

# Everything you Need to Know — Part II

Second in a two-part series covering the fine art of vinyl vehicle graphics installation. Part I can be found in the August 2000 issue of *Digital Graphics*.

BY DAVID KING



Here we are again, exploring the wonderful world of vehicle graphics installation. Last month (Steps 1-5) we covered ways to work with your client to establish clear goals, how to decide on a vehicle, pricing the job, how to work with templates in design and tips on vinyl fabrication. Now we really get into the nuts and bolts of the job, beginning with how to prepare the vehicle. I hope you've been taking notes.

## 6: VEHICLE PREP

Your film is back from the fabricator and is on your door step and ready to go. Now comes the most difficult part of the project — *the install*. About 90 percent of all vehicle graphics failures occur because the graphics were installed improperly! You might find this hard to believe but I have seen a lot and this is very true. Make sure you are working on the vehicle indoors, where you can control the temperature. Most vinyl works best at 70 to 80 degrees. If it's warmer than 80 degrees the vinyl will stretch when you take off the release liner, colder than 70 and the vinyl will be stiff and could tear. Before you start, get the color comps that the customer approved, and tape them up to a nearby wall so you can refer to them when installing. Now you are ready to start.

Remove any items that might get in the way — mirrors, roof rack, etc. Taking the time to remove these items will make the job easier, go faster and look nicer. Take extra time to clean the vehicle properly and with the correct chemicals and you will be on your way to a long-lasting vehicle graphic. When you clean the vehicle, be thorough. Open all the doors and clean inside the doors, around the hood opening, along the under parts of the car. My rule is, "If the manufacture painted it — clean it!"

First wash the vehicle with soap and water,



Successful vinyl installation is more than just a peel-and-squeegee endeavor.



After weeding the graphic you need to position it on the vehicle by "hinging" it with tape while you remove the release liner. Next, begin to apply the main image to the vehicle. Notice the template taped to the window for reference.

then wipe dry. Then wipe down with Isopropyl Alcohol and a clean towel. Make sure you clean around *all* edges. This is where most failures occur.

## 7: DOING THE WRAP

Layout the panels on the vehicle by taping them in place with masking tape to make sure that all the graphics line up as they do on the comp. Feel around the graphics to locate anything that might be in the way of the graphics when you start to install. If you find that a logo is being cut off by a door handle, for example, shift the graphics to make the logo fall where it should. If you remember back in Step 4 (*DG*, August 2000, page 40) we bled the graphics off each side by three inches so the installers can move the vinyl three inches in either direction. Once you have the graphics lined up, remove all panels but the back panel (the panels should be installed from the rear of the vehicle forward). With a marker (Stabillo pencil) mark the top and bottom of the panel with a line on the graphic to the vehicle. These lines will help you line up the graphics.

Depending on the type of graphics you ordered — and the fabricator — you might have graphics with a premask on them, we do not use a premask unless we are installing a silk-screened film. The premask

makes the graphics stiffer and this, for beginners, makes the installation easier.

However, after you've done a few vehicles you may find that the premask makes the install go slower and adds a level of cost to the graphics. Remove the release liner (yes, all of it). Handle the graphics with *two people*. One person should line up the vehicle panel (using the marks you made) with the film. After you have *lightly tacked* the film to the vehicle in the places where the marks are, have your partner pull the film taught and *lightly touch* it to the vehicle.

Now, from the center, using a squeegee (one with a sleeve on it), work the film from the center of the graphic panel to the outside edge. Use *horizontal* strokes and don't push too hard. Doing so may cause a "zipper" (this is where the film has buckled up on it self). If you see a zipper, carefully pull the film back so the zipper is off the vehicle. Then, using your torch/heat gun, carefully warm up the zipper until you see it disappear. After you have let the film cool, continue to apply.

*Take your time!* This is not a race. Chances are you won't make much money on the first couple of installations, but as you get better, the installs will go much faster and your profit margin will increase.

Once the first panel is down, trim off all

excess film. If you have bubbles (and you will) use your FART (Fine Air Release Tool). I just love that acronym! The tool is just a stick with a pin on the end that you use to pop the air bubbles. Push the air out through the pin hole using your finger or squeegee.

At this point you should carefully cut out the areas that will not have graphics, gas tank, door handles, key holes etc., but use *caution* with your blade. A slip here will make a nasty mark in your graphics that is impossible to fix! The blade should be used sparingly, and then only with enough pressure to cut the film, *not the body panel!*

Move on to the next panel and line it up on the first panel, make your Stabillo marks on panel #2 and #1. Again, these marks will make it much easier to line up the two panels. Remove the release liner and install panel #2 just like #1. Repeat this process until you have completed one side of the vehicle. Then move on to the next side. For a complete vehicle wrap start with both sides, then do the back followed by the front, and leave the roof for last.

## 8: COMPLEX INSTALLS

We have talked about a standard install and I have assumed for you that the vehicle you are installing is relatively flat, no special body parts, and not a VW BUG or Hummer. Well, what about the small and very complicated vehicles? *Hire a pro!* Small, complicated vehicles are *not for the first timer*. I'm talking about VW Bugs, Hummers, any vehicle with Skip Corrugated sides, and most passenger vehicles. If your customer does not understand how difficult installing vinyl can be, give him/her a soccer ball and a piece of vinyl, and ask them to install the vinyl on the ball. If they are successful without any wrinkles, well... *hire them!*

The rule to follow is *Do Not Stretch Vinyl*. The more you stretch it the more it will want to shrink back after it leaves your shop (leaving unsightly gaps, tents and rips). Unless you use a *permanent* adhesive (one that will not come off the vehicle without removing paint), stretching film will guarantee a failure.

Having said that, all rules must be broken — in moderation. You'll likely have to stretch the film a little, like over rivets, around door handles, and along body grooves, but the less you stretch, the better.

# Vehicle Graphics



When applying the window perf, be sure to trim 1/4" around the window in order to leave room for the window seal to adhere.

## 9: WINDOW PERF

After all the vinyl is installed it is time to install the window perf (perforated window film). If your vehicle does not have window perf, then skip this part.

Start by removing all solid vinyl from the windows that will have window perf. Clean the windows again with alcohol. Remove the release liner from the window perf film and install onto the glass. Use the *same procedures* as you did with standard vinyl. Squeegee the film to the edges of the glass.

Once all the film is on the glass, use a ruler (a steel ruler with a cork back is best) to cut 1/4 inch off the edge of the window perf. Window Perf has one major advantage — the driver can see out of the covered glass and the people on the outside can enjoy the graphics on the glass. The disadvantage to the window perf is that it is expensive (more than double the cost of standard vinyl). And it is only guaranteed for about a year,

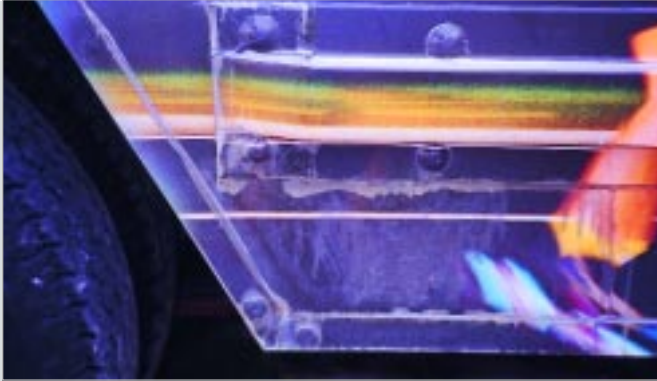


Dave applies the "ropes" to the vehicle. Notice that the it does not fall over the Plymouth logo. Careful planing and attention to detail during the design stages can avoid problems during installation.



After carefully positioning the letters, carefully pull back the release liner. Dave then goes back to apply "true" shadows to each letter.

# Vehicle Graphics



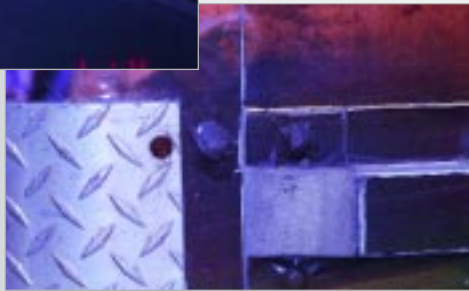
When short-term lamination is left too long on a vehicle graphic, lifting can occur, especially when fuel is spilled.



If graphics are wrapped around the gas cap, the area must be thoroughly cleaned and edge-sealed to prevent fuel from lifting the film as in this example.

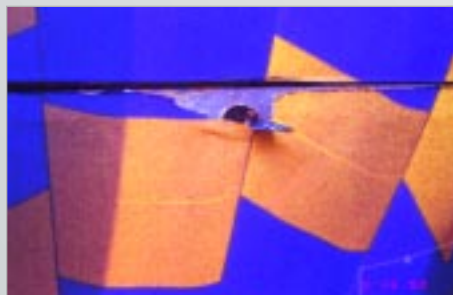


In these examples the installer failed to cut the vinyl around bolts and rivets. When a pressure washer was used to clean the vehicle on the left, it blew out the vinyl. The other job simply looks very poorly done.



When vinyl is stretched too far during application, the film will eventually shrink back to its original shape, pulling away at the weakest points.

In this example, vinyl was applied to a wooden roll-up door, but the underlying paint had bubbles so the vinyl lifted the paint. This type of failure would not be covered under warranty.



and, due to the perforations offers less coverage of adhesive on the glass.

Consequently, the film must be sealed to the glass. To do this you must cut away some of the film to allow the edge sealer to cover the glass and the film on the same surface. That's why you need to cut 1/4 inch around all the edges. If you don't you'll have customers coming back in six to nine months complaining of peeling window perf — and the warranty *does not cover this!*

Cut carefully on the corners to keep the graphics looking nice. A slip of the blade now, would be very bad! Now, with your 3M Edge Sealer, seal all windows and film edges. The can has an applicator swab inside, or you might want to use a small paint brush. Let the edge sealer dry for one hour before taking the vehicle outside.

## 10: SEALING THE JOB

After all the vinyl is installed use your 3M Edge Sealer to seal all the areas that you might see as being a problem down the road — seems, edges, cuts etc. After you have finished the installation let the vehicle sit outside for a day to see what happens to the vinyl. After the 24 hours outside, bring in the vehicle and get all the little spots that you missed the first time around. They'll be obvious to spot now.

## 11: TAKE A PICTURE

The job looks great! Take pictures of your masterpiece. A picture tells a great story and your future customers will love to see what you've done in the past, and the types of jobs you can provide. If your film came with a warranty, give a copy to your customer.

Make sure you walk your customer

# Vehicle Graphics



around the finished vehicle so they can have an opportunity to bring up any issues they may have up-front. Tell your customer that if he/she sees any vinyl coming loose, that they should contact you *right away* and get the vehicle back to your shop to be fixed. If your customer waits, fixing a problem becomes more difficult or even impossible.

If the vinyl is lifting a little bit, clean the area with alcohol, and use a little piece of laminate (the same laminate your graphic was protected with) to cover the problem area. The laminate patch trick will fix almost anything. If you see window film lifting, you must cut it back to the lift point and then edge seal it again.

Don't discard the extra film for the customer's vehicle. Put the extra pieces in a box and give them to the customer. Tell them not to discard this box, this is the film you will use down the road to patch any small areas that might get damaged. Film fades and our technology does not allow much room for matching.

## 12: TAKING IT TO THE STREETS

If you look at the long traffic jams on the highways today, with more and more of us commuting to work, it only makes sense that the marketing war will be increasingly fought on the streets — and the war will be fought with vehicle graphics!

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