

# UGIS=qxs

*Universal Graphic Installation System = quality x speed*

BY JUSTIN PATE



*Justin Pate has a new DVD called, "Techniques and Tips: Vehicle Graphic Installations" which is sold on his website, Sign Warehouse, Amazon and many other retail outlets.*

*Justin's online videos are part of the Carwraps Business Builder Program that comes free with any purchase of a Mutoh printer. Justin also teaches hands-on workshops for Mutoh USA/Avery ([www.mutohcarwraps.com](http://www.mutohcarwraps.com)) and, in Europe, for Squeezy ([www.squeezy.nl](http://www.squeezy.nl)). For the latest information on Justin, go to: [www.justinpate.net](http://www.justinpate.net).*

**T**HE FIRST FULL-COVERAGE VEHICLE WRAP I completed by myself took nine hours. Over several years of trial and error, I gradually lowered this time to three hours for the same type of vehicle. This ability to wrap vehicles with quality and durability in times much shorter than the average install garnered me a reputation for my speed. What comes with this reputation for speedy wrapping is the question: How do you do it while maintaining quality? I tell people that it's not because I drink 20 cups of coffee and become a blur with a squeegee and a knife, but rather it's having a system that ensures quality and creates speed.

I began forming the Universal Graphic Installation System without consciously doing it. Since I first began wrapping in 1996, I always spend about 20 minutes after an install thinking about how it went. I do this to see how I can improve my

technique and get a better understanding of the film. What I found over the years is that the better I understood the process, the simpler it became. Simplifying the process meant quality went up and install times went down. When I started making videos and teaching workshops, I began to consciously form my technique into this system.

UGIS is made up of three modules: The Basics, The Method and Five Good Habits.

## THE BASICS

The Basics are squeegeeing, cutting and heating. The Basics are the common denominator for wrapping any vehicle.

- **Squeegeeing:** Use the proper squeegee (one that is durable and not overly flexible), overlap each squeegee stroke, be methodical, and—most importantly—use a 45-degree angle. The 45-degree angle allows for the largest area to be applied while giving the air underneath the film time to escape. Too narrow of an angle is inefficient and can make it difficult to overlap the squeegee strokes. Too wide an angle and the film will bunch up at the bottom, which will lead to wrinkles, lower quality and a slower install.

- **Cutting:** Use high-quality blades from companies like Olfa or NT Cutter. Have a knife that holds the blade securely and let the blade do the cutting (i.e., avoid putting too much pressure on the knife during a cut). For me, I think the NT Cutter A-551P knife is ideal for

## THE BASICS

### Squeegeeing

- The squeegee
- How to hold
- The angle
- Efficient strokes

### Cutting

- The blade
- The position
- Cuts on edges
- Cuts on doors, fenders and lights
- Cuts for molding

### Heating

- The setup
- How to heat
- Over-stretching

## GTH

### Glass

- Backing paper
- Tension
- Heat

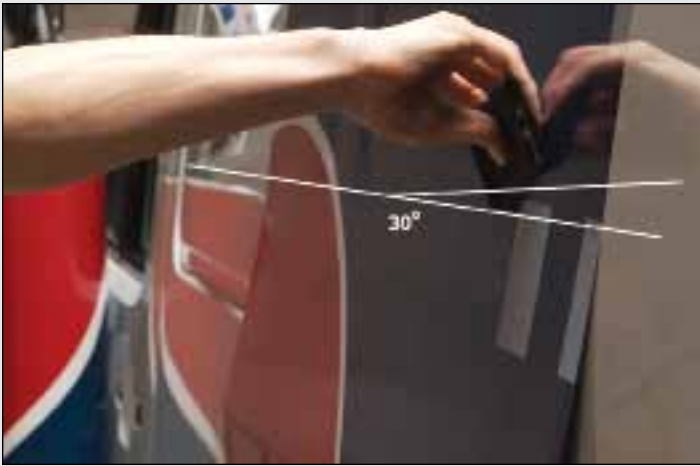
### Triangles

### Hinges

- Temporary hinge
- Permanent hinge

## GOOD HABITS

- Run a finger to set up, cut, run a finger to seal
- Always use a sharp blade when cutting
- Tuck and cut
- Relief cuts
- Always stand back to see if the panel is straight



Squeegeeing at a 30-degree angle is too narrow. Too narrow of an angle is inefficient and can make it difficult to overlap the squeegee strokes.



The 45-degree angle allows for the largest area to be applied while giving the air underneath the film time to escape.



Squeegeeing at a 90-degree angle is too wide. Use too wide an angle and the film will bunch up at the bottom, which will lead to wrinkles, lower quality and a slowdown in the installation process.



Have a knife that holds the blade securely and let the blade do the cutting. For me, I think the NT Cutter A-551P knife is ideal for vehicle installations.

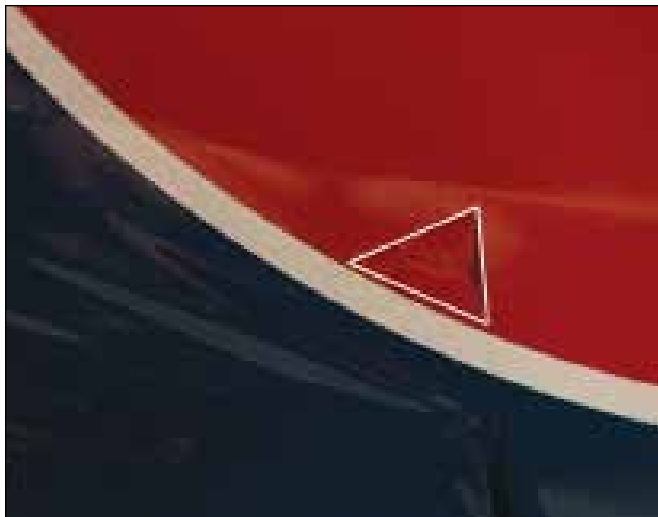
vehicle installations. There are several reasons for this. It's a multi-cartridge knife, which means that I have six blades in the knife, ensuring that I will always have a sharp blade on the job. Since it is a multi-cartridge knife, it is wider than single-bladed knives. This, along with the rounded front, helps hold the knife securely on an edge during a cut.

- **Heating:** Keep the heat source moving at all times, pay close attention to how the film reacts to the heat and do not pull too hard on the film while heating to avoid overstretching. There are pros and cons to using either propane torches or heat guns, but I would say that with either one, taking the time to learn how to heat the film just right is essential for creating durability and speed.

CONTINUED



Glass is a term that refers to the state of the film when it has no wrinkles. Wrinkles on the film mean that bubbles will result if it's squeegeed.



Triangles are a method that I discovered by accident years ago during an install. I had to fix an area and instead of picking the whole panel back up I worked it out in the form of a triangle. Using the shape of a triangle in conjunction with the technology of the film (repositionable and air release technology) allows the graphics to be installed more efficiently, problem areas quickly worked out and perfect registration is a snap.



Before cutting the film away on edges, run a finger along the entire edge. This sets the film up uniformly, which avoids any jagged or uneven cuts.

## THE METHOD

The Method is made up of glass, triangles and hinges—or GTH for short. The Method binds The Basics together.

- Glass is a term that refers to the state of the film when it has no wrinkles. Wrinkles on the film mean that bubbles will result if it's squeegeed. By applying different degrees of tension onto the film, the wrinkles will flatten out. Since most film has a glossy lamination on it, this wrinkle-free state looks like glass. A phrase I use in my workshops is, "Wrinkles mean no, glass means go." A big key for creating glass is leaving the backing paper on the film as long as possible. The backing paper creates even tension from side to side, which acts like having an extra set of hands.

- Triangles are a method that I discovered by accident years ago during an install. I had to fix an area, and instead of picking the whole panel back up I worked it out in the form of a triangle. Using the shape of a triangle in conjunction with the technology of the film (repositionable and air release technology) allows the graphics to be installed more efficiently. Problem areas quickly can be worked out and perfect registration is a snap.

- Hinges secure the film onto the vehicle so it can be applied precisely and with ease. There are two types of hinges and four ways of making them. The two types are temporary and permanent. The temporary hinges hold the panel in place before the backing paper is

removed. The permanent hinge is made when the backing paper is removed and a squeegee stroke bonds the film to the vehicle, which holds the panel firmly in place. The four best ways to make a temporary hinge are: masking tape, magnets, tearing small half circles of the backing paper away and cutting out a section of the backing paper with a special tool.

## FIVE GOOD HABITS

The Five Good Habits help ensure quality and durability. They are: click before cutting, run a finger/cut/run a finger to seal, avoid overstretching, always stand back to make sure a panel is straight and relief cuts.

- Click before cutting: I always use at least one or two whole blades per vehicle. By always clicking the tip off before each cut, two things are achieved. First, quality improves because a sharp blade makes clean, precise cuts. Second, the sharpness of the blade is always known, which is key to being able to cut the film on the body without cutting the paint.

- Run a finger/cut/run a finger: Before cutting the film away on edges, run a finger along the entire edge. This sets the film up uniformly, which avoids any jagged or uneven cuts. Then cut. After the cut, run a finger or squeegee along the edge again. This ensures that the edge gets sealed, which improves durability.

- Avoid overstretching: Overstretching the film is a very easy thing to do.

## UGIS takes the guessing game out of wrapping and provides installers with a common language.

Knowing the true capabilities and limits of the film is the key to avoiding overstretching it. So many vehicles look good from a distance, but upon close inspection, they are peeling or lifting, particularly on bumpers, fenders and recessed areas. In most cases, this is simply due to the fact that the film was overstretched.

- Stand back for each panel: Even if a panel measures out straight or registers perfectly to the last one, standing back to make sure it looks right significantly avoids crooked panels or poor placement.

- Relief cuts: Relief cuts are made on the film to reduce tension, which allows it to lay flat on the vehicle. Relief cuts can be made on corners and on raised objects like door handles or antennae. I use relief cuts to help in durability. When other installers break out the heat, I use well-placed relief cuts to release the tension on the film, which creates a much higher durability standard and speed. The less heat used the better, but this can only be done with sound technique and relief cuts.

UGIS takes the guessing game out of wrapping and provides installers with a common language. More importantly, using UGIS reduces mistakes, which are the main killers of speed and quality. The higher the quality and lower the install times, the more money everyone in the graphics industry will make. Essentially, there are three wheels that run the vehicle graphics industry—inkjet printers, film and installers. Today, the printers sell at a great price point and can produce top-quality graphics. The film is loaded with technology like air egress and is very compliant. Installers as a whole simply need to improve speed and quality. If this happens, the three wheels of the industry will really hum, which means higher profits for everyone. **SDG**



So many vehicles look good from a distance, but upon close inspection, they are peeling or lifting, particularly on bumpers, fenders and recessed areas. In most cases, this is simply due to the fact that the film was overstretched.



Relief cuts are made on the film to reduce tension, which allows it to lay flat on the vehicle. Relief cuts can be made on corners and on raised objects like door handles or antennae.