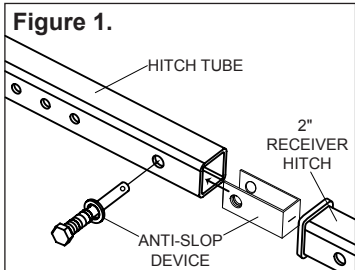


NSR-2, NSR-4 AND NSR-6 SERIES

Congratulations on the purchase of your North Shore Racks NSR-2, NSR-4 and NSR-6 series bike rack. The rack designed by mountain bikers for mountain bikers. Your rack is intended to be used with mountain bikes as there needs to be sufficient room around the crown of the fork for the rack to fit. Road bikes generally do not have enough clearance in this area. Almost all suspension forks are compatible. This manual covers the NSR series of racks and as such the illustrations are for all three. 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 mountain bikes. Please read all instructions carefully.

RACK ASSEMBLY (See RACK ASSEMBLY VIDEOS on our website)

Note: We recommend building the rack from the bottom up, using a vehicle hitch as a mounting point to assemble the rack from.



(2" models use 15/16" wrench- torque to 75 ftlbs)
(1 1/4" models use 3/4" wrench- torque to 65 ftlbs)

STEP 1 Insert the zinc plated **Hitch Tube** into a vehicle hitch and secure with the **Anti-Slop** device as shown in Figure 1.

Note: 1 1/4" receiver models have an integrated anti-slop device. Secure the hitch bolt tightly. (75 ftlbs for 2" models and 65 ftlbs for 1 1/4" models)

STEP 2 Assemble the **Lower Pivot Assembly** as per Figures 2 and 2A. Tighten the two **Locknuts/ Hex Bolts** to the hitch tube tightly (about 40-70 ftlbs). **Do not use washers on the NSR-6.** Notes: 1) Use the forward most setting here for almost all vehicles. 2) Apply grease to the mating surface between the **Hitch Tube** and the **Base** as shown.

STEP 3 Attach the **Lower Mast** to the **Lower Pivot Assembly** as shown in Figure 2A. Notes: 1) Apply grease thoroughly to the pivot area as shown. 2) Use the second hole from the bottom of the **Lower Mast** for most vehicles and tighten the **Locknut/Hex Bolt** snugly (about 20-40 ftlbs) allowing for the rack to pivot. Do not use washers on NSR-6 models.

Figure 2.

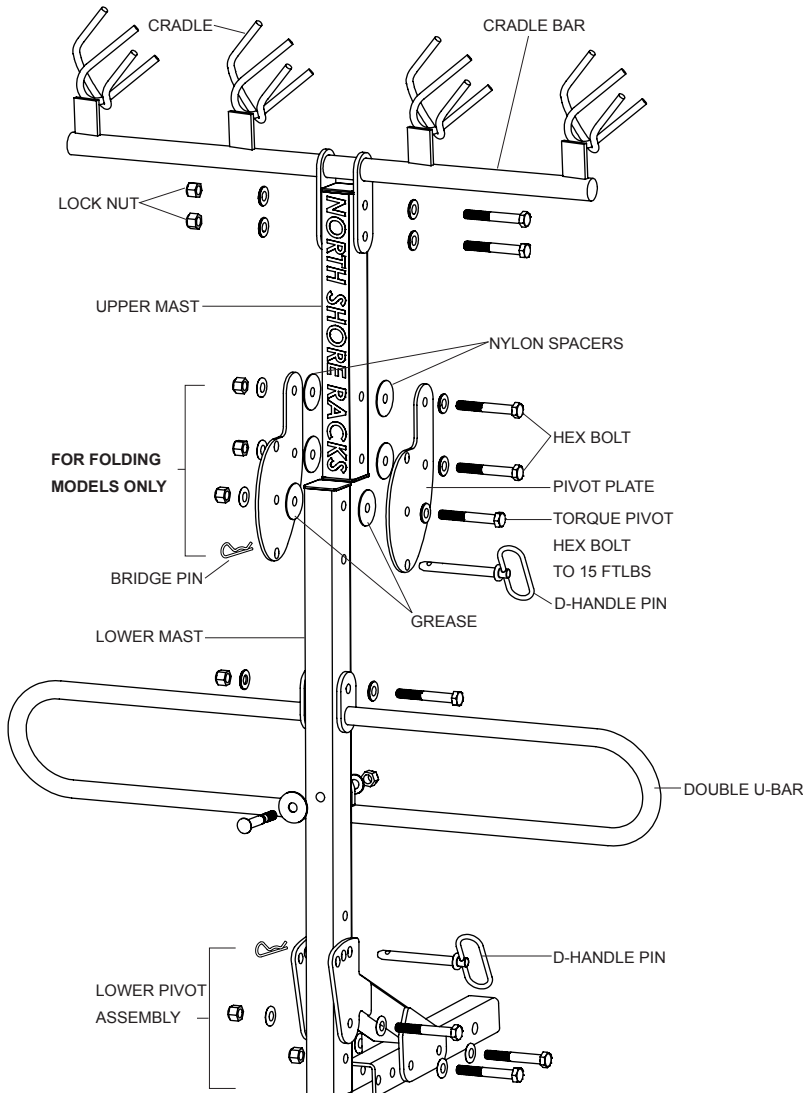


Figure 2A.

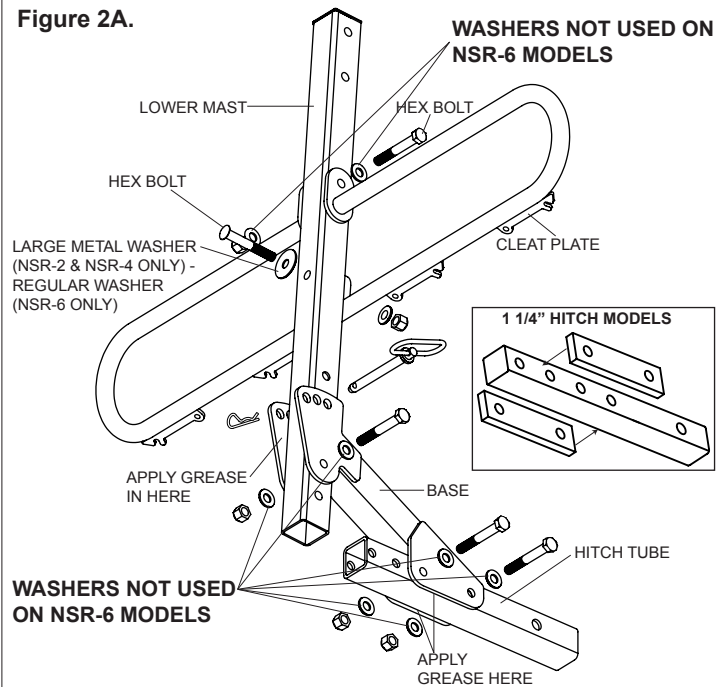
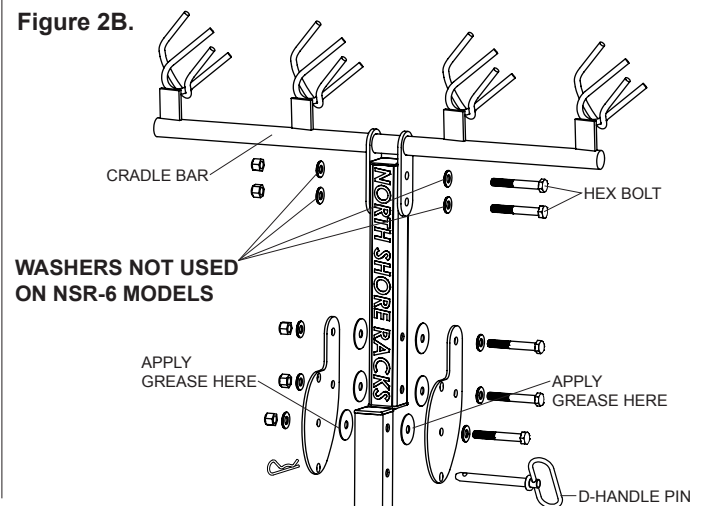


Figure 2B.



RACK ASSEMBLY continued

- STEP 4** Attach the **Double U-Bar** exactly as shown in Figure 2A. Notes: 1) Orient the **Double U-Bar** such that the **Cleat Plates** are pointing towards the front of the vehicle. 2) NSR-2/ NSR-4- use the **Hex Bolt** and **Large Metal Washer** as shown and torque this bolt to 15 ftlbs, do not over-tighten as damage to the rack may result. NSR-6- use a regular **Hex Bolt** and washers for the lower bolt and torque to 40ftlbs. Torque the upper **Hex Bolt** to 40 ftlbs (NSR-6 models do not use washers on the upper **Hex Bolt**).
- STEP 5** **The following instruction only applies to models with a folding centre hinge.**
Attach the **Upper Mast** to the **Lower Mast** as shown in Figure 2B. Notes: 1) The **Nylon Spacers** go in between the **Pivot Plates** and the Mast. 2) Apply grease to both sides of the **Nylon Spacers** for the pivot (the other **Nylon Spacers** do not need to be greased) and torque the pivot **Hex Bolt** to about 20-40 ftlbs, allowing for the rack to pivot. 3) Torque the remaining **Hex Bolts** to 40 ftlbs.
- STEP 6** Attach the **Cradle Bar** to the rack as shown in Figures 2 and 2B. Notes: 1) Pay close attention to the direction of the **Cradles** (they must point to the right as viewed from behind). 2) Torque the **Hex Bolts** to 40 ftlbs. NSR-6 models do not use washers.

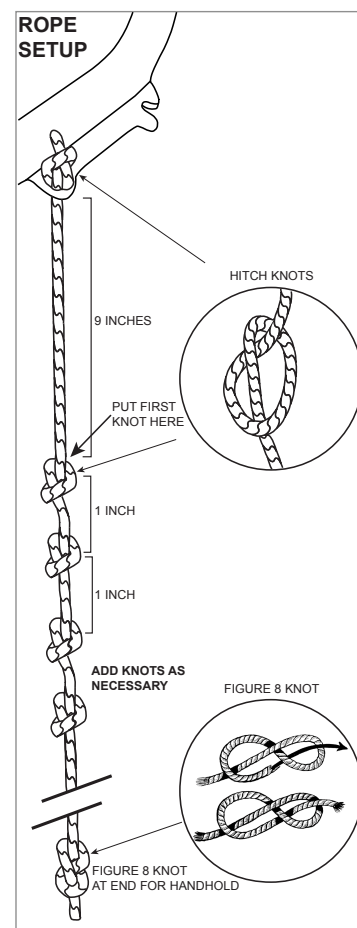
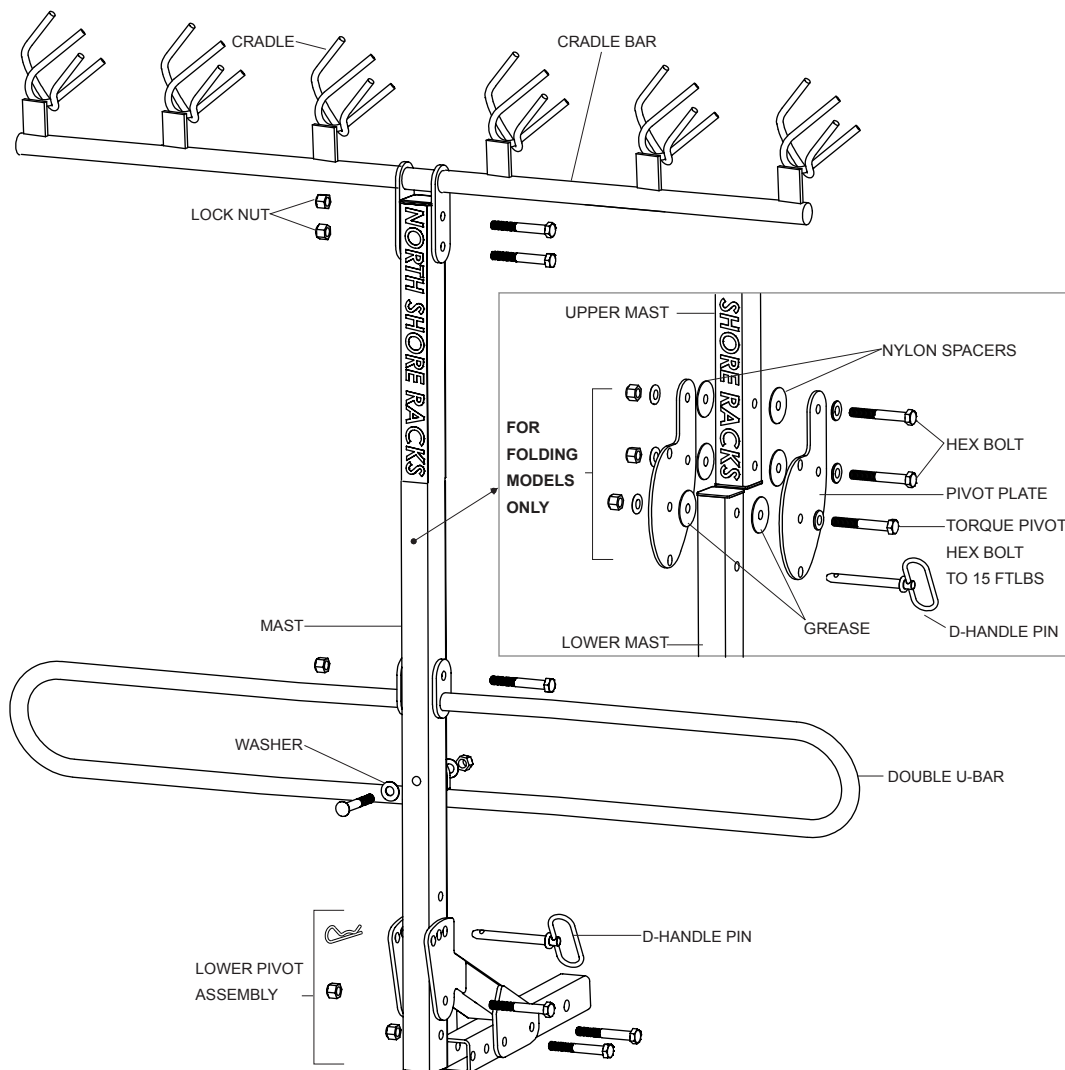
SETUP AND ADJUSTMENT

HEIGHT ADJUSTMENT- The rack can be raised or lowered by moving the Mast on the **Lower Pivot Assembly**. To lower the rack beyond the second hole from the bottom of the **Lower Mast**, the end of the **Lower Mast** will need to be trimmed off with a hacksaw to allow the rack to fold down. When cutting off, ensure there is 1 hole left below the Lower Pivot Assembly.

SETBACK ADJUSTMENT- The rack can be moved further away from the vehicle as necessary by moving the **Base** on the **Hitch Tube**.

Note: The forward most position will work best for the majority of vehicles, including those with rear mounted spare wheels.

ASSEMBLED NSR-6



LOADING BIKES

1. Unfold and set the rack as per Figures 3 and 4.
2. Position a bike as shown in Figure 5. Grasp the seat tube area with one hand and grasp the fork low down (near the bottom) with your other hand.
3. Approach the rack from the right hand side, lift the bike and place the fork crown into the left-most cradle of the rack (see Figure 6A). Do not try and lift the bike over the rack from behind. It is much easier to load from the side.
4. Secure the rear wheel with the rope and cleat as shown in Figure 6B and 6C. Pull the rope tightly and secure by placing one of the **Detent Knots** into the cleat. Follow this with a wraparound hitch-knot as shown in Figure 6C. Additional **Detent Knots** may be added as needed.
5. To load another bike repeat steps 2-4.

Figure 4.

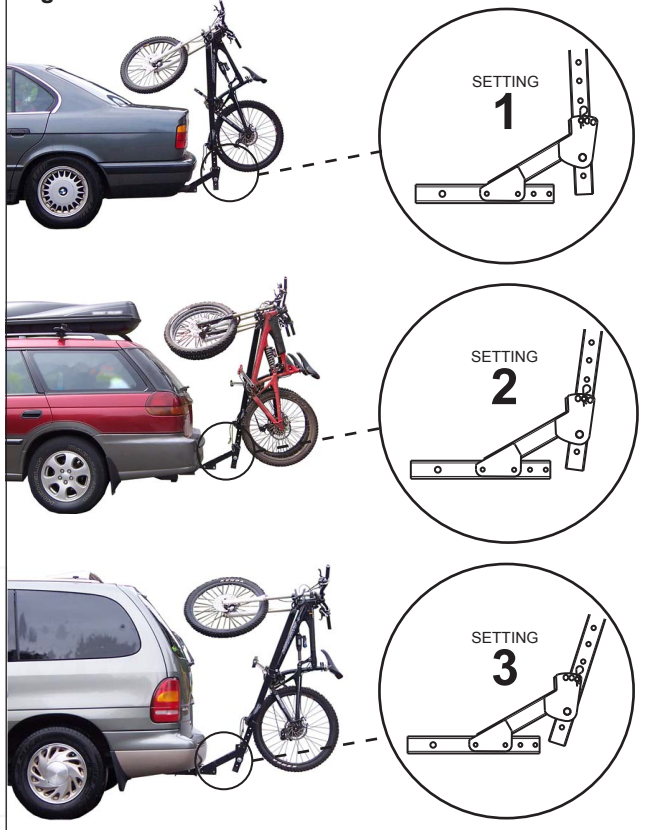


Figure 5.

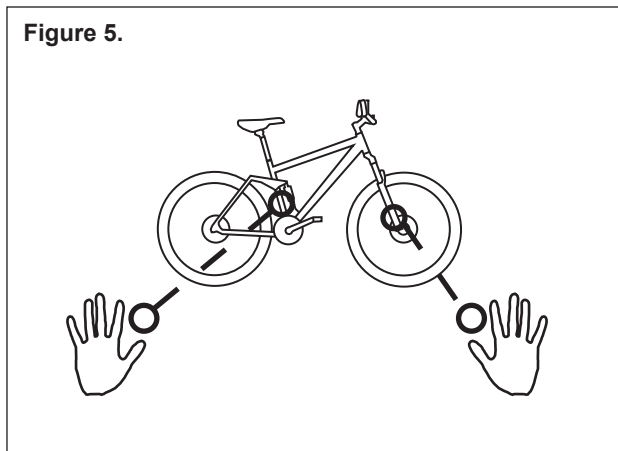


Figure 3.

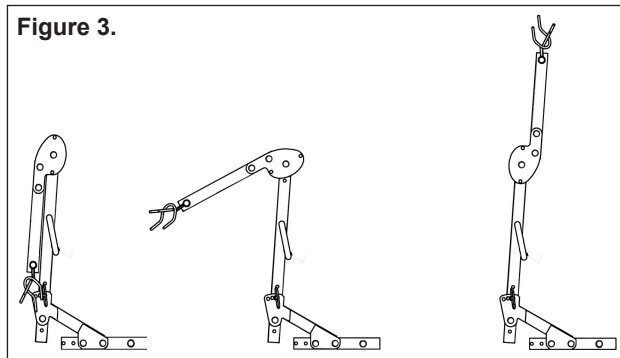
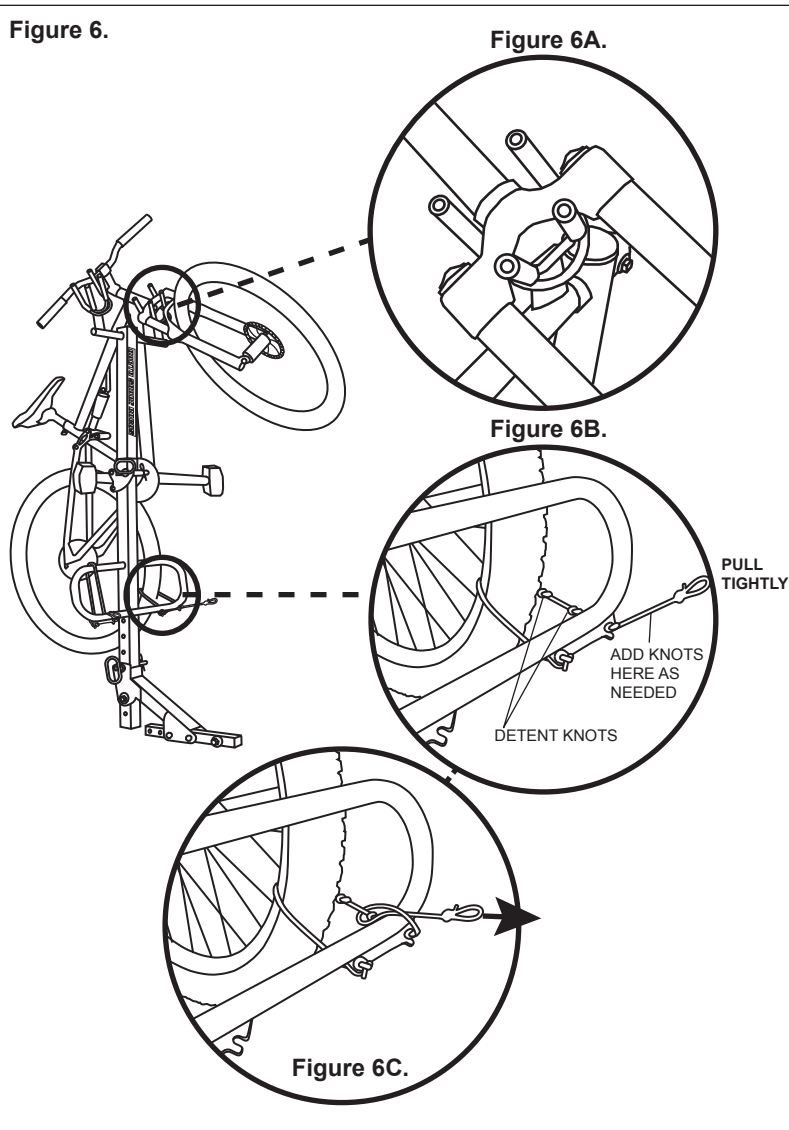


Figure 6.



TIPS AND PRECAUTIONS

1. Load bikes one at a time from the left most position of the rack to the right; remove bikes in the opposite order.
2. Do not support bikes from the rack in any other way than what is shown.
3. Place bikes with shorter stems (DH/ Freeride) in the left positions and longer stemmed bikes (Cross-country) in the right positions to minimize handle bar interference.
4. Fork crowns must be free of any accessories. ie: fork-mounted fenders are not compatible.
5. Do not use this rack for anything other than the transport of mountain bikes.
6. Excessively high speeds or rough roads may overstress the rack and/or hitch/vehicle.
7. Check with the hitch manufacturer to ensure the hitch is capable of withstanding the stress of this rack.
8. Check all fasteners and retorque as needed before each use.

WEIGHT CARRYING CAPACITIES

MODEL	WEIGHT
NSR-2 (1 1/4" Hitch)	100lbs
NSR-2 (2" Hitch)	120lbs
NSR-4	200lbs
NSR-6	300lbs
NSR-6 Folding	300lbs

Maximum bicycle weight: 60lbs

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 PROTRUDE ABOVE THE TOP OF YOUR VEHICLE AND CONTACT OVERHEAD STRUCTURES CAUSING DAMAGE (IE: PARKING GARAGES).

NOT RECOMMENDED FOR USE ON RECREATIONAL VEHICLES, ESPECIALLY THOSE WITH LONG OVERHANGS.

WARRANTY

North Shore Racks Inc. products carry a two-year limited warranty (6 months for commercial use) from the date of purchase to the original purchaser against defects in materials or workmanship. This warranty is void if the product has been used off-road, on a Recreational Vehicle, 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. This warranty is non-transferable.