



PRISMJET™ 230 Ultra Vinyl Installation Guide

Thank you for choosing our newest, most advanced PrismJET digital print film to date, PrismJET 230 Ultra. 230 Ultra is a premium grade ultra-calendered 2.4 mil gloss white vinyl on a 90# air egress liner with a repositionable acrylic adhesive combination designed for an easy, bubble-free installation of fleet graphics, large format outdoor signage and vehicle wraps on flat surfaces, simple curves and over rivets and corrugations. We trust that this technical installation guide will assist you in your use of this outstanding product.

Applications: Vehicles and Surfaces

PrismJET 230 Ultra is specifically engineered for use in most vehicle wrap and decal applications. Appropriate surface characteristics include flat surfaces and slight to moderate curves, including those with rivets and corrugations. Ideal vehicle types for decoration with PrismJET 230 Ultra include vans, commercial and pickup trucks, Passenger sedans of all sizes, fleet and recreation vehicles.

Care of Media, Use of Appropriate Overlamine

- The media should be stored in a reasonably controlled environment. The ideal temperature range is between 60° - 80°F (15° - 26°C) @ 50% relative humidity.
- Most adhesive-backed media has a shelf life of one year, after which the adhesive begins to degrade. Make sure your product is within this range for optimal performance.
- Outgassing: For best performance with solvent and ecosolvent inks, allow the media to air dry unrolled at 60° - 80°F (15° - 26°C) @ 50% relative humidity for 24 hours prior to applying PrismJET 231 overlamine film. Inadequate outgassing can propagate vinyl and or adhesive degradation due to the trapping of solvents between the printed base film of the vinyl and the adhesive of the overlamine film.
- For the best combination of economy and performance, we highly recommend the use of PrismJET 231 overlamine film with 230 Ultra vinyl. Standard calendered overlamine films may not provide the degree of conformability required to adhere to the 230 Ultra vinyl. Other 2 mil cast overlamine films can be used, but will generally cost significantly more than 231.

Vehicle Surface Preparation Checklist

- 1) The ideal location for an installation is indoors in a climate controlled environment. If this is not possible, do your best to protect the surface from changes in temperature, moisture, wind, and dust as these will affect the integrity of the application.
- 2) Prior to application, remove all trim that may interfere with the wrapping process. This would include license plate fixtures, antennae, nameplates, lighting fixtures, etc.
- 3) Identify possible points of adhesive failure, which may include uncured paint, paint defects, chipped clear-coat, rust, dents, nicks, scratches, seams, silicon seals, and rubber window gaskets. The adhesive is designed to adhere to the painted vehicle surface. It will not adhere properly to silicone or rubber. The vinyl must be trimmed so that it doesn't overlap such areas.
- 4) If possible, ensure that the vehicle has been kept indoors and has been cleaned with IPA (Isopropyl Alcohol, 70% concentration minimum) prior to application. Allow to air dry. The use of towels or rags may contaminate the cleaned surface with lint. While cleaning, pay special attention to edges, seams, moldings, gaskets and areas where trim pieces have been removed. Use compressed air or a heat gun to ensure that the surface is dry.
- 5) The vehicle and environment temperature should be above 60°F (15°C) prior to application.
- 6) Always ensure the finished graphic lines up with the vehicle before application.



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Recommended Wrap Installation Tools

All of the tools listed below are available in our Justin Pate Wrap Tools Kit. Justin is one of the world's most respected wrappers because of his speed and skill. Using the tools Justin recommends will help you install wraps quickly and efficiently. The standard tools needed for vehicle wrap application are:

- A) A temperature adjustable industrial heat gun or propane torch
- B) Blade safety box
- C) Snitty vinyl cutter
- D, E) Olfa knife and ample supply of replacement blades
- F) Stabilo pencils
- G) Felt buffers
- H) Squeegee sleeves (for sealing around edges)
- I) 3M Gold Teflon squeegees
- J) Strong magnets for positioning panels
- K) Cotton gloves
- L) Scraperite holder & plastic razor blades
- M, N) Vescom cutter & blades



Installation Tips

- To produce a finished wrap with seams that will not be disturbed by wind and water, begin your installation at the back of the vehicle for vertical panels and from the bottom up for horizontal panels. This allows for all overlaps to face the back or the bottom and prevents stress on the seams from wind turbulence or rainfall. Seams should have a 1/4 to 1/2 inch (0.64 - 1.3 cm) overlap.
- Use firm pressure on the squeegee to apply the media to the surface, starting at the high points in the middle and working out toward the edges.
- For channels, lay the media through the channel wherever possible, rather than bridging and stretching the media. Any vinyl film (cast or calendered) can exhibit shrinking or tenting when overstretched or overheated.
- In many difficult areas, a thin layer of an adhesion promoter or acrylic spray primer (such as Tape Primer 94) can enhance adhesion. Be sure to use the primer sparingly and allow it to cure completely according to the directions on the can, prior to graphic application.
- To bridge a gap properly, apply the film to the flat areas first as indicated above. Use heat to soften the film to approximately 160° to 200°F (71° - 93°C). Immediately stretch the film into the groove, starting at the middle of the groove and working out to both sides. Using a cotton glove or soft cloth instead of a squeegee provides optimum pressure control and reduces the risk of scratching the film. Since the film cools quickly, it is important to work in small areas and continue to heat the film as your work moves along.
- Finally, after the film has been applied, to eliminate the stretching stresses created in this application, you must post heat the film to a higher temperature, approximately 220° to 250°F (104° and 126°C). Move the heat source slowly. Now that the film has been applied, you are also heating the body of the vehicle and it takes more heat to achieve the final temperature requirement. Using a no-touch heat gauge is highly recommended to ensure this important step is done correctly.
- Edges, seams and trim should be cut and resqueegeed to ensure good adhesion. It is a very good idea to also use high heat along these areas to speed up the adhesive build and ensure a secure application. This is to compensate for the repositionability engineered into the adhesive for ease of application. Do not wrap films around 180° turns, as this will most likely result in failure. Do not wrap films under the edges of the car or into areas that are difficult to keep clean.



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Installation Tips: Cont'd

- For installation over rivets, use the same technique as the bridging described above. Apply the film over the flat areas, bridging the rivet head. Using an air release tool or pin, (do NOT use a knife blade as this will result in a cut propagation issue), poke multiple holes around the rivet head to release the air, then using heat and a rivet brush or soft squeegee, work the film down. Finally apply high heat to release any tension stresses and to ensure a quick high strength bond. The only proven way to eliminate tenting around rivets with an overlaminate film is to cut completely around the rivet head after application.
- PrismJET 230 Ultra employs air egress technology that allows air to flow easily in all directions. This will minimize the need to pop bubbles. However, it is still possible to get an occasional bubble due to the adhesive having very small channels, which will completely wet out during the squeegee process. Should a bubble appear, use an air release tool or pin to prick the bubble. Do NOT use a knife as this starts a tear, which can result in a failure.
- Do not over-heat or over-stretch the graphic media. Channels that result in the film being stretched too far must be cut.
- As noted above, post heat the film after the installation is complete. To relieve stresses created by stretching during installation, heat areas in which the film may have been stressed to approximately 200° to 250°F (71° - 126°C).

Tips & Tricks for Successful Application

- Know your surface and its limitations. Work around gaskets. Avoid application over rust uncured paint, etc.
- Newly painted vehicles are still emitting VOCs which can weaken and defeat adhesives commonly used in vinyl films. Always ensure the paint on the vehicle you're wrapping is completely cured.
- Complex curves such as those found on a VW New Beetle or Chevrolet HHR are challenging surfaces for which SignWarehouse recommends use of a 2 mil cast vinyl and overlaminate.
- Provide a controlled environment and a clean vehicle.
- Always use a sharp knife for trimming (snap-off or replace blades frequently).
- Use an air release tool, not a knife, to relieve air bubbles.
- Heated media applied to cold metal will cool quickly. Apply enough heat to do the job correctly and work in small areas.
- Use heat to soften the film prior to stretching.
- Use heat to relax the film after it has been stretched into the channels. This also allows the adhesive to build to a high bond quickly.
- Seams and edges are common failure points. Be sure that edges are clean and dry. Cut all seams and then heat and re-burnish all edges to insure a good bond.
- All printed material MUST be given a minimum 24 hours* at 70°F (21°C) flat exposure to flash off any residual ink solvents before using the PrismJET 231 2.4 mil overlaminate film. This period allows complete "outgassing" of the printed film. Failure to do so will trap residual solvents altering the performance of this product increasing the potential for premature film and adhesive degradation.

*The standard time for outgassing is 24 hours, but some third party inks contain stronger solvents that require more time to cure.



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Pre-installation Check List

Date: ____/____/____

Paint/Surface Quality: Excellent / Good / Fair/ Poor

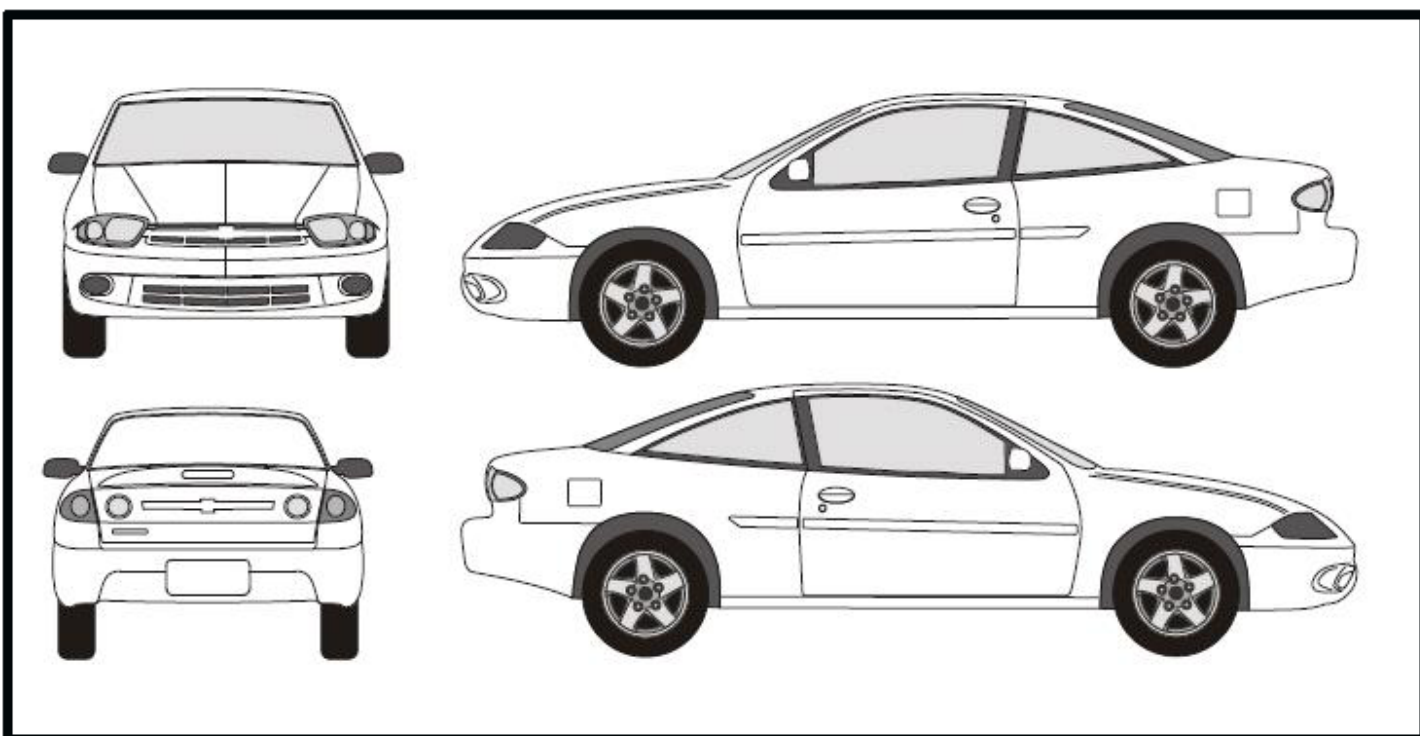
Recently Painted?: Y / N: Date: ____/ ____/ ____

Rust or Bondo: R / B

Where:

Signature of Installer: _____

Signature of customer: _____



Notes:

Circle areas that contain:

1. Chipped paint 2. Rust 3. Debris 4. Scratches or dents. Write the number in the circle that represents the defect



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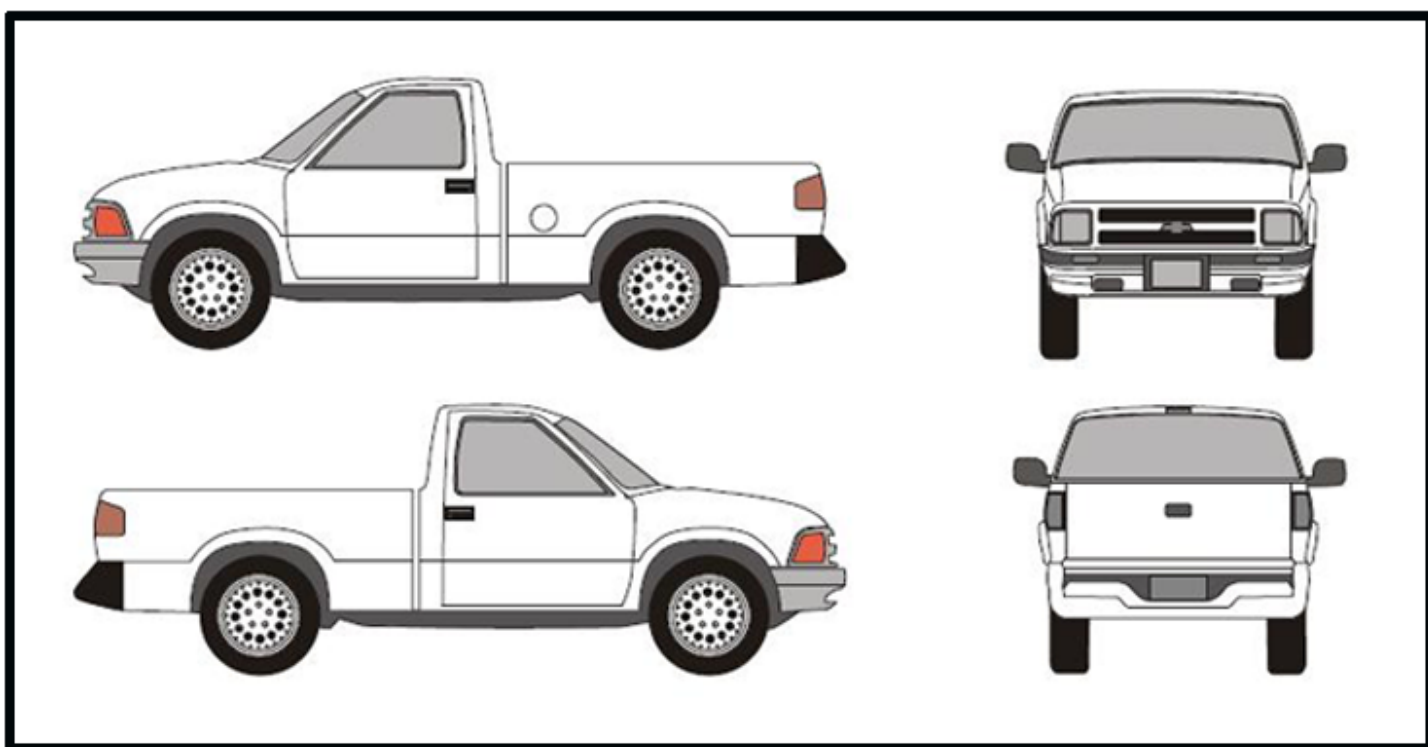
Recently Painted?: Y / N: Date:____/____/____

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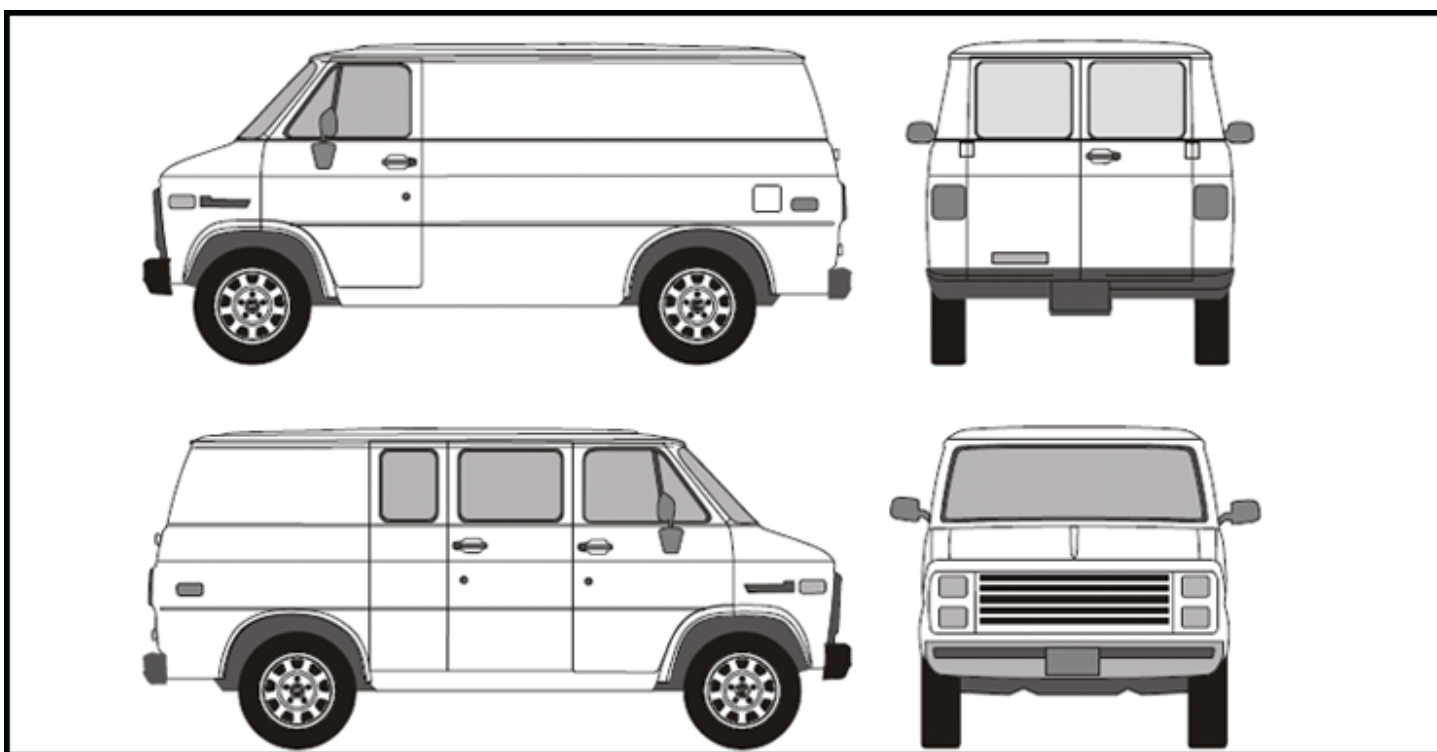
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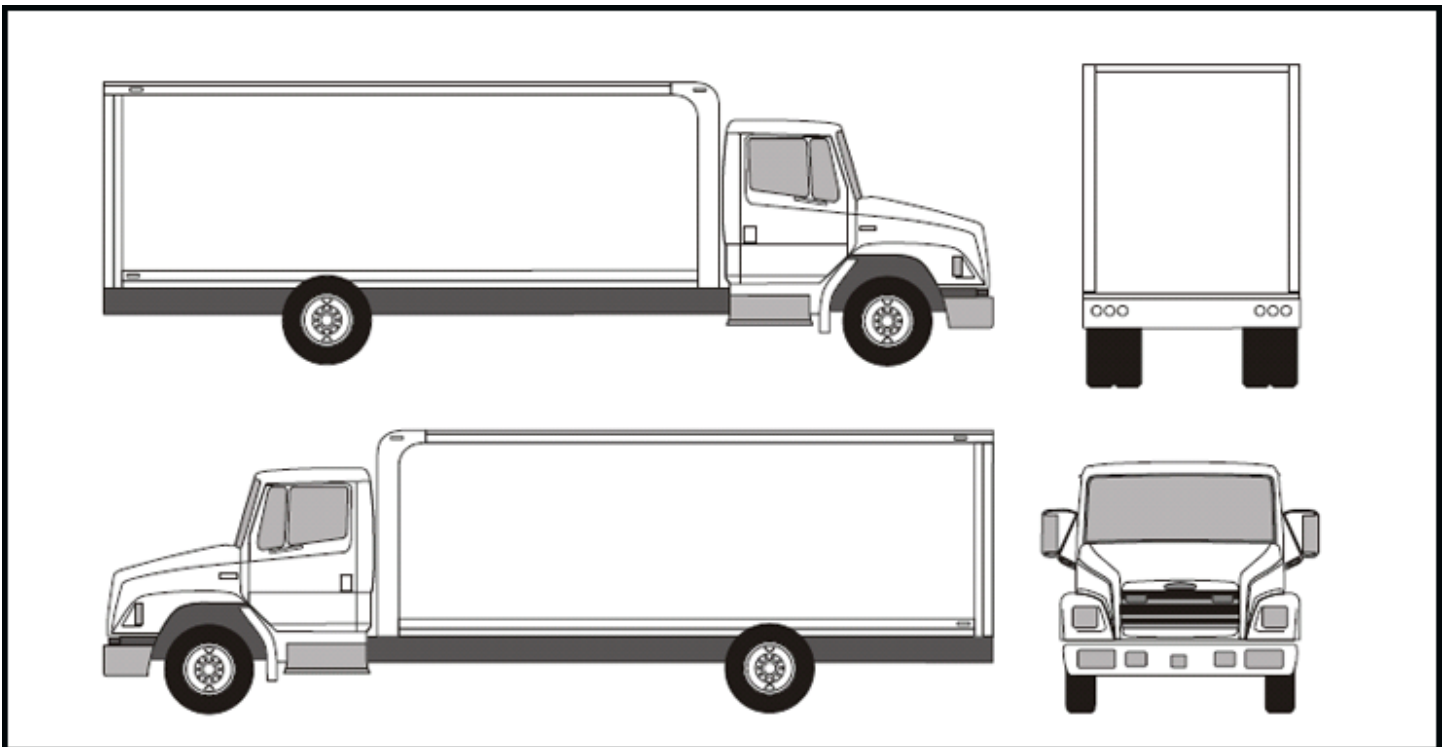
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