Vinyl Application

Surface Preparation

All surfaces must be considered dirty and must be cleaned prior to the application of markings. Recommended cleaning procedures for specific surfaces are listed below.

A. Plastic & Glass

Saturate a clean cloth with a 2 to 1 mixture of water and isopropyl alcohol and wipe the surface. (Cleaners such as Windex Window Cleaner may be used.) Wipe the surface dry with a clean, dry, lint-free cloth.

B. Painted Metal & Base Metals

These Surfaces must be cleaned with solvent such as: E.I. DuPont Prep-Sol Cleaning Solvent 39195. Xylol, VM&P Naptha or Lacquer Thinner. Dry the surface with a lint-free cloth before the solvent evaporates. Freshly painted surfaces must be dried one week prior to application.

C. Interior Painted Surface

Paint must be dried one week prior to application of markings. Clean the area where the markings are to be applied with a household cleaner such as 409. Rinse thoroughly and dry.

Temperature Requirements

Air and application surface temperatures must be above 40° F for GSP 220 Scotchcal products and 55° F for GSP 280 Scotchlite products

Application Instructions

Top Hinge Method

1. Position the graphic, using strips of Masking Tape to hold the graphic to the substrate, Then apply a strip of masking tape 2 to 3 inch wide, horizontally across the top of the graphic. See FIGURE 1.
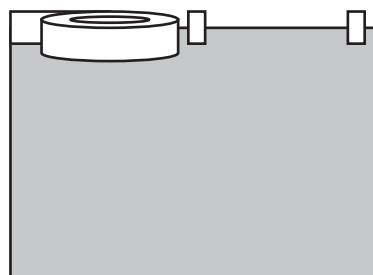

FIGURE 1
Make a Top Hinge

FIGURE 2
Make a Top Hinge

2. Raise the graphic up over the top of the hinge and peel the liner back a few inches. see FIGURE 2.
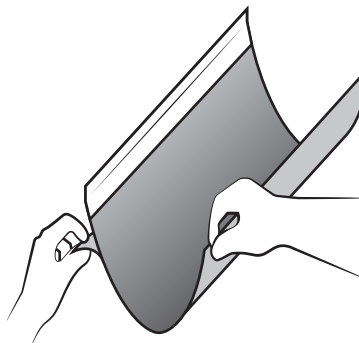
Vinyl Application

Application Instructions

Top Hinge Method (Continued)

NOTE: The entire liner may be removed at this time, if desired. However, for very large graphics, especially those with a pressure-sensitive adhesive, leaving the linter in place just prior to squeegeeing makes the graphic more controllable, keeps the adhesive clean, and reduces the possibility of stretching the film.

3. Using care not to stretch the graphic, hold the graphic near bottom center and begin squeegeeing at the top center, squeegee the graphic beginning at the center of the tape hinge to the closest edge. use firm pressure on the plastic applicator and overlapping strokes. see FIGURE 3.

NOTE: Pull the squeegee, as shown in FIGURE 3 rather than pushing it. Pushing can stretch the graphic. Also, be sure to begin from the center and move outward.

FIGURE 3
Squeegee the Top Hinge Graphic

4. Keep the graphic away from the surface and use two hands to peel back the liner a few more inches. See FIGURE 4. Then, continue squeegeeing the graphic using the technique described above in step 3.
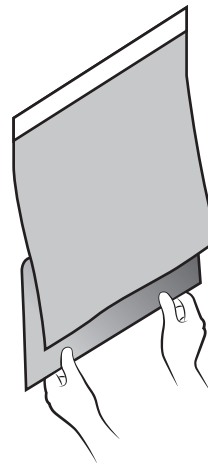
5. Continue to gradually remove the liner and squeegee until the entire graphic has been applied.

6. Remove the tape hinge. Squeegee the top edge.

7. To complete the application, go to Finishing, On Page 3-4.

FIGURE 4
Use Two Hands to Remove Liner.

Center Hinge Method

1. A center hinge can be either **vertical or horizontal**, whichever is the shortest distance.

2. Position the graphic and hold it in place with 1 or 2 inch wide strips of masking tape.

3. Applying two layers of masking tape, 1 or 2 inch wide, through the center of the graphic to make a hinge. The hinge should be perpendicular (at right angles) to the longest distance. See FIGURE 5.
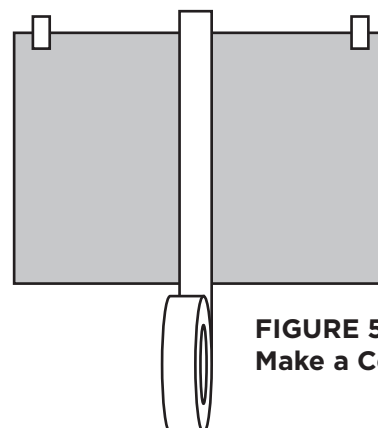

FIGURE 5
Make a Center Hinge

Vinyl Application

Application Instructions

Center Hinge Method (Continued)

4. Fold half of the graphic back over the hinge. Peel off the liner all the way to the tape hinge. Then cut just in the liner along the hinge. Discard the liner. See FIGURE 6.

5. Fold the graphic back onto the substrate.

6. Gently hold the graphic away from the surface with one hand using care not to wrinkle or skew the graphic. Allow the adhesive to touch the substrate as pressure is applied during squeegeeing. Squeegee the graphic beginning at the center of the tape hinge and working outward to the closest edge. See FIGURE 7. Use firm pressure on the plastic applicator and overlap the strokes.

7. Remove the tape.

8. Apply the other half of the graphic in the same manner.

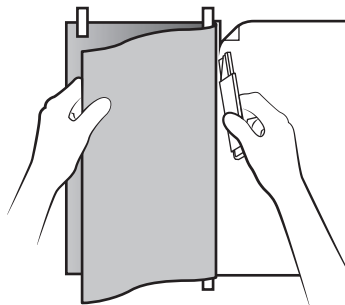9. To complete the application, go to Finishing, on Page 3-4.
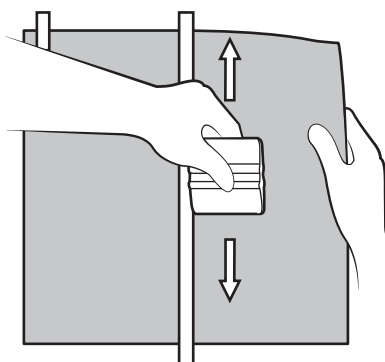
FIGURE 6
Remove liner on a center hinged graphic

FIGURE 7
Squeegee a center hinged graphic

Finishing

Removing Premask

NOTE: Use a low friction sleeve on the squeegee if the graphic does not have an application tape (premask) or if the tape has been removed.

Application tape should not be left on the graphic. Prolonged exposure to sunlight will permanently adhere it to the graphic.

Remove the application tape from the graphic by pulling it back upon itself at a 180 degree angle. SEE FIGURE 8. It is acceptable to tear the premask into manageable sized pieces.
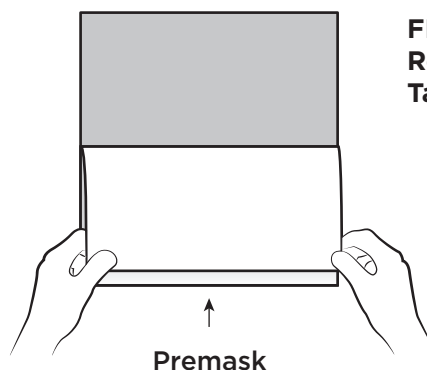
FIGURE 8
Removing Application Tape

Premask

Vinyl Application

Finishing

IMPORTANT NOTE!

ALWAYS re-squeegee after removing application tape, because removal may loosen the edges of the graphic. Re-squeegeeing is a critical step for all graphics, but especially if the film is thick or has pressure-activated adhesive, or if the substrate surface has any texture. Loosen edges may lift and can be damaged if this step is skipped.

1. Use firm pressure to re-squeegee all rivets, graphic edges, substrate seams and film overlaps.

2. Give special consideration to graphics applied near the minimum application temperature.

Graphics may not develop ultimate adhesion if they are applied near the minimum application temperature and then put immediately into service in winter weather. To improve adhesion, which reduces edge lifting, use a heat gun along rivets, film edges, substrate seams and overlaps when re-squeegeeing.

Removing Air Bubbles

1. Inspect the graphic for bubbles.

2. Puncture the bubble at on end with a pin or the 3M™ Air Release Tool 391X. Do NOT use a razor blade or knife.

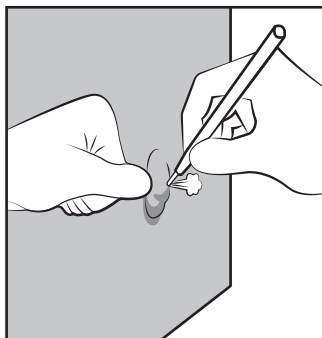3. Press out the entrapped air by moving your thumb toward the puncture. See FIGURE 9.

FIGURE 9
Puncture and rub out a bubble.

Additional Information

The information contained and techniques described herein are limited to the application of vinyl with premask tape onto flat surfaces. If the area you intend to apply to is curved, rounded, or contains several angled plains, it's important to note that graphics may warp. Also, the chances of air bubbles, stretching, and wrinkling the vinyl will increase. If you intend to have graphics wrapped onto a vehicle, or other complicated surfaces, please consider utilizing a professional installer through Mile High Graphics. The techniques used by professionals take formal training and time to perfect.

Disclaimer

The instructions provided herein are to assist anyone who intends to apply vinyl themselves. However, Mile High Graphics is not responsible for any mistakes, damages, or warping made by any individual(s) who aren't employed to professionally install graphics during the application process. Damages include, but are not limited to: Applying to a dirty surface, stretching of the material, tearing of vinyl, catching dirt, dust or other materials to the adhesive backer, burning the vinyl during post-heating, scratches from squeegeeing or dirty hands and gloves, etc.
The individual(s) take full responsibility for their graphics when they choose to apply the vinyl themselves. If graphics need to be replaced after a failed application, whether or not there will be a charge for reprints will be at the full discretion of Mile High Graphics.