

## INTRODUCTION

Congratulations on the purchase of your new North Shore Racks Inc. bike rack. The rack designed by mountain bikers for mountain bikers. Your rack is intended to be used with mountain bikes only, as they must have some form of suspension fork. Almost all suspension forks are compatible. Once you've assembled your rack and used it a few times you'll quickly appreciate just how easy it is to use and how neatly it carries up to four mountain bikes. Please read all instructions carefully before using your rack.

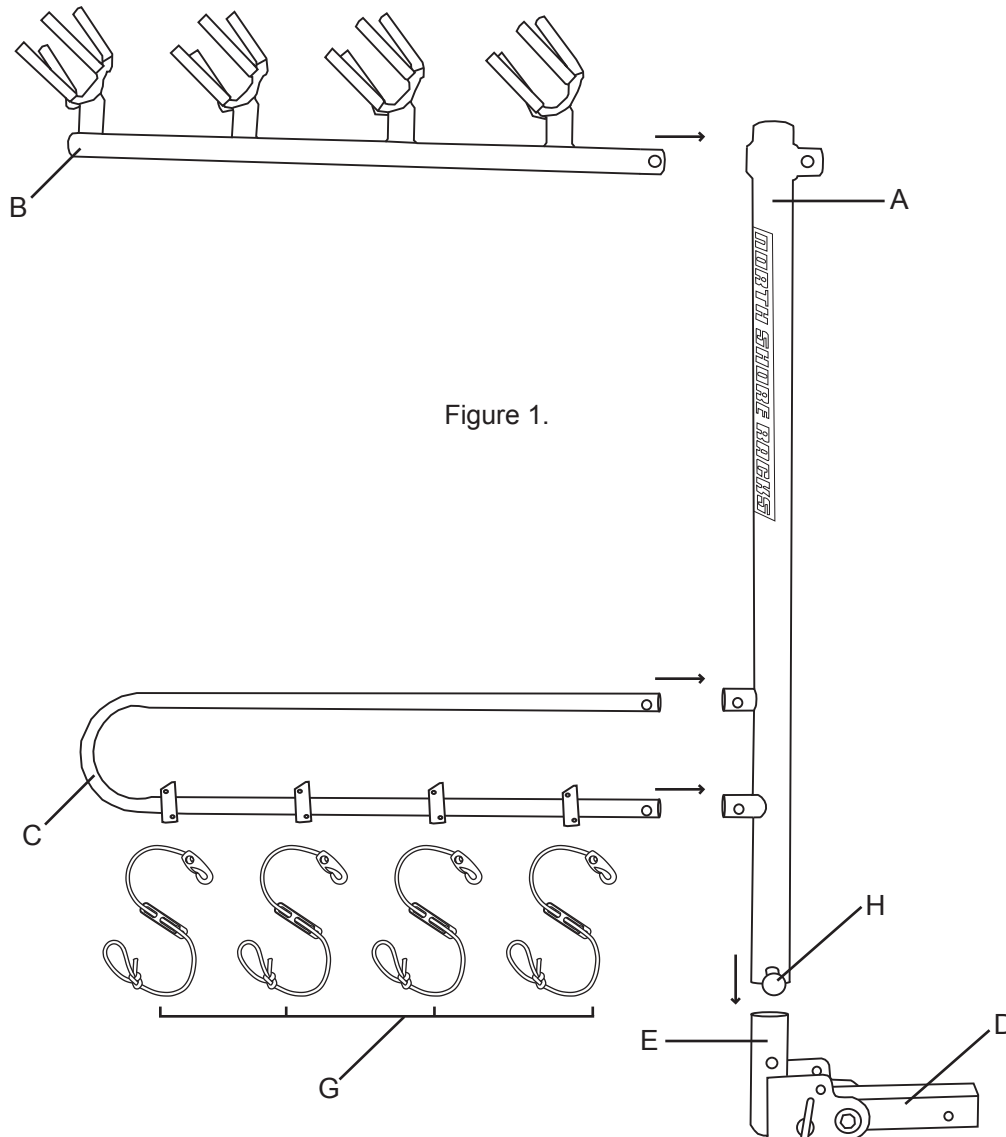


Figure 1.

### RACK PARTS

- A) MAST
- B) UPPER BAR
- C) DOUBLE BAR
- D) HITCH TUBE (pre assembled)
- E) MAIN PIVOT (pre assembled)
- F) D-HANDLE PIN
- G) ROPES & CLEATS X 4 (pre assembled)
- H) PULL PIN

### HARDWARE (not shown)

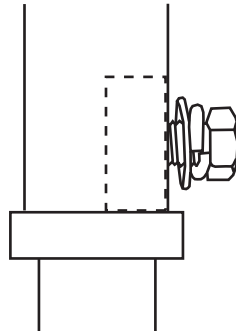
- 1) 3/8" - 13/4" bolt x 2pcs
- 2) 3/8" - 21/4" bolt x 1pc
- 3) 3/8" lock nut x 3pcs
- 4) 5/8" - 2" bolt x 1pc
- 5) 5/8" lock washer x 1pc
- 6) 5/8" washer x 1pc
- 7) 1/2" - 31/2" bolt x 1pc (pre assembled)
- 8) 1/2" locknut x 1pc (pre assembled)
- 9) 1/2" washer x 2pcs (pre assembled)

## **INSTRUCTIONS FOR RACK ASSEMBLY**

Note:  We recommend installing the main pivot assembly [hitch tube (D) and main pivot (E)] into the receiver hitch of a vehicle  for rack assembly.

1.  Install the D-handle pin (F) into the main pivot's (E) lower most hole from the right and install the spring clip.
2.  Slide the bottom end of the mast (A) onto the main pivot (E) by pulling on the spring-loaded pull pin (I). Rotate the mast (A) until the pull pin (I) seats into the detent hole perpendicular to the hitch tube (D).  
  
 Note: During use, periodically apply grease to the main pivot (E) by removing the mast (A).
3.  Insert the upper bar (B) into the top end of the mast (A). Align the holes on the upper bar (B) with the corresponding holes on the mast (A) and secure with the 3/8" x 2 1/4" bolt and locknut and tighten using two 9/16" wrenches (not included).
4.  Insert the U-shaped double bar (C) into the mast (A) with the cleats on the lower tube of the bar. Align the holes and install the two 3/8" x 1 3/4" bolts and locknuts and tighten with two 9/16" wrenches.
5.  Attachment to the vehicle hitch can be done using the (pre installed) anti-slop device or a 5/8" hitch pin (not included).  
 To use the anti-slop device, slide the hitch tube (D) into the vehicle's receiver hitch and install the 5/8" x 1 1/4" bolt with the lock washer and flat washer through the hitch pin hole in the vehicles receiver hitch, as shown in Figure 2. Using a 15/16" wrench or socket, tighten the bolt to 110 ft-lbs (very tight). To use a standard 5/8" hitch pin, remove the anti-slop device from the hitch tube.  
  
 Note: After using the rack a couple of times, re-torque the 5/8" bolt and periodically recheck the torque during use.

Figure 2.



## **FOLDING AND LOWERING THE RACK**

1.  To fold the rack flat against the back of the vehicle, pull the spring-loaded pull pin and rotate the rack until the pin pops into the detent hole. Make sure the pin fully seats by shaking the rack a little. Use the same procedure to fold the rack back out.
2.  Lowering the rack (folding it down) can be done in 2 stages. In both cases, remove the D-handle pin while supporting the weight of the rack.  
  
  Stage 1-  Replace the D-handle pin into the uppermost holes on the main pivot and lower the rack.  
    Note: In this position, the rack can be lowered on most vehicles with the rack in the folded out position.  
    Stage 2-  Lower the rack until the upper holes in the main pivot assembly line up with the holes in the hitch tube and replace the D-handle pin. Note: On most vehicles this should only be done with the rack folded flat against the vehicle.

## **LOADING BIKES**

1.  Fold the rack out ensuring the pull pin pops into place (see Figure 3).
2.  Position the bike with the front wheel to your right. Grasp the seat tube area with your left hand and grasp the fork low down (near the bottom) with your right hand (see Figure 4).
3.  Lift the bike and place the fork crown into the forward-most tongs of the rack (nearest to vehicle) as shown in Figure 5 and Figure 6.
4.  Secure the rear wheel with the hook, rope and cleat as shown in Figure 7 and pull the rope tightly.
5.  To load another bike, repeat steps 1-4.

## **TIPS AND PRECAUTIONS**

1.  Maximum weight per bike is 50 lbs. for a combined maximum of 200 lbs.
2.  Load bikes one at a time from the forward position (nearest to vehicle) to the rear position. Remove them in the opposite order.
3.  Do not support bikes from the tongs in any other way than what is shown.
4.  Place bikes with shorter stems (DH/Freeride) in the positions closest to the vehicle and bikes with longer stems (Cross-country) in the outer positions. This is to maximize clearance between the handlebars of adjacent bikes.
5.  Fork crown must be clear of accessories. ie: Fork-mounted fenders are not compatible.
6.  The rack is not intended to be used for anything other than the transport of mountain bikes.
7.  Do not mount this rack to anything other than a 2" receiver hitch.
8.  Excessively high speeds or rough roads may overstress this rack or the hitch on the vehicle.
9.  Check with the hitch manufacturer to ensure it is capable of supporting the stress of this rack.

## **WARNING!**

BE MINDFUL OF CLEARANCE BETWEEN THE BIKES AND THE GROUND WHEN DRIVING (IE: STEEP DRIVEWAYS). CONTACT WITH THE GROUND MAY CAUSE DAMAGE TO BIKES AND/OR THE RACK OR OTHER VEHICLES BEHIND YOU AS A RESULT OF TRYING TO AVOID FALLEN BICYCLES AND/OR THE RACK.

BE AWARE THAT BIKES ON THE RACK MAY STICK UP ABOVE THE TOP OF YOUR VEHICLE AND CONTACT OVERHEAD STRUCTURES CAUSING DAMAGE (IE: PARKING GARAGES).

## **WARRANTY**

North Shore Racks Inc. products carry a one-year limited warranty from the original date of purchase against defects in materials and/or workmanship. This warranty is void if the product has been modified, damaged, or used for anything other than its intended purpose. In no event shall North Shore Racks Inc. be liable for incidental or consequential damages. For warranty service, the North Shore Racks Inc. product must be returned shipping prepaid within the warranty period. Repaired or replaced products will be shipped by North Shore Racks Inc.

**LOADING BIKES**

Figure 3.

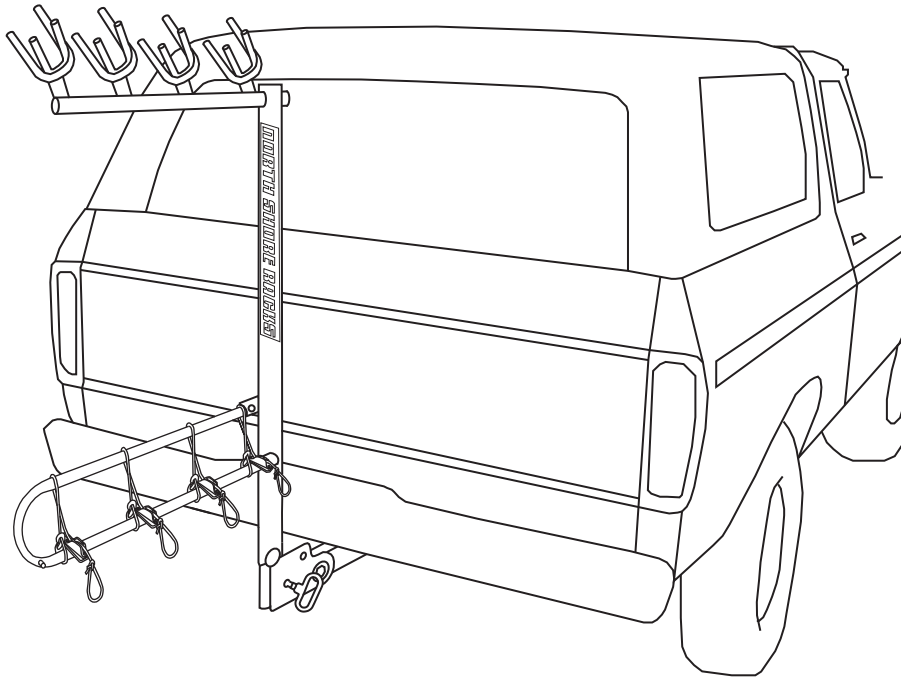
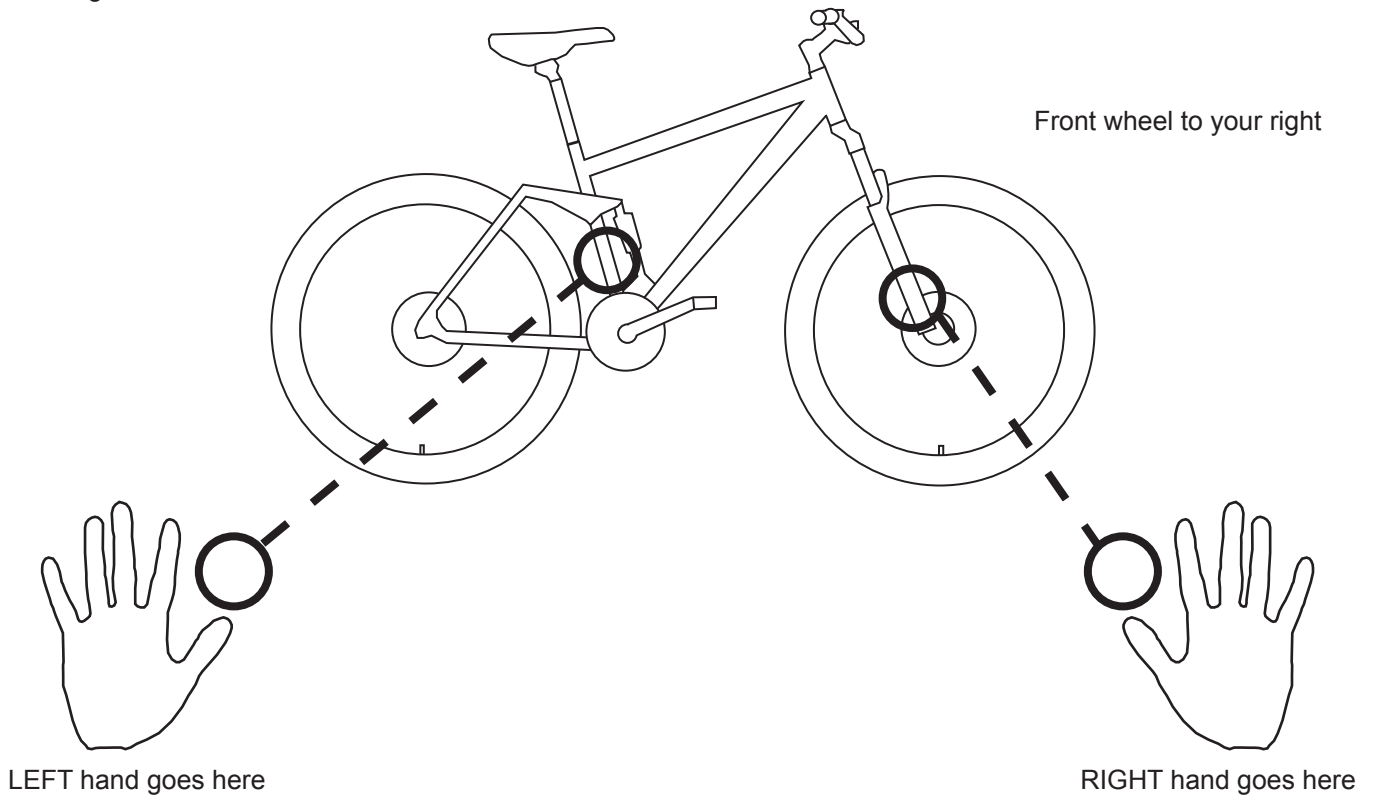


Figure 4.



**LOADING BIKES**

Figure 5.

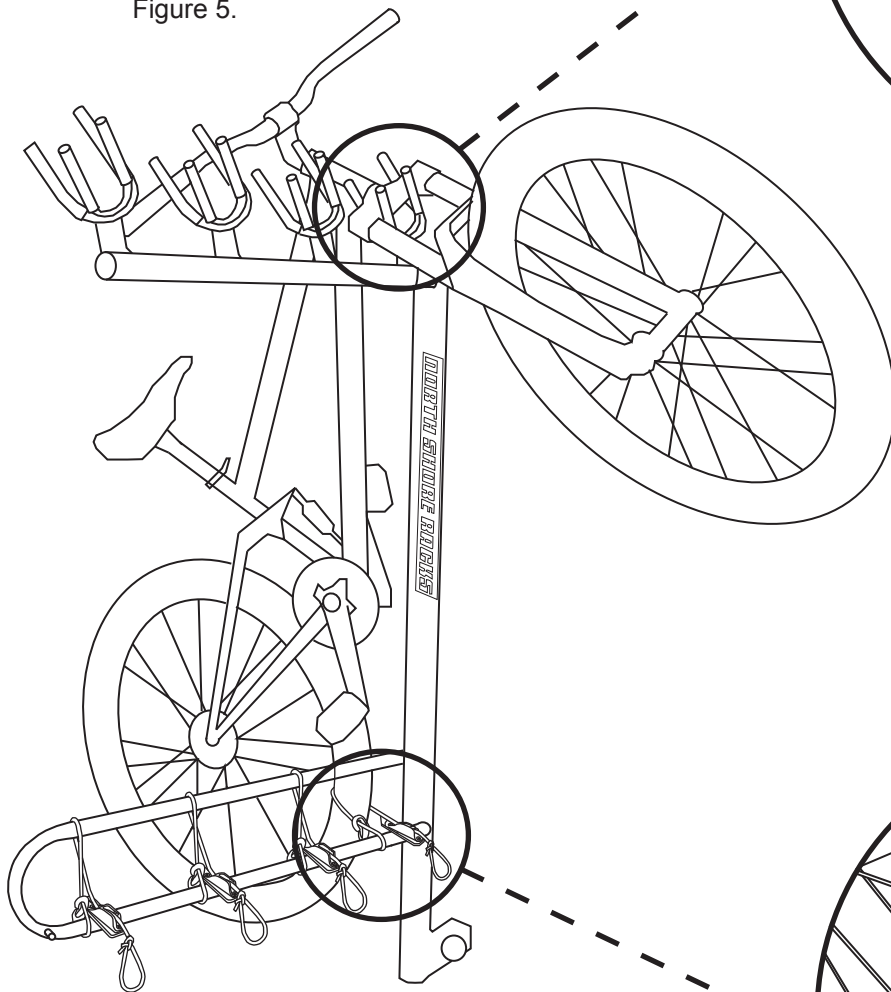


Figure 6.

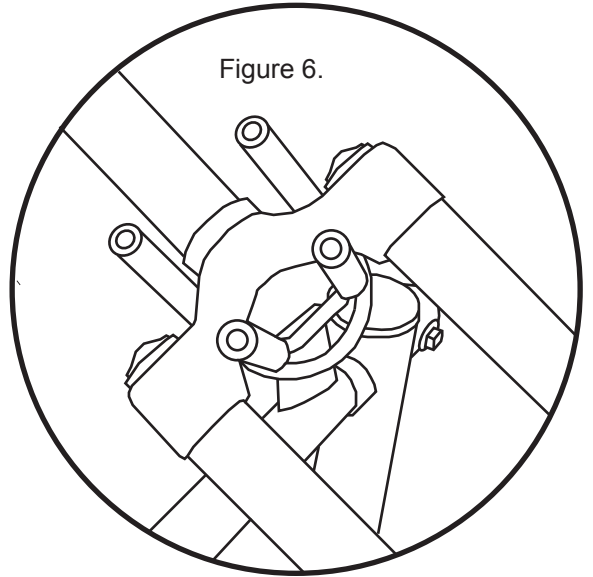


Figure 7.

