



**VAN STORAGE SOLUTIONS**  
FOR THE WAY YOU WORK™

# INSTALLATION MANUAL

## Models 218 & 222 All Purpose Roof Van Rack

ATTENTION: PLEASE READ AND UNDERSTAND ALL INSTRUCTIONS AND WARNINGS BEFORE ASSEMBLING, INSTALLING OR USING THIS PRODUCT.



### PLAN YOUR VAN (TIPS FOR FASTER INSTALLATION)

- Before drilling for the blind fasteners, check for electrical wiring and air-bag system components.
- Vehicle manufacturer's provided mounting features must be used when available.
- Follow vehicle manufacturer's guidelines on roof loading and do not overload the roof of your vehicle.

### HARDWARE KIT

Description	218	222
5/16-16 x 7/8" SS Carriage Bolt	16	8
5/16-18 x SS Nylon Lock Nut	16	8
1/4-20 x 2-1/4" Blk. Ox. Bolt	1	1
1/4-20 x 1-1/2" SS Hex Hd. Bolt	8	4
1/4-20 SS Nylon Lock Nut	8	4
1/4" SS Lock Washer	4	4
1/4-20 Blind Fastener	4	4
Installation Tool	1	1
5/16 SS Flat Washer	32	16
Spacer - 1/8" thick	8	4
1 oz. Tube E-6000 Sealant	1	1

### PARTS LIST

Description	218	222
Universal Mounting Base	4	2
Mounting Foot Bracket	4	2
Crossmember w/ airfoil	1	-
Crossmember	1	1
Ladder Guide	2	1
Ladder Strap	2	
Mounting Level Plate	4	2
Mounting Foot Bolt Plate	4	2
Extended Stud Plate	4	2

### ⚠ WARNING

This product is only intended for, and only safe for, transporting ladders, lumber, pipe and other similar materials. It is the responsibility of the user to secure these materials to the rack before transporting. Any modifications made to this product, or use of this product for any other purpose than its intended use, could create hazardous condition that can cause serious personal injury or property damage.

Ladders must be secured per ANSI standard A14.2-2007 paragraph 8.4.4. Ladder damage may occur from road shock and vehicle vibration if the ladder is not properly secured to the ladder rack. Bouncing and side to side motion of a improperly secured ladder may cause wear and shorten the service life of the ladder. Using a damaged ladder could result in a serious injury or death.

### TOOLS REQUIRED

- Electric Drill
- 9/32", 13/32" drill bit
- Ratchet Wrench
- 3/8, 7/16", 1/2" Socket
- 1/2" Socket (deep well suggested)
- 3" Socket Extension
- Ruler
- 7/16" Open or Box End Wrench
- Thread locking adhesive

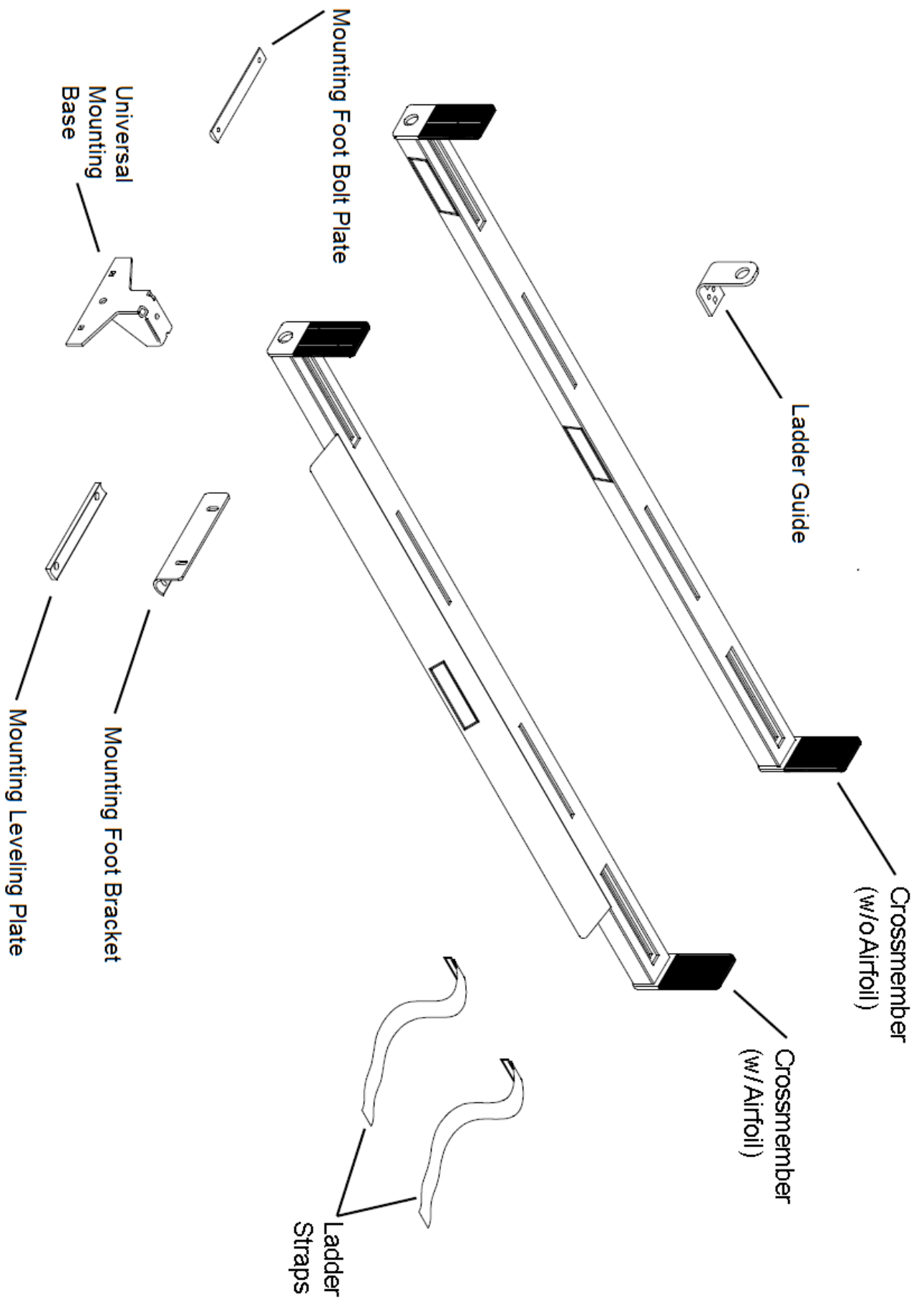
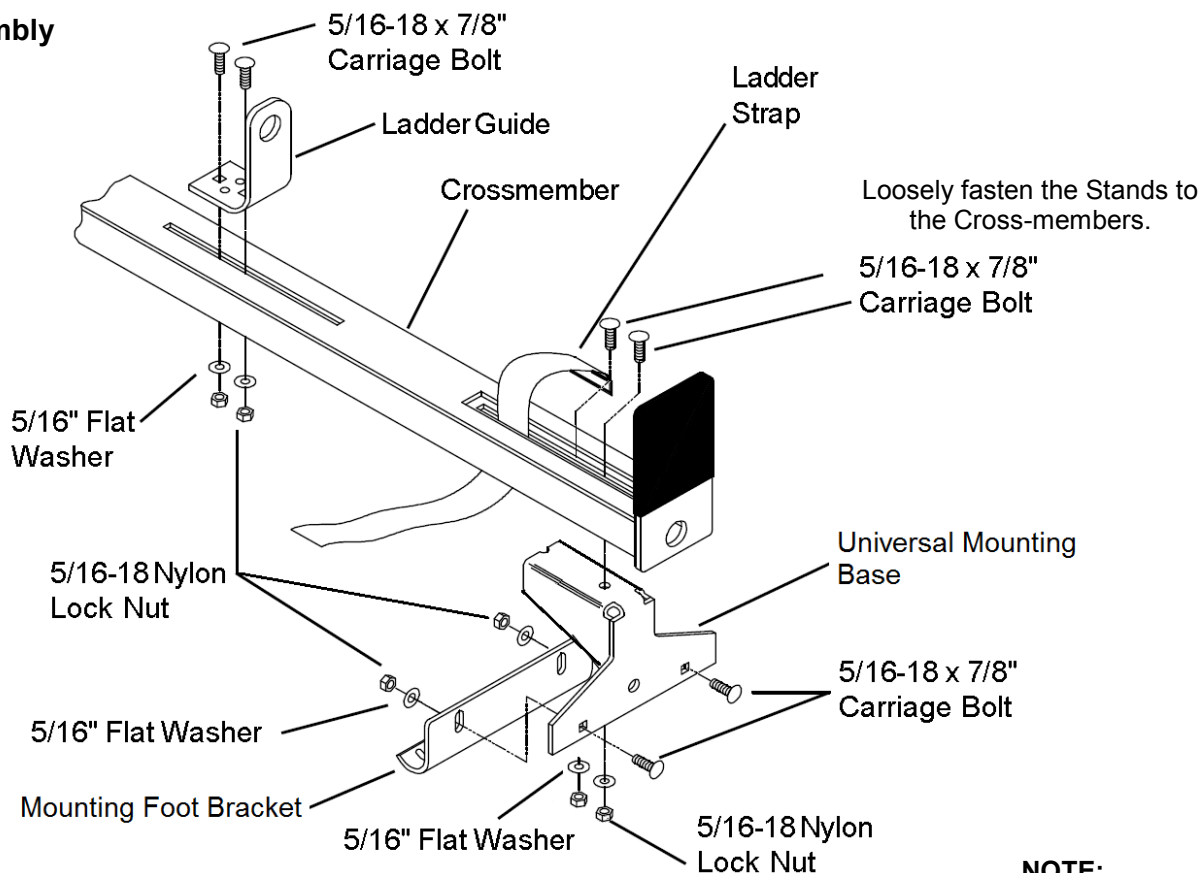


Figure 1—Parts Identification

## 1. Rack Assembly



Loosely fasten the Mounting Brackets to the Universal Mounting Bases to allow them to pivot on the bolts.

**NOTE:**  
See Figure 11.  
Before Assembling

**Figure 2. Stand Assembly**

## Mounting Long Ladders on Compact Vans

Ladders transported on a vehicle should be properly supported and the overhang of the ladders beyond supporting points should be limited. Transporting a ladder with excessive overhang can result in reduced ladder life. Inspect your ladder before each use. Follow ANSI 14.2-2007 for direction on securing ladders to ladder racks.

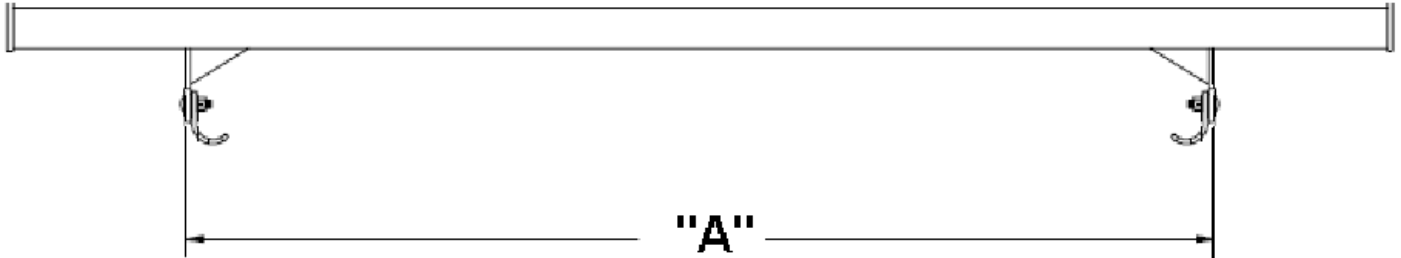
In most applications, one bolt and properly installed blind fastener per mounting foot is sufficient to securely attach the ladder rack to a vehicle. Additional mounting hardware is provided for special cases where there may be excessive overhang past the end of the roof rack or the installer feels that an extra mounting connection is needed.

Follow manufacturer's guidelines for maximum allowable roof load. Do not overload the vehicle's roof.

### 3. Mounting foot Alignment

"A" spacing is to the outside edges of the mounting feet before attaching the curved mounting plates. In most applications the curved plates will face in to the center of the vehicle, but in some applications they will need to face out.

Adjust then tighten the Stand Assemblies to the following dimensions. Vehicle dimensions are subject to change and may differ on your specific vehicle, verify fit before fully tightening fasteners.



VEHICLE	"A" Spacing
Ford Transit Low-, Mid-, High-Roof	55-11/16 in
Ford Transit Connect 2014—front	46-3/8 in
Ford Transit Connect 2014—rear	47-3/8 in
Nissan NV200	45-9/16 in
Chevy City Express	45-9/16 in
Nissan NV Low Roof and High Roof	56-1/2 in

### 4. Roof Rack Mounting

The vehicle manufacturer provided mounting points are in reinforced sections of the vehicle and are the only approved way to mount this rack to the van roof.

With the help of others, lift the rack and position it on the vehicle. Locate the rear of the rack on the roof centered side to side and aligned with vehicle manufacturer provided mounting holes.

The vehicle manufacturer provided mounting holes may have protective covers that need to be removed prior to installation. Select the front and rear mounting holes based on the size of the ladders that you will be carrying.

If no holes are provided by the vehicle manufacturer, position the rack with a minimum gap "B" of 2 inches between the door and the rack. Mark through the obrounds in the Mounting Brackets at the point where the Mounting Bracket radius meets the roof.

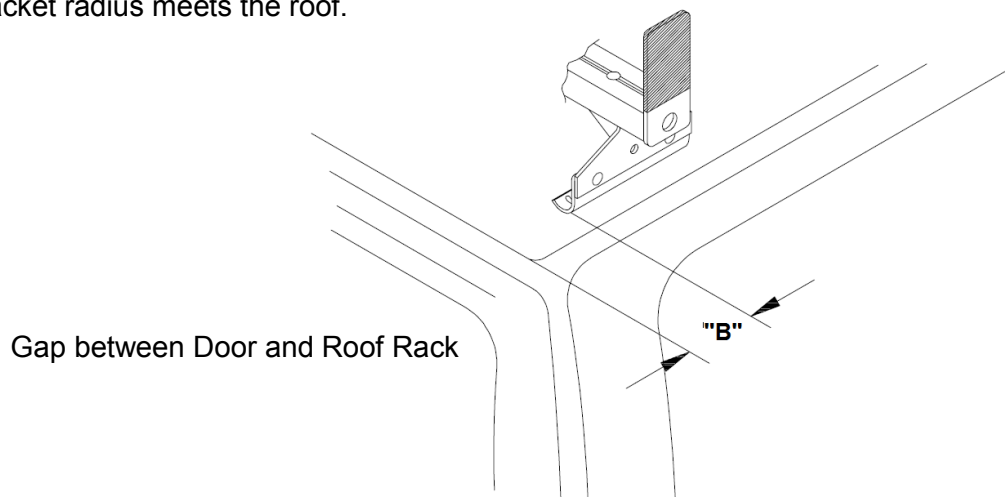


Figure 4. Roof Rack Placement

## 5. Roof Rack Installation

If weld nuts are not provided in the roof, you may need to install blind fasteners. The holes provided by the vehicle manufacturer may need to be enlarged or you may need to drill the holes marked in the last step. Drill the marks at the rear of the roof with a 9/32" drill bit. If you are using a blind fastener open the hole with a 13/32" bit. Install Blind Fasteners following the installation instructions below.

Before drilling, check to make sure you have sufficient clearance and will not be cutting wires, especially anything related to the vehicle's supplemental restraint system. Do not apply too much pressure when drilling. Too much pressure may cause dimples in the roof around the holes. Also, there may be a danger of penetrating the interior head liner. To keep debris out of your eyes when drilling, always wear protective eyewear. Only install blind fasteners into reinforced sections of the van roof.

Once you are ready to mount the roof rack to the van, either with weld nuts or blind fasteners, apply E-6000 Sealant to the roof around each hole and fill the top of the Blind Fastener holes with E-6000 Sealant. Fasten the rack as shown in Figure 7. Mounting hardware is provided if you choose not to use blind fasteners.

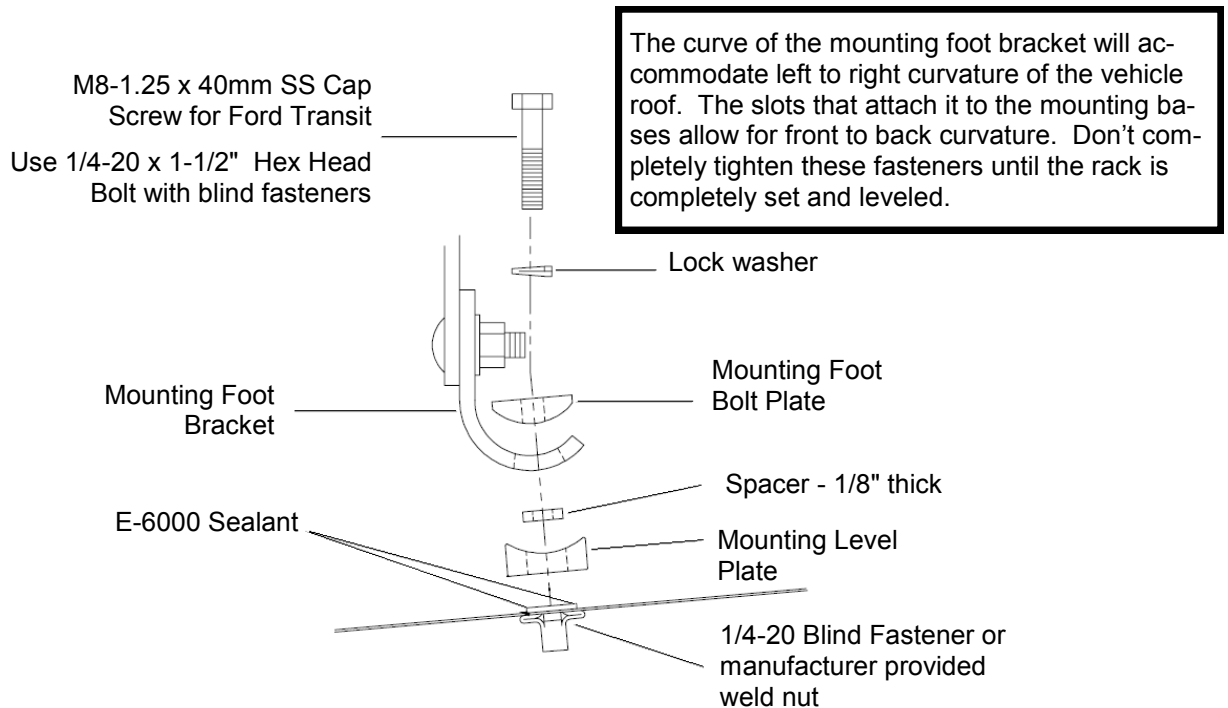


Figure 5. Roof Rack Installation

<b>INSTALLATION PROCEDURE USING BLIND FASTENERS</b>	
<p>The diagram shows the components and tools for installing a blind fastener:</p> <ul style="list-style-type: none"> <li><b>Black Oxide Bolt</b>: A hex bolt used for tightening.</li> <li><b>Flat Washer</b>: A washer used to distribute the load.</li> <li><b>9/16" Wrench</b>: A wrench used to tighten the bolt.</li> <li><b>Installation Tool</b>: A tool used to install the blind fastener.</li> <li><b>Blind Fastener</b>: The fastener being installed into the roof.</li> </ul>	<p>Place a drop of oil on the black oxide bolt before assembling as shown on right.</p> <p>Place the Blind Fastener in the hole and use a 1/2" or 7/16" socket and driver to tighten the black hex bolt until the blind fastener is fully seated.</p> <p>When setting black hex bolt, it will start out hard. As the Blind Fastener "bulbs" out it will get easier, until it bottoms out or sets.</p> <p>Make sure the Blind Fastener and Installation Tool do not turn during installation.</p> <p>Before drilling for blind fasteners, check to make sure you won't be damaging wiring, gas lines, brake lines or other critical vehicle systems.</p> <p>Too much pressure while drilling or setting the blind fasteners may cause dimples in the roof around the holes.</p>

## WARNING

This product is only intended and safe for use in storing and transporting small tools, equipment and other similar materials. These instructions are to be followed using the parts and fasteners supplied for proper installation. Any modifications or improper installation of this product will create a hazardous condition that could result in death, serious personal injury and/or property damage.

All floor mounting bolts near the fuel tank area should be installed from the underside of the vehicle, to guard against the fuel tank being punctured in the event of a collision. This would mean not using Blind Fasteners in this area. Holes in this area should be 5/16". Ensure ample space in roof ribs and sidewall ribs for mounting screws so as not to puncture exterior roof or wall.

Do not install this product where it could interfere with deployment of air bags. Failure to comply could result in death or serious body injury.

## - NOTICE -

Any modification or unintended use of this product shall immediately void all manufacturers warranties. Manufacturer disclaims all liability for injuries to persons or property resulting from any modification to, or unintended use of this product.

## KNAACK LLC LIMITED LIFETIME WARRANTY FOR WEATHER GUARD® PRODUCTS

### WEATHER GUARD® Products — Limited Lifetime Warranty (Purchased on or after 1/1/2009)

Knaack LLC (the "Manufacturer") warrants to the original purchaser only that WEATHER GUARD® Truck and Van Products (the "WEATHER GUARD® Product") will be free from defects in material and workmanship from the date of purchase and continuing for the expected lifetime of the WEATHER GUARD® Product. A copy of the original sales receipt must be supplied to the Manufacturer at the time a warranty claim is made. This warranty terminates if the original purchaser transfers the WEATHER GUARD® Product to any other person.

#### What is Covered

All WEATHER GUARD® Products identified above that are purchased on or after January 1, 2009.

#### What We Will Do to Correct Problems

Subject to the limitations and exclusions described in this limited warranty, the Manufacturer will remedy defects in materials or workmanship by providing one of the following remedies at its option and without charge to the original purchaser for parts or labor: (a) repairing the defective portion of the WEATHER GUARD® Product or (b) replacing the entire WEATHER GUARD® Product. In addition, the manufacturer may elect at its option, not to repair or replace the WEATHER GUARD® Product, but rather issue to the original purchaser a refund equal to the purchase price paid for the WEATHER GUARD® Product or a credit to be used toward the purchase of new WEATHER GUARD® Product.

#### What is Not Covered

This limited warranty expressly excludes:

- Defects caused by normal wear and tear, cosmetic rust, scratches, accidents, unlawful vehicle operation, or modification to the product, or any types or repair of a WEATHER GUARD® Product other than those authorized or provided by the Manufacturer.
- Defects resulting from conditions beyond the Manufacturer's control including, but not limited to misuse, overloading, or failure to assemble, mount or use the WEATHER GUARD® Product in accordance with the Manufacturer's written instructions or guidelines included with the WEATHER GUARD® Product or made available to the original purchaser.
- Damage to the contents of the box or vehicle.
- TO THE EXTENT PERMITTED BY LAW, IN NO EVENT SHALL THE MANUFACTURER BE LIABLE FOR ANY INCIDENTAL, SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, INCLUDING ANY ECONOMIC LOSS, WHETHER RESULTING FROM NON-PERFORMANCE, USE, MISUSE OR INABILITY TO USE THE WEATHER GUARD® PRODUCT OR THE MANUFACTURER'S NEGLIGENCE.

#### No Other Express Warranty Applies

This Limited Lifetime Warranty is the sole and exclusive warranty for WEATHER GUARD® Products. No employee, agent, dealer, or other person is authorized to alter this warranty or make any other warranty on behalf of Knaack LLC.

#### Notification Procedures

If the WEATHER GUARD® Product does not conform with the terms of this limited warranty, the original owner must promptly notify the Manufacturer in writing upon discovery of the nonconformity. In order to receive the remedies under this limited warranty, the warranty claim must describe the nature of the nonconformity, and a copy of the original sales receipt, invoice, bill or other proof of purchase must accompany the claim. Repairs or modifications made to the WEATHER GUARD® Product by other than the Manufacturer or its authorized agent will nullify this limited warranty. Coverage under this limited warranty is conditioned at all times upon the owner's compliance with these required notification and repair procedures. Warranty claims must include reciprocal contact information and may be made via certified mail to:

#### Knaack LLC ATTN: Warranty Claims

420 E. Terra Cotta Avenue Crystal Lake, IL 60014

If you have any questions, please call toll free at 1-800-456-7865.

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