



REAL WORLD VINYL

By Rob Ivers

Rob Ivers owns Rob Ivers Inc. (Raymore, MO), a vinyl-graphics training company. He's taught vinyl-graphics installation since 1993.

A Little Bit Crooked?

Use the right tools to ensure perfect, vinyl-graphics positioning.

The word “crooked” carries what I believe to be the shortest definition in the dictionary: “not straight.” There’s no gray area, something is either straight or crooked. Every aspect of the vinyl-application process is critical to a successful installation, and proper placement deserves your full attention.

One day, the owner of a landscaping company called; he wanted me to produce graphics for his new pickup truck. I fabricated them and drove to his office for installation. I noticed his fleet of vinyl-clad trucks; he'd obviously paid another signshop for extensive work. When he came out to show me his truck, I asked why he called me instead of them.

He said he'd worked with another shop that decorated every vehicle he'd owned since he'd opened his business, and had been happy with their work. However, once, after the installer had decorated the driver-side door, the customer told him the graphics were crooked, to which he stepped back and replied, “It's just a little bit crooked.” Unhappy, the landscaper demanded the graphics be



This month, I'll illustrate the various hinge techniques that can be used for vinyl application. Here, I use magnets to hold the release liner as I pull away a large vinyl panel.

fixed. The installer refused to correct the mistake and said the customer would have to take the graphic as is. So, he called me.

Over the next several years, I've completed several thousand dollars' worth of business for this company. I'm still amazed by the other shop owner's attitude; for a few dollars worth of vinyl and an hour of his time, he could've kept his customer.

His unwillingness to stand behind his work lost the account.

My approach is simple: I treat each job as if I were decorating my own truck or sign. I give every job my best effort regardless of its dollar value; my customers don't deserve any less. I've made mistakes over the years, and have put on graphics a “little bit crooked.” But I didn't leave them that way and fixed them without being asked. I've even had customers say, “That's okay; you don't have to bother replacing it.” I had to; it's a poor reflection on their business *and* my reputation.



STEP 1 - POSITIONED WITH NO SLACK AND ANCHORED



CENTER HINGE



TOP HINGE



MODIFIED SIDE HINGE



SIDE HINGE



MODIFIED CENTER HINGE

These line graphics illustrate the different hinge techniques that can be used to install vinyl-graphic panels. The yellow areas represent points where the installer applies tape to secure and hinge the graphics.

Be prepared

To position graphics, I use a 25-ft., Center Point tape measure or steel ruler; a marking device, such as a Stabilo pencil; and masking tape or magnets. I like the Center Point tape measure because it has no metric markings. Instead, it measures in inches across the top and in half-scale across the bottom. This makes marking an unusual measurement, such as 43½ in., a breeze. Most hardware stores sell them. I also use a 6- or 12-in. ruler

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for smaller measurements.

I prefer Stabilo pencils because they write on glass, plastics and metal. Equally important, their marks wipe off easily. Art-supply stores sell Stabilo pencils and steel rulers.

I use magnets for magnetic surfaces and masking tape for all others. I like 3M's, 2-in.-wide masking tape, part number 06340. I've tried many others, but this works best. When using magnets to apply vinyl, I use Pro-Wrap Mags, which I designed and sell. Avery Graphics and Arlon also sell vinyl-installation magnets.

The hinge method

I recommend the hinge method for placement and installation; several variations exist. The method doesn't change; only the hinge's location varies. With masking tape, the graphic's "hinged" edge must



I measured this cut-vinyl graphic to determine where to place the hinge.

be straight.

Place the graphic close to the desired location and attach the top two corners with masking tape. Pull the tape loose on one corner so you can move the graphic. Using a tape measure or ruler in one hand, slide the graphic into position with your other hand, and re-secure the masking tape.

Magnets allow graphic repositioning without removing the magnet – just slide the graphic into position, and the magnet secures it. Repeat the process with the other corner. Observe the first side to make sure it hasn't shifted; it usually requires a slight tweak. Always do a final check on both sides and the middle.

This next step is critical. Pull the

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bottom two corners until the graphic is smooth and taut; then, anchor them with tape or magnets. Failure to do so will trigger graphic shifting when you squeegee out excess film. Mark the graphic's location; if it moves or comes loose, you can quickly realign it to your marks.

Now, choose the hinge location. First, determine which direction to squeegee; move in the direction of the graphic's smaller dimension. If the graphic is wider than it is tall, squeegee vertically. If the opposite, squeegee horizontally. The hinge should parallel the direction you squeegee.

Look at tape hinges first. I've shown the basic setup in an illustration (*see page 30*) for five different hinges I use. I've created a few variations. The type of graphic – a plotter or die-cut with premask, a solid vinyl with premask, a digital print with



Applying magnets to the graphic while using the hinge method lets the installer use both hands to squeegee and peel.

laminates and no premask – plays a role in determining which hinge to use. The size and shape (if the graphic isn't rectangular) are also factors.

Here's my advice:

- Never use the center hinge unless the graphic is small or not rectangular. The modified center hinge provides more holding power, especially for triangular

graphics. A standard center hinge simply wastes tape. The tape on the graphic itself does nothing – the 2-in.-wide portion that crosses the edges comprises the adhesion area. The modified center hinge provides a much wider area (6 to 8 in.) of adhesion to hold your graphic in place. This consumes less tape.

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- Use the top hinge for pieces that are taller than they are wide or for large, single lines of text (you can tape it all at once), then lift to the hinge, cut between the individual letter(s), and apply it in smaller sections.
- The side hinge works well for pieces that are wider than they are tall, provided they aren't too long. For longer pieces, try my modified side hinge.

For all hinges except the center hinge, apply the tape so half its width is on the graphic and the other half is on the surface. Press it down firmly with your hand first, then squeegee to improve the bond. With the graphic locked securely in place, remove the tape from the corners opposite the hinge. This lets you lift the graphic to begin removing the liner paper. You can



I used a center hinge to install this vinyl section.

see why we call it a hinge – the graphic is hinged to the surface.

Start removing the liner on the hinged edge, but don't remove the whole liner. How far you peel it back initially depends on the graphic's size and your comfort level. Next, crease the liner so it lays flat. Pull the corners opposite the hinge taut, and line them up with your marks to secure them again with tape. Place

the tape so it doesn't block the end; after you remove more liner, it will slide past that point.

Squeegee tips

Next, squeegee the exposed area from the middle out to the edges, parallel to your hinge. Don't squeegee over the hinge (if there is vinyl under it) with non-air-egress media; this causes bubbles along

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the tape line. Instead, squeegee close to the tape hinge, and remove it before squeegeeing the edge. From this point forward, simply peel back some more liner and continue to squeegee.

You may need to unfasten the tape to restart the liner where you creased it. I prefer not to crease it after that; let the liner's natural curvature hold the graphic slightly away from the surface. When using long pieces, keep the edges opposite the hinge taped to keep the vinyl from shifting. Once the liner extends past the graphic's edge, cut off the protruding excess.

For center hinges, use the modified version for extra holding power for straight graphic edges. If the edges are curved, use the standard center hinge as shown in the illustration. After you apply the hinge, loosen either end, and lay the



The finished wrap. Because current conditions have significantly contracted the vehicle-wrap market, using proper techniques to ensure efficient and proficient service has become especially important.

graphic atop the other half. Remove the liner up to the hinge and trim the liner (the straighter the better). Lift the exposed area, and reposition it on your marks.

Squeegee close to the trimmed liner, but not right on it. Avoiding the liner makes it easier to remove

the remaining portion. Continue to squeegee with overlapping strokes until that half is applied. Remove all tape, lift the graphic and remove all or part of the remaining liner, and finish applying the vinyl.

Center hinges aren't practical for most large graphics on vertical

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surfaces. The modified side hinge suits those situations. For example, consider a wall or trailer graphic that's only 2 to 4 ft. tall, but 50 ft. wide. Tape the graphic using 6- to 8-in.-long pieces along the top and bottom edges. Space them roughly 4 ft. apart. Start on the side of your dominant hand, lift up the starting edge, remove approximately 2 ft. of the liner, tuck it under the graphic, and start squeegeeing. Squeegee up and down, remove a little liner at a time. When the removed liner gets too long, trim it off.

The power of attraction

Using magnets requires a slightly different strategy than tape hinges. Magnets make positioning much faster than tape; I started using them about two years ago. They work equally well on any size of graphic, whether they're plotter-cut or inkjet prints. And, they don't require much explanation.

Magnets can't hinge directly on an edge, but tape can, and you can place them close to any edge, peel back some liner and cut or crease them. For wider digital prints, use them to hold the liner against the surface, which frees both hands to pull the vinyl away from the liner. This is especially helpful when working alone.

For vehicle jobs with multiple, plotter-cut pieces, use magnets to hold their place. Have you ever installed graphics on a windy day? Here are two tips. Stack the graphic on the hood, and secure it with magnets for easy access to prevent them from blowing away. Also, position and install them one at a time. After you've removed the liner, use a magnet to secure it while you focus on installation. After you use magnets a few times, you'll wish all application surfaces were magnetic.

Here's hoping all your graphic installations are straight as an arrow! ■

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