

- Detailed instruction for working with waterborne paints
- Prep work for priming, sanding, painting, body filler, and clear coats
- Custom paint techniques for flames, lettering, graphics, and more

SATA AUTO PAINT FROM PREP TO FINAL COAT



“THE MOTORBOOKS WORKSHOP SERIES gives readers a wealth of knowledge on a variety of very specific subjects, and it’s always on the shelf for reference in years to come.”

TOM VOGELE, EDITOR, *STREETSCENE* MAGAZINE
www.cargeek.ir

JoAnn Bortles

DanAm[®]

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3M soft edge foam tape comes in a roll in a box dispenser. It has an adhesive strip along one side and can be rolled along door jams, trunk jams, hood jams, and any tight places that need to be taped off. It's the quickest way to mask off an interior when you're painting a car.

The ProMasker from FBS is a great product that combines the both masking paper and tape, and it's a real time saver. It comes in a refillable dispenser. One of my favorite timesavers and a must for anyone painting

a car is 3M's Soft Edge Foam Tape. Many times during painting I would have given anything for a roll of this.

Overspray Plastic Sheetting

While tape and masking paper are used right along the edge of the paint area, overspray plastic sheetting is for use everywhere else, like over tires, engines, suspensions, and any large areas you need to protect from overspray. Do not use the plastic from a home improvement store. Plastic sheetting, like Evercoat's Plastic Sheetting, is designed to cling to a surface and comes in a variety of different sizes.

SANDPAPER AND ABRASIVE PRODUCTS

You can never have enough sandpaper when doing a project. Sandpaper comes in sheets, rolls, and discs. Some are better for dry sanding and some are better for wet sanding, and some are good for both. The chapters throughout the book show what kind of sandpaper or abrasive products I used with each project. Take



Plastic sheetting is a must when doing painting projects that do not involve disassembling the vehicle.

HORIZONTAL OR VERTICAL PAINTING?

There are pros and cons as to which direction to mount parts. Mounting large flat surfaced parts like hoods and trunk lids vertically means they take up less space and less dust lands in the paint. The problem is that it's easier to flow paint on a flat surface. If the paint is applied too heavily, it will be more prone to run and sag. If you hang large flat parts, make sure plenty of light shines on the surface so you can carefully watch as the paint hits the surface and apply it correctly.



We hung the hood and trunk lid from the ceiling. Eye hooks were screwed into the joists of the ceiling and S hooks are placed into recesses on the backs of the two parts. Chains connect the eye hooks and S hooks. When hanging heavy parts always make sure the mounting points are secure. After mounting the top hooks, always test them to make sure they can support the weight of the part.

HANDY HINT

Marking the paint mixing cups is a habit I got into a few years ago, and I wish I had started sooner. I always mark the levels or amounts of the material I'm using on the cup before I add the materials. For example, in this cup, I'm mixing clearcoat at 4:1:1. I mark the levels of clearcoat, hardener, and reducer being used. This way if I have a question or problem, I know for certain exactly what I mixed up.



SOLVENT-BASED PAINTING

We arranged the parts in the paint area so that the painter can move around the parts without bumping into them.



Chapter 15

Troubleshooting Paint Problems

About 35 years ago, I bought a book on custom painting. Over the years, the part of the book that I used most was the chapter on troubleshooting problems. But paint technology has changed vastly, as have the paint problems and their solutions.

One fact I keep repeating throughout this book is that all paint is different. A successful solution to a problem that works for one brand of paint might not work for another. Get the P sheet for the paint being used and follow the guidelines for that product. If you misplace it, you can usually download one from the paint company's website. Know the phone number for the tech line of the company whose products you use, and don't hesitate to call them or your paint supplier when you have a problem. When you speak to them, be honest about what is going on, especially if you took a shortcut or did not follow the guidelines. You would not be the first person not to follow the rules. It's their job to help you, so use this resource.

Here are some common problems and some remedies that have worked for me. But remember, each situation is different and what works for one problem might not work for another.

COLOR MATCHING AND REPAIRS: HALOS

Chapter 8 presents color matching in depth, but one thing that can be an issue when doing a repair are halos. A halo is the result of sanding through coats of paint when repairing chips, cracks, and dents. The edges of the paint layers are revealed. The halo effect happens when new paint reacts with the edges of the old paint. It is usually caused by the solvents in sealer, primer, and basecoat, which are used to match the color for the repair. They can react with the sanded through edges of the urethane used for the original paint's topcoat.

Avoiding this unwanted reaction is one reason why waterborne paint has become so popular in the collision industry. The waterborne primers and basecoats, simply sit on top of the edges of the sanded layers without irritating them. And as waterborne dries so quickly,



This photo shows an example of halos. There had been a large bubble of lifted paint on this plastic part. The lifted paint was removed and the broken edges sanded down. If the broken edges are not sealed down, they will ghost through the new paint, resulting in a halo, which is caused by slight impressions that show in the paint.

there's little chance of the new paint shrinking down and those edges ghosting through the new paint over time.

But what if you're not using a waterborne product? For my shop, the best solution I have found is to seal down those edges with a skim coat of plastic filler. Chapter 5 shows the simple steps I use for this problem.

CRAZING OR CRACKING

Newly applied paint will crack or craze for a number of reasons. It could be a chemical reaction for an incorrect mixing ratio: if too much activator/hardener is used, or if the correct ratio is not properly mixed, defects may appear in the finished dried paint film.

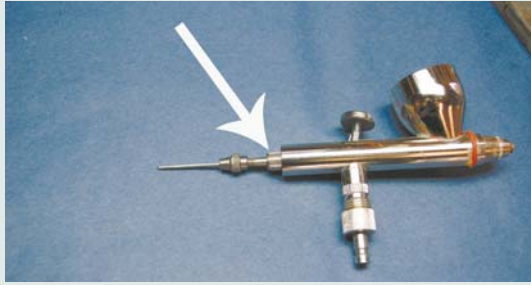
- If the parts were just removed from a colder section of the shop, and your booth or spray area is warmer, give the parts some time to heat up. Painting cold parts in a warm area with paint that is the same temperature as the area can result in crazing or cracking.
- Painting over an improperly prepared surface can also cause crazing and cracking. If the substrate

Using a SATAgraph 4 airbrush, I airbrushed candy orange on some of the outside edges of the yellow fire licks, and under the layer it is sprayed a little heavier. This gives the fire form and depth.



Here's the first layer. All the yellow has been shadowed with the orange candy. No solid orange was used here.



HANDY HINT

Many times, the airbrush just plain seems to be working incorrectly. Maybe paint comes out when it should not. Or the trigger feels funny. If you find yourself dealing with a problem that is hard to pin down and if you are using a dual action airbrush, try this. Remove the airbrush handle. Grab onto the needle chucking assembly. Is it loose? If so, simply tighten it up. For some unknown reason, this assembly has a habit of coming loose occasionally.



Here are the tools I use to keep my airbrushes happy and healthy: cotton swabs, narrow paintbrushes, small diameter soft round brushes, and a set of pliers with flat, yet toothed jaws.

of clearing out the airbrush before getting started on a new area of the painting. In fact, I'm not even aware of doing it anymore; that step has become an automatic move when I airbrush. For example, say I'm spraying yellow for a woman's hair. Next, I'll need to add white highlights. After I'm done with my yellow, I pick up the airbrush with the white. I point the airbrush toward my ventilation inlet and away from my painting surface. I pull back all the way on the trigger and give a good blast of paint out of the airbrush. This blast does two things: it takes away most of the paint that has built up on the tip, and it also clears away any wet paint that may have settled on the inside surface of the spray regulator or crown cap. This tip only works with solvent-based paints, as the solvent in the paint is so strong, it can soften the paint on the tip so that it blows away.

This tip will not work with water-based paint because it is already dry and does not react like a solvent-based paint. Once waterborne paint is dry, it must be picked off the tip. If you are using water-based paint, get in the habit of picking the paint off the tip each time you pick up the airbrush and every few minutes while you are airbrushing. It seems frustrating at first, but after a while, it will become something you automatically do.

CARE OF YOUR AIRBRUSH

Many airbrush problems will be due to poor airbrush maintenance. Airbrush days are long, and the last thing



Here, I'm tearing down and cleaning a SATAglyph4, a dual-action airbrush. Twist off the handle. A knurled nut holds the needle in place. Loosen that and slide out the needle. If the needle does not easily pull out, firmly grasp it with the pliers and pull it straight back. Make sure to pull it straight back, because if you pull it at any kind of angle, it will bend the needle. Take care; otherwise, you will be replacing the needle.

any artist wants to do at the end of a brutal, frustrating day of attempting perfection is thoroughly clean the airbrushes. It's easier to fool yourself into thinking, "I'll just take a little break and come back later to clean the brushes." And then you wake up the next morning and sit down to airbrushes still full of paint. It happens to everyone once in a while. So take the extra five to ten minutes and clean those airbrushes.

Each brand of airbrush is different and will be slightly different in the way the inner workings are