



INSTALLATION INSTRUCTIONS
POLARIS RANGER XP 2014
REAR WINDSHIELD - VENT - TRR (Tool-less Rapid Release)
PART # 78-8210-R

IMPORTANT NOTICES

READ AND UNDERSTAND THESE INSTRUCTIONS COMPLETELY BEFORE INSTALLATION TO AVOID INJURY TO YOURSELF, DAMAGE TO THE VEHICLE OR ACCESSORY.

- For proper installation, **TWO** people are required.
- Torque specifications must be followed when tightening bolts. Over-tightening any and/or all screws will cause cracks around mounting holes which is not covered by any warranty.
 - As specified on carton label, once protective film on shields is removed, product cannot be returned.
- As specified on carton label, damage caused by packaging staples is not covered by warranty. All staples must be removed prior to removing product from carton.
 - ANY cutting, trimming, drilling or altering of this product as delivered is not covered under warranty.
- Failure to follow these installation instructions completely may void any warrantable components and result in product damage or personal injury.
- Do not use Loctite/Super Glue or any other similar fastener adhesive. These types of products react to plastics and cause cracking. Not covered by any warranty.
 - Our windshields are made from the highest quality material providing optimum transparency and clarity. Blurriness and/or extrusion marks may or may not appear when looking through windshield from a wide, side-angle. This is normal for all extruded clear plastic materials.
- The application of improper cleaners, abrasive and/or dirty cleaning towels can severely damage the product. Failure to follow cleaning recommendation (provided herewith) may void any warrantable components.

DEALER

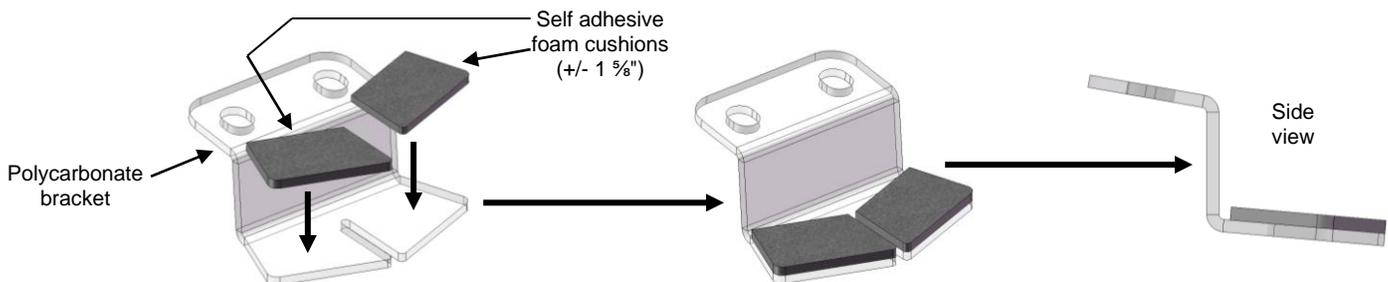
These instructions contain important information for future reference and must be given to the customer at time of purchase or upon completion of installation.

Parts List (parts available with kit only and not available separately)

ITEM	PART NAME	DESCRIPTION	QTY
A	Windshield	CNC windshield cut-out made of 1/8" thick GE polycarbonate or equivalent	1
B	Vent assembly	Includes: 1 vent cover, 1 vent flap assembly, 1 rubber vent seal and 7 vent mounting screws	1
C	Co-extruded bulb seal (1/4")	Includes: 60" Co-extruded bulb seal (1/4") / #77-95BS [end user to cut to exact length]	1
INSTRUCTION BAG	D	TRR clamp set (1 3/4")	1
	E	Hardware	1

1. Installation

- a) Partially remove the protective film on the polycarbonate bracket (Item E) and apply the self-adhesive foam cushion (Item E) using manual pressure to ensure good adhesion as shown below and cut any excess.

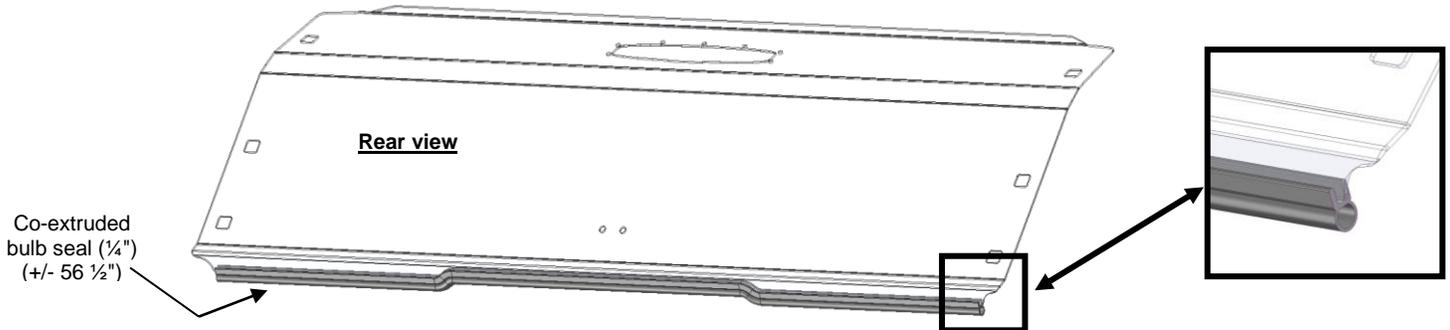


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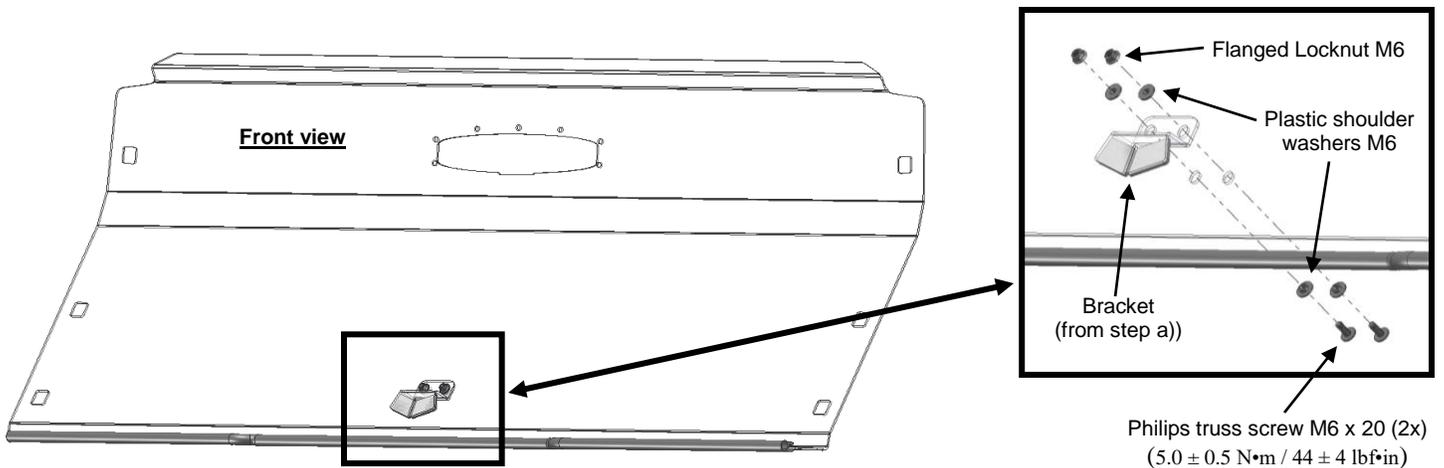
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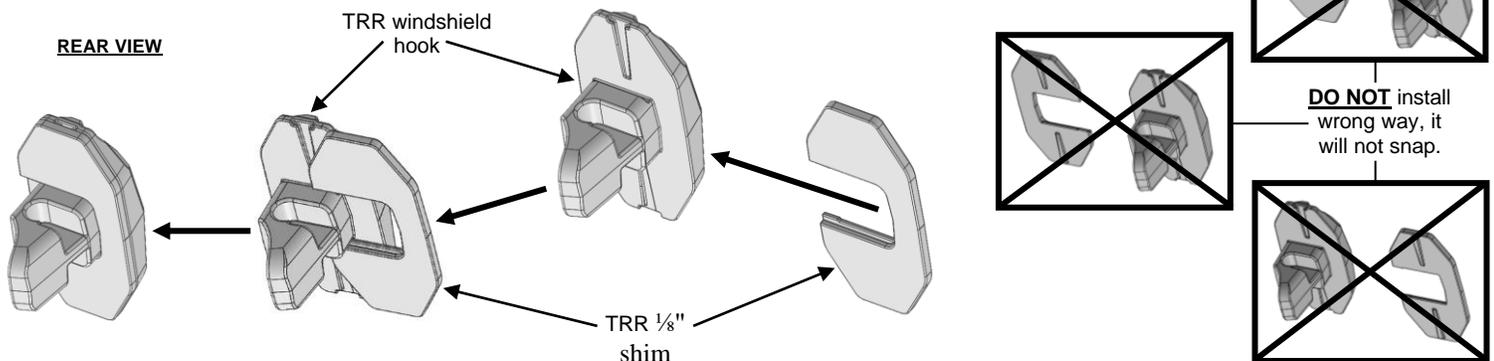
- b) Find a clean flat area where you can safely lay down the windshield (Item A). Partially remove the protective film on both sides and apply the co-extruded bulb seal (Item C) to the lower edge as shown using manual pressure to ensure it is properly and fully seated. Cut any excess.



- c) Install the polycarbonate bracket assembled in step a) to the rear windshield using supplied hardware (Item E) as shown below. **Caution: over tightening any hardware could cause irreversible damage to the windshield.**



- d) Slide and snap the TRR 1/8" shims (Items D) to the TRR windshield hooks (Items D) as shown below. These parts are designed as a tight-fit and require some force to properly snap together. When properly installed, they will not come off. See diagrams below for proper installation example.



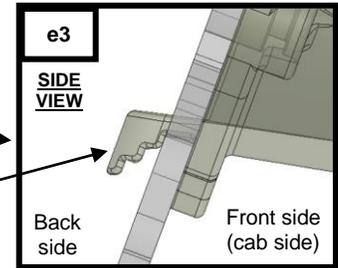
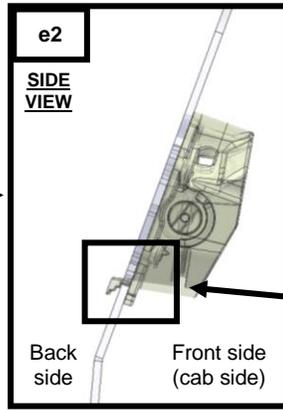
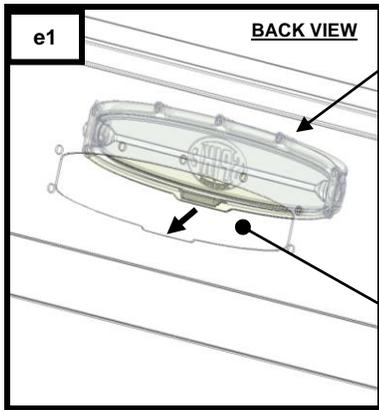
IMPORTANT NOTICES

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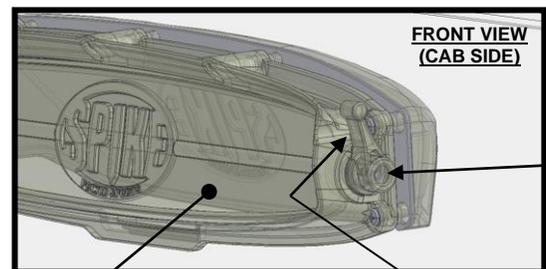
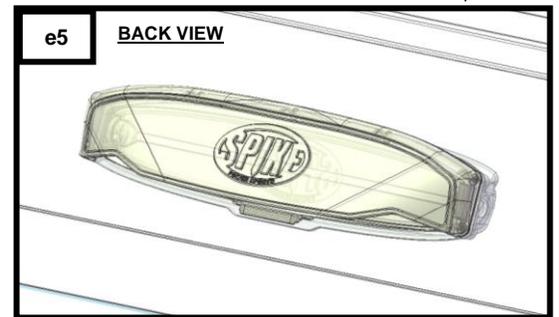
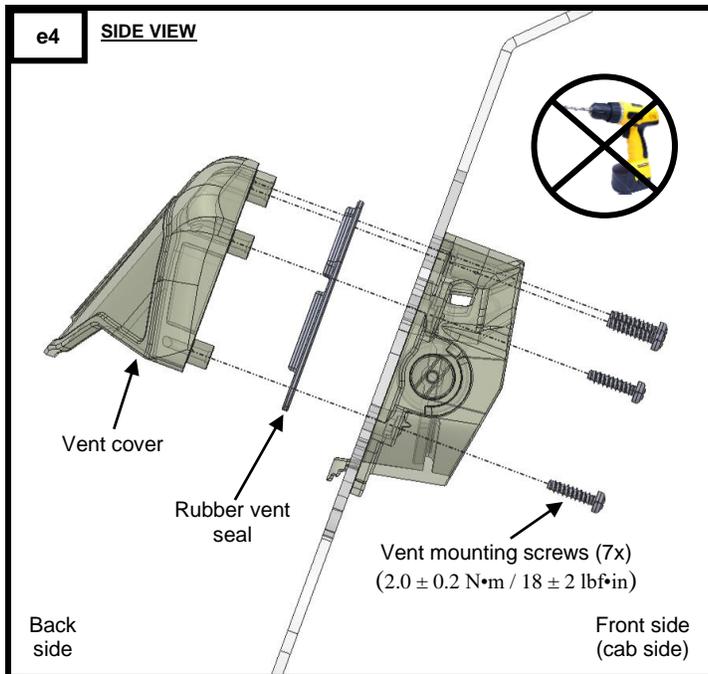
e) **Vent assembly (Item B) installation:** Partially remove the protective film on both sides of the windshield around the vent cutouts and follow instructions below.

1. From the front side (cab side) of the windshield, slide the vent flap assembly in the vent cut out as shown in image e1. Ensure the lower tab nests into the front of the windshield as shown in image e2 & e3.



2. Install the remaining vent components (Item B) using supplied hardware as shown below in image e4 & e5.

Caution: over tightening any hardware could cause irreversible damage to the windshield.
DO NOT USE POWER TOOLS FOR THE INSTALLATION OF THE 7 MOUNTING SCREWS.



As shown on the front-view image, the **lever** is installed by default on the right side of the vent. Lever can be installed/relocated on left or right side of the vent. End user can decide.

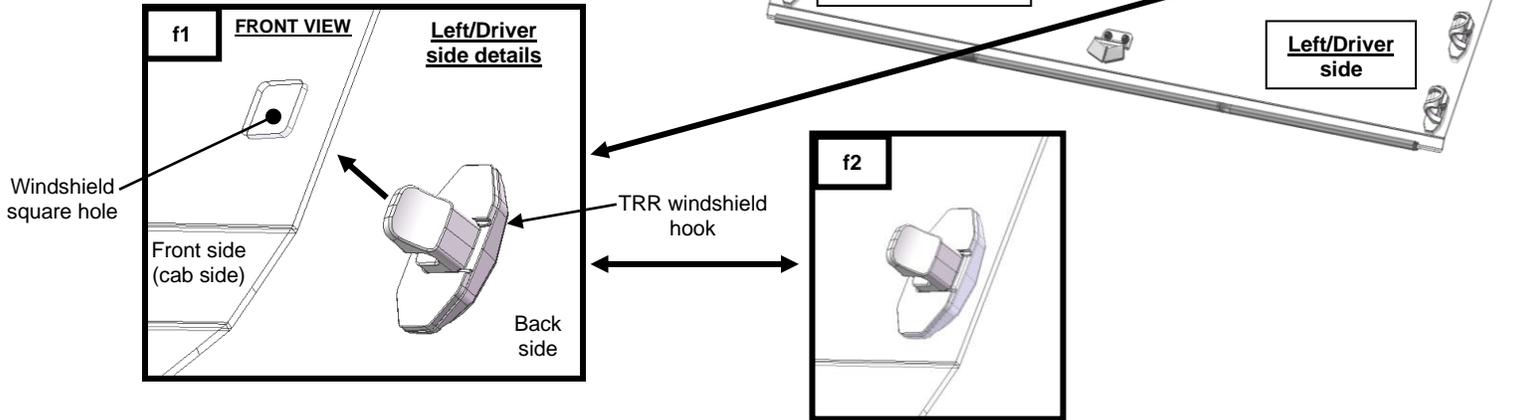
Tightening/Loosening of the **screw** in the lever determines the force required for the **affle** adjustment.

IMPORTANT NOTICES

Over-tightening any and/or all screws will cause cracks around mounting holes which is not covered by any warranty.

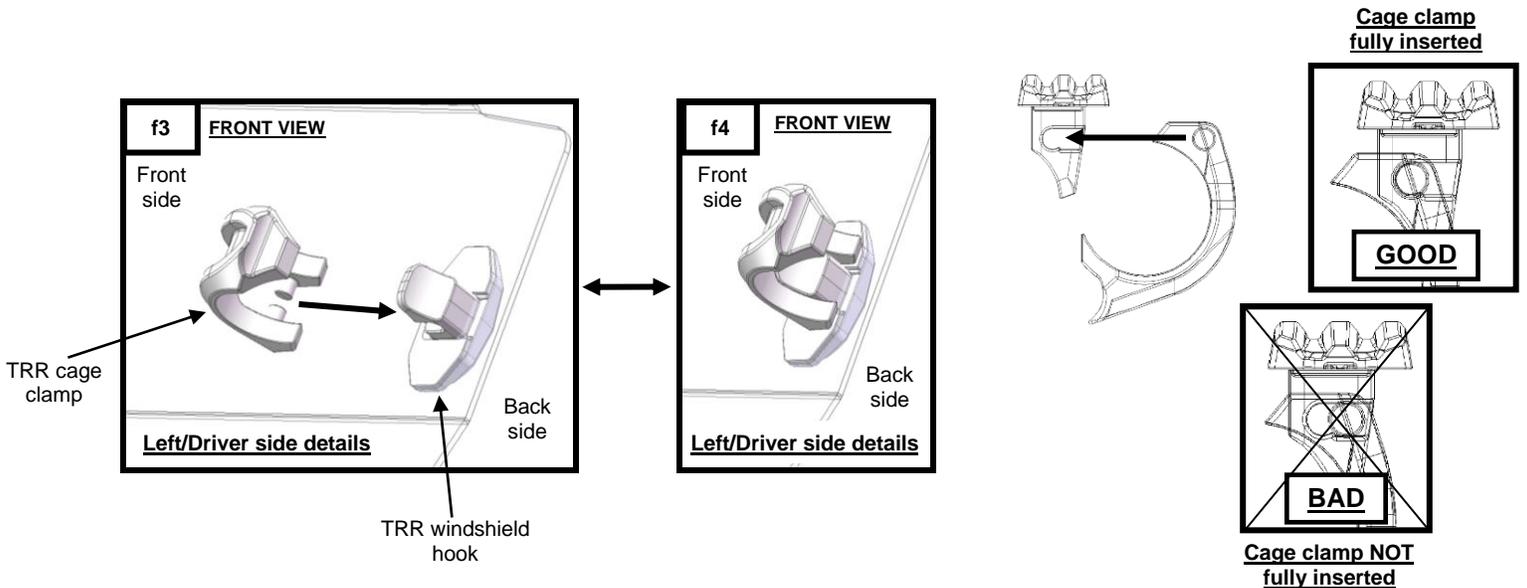
f) Partially remove the protective film on both sides around the windshield square holes (6) and install the TRR clamps (Item D) on the windshield as shown below. (Left / Driver side installation shown below)

1. From the back side of the windshield, slide the TRR windshield hook through the windshield square holes as shown in image f1 and f2.

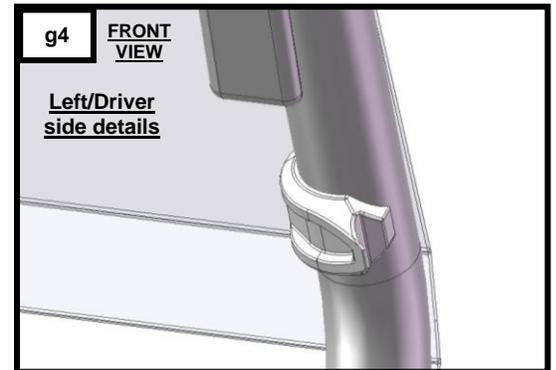
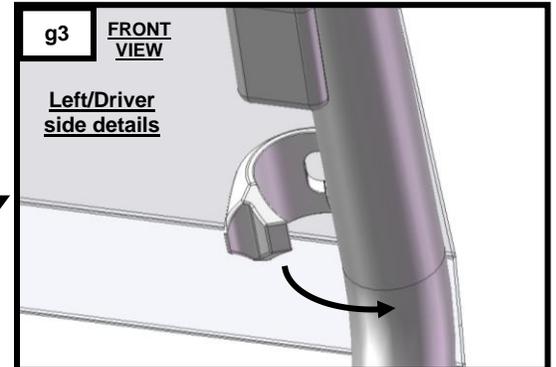
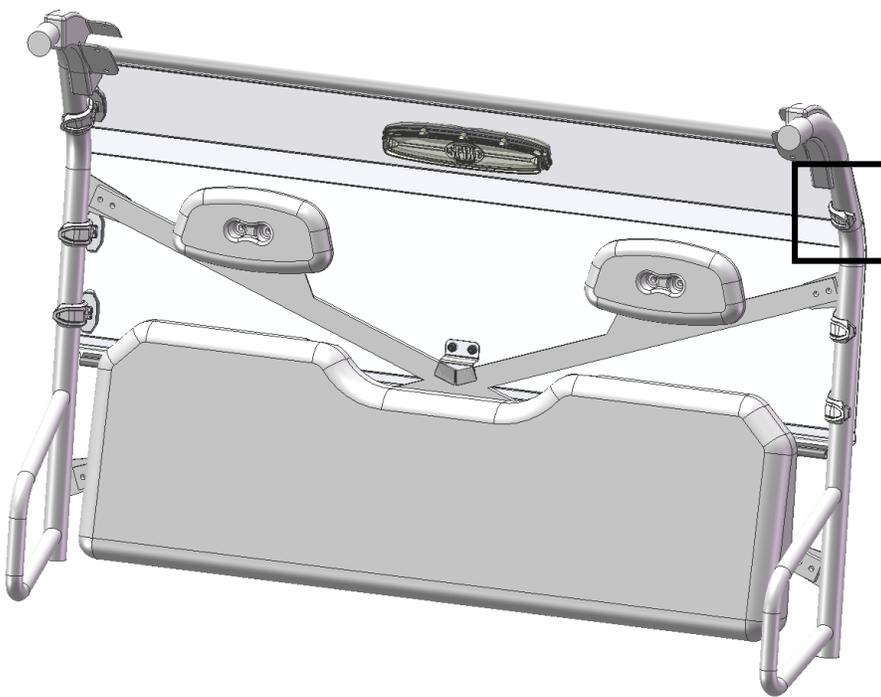
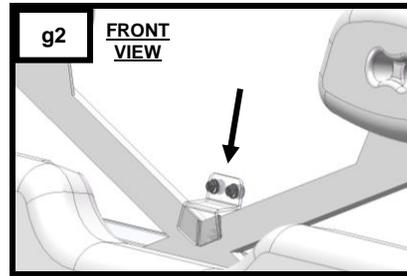
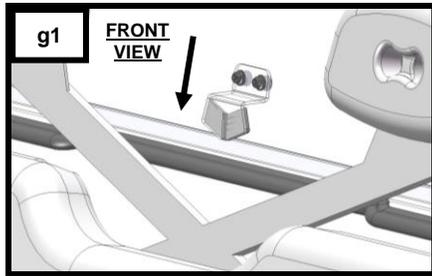


2. From the front side, snap the TRR cage clamp to the TRR windshield hook as shown in image f3 & f4. These parts are designed as a tight-fit and require some force to properly snap together. When properly installed, they will not come off. See diagrams below for proper installation example.

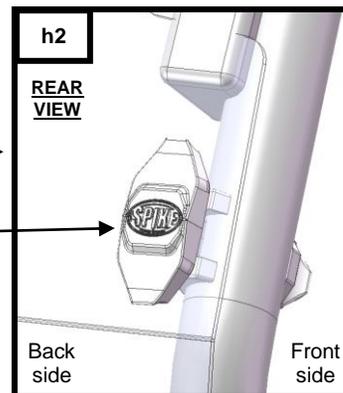
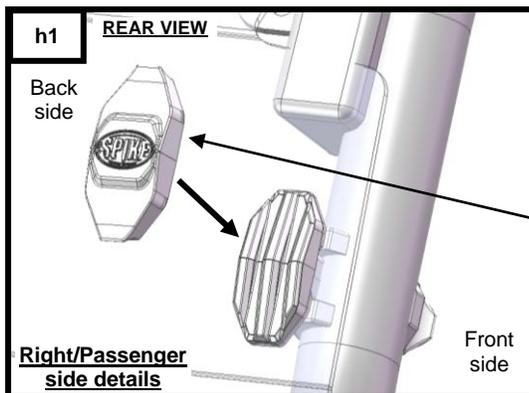
TRR cage clamps should not come off easily during installation. If so, repeat this step until proper fit is achieved. They will not come off when properly installed.



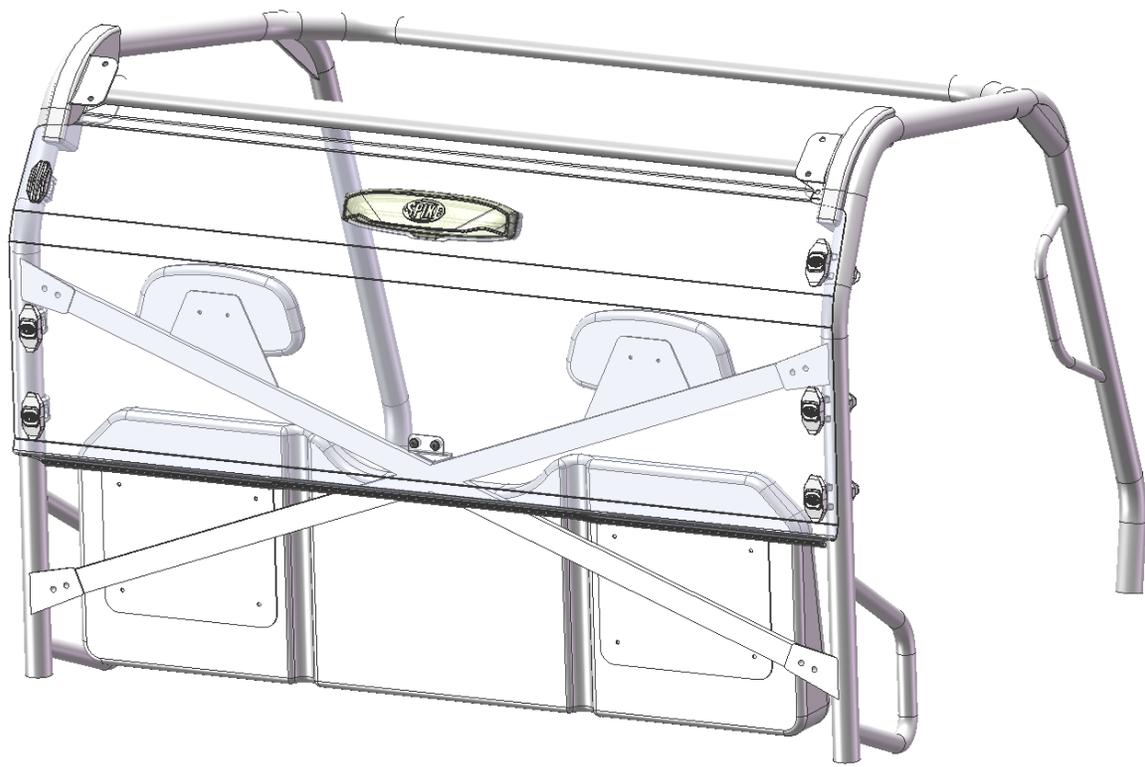
- g) From the back, slide down the windshield for the center bracket to catch the rear crossbar as shown in image g1 & g2 and secure the assembled windshield to the vehicle by rotating/snapping the TRR cage clamps to the vehicle roll bar cage as shown in images g3 & g4. Adequate force is required to rotate/snap the clamp to the roll bar.



- h) From the back side, press-fit the TRR SPIKE covers (Item D) to each TRR windshield hook as shown in image h1 & h2.



TRR SPIKE cover



WARNING

TRR clamps must be properly installed. If not, the windshield will not be properly secured to the vehicle and may fly off when riding/towing. Serious injury may occur.

CAUTION

Please understand that open trailer towing can result in windshield/roof damage due to high wind pressure and road debris. Towing at Highway Speeds is NOT recommended. Spike suggests removal of roofs/windshields if towed in these conditions - removal will also create less drag on the tow vehicle. Limited Towing at lower speeds (60mph or less) for shorter distances is acceptable with a FULL Front Windshield AND Roof ONLY. If your rear windshield has a vent, we recommend it to be in the OPEN position. Towing with a half front windshield is NOT recommended.

CAUTION

NEVER trailer your vehicle oriented backwards with a full front, roof and rear windshields in place. Windshields/roof could break away.

ALWAYS trailer your vehicle facing forward.



2. Maintenance and Care

Tighten all hardware after first use and periodically thereafter.

See cleaning instructions on following page.

Cleaning Instructions for Polycarbonate Products

General Purpose Polycarbonate Products-GP will mar easily with wiping action. To minimize the risk of damage, use only compatible cleaners, a soft, clean cloth, (no paper towels!) and follow proper cleaning procedure as outlined below.

Hard coated Polycarbonate Products-HC offer a higher degree of both surface hardness and abrasion resistance, providing superior protection against unintentional chemical attack/damage. However, the use of abrasive, gritty cleaners or aggressive cleaning should be avoided to eliminate the possibility of scratching or damaging the coating. PLEASE NOTE: Trailing on an open trailer can cause windshield damage due to anti-freeze, brake fluid, oil, gasoline and even battery acid from other vehicles.

Cleaning / Preventing Scratches-ALL Shields:

- Pre-rinse the polycarbonate product with water to loosen and remove surface residue, grit and grime thoroughly. Pressure-washer spray is fine but at a safe distance with a fan spray nozzle – not jet spray mode.
- Using a clean sponge, microfiber sponge or soft cloth gently wash the polycarbonate product with lukewarm water. While cleaning - Keep the sponge clean of dirt, grit and debris. Rinse it frequently and keep it loaded with soap suds. MILD, diluted car wash soap is acceptable. **Do not apply cleaners under direct sunlight or during high temperatures!**
- Immediately rinse thoroughly with water, **DO NOT** allow cleaners to dry on the shield!
- Thoroughly dry using pressurized air, a chamois or moist cellulose sponge to prevent water spots.
- Protect using a quality product such as Plexus plastic cleaner, Rain X Plastic (**not standard RainX**), or liquid car wax and a soft cloth. Plexus is a registered trademark of B.T.I chemical.

Compatible Cleaners for General Purpose Polycarbonate and Hard coated Polycarbonate Products:

The following cleaning agents have been found compatible with polycarbonate products. Follow the manufacturer's recommendations and instructions.

Compatible Cleaners: Joy®, Palmolive liquid®, or mild car wash soap diluted appropriately. **Do NOT use in sunlight or let dry!** Joy is a registered trademark of Procter & Gamble; Palmolive is a registered trademark of Colgate Palmolive.

Compatible Organic Solvents: Butyl Cellosolve, Kerosene, Naphtha (VM&P) grade.
Use these solvents only in extreme cases-All residual organic solvents should be removed with a second rinse.

Compatible Alcohols: Isopropyl Alcohol.
All residual organic alcohols should be removed with a second rinse.

Repairing Hairline Scratches (General Purpose Polycarbonate” Products Only):

Deep scratches and gouges made by sharp objects such as keys, screwdrivers, and knives cannot be repaired. Hairline scratches and minor abrasions may be minimized by using a buffing/ polishing compound. We suggest testing a small area of the product first using a compatible polish following the manufacturer's instructions, prior to using the polish on the entire product. **ALWAYS** use a soft cloth and **NEVER** use paper towels.

Compatible buffing compound: Novus Plastic Polish #1 & #2, Mirror Glaze Clear Plastic Polish.

Cleaning and protecting, we recommend Plexus® plastic cleaner, Rain X Plastic (**not standard RainX**) or Liquid Car Wax.
Plexus is a registered trademark of B.T.I chemical.

For HARD COATED products, buffing the surface is not recommended. Buffing scratched areas may worsen the condition and further damage the coating. Once the coating is removed, it cannot be repaired and buffing may optically distort the polycarbonate product. Quick Spot cleaning on the trail can be done with water or window cleaner such as Sparkle etc., and a soft cloth. Rain-X can be used on HC Polycarbonate but **NOT** on GP Polycarbonate.

Some Important "Do NOT's":

- **DO NOT** use abrasive or high alkaline cleaners on polycarbonate products!
- **DO NOT** scrape polycarbonate products with squeegees, razor blades or other sharp instruments.
- **DO NOT** use gasoline, benzene, acetone, or carbon tetrachloride on polycarbonate products.
- **DO NOT** clean polycarbonate products in direct sunlight or at elevated temperatures.
- **DO NOT** leave cleaners on polycarbonate products for a long period of time. Rinse **IMMEDIATELY**.
- **DO NOT** clean polycarbonate products with gasoline.
- **DO NOT** use any cleaners other than those specified on the approved and compatible list included in this guide.
- **DO NOT** use **Super glue or thread lockers such as Loctite-immediate damage to the polycarbonate will result!**