

# Installation Instructions for Large Printed Graphics on Air Release Vinyl

3M Controltac, Oracal Rapid Air, Arlon X-scape and Avery EZ



## Application Type: Dry Method

### IMPORTANT: THIS IS NOT A WET APPLICATION

This material is designed specifically to be installed dry. Your decals are comprised of air release pressure sensitive high performance vinyl. This feature is a performance attribute and renders the application process easier to install and with less air bubbles, than most other types of vinyl.

NOTE: While cleaning and doing prep work, put your decals in a safe, dry place, away from any liquids and overspray. If the backing paper gets wet, it will damage the decal.

## Supplies Needed

Squeegee, low friction sleeve (or smooth cloth to wrap squeegee), new sharp razor knife, scissors, measuring tape, grease pencil or marking tool, masking tape, airrelease tool or straight pin, soap and water, grease/wax remover (see surface prep below).

## Surface Preparation

Proper cleaning and preparation of substrate prior to decal application is critical to the success of the decal. The following cleaning and surface preparation must be followed immediately prior to application. Failure to adhere to these requirements can reduce the durability and performance level of the decal, and lead to decal failure and/or removal problems.

CAUTION: Prior to cleaning with solvents, test the cleaning solvent on an inconspicuous area of the application surface to check for potential damage from solvent usage.

## Cleaning Preparation

- Remove all dirt and grime with a commercial detergent solution and water.
- If grease, oil or wax are present, the substrate must be scrubbed with a solvent like isopropyl alcohol (IPA) or other solvents if necessary ie: (Xylene, heptane, ethylacetate.)

## Final Surface Prep

- After proper cleaning, the substrate surface should be thoroughly wiped using a clean towel saturated with isopropyl (rubbing) alcohol.
- After thoroughly wiping, dry the surface completely, using a clean, soft, lint-free cloth before the solvent evaporates.

NOTE: there must be no dirt, oil, grease or solvent residue remaining on the substrate prior to decal installation. Surface must be SQUEAKY CLEAN.

## Decal Application

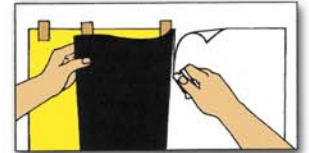
1. Ensure the surface is clean and dry before application of any graphic film.
2. Be sure the air, film and substrate are within 60-72 degrees Fahrenheit. The surface should be out of direct sunlight, indoors in a well-lit, clean environment.
3. Experiment with what tool and technique works best before applying graphics. Air Release films are designed to work with a variety of tools and techniques. Whatever tool or technique, it's important to use enough pressure to make sure the graphic adheres to the substrate. NOTE: Pre masked graphics require additional pressure.
4. Overlap all strokes by about 50%.
5. If a squeegee is used, hold it at a 60 degree angle to the surface. The flatter the squeegee the better.
6. Locate where to position the graphics and mark the spot using either a grease pencil or small piece of masking tape.

**7a. Top hinge method.** Tape decal into position securely with masking tape on the top edge. Carefully remove back liner, and squeegee into place beginning at top and work downward and outward to edges using firm pressure and small overlapping strokes.



### 7b. Center hinge method for longer decals.

Tape into position by applying two strips of masking tape down the center of the decal. Fold back the right side of the decal and separate the liner from the decal. The graphics will remain stuck to the top application tape. Cut off the backing liner up close to the taped "hinge" you made. (Keep a good grip on the vinyl not letting it flip down or fold over, it will stick to whatever it touches.) Holding vinyl away from the surface with the right hand, squeegee with the left hand from the center out, working up and down with overlapping strokes. Remove the center tape and repeat for the left side.



8. Squeegee film using moderately firm overlapping strokes, making sure the squeegee edge is flat with the substrate along the entire length of the stroke. The slower you go, the fewer bubbles you will end up with.

9. Most air bubbles can be simply removed with the pressure of your thumb. Another way to remove air bubbles and seal the decal is to use a heat gun or hair dryer to warm the film. As you warm the bubble, it will enlarge slightly. Prick it with a pin and it will pop right down. Remove tenting around rivets the same way.

## Final Squeegee Pass

1. Wait at least 10 minutes after application to allow the adhesion to build a functioning bond level.
2. Carefully remove pre-mask, pulling diagonally at a 45 degree angle.
3. Re-squeegee all graphic edges, overlaps and seams (if any) using firm pressure. Use a squeegee with a low friction sleeve or wrap squeegee with a smooth, soft dry cloth to prevent scratching decal.

NOTE: Re-squeegee is an absolute must on ALL edges of the decal.