



ARLON

INSTALLATION GUIDE

IllumiNITE Wrap™



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Reading and following this Installation Guide will ensure you as the applicator are equipped with best practices when applying IllumiNITE Wrap™, and can be the difference between a successful installation and a satisfied customer. You owe it to yourself as an installer and to your customers to be highly educated on the material you are working with.

TOOLS NEEDED

- Heat Source(s):
 - Heat Gun
 - IR Heater
 - Torch
- Felt-Edge Squeegee
- IR Thermometer
- Release Liner Knife
- Lint-Free Installation Gloves
- 30° Snap-Off Blades
- Magnets
- Masking Tape

PREPARATION

RECOMMENDED PRACTICES	BENEFITS
<p>1. Vehicle needs to be delivered “Street Clean” The vehicle must have gone through a basic (or economy) car wash and is ready for the shop’s final recommended cleaning process prior to wrapping.</p>	To prepare the car for more detailed cleaning prior to wrapping and help maintain a clean zone in the shop.
<p>2. Install in a clean and controlled environment Surface Temperature: 60°F - 90°F (15°C - 32°C) Humidity: Below 85%</p>	To create optimal installation conditions and avoid moisture on the surface that will hinder adhesion.
<p>3. Remove any easily removable hardware Side mirrors, door handles, auxiliary turn signal lights, third brake lamp, vent trims, badge and emblems, roof molding and railings, antenna, etc.</p>	To allow for thorough cleaning of the vehicle edges and gaps. To increase efficiency and minimize over-stretched edges by eliminating protruding components.
<p>4. Use Inlays and Seams on deep concave areas</p> <ul style="list-style-type: none"> • A separate piece must be used in areas where an installer normally uses the Expanded Pocket Technique with cast wrap films (i.e.: front bumper, headlights, rear bumper, fog light recess, grill mesh, etc.). • For channels commonly found in cargo vans, cut the film past the body line and apply the film onto the channel without any stretch. 	To reduce popping and changes in reflectivity due to stretching. For more how-to videos, visit wrapitright.com .
<p>5. Check inventory of the kit and ensure all pieces for the job are included</p>	Efficient workflow, lay out, and alignment.
<p>6. Ensure that the print is fully cured prior to lamination and/or install First, make sure to print with the proper profile and ink limit of 240%. Due to the variation in ambient temperature, humidity, and ink load, it may be necessary to calibrate the profile to ensure proper curing of the print.</p>	A calibrated profile should fully cure the solvent carrier or ink resin in the print. Any residual solvent carrier or ink resin may lead to lamination, adhesion, and removal issues.



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PRACTICES TO AVOID	BENEFITS
Do not laminate or install an uncured print.	Any residual solvent carrier or ink resin in the print will migrate into the overlamine and print media's adhesive. A properly cured print will allow the film's adhesive and physical properties to work as they should.
Avoid (or at least take note and inform the customer) aftermarket paint, OEM paint that is older than 3 years, or used vans with questionable paint.	Aftermarket, 3-year old OEM and damaged paint may hinder adhesion or peel during installation or removal.
Avoid wrapping a freshly painted car. Paint must have been cured for at least 3 weeks. Check also with the paint manufacturer for curing/drying time.	If the surface is wrapped before the paint fully cures, bubbles will form as the paint outgasses and may also lead to adhesion failure.
Avoid small text and intricate contour cuts	The low liner release makes for an easier install but will pose a challenge to cut and weed.

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RECOMMENDED PRACTICES	BENEFITS
<p>1. Apply with a felt-edge squeegee</p> <p>For sharp wrinkles, use the unlined (hard) side. Different squeegee shapes and hardness also depends on the installer's preferences.</p>	<p>To prevent scratches while squeegeeing.</p> <p><i>See WrapItRight® Video: Basic Squeegee Skills.</i></p>
<p>2. Apply firm pressure and overlap squeegee strokes</p>	<p>To achieve maximum adhesive contact and surface coverage.</p>
<p>3. Place the seams properly with at least ¼" (6mm) overlap</p> <ul style="list-style-type: none"> For vertical overlaps, install from the rear towards the front. For horizontal overlaps, install from the bottom-up. 	<p>The seam edges will be less likely fail or get damaged because they will be facing away from the elements.</p>
<p>4. Heating temperature range</p> <p>Heat Range: 105°F - 120°F (40°C - 49°C)</p> <p><i>NOTE: Level of stretch depends on print system, ink saturation, and shape of recess/covered area. Cut edges or seams must also be free from stretch or at least kept to a minimum</i></p>	<p>Applying heat to the film will allow it to stretch.</p> <p>Limiting the heating temperature will prevent the film from being too stretchy which may lead to image distortion, color shift, and significant amounts of shrinkage.</p>
<p>5. Clean the edges of the previously applied panel again</p>	<p>To ensure adhesion at the overlap.</p>
<p>6. Reposition film at a low angle and before adhesion starts to build</p> <p>Placing the film accurately on panels will minimize the need to reposition. Adhesion build-up and repositioning increases the risk of bruising and tearing when lifted.</p>	<p>To reduce bruising or chatter lines during corrective repositioning.</p>



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FINISHING

RECOMMENDED PRACTICES	BENEFITS
<p>1. Minimize stretch on areas that will be cut Edges, wheel wells, seams, overlaps and channels.</p>	Minimizing or avoiding stretch on cut edges or seams will prevent edge curl, lifting, or fingers from forming over time.
<p>2. Snap a new blade frequently If freehand cutting is necessary, it is highly recommended to use masking tape to provide a cutting surface rather than directly on top of paint. Always have a new blade for every panel cut.</p>	<p>To pre-masking the vehicle will prevent cutting directly on the vehicle paint.</p> <p>Glass beads in reflective film will quickly dull a blade. Frequently snapping off a new blade will ensure smooth and accurate cuts.</p>
<p>3. Let the adhesion build prior to trimming Trim edges at least 15 minutes after installation and allow for 1/8" (3 mm) overhang and properly tuck the seams.</p>	To prevent edge curling.
<p>4. Use Cut & Overlap Technique on corners</p>	To provide the customer a high quality finish and detail without the risk of wrinkling and lifting.

PRACTICES TO AVOID	BENEFITS
Avoid trimming while the film is warm.	Even if the blade is new, warm film will be too soft to make a clean cut.
Avoid cutting directly on paint (or keep it to a minimum).	<p>If cut is too deep, the vehicle finish will be damaged.</p> <p>Cuts on paint will also be liable to lift away from the primer during removal of graphic.</p>
Avoid overstretching on the corners.	To avoid premature adhesion failure. Corners converge at a small area and there will be insufficient adhesive coverage to hold a stressed area of the film in place.



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POST-INSTALLATION

RECOMMENDED PRACTICES	BENEFITS
<p>1. Best practice is to post-heat the entirety of the film</p> <p>Post-heating is a function of temperature, time, and reapplication of pressure.</p> <ul style="list-style-type: none">• Edges, seams, and stretched areas must be heated between 203°F and 221°F (95°C and 105°C).• For flat surfaces, determine the post heating temperature by adding 25°F (+14°C) to the ambient temperature.	<p>Applying ample heat on the flat surfaces will reveal any uninstalled areas and bubbles.</p> <p>High temperature will relieve the stress in the film as well as accelerate the adhesion build.</p>
<p>2. Overnight dwell time</p> <p>If possible, let the vehicle dwell overnight in the shop prior to delivery to customer.</p>	<p>To allow for the adhesive to build prior to exposure to the elements.</p> <p>In case the installer missed a section or edges weren't installed properly, you can easily fix them without outdoor contamination.</p>
PRACTICES TO AVOID	BENEFITS
<p>When post heating with high temperatures, avoid simply heating the film without reapplying pressure.</p>	<p>To achieve even higher adhesive contact by inducing more adhesive flow and closing the air egress channels.</p>



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MAINTENANCE

RECOMMENDED PRACTICES	BENEFITS
<p>1. Post-Wrap Inspection</p> <p>For vehicles operating locally, mandate a post wrap check-up 3 days after installation, 1 week, and 1 month.</p>	To validate the Installer's Warranty.
<p>2. Regularly Hand Wash</p> <p>If using an automated carwash, opt for touchless car wash when you don't have overlaps and all edges are tucked.</p>	To minimize the risk of scratches, chips, swirls, and edge lift due to abrasive cleaning methods.
<p>3. Power Washing</p> <ul style="list-style-type: none"> • Nozzle pressure should never exceed 1,300 PSI. • Water temperature should not exceed approximately 140°F (60°C). • Nozzle tip should never be closer than five feet from the graphics. • Angle of water spray should be no shallower than 60° from perpendicular. • The detergent solution should always be blended with water at the correct ratio – a more concentrated solution can damage both the adhesive and the vinyl. • A post-washing, fresh-water rinse will help maintain the life of the paint and vinyl. 	To improve the lifetime and look of the film.

PRACTICES TO AVOID	BENEFITS
Avoid washing the car until 1 weeks' time has passed from the installation date.	To allow for maximum adhesion bond before disturbance.

REMOVAL

RECOMMENDED PRACTICES	BENEFITS
<p>1. Use heat during removal</p> <p>Removal Temperature: between 90°F - 150°F (30°C - 65°C) using a torch, heat gun, or steamer.</p>	Removal becomes easier because heat softens both adhesive and film to temporarily lower the adhesion and reduce the risk of tearing.
<p>2. Remove at a slow and steady pace at an angle no greater than 90°</p>	<p>Safety – peeling the film towards you rather than pushing it away is safer for installers in the event that the film tears. If the film tears and the installer is pushing the film away, there is potential in damaging the car or injury to the installer.</p> <p>A slow and steady pace is required as a sudden change in peeling force may cause layer separation, delamination and/or film tearing.</p> <p><i>See TIP 44: Fleet & Vehicle Wrap Removal.</i></p>