Make a small puddle of super glue on a piece of paper. Using a thin stiff wire applicator (.030 - .040 inch diameter) dip the tip into the puddle and apply a bead of super glue along the seam line and between the masking tape. The capillary action of the super glue will pull the glue down in between the part halves.

After the super glue has dried remove the masking tape and apply glue along the remaining seam areas. Apply additional coats as necessary to fill in the seam line.

Carefully scrape the super glue with a number 11 X-Acto blade by holding the blade at about a 45-degree angle to the seam line. This scraping action will remove the excess super glue.

After you have scraped off the excess super glue carefully wet sand the seam area.

Check all seam work with Testors enamel silver paint. Apply additional coats of super glue to areas that still show a seam. Repeat the scraping and sanding process. The silver paint will act as an indicator and tell you when the seam area is finished.

Use Testors red tube glue when you need some working time to position a part.

## **PAINTING TIPS**

Clean plastic with alcohol or Polly-S plastic Prep prior to painting.

Always prime parts prior to applying any finished coats of paint. The primer provides better adhesion between the paint and the plastic. Primer is also a seam and flaw indicator.

Final colors should be in layers. Do not attempt to coat the entire model in just one painting session.

Let paint dry before handling or applying additional coats. If it smells like paint its still wet.

Always wash your hands prior to handling painted parts or plastic that is about to be painted.

Flat paints dry very quickly while gloss paints can take several days to dry.

Add some copper bee bees to your paint to act as agitators when you shake the paint bottle to mix the paint.

Always clean the rim of the paint bottle and the inside area of the paint cap before closing up a paint container.

Always use the paint manufactures recommended paint thinner. This is especially true for foreign paint manufacturers.

Always start out using no more than a 3 parts paint to 1 part thinner mixing ratio (3:1) when first mixing paint for airbrush use. Test the paint and add more paint or thinner, if necessary, a few drops at a time.

To minimize the orange peel effect that paint sometimes gets when you airbrush:

- Do not thin the paint more than necessary. Too much thinner will cause the paint to dry before it hits the surface of the model.

- Airbrush in humidity of no more than 60 percent (50 percent is better).
- Airbrush in a temperature of less than 80 degrees.
- If you are using a compressor be sure to have a water trap.
- The best air source for airbrushing is a CO2 bottle with a pressure regulator.
- Be mindful of the position and distance of the airbrush tip with respect to the models surface. The tip should be parallel to the surface. The distance between the tip of the airbrush and the surface will depend on the air pressure you are using.
- An air pressure of no more than 20 PSI should be used for general airbrushing. For surfaces like ship decks which have a lot of appendages sticking up from the surface use less than 20 PSI. Higher-pressure setting can cause the paint to begin to dry before it reaches the surface of the model.
- Clean your airbrush after each use. Don't just run thinner through it. Take it apart and really clean it.

Use natural hair paint brushes or good quality synthetic brushes. Clean them after each use and never let them rest on the brush hairs. I have a set of Pactra pure red sable brushes which have lasted me over fifteen years because I take care of them.

When using spray cans warm the paint before using it by sitting the paint can in hot tap water for a few minutes and then shaking well before using. **DO NOT WARM A PAINT CAN IN A PAN OF WATER ON THE STOVE.**

Shake spray paint cans well before using them and always test a spray paint can before using it.

After using a spray can turn the can upside down and spray until no paint comes out and then clean the tip.

Always spray paint in a well-ventilated area and use a spray mask.

### **DECALING TIPS**

Always apply decals to a glossy surface so that the clear areas of the decal will not "silver".

Remove as much of the clear film from a decal as possible prior to applying and always use a sharp blade and a straight edge to cut off the clear film.

Always use decal setting solution.

Always clean up the areas around a decal after it is dry with a wet Q-Tip.

Always apply either a gloss clear coat or a flat clear coat to protect your decals after they are applied.

### **WORKING WITH RESIN KITS**

Always clean the parts prior to working with them.

Always check to be sure that you have all the parts that you need and that there are no defects. If so contact the manufacturer immediately.

Always wet sand resin. This keeps the resin dust to a minimum.

Always check the fit of parts before gluing in place.

Always use super glue or epoxy to attach resin parts. White glue can also be used on small parts if the parts are coated with flat paint.

### **WORKING WITH BRASS PHOTOETCH**

Always clean brass photoetch parts by running the parts across a stationary piece of 400 grit sandpaper.

Use flat nosed pliers and single edge razor blades for bending photoetch parts or a bending tool.

Cut photoetch parts from the sheet using a sharp number 11 X-Acto blade on a hard surface like a piece of Plexiglas.

Only cut parts off the trees, as you need them.

### **PERCEPTION OF DEPTH**

Creating a perception of depth in scale modeling is very similar to what an artist does when he or she creates a three dimensional picture on a flat surface. To create a three dimensional images on flat canvas an artist will use different shades of the same color. Essentially the artist tricks the human eye into seeing depth in a flat surface. Scale modelers can use this same technique to create a perception of depth inside an airplane cockpit by using different shades of the same color. If you have painted the cockpit interior green many of the details that you have added may not be readily seen by the human eye because it's all one color. To help the eye pick out details use several shades of interior green by adding a few drops of flat white or flat black to several jars of paint to lighter or darken the color.

### **THE ACCURACY TRAP**

On a closing note please do not fall into the accuracy trap. Some scale modelers get all wrapped up in the quest for the scale model that is absolutely accurate. Unless it is a one to one scale model (the real thing), the smaller the scale the more difficult it is to achieve absolute accuracy. When you get as small as a 1/700 scale, accuracy can become a really problem especially with very small components. Consequently what model manufacturers have done and what many scale modelers do without really thinking about it is to create a perception of accuracy by insuring that the sizes of individual parts appear to be in proportional size to one another.

Whatever you do don't get caught up in the accuracy trap. Scale modeling is supposed to be a hobby in which anyone can participate and be creative. Scale modeling is not a quest for accuracy and perfection that everyone must subscribe too. And it is not a competitive sport or politics. Scale modeling is a hobby so have fun and enjoy the journey as you create a three dimensional representation of whatever you are building. Just have fun!

Happy scale modeling.

Mike Ashey