



ADJ-4 (Adjustable 4' Ladder Rack)

OWNER'S ASSEMBLY & USE MANUAL

Made in the USA



Top View



Bottom View

www.PiggyBackLadderRack.com

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For questions or further information regarding **Ordering, Replacement Parts, Warranty or Help Videos** go to www.PiggyBackLadderRack.com

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PARTS LIST and ASSEMBLY TOOLS

Parts List

- (A) Side rails (2) – 1/8 x 2 x 3 x 48 - aluminum angle
- (B) Wide Cross Bars (4) – 1/8 x 1 x 6 x 11 - aluminum channel (ref. A)
1/8 x 1 x 6 x 15 - aluminum channel (ref. B)
1/8 x 1 x 5.69 x 16 - aluminum channel (ref. C)
1/8 x 1 x 5.69 x 12 - aluminum channel (ref. D)
- (C) Narrow Cross Bars (2) – 1/8 x 1 x 2 x 11 - aluminum channel (ref. E)
1/8 x 1 x 1.69 x 12 - aluminum channel (ref. F)
- (D) 'U'-Bolts (2) – 3/8 x 3
- (E) Carriage Bolts (8) – 3/8 x 2
- (F) Hex Flange Nuts (4) – 3/8 for top of 3/8 'U'-Bolt
- (G) Hex Lock Nuts (12) – 3/8 for 3/8 bolts
- (H) 'D'-Rings (1) – 300 pound 'D'-Ring with mounting bracket
- (I) Machine Screws (10) – 1/4 x 5/8 x #20
- (J) Machine Screws (2) – 1/4 x 3/4 x #20
- (K) Hex Lock Nuts (12) – 1/4 #20
- (L) Stainless Steel Mounting Brackets (8) – 1/8 x 1 1/2 x 5 1/2
- (M) Black Vinyl Spacers (24) – 3/8 x 3/8 ID x 3/4 OD

Assembly Tools (not supplied)

- Tape measure
- #2 Phillips screw driver
- 7/16 inch socket or open/closed end wrench
- 9/16 inch socket or open/closed end wrench

A solid work surface of approximately 3 feet by 6 feet is recommended to assemble your ladder rack. The rack can also be assembled on a carpeted floor or other flat surface. It is recommended that you protect any carpet or surface on which you are doing your assembly.

MEASURE & ADJUST VEHICLE ROOF RACK

Prior to assembling the ladder rack, adjust the roof rack on your vehicle.

1. Place the front cross bar of your vehicle roof rack in the farthest forward position and securely lock it in place.
2. Next, place the rear cross bar of the vehicle roof rack in the farthest rear position. The distance between the center of the front cross bar and the center of the rear cross bars cannot exceed 42 inches. If the distance between the center points of the cross bars exceeds 42 inches, adjust only the rear cross bar to a position not to exceed 42 inches. If the roof rack cannot be adjusted to 42 inches, adjust the vehicle roof rack to the maximum spacing possible.

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Note: The recommended minimum distance between the cross bars of your vehicle manufacturers roof rack for safe mounting of the PiggyBack Ladder Rack is 36 inches. Mounting of the ladder rack to a vehicle roof rack with a maximum spread of less than 36 inches is not recommended. The widest spread provides the most stable mount.

CONFIGURE RACK

The adjustable Piggy Back Ladder Rack can be configured to fit either an extension ladder or a step ladder or multi-positional ladder such as a 'Little Giant' type ladder.

To install the ladder rack configured for an extension ladder:

1. Place the 4' side rails parallel to each other.
2. Position the wide cross bars (A & C) at the top end of the side rails on the bottom side.
3. Position the wide cross bars (B & D) at the bottom end of the side rails on the bottom side.
4. If the roof rack on your vehicle has a spread of less than 42 inches, adjust the distance between the center of the wide cross bars to match the spread of your vehicle roof rack.
5. Secure the cross bars to the side rails using $\frac{1}{4}$ x $\frac{5}{8}$ #20 machine screws and $\frac{1}{4}$ hex lock nuts with the lock nuts on the bottom side of the rack.
6. Adjust the 4' side rails parallel to each other with an outside spread of 19 inches.
7. Attach the narrow cross bars (E & F) to the side rails (location is optional depending on location of wide cross bars).
8. Tighten all screws and lock nuts. Double check all fasteners.
9. Continue to INSTALL 'U'-BOLTS and 'D'-RINGS

To install the ladder rack configured for step ladder or multi-positional ladder:

1. Place the 4' side rails parallel to each other.
2. Position the wide cross bars (A & D) at the top end of the side rails on the bottom side.
3. Position the wide cross bars (B & C) at the bottom end of the side rails on the bottom side.
4. If the roof rack on your vehicle has a spread of less than 42 inches, adjust the distance between the center of the wide cross bars to match the spread of your vehicle roof rack.
5. Secure the cross bars to the side rails using $\frac{1}{4}$ x $\frac{5}{8}$ #20 machine screws and $\frac{1}{4}$ hex lock nuts with the lock nuts on the bottom side of the rack. Hand tighten the $\frac{1}{4}$ inch machine screws only at this time to allow adjustment of the side rails.
6. Adjust the 4' side rails at an angle to each other. The angle of the side rails to each other should accommodate the ladder you will be carrying on the ladder rack.
7. Attach the narrow cross bars (E & F) to the side rails (location is optional depending on location of wide cross bars).
8. When the angle of the side rails to each other is confirmed, tighten all $\frac{1}{4}$ #20 machine screws and lock nuts.
9. Continue to INSTALL 'U'-BOLTS and 'D'-RINGS

Note: Visit www.PiggyBackLadderRack.com for enlarged photos of racks

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INSTALL 'U'-BOLTS and 'D'-RINGS

Install a 'U'-bolt in the center of each of the wide cross bars.

1. Place a 3/8 hex flange nut on each end of the 'U'-bolt and thread the nut approximately 1 inch from the end of the threads with the flange toward the end of the tread.
2. Place the 'U'-bolt through the pre-drilled slotted holes in the center of each wide cross bar from the top down. 'U'-bolt must be installed through both sections of cross bars.
3. Attach a 3/8 inch hex lock nut to the bottom of each threaded end of the U'-bolt.
4. Securely fasten all 3/8 inch nuts with a 9/16 socket or open/closed end wrench.

Install a 'D'-ring in the center of the narrow cross bars.

1. Place the 'D'-ring flat on the center of the narrow cross bar and place the mounting bracket over the flat end of the 'D'-ring.
2. Position the 'D'-ring mounting bracket so the holes in the bracket align with the pre-drilled slotted holes in the narrow cross bars.
3. Place a 3/4 inch #20 machine screw through each hole from the top and secure with a 1/4 inch hex lock nut on the bottom. Screws must be installed through both sections of cross bar.
4. Securely fasten all 1/4 inch screws and hex lock nuts using a #2 Phillips screw driver and a 7/16 inch socket or open/closed end wrench.

NOTE: Double check the ladder rack assembly to verify there are no missing or loose screws or nuts.

INSTALL LADDER RACK TO VEHICLE

Install Ladder Rack to Vehicle

1. Place the assembled ladder rack on top of the vehicle roof rack. Position the ladder rack so that the front and rear wide cross bars of the ladder rack are centered over the front and rear cross bars of the vehicle roof rack.
2. Place a 3/8 inch carriage bolt through each end of a stainless steel mounting bracket with the curved side down. (Hint: Place a piece of masking tape across heads of bolts and brackets to temporarily hold them together while installing. Remove tape after installing.)
3. Place the assembly under the vehicle cross bar. Straddle the underside of the vehicle cross bar with the mounting assembly.
4. Slide another stainless steel mounting bracket over the carriage bolts with the curved side up so that the formed brackets clamp the cross bar of the vehicle roof rack.
5. Place spacers as necessary over the carriage bolts until 1/2 to 3/4 inch of thread of the carriage bolts is visible.
6. Slide the ends of the carriage bolts through the pre-drilled holes in the wide cross bars of the ladder rack from the bottom side of the ladder rack. Space mounting brackets as wide as possible for stability.
7. Attach a 3/8 inch locking nut to the top of each carriage bolt. Hand tighten only at this time.
8. Repeat this step for all 4 mounting brackets. Once all four brackets have been attached, securely tighten all 3/8 inch hex lock nuts using a 9/16 socket or open/closed end wrench.

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NOTE: Double check the ladder rack attachment to the vehicle to verify there are no missing or loose bolts or nuts.

USE

Load Ladder to Ladder Rack

1. For one person loading of ladder, grip the ladder by the ladder rungs a comfortable distance on each side of the center of the ladder.
2. From the side of the vehicle, lift the ladder onto the closest side rail of the ladder rack.
3. Center the ladder over your vehicle roof rack.
4. Slowly allow the ladder to rotate back to lay flat on the ladder rack.
5. Secure the ladder to the ladder rack using a bungee or tie-down (not supplied) attached to 'D'-Ring and the closest 'U'-Bolt.
6. Place safety flags (not supplied) on the end of your ladder per state law/codes.
7. It is not recommended that ladders in excess of 16 feet total extended length be carried on the ADJ-4 ladder rack. Ladders approaching 16 feet in length may require additional tie down to bumper or trailer hitch.
8. Ladder racks are designed for single ladder loading.

Remove Ladder from Ladder Rack

1. Detach bungee cords/tie-downs from ladder rack.
2. Grip the ladder by the rungs a comfortable distance on each side of the center of your ladder.
3. Pull the ladder up and towards yourself while keeping the ladder in contact with the ladder rack.
4. With a firm footing, lift the ladder from the ladder rack.

NOTE: Wear required safety equipment (ie: glasses, hard hat, gloves, back support) prior to lifting. Never attempt to lift more than you can safely lift. Always seek help to lift more than you can safely lift.

HINT: Filling the rungs of your ladder with spray foam will prevent them from whistling when your ladder is carried on top of your vehicle.

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WARNINGS and MAINTENANCE

Installation

Check all fasteners and mounting brackets to be certain they are tight and there are no missing or damaged fasteners or brackets.

Load Limitations

Check the vehicle manufacturer load limits for their factory installed roof rack. The weight of the ladder rack and any ladder attached to the rack should not exceed the vehicle manufacturer load limits. Ladder racks are designed to be used with one ladder only.

Ladder Loading

Always check to make sure ladders attached to the ladder rack are securely fastened with approved tie downs. Always balance the load by centering the ladder over the center of your vehicle roof rack.

Required Warning Flags – (Not Provided)

Check state specific laws/regulations for required use of warning flags and lights.

Improper Use

Never carry items on your ladder rack other than ladders meeting the approved weight limits of your vehicle roof rack.

Check Height

Always be aware of height restrictions due to the added height of your vehicle with the attached ladder rack and ladder – parking ramps and garage doors in particular may have a lower clearance.

Check Vehicle Roof Rack

Periodically check the vehicle roof rack for wear or damage – if the vehicle roof rack is damaged or worn, immediately remove the ladder rack from the vehicle roof rack and repair or replace the vehicle roof rack.

Check Fasteners

Periodically check for any missing or worn fasteners and check all locking nuts to validate that they are securely fastened and not missing or damaged.

Check Tie Downs - (Not Provided)

Periodically check all tie downs for damage or wear. Immediately replace any damaged or worn tie downs.

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WARRANTY

We warranty all PBLR-brand products and rack components manufactured by PiggyBack Ladder Rack (PBLR) to the original purchaser for a period of up to one (1) year from the date of the original purchase to be free from defects in materials or workmanship. This warranty terminates when the original retail purchaser sells or otherwise transfers the product to any other person.

Subject to PBLR's inspection of the product, PBLR will remedy defects in materials and/or workmanship by repairing or replacing, at PBLR's option, the defective product without charge for parts or labor, subject to the limitations and exclusions described in this warranty. PBLR may elect, at its option, not to repair or replace a defective product, in which case PBLR will issue to the original retail purchaser, at PBLR's option, either a refund equal to the purchase price paid for the product, or a credit to be used toward the purchase of new PBLR products or rack components.

This warranty does not cover problems caused by normal wear and tear (including, but not limited to, scratches, dents, tears, or aesthetic oxidation of surfaces, or natural breakdown of colors and materials over extended time and use), commercial use, accidents, unlawful vehicle operation, or modifications or repairs not performed or authorized by PBLR. In addition, this warranty does not cover problems resulting from conditions beyond PBLR's control including, but not limited to, theft, misuse, overloading, or failure to assemble, mount or use the product in accordance with PBLR's written instructions or guidelines included with the product or made available to the original retail purchaser.

If a product is believed to be defective, the original retail purchaser should contact PBLR, who will give the original retail purchaser instructions on how to proceed. The original retail purchaser should contact PBLR through the Contact Page at www.PiggyBackLadderRack.com. You will be contacted for details and shipping instructions.

The original retail purchaser will be responsible for the cost of mailing the product to PBLR. In order to receive any remedy under this warranty, the purchaser must provide proof of purchase in the form of an original purchase invoice or receipt. This warranty applies to all PBLR products manufactured after January 1, 2018.

LIMITATION OF LIABILITY

REPAIR OR REPLACEMENT OF A DEFECTIVE PRODUCT, OR THE ISSUANCE OF A REFUND OR CREDIT (AS DETERMINED BY PIGGYBACK LADDER RACK), IS THE ORIGINAL RETAIL PURCHASER'S EXCLUSIVE REMEDY UNDER THIS WARRANTY. DAMAGE OR INJURY TO THE ORIGINAL RETAIL PURCHASER, TO HIS OR HER VEHICLE, CARGO, OR PROPERTY, AND/OR TO ANY OTHER PERSON OR PROPERTY IS NOT COVERED BY THIS WARRANTY. THIS WARRANTY IS EXPRESSLY MADE IN LIEU OF ANY AND ALL OTHER EXPRESS WARRANTIES, WHETHER ORAL OR WRITTEN.

PBLR'S SOLE LIABILITY IS LIMITED TO THE REMEDY SET FORTH ABOVE. IN NO EVENT WILL PBLR BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, INCIDENTAL, SPECIAL, EXEMPLARY, OR PUNITIVE DAMAGES OR FOR ANY OTHER DAMAGES OF ANY KIND OR NATURE (INCLUDING, BUT NOT LIMITED TO, LOST PROFITS OR LOST SALES). SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.