



EXT-6 (6' Extension Ladder Rack)

OWNER'S ASSEMBLY & USE MANUAL

Made in the USA



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 2 x 72 aluminum angle
- (B) 6 Inch Cross Bars (2) – 1/8 x 1 x 6 x 18 3/4 aluminum channel
- (C) 2 Inch Cross Bars (2) – 1/8 x 1 x 2 x 18 3/4 aluminum channel

- (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 (2) – 300 pound 'D'-Ring with mounting bracket
- (I) Machine Screws (16) – 1/4 x 5/8 x #20
- (J) Locking Nuts (16) – 1/4 #20

- (K) Stainless Steel Mounting Brackets (8) – 1/8 x 1 1/2 x 5 1/2
- (L) 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 7 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 66 inches. If the distance between the center points of the cross bars exceeds 66 inches, adjust only the rear cross bar to a position not to exceed 66 inches. If the roof rack cannot be adjusted to 66 inches, adjust the vehicle roof rack to the maximum spacing possible.

Note: The recommended minimum distance between the cross bars of your vehicle manufacturers roof rack for safe mounting of the PiggyBack Ladder Rack is 40 inches. Mounting of the ladder rack to a vehicle roof rack with a maximum spread of less than 40 inches is not recommended. The widest spread provides the most stable mount

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

Install a 'U'-bolt in the center of each of the 6 inch wide cross bars.

1. Place a 3/8 hex flange nut on each end of the 'U'-bolt and thread the nut approximately ¾ inch from the end of the threads with the flange toward the end of the tread.
2. Place the 'U'-bolt through the 2 pre-drilled holes in the center of each 6 inch wide cross bar from the top down.
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 each of the 2 inch wide cross bars.

1. Place the 'D'-ring flat on the center of the 2 inch wide cross bar and place the mounting bracket over the flat end of the 'D'-ring.
2. Position the 'D'-ring mounting bracket so the 2 holes in the bracket align with the 2 pre-drilled holes in the 2 inch wide cross bars.
3. Place a 5/8 inch #20 machine screw through each hole from the top and secure with a ¼ inch hex lock nut on the bottom.
4. Securely fasten all ¼ 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.

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CONFIGURATIONS

CONFIGURATION A



Configuration A should be used where the roof rack on your vehicle can be adjusted to a spread of 66 inches on center between the front and rear cross bars. This is the best mounting option as it the most stable. The maximum spread reduces the risk of failure due to leverage from transporting a ladder that is not correctly centered on the ladder rack.

If the roof rack on your vehicle has a maximum spread of less than 66 inches, proceed to Configuration B.

Install 6 Inch Cross Bars

1. Layout the side rails parallel to each other on your work surface per the diagram on Page 5.
2. Attach the 6 inch wide cross bars of your ladder rack to the bottom of the side rails in the end positions.
3. Place four 5/8 inch #20 machine screws from the top down through the pre-drilled holes in the side rails and through the pre-drilled holes in the ends of the 6 inch wide cross bars.
4. Attach machine screws with 1/4 inch hex lock nuts.

Install 2 Inch Cross Bars

1. Attach the 2 inch wide cross bars to the bottom of the side rails at a point 24 inches from each end of the side rails per the diagram on Page 4.

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2. Place two 5/8 inch #20 machine screws from the top down through the pre-drilled holes in the side rails and through the pre-drilled holes in the ends of the 2 inch wide cross bars.
3. Attach machine screws with 1/4 inch hex lock nuts.

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.

Go to 'INSTALL LADDER RACK TO VEHICLE'.

CONFIGURATION B



Configuration B should be used where the roof rack on your vehicle has a maximum spread of less than 66 inches between the front and rear cross bars. This configuration would be typical for a mid-size to smaller SUV with a rear lift gate.

If your vehicle is a passenger car with a trunk, proceed to Configuration C.

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Install First 6 Inch Cross Bar

1. Layout the side rails parallel to each other on your work surface per the diagram on Page 6
2. Attach a 6 inch wide cross bar to the bottom of the side rails at one end of the ladder rack.
3. Place four 5/8 inch #20 machine screws from the top through the pre-drilled holes in the side rail and through the pre-drilled holes in the end of the 6 inch wide cross bar.
4. Attach the machine screws with 1/4 inch hex lock nuts.

Install First 2 Inch Cross Bar

1. Attach a 2 inch wide cross bar to the bottom of the side rails at the opposite end of the ladder rack from the first 6 inch wide cross bar.
2. Place two 5/8 inch #20 machine screws from the top down through the pre-drilled holes in the side rails and through the pre-drilled holes in the ends of the 2 inch wide cross bar.
3. Attach the machine screws with 1/4 inch hex lock nuts.

Install Second 6 Inch Cross Bar

1. Temporarily place the ladder rack on the top of your vehicle roof rack with the first 6 inch cross bar centered over the rear cross bar of your vehicle roof rack.
2. Mark the center of the front cross bar of your vehicle roof rack on the side rails of your ladder rack.
3. Attach the second 6 inch wide cross bar to the bottom of the side rails centered on the marks in previous step.
4. Place two 5/8 inch #20 machine screws from the top down through the pre-drilled holes in the side rails and through the pre-drilled holes in the ends of the second 6 inch wide cross bar.
5. Attach the machine screws with 1/4 inch hex lock nuts.

Install Second 2 Inch Cross Bar

1. Measure distance from center of second 6 inch wide cross bar to center of second 2 inch wide cross bar.
2. Measure distance from previous step from center of first 6 inch cross bar and mark on side rails.
3. Attach the second 2 inch wide cross bar to the bottom of the side rails at the marks from the previous step.
4. Place two 5/8 inch #20 machine screws from the top down through the pre-drilled holes in the side rails and through the pre-drilled holes in the ends of the 2 inch wide cross bar.
5. Attach with 1/4 inch hex lock nuts on the machine screws.

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.

Go to 'INSTALL LADDER RACK TO VEHICLE'.

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CONFIGURATION C



Configuration C should be used where the roof rack on your vehicle can be adjusted to a spread of 40 to less than 66 inches between the center of the front and rear cross bars of your vehicle roof rack. This configuration allows the ladder rack to be mounted centered on your vehicle roof rack. This configuration would be typical for a passenger car with a second market roof rack installed on your vehicle such as a Thule or Yakima rack. This configuration would also be typical for a small van or SUV without a rear lift gate.

Install 2 Inch Cross Bars

1. Layout the side rails parallel to each other on your work surface per the diagram on Page 6.
2. Attach the 2 inch wide cross bars to the bottom of the side rails at the ends of the side rails.
3. Place two 5/8 inch #20 machine screws from the top down through the pre-drilled holes in the side rails and through the pre-drilled holes in the ends of the 2 inch wide cross bars.
4. Attach the machine screws with 1/4 inch hex lock nuts

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Install 6 Inch Cross Bars

1. Mark the center of the side rails at 36 inches from the end of the rails.
2. Measure the distance between the center of the front and rear cross bars of your vehicle roof rack.
3. Mark the side rails $\frac{1}{2}$ the measurement from step 2 on each side of the center of the side rails from step 1.
4. Attach the center of the 6 inch wide cross bars of your ladder rack to the bottom of the side rails at the locations from step 3.
5. Place four $\frac{5}{8}$ inch #20 machine screws from the top down through the pre-drilled holes in the side rail and through the pre-drilled holes in the end of the 6 inch wide cross bars.
6. Attach machine screws with $\frac{1}{4}$ inch hex lock nuts.

Securely fasten all $\frac{1}{4}$ inch screws and hex lock nuts using a #2 Phillips screw driver and a 7/16 inch socket or open/closed end wrench.

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 end cross bars of the ladder rack are centered over the front and rear cross bars of the vehicle roof rack.
2. Place a $\frac{3}{8}$ 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 $\frac{1}{2}$ to $\frac{3}{4}$ inch of thread of the carriage bolts is visible.
6. Slide the ends of the carriage bolts through the pre-drilled holes in the 6 inch cross bars of the ladder rack from the bottom side of the ladder rack.
7. Attach a $\frac{3}{8}$ inch locking nut to the top of each carriage bolt. Hand tighten only.
8. Repeat this step for all 4 mounting brackets. Once all four brackets have been attached, **securely tighten** all $\frac{3}{8}$ inch hex lock nuts using a 9/16 socket or open/closed end wrench.

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

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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 each 'D'-Ring and the closest 'U'-Bolt.
6. Place safety flags (not supplied) on the end of your ladder per state law/codes.
7. Ladders in excess of 16 feet 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.