

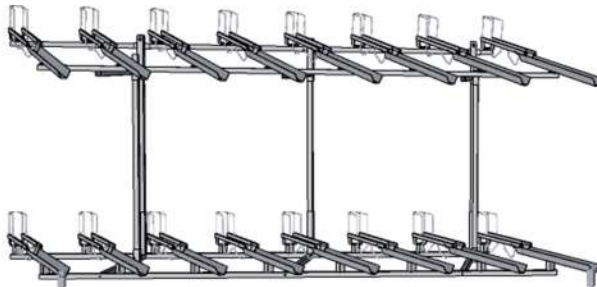


STRAIGHT FORWARD

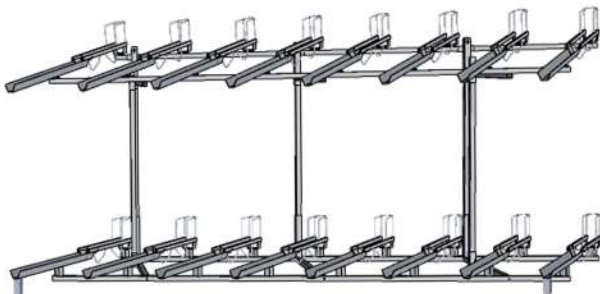
12-14-16 BIKE

Recommended Team Members Needed: 2

Designed & Made in the
USA



Right Orientation-16 bike

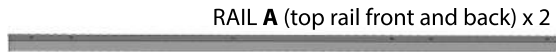
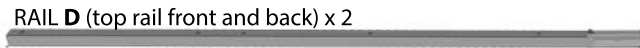
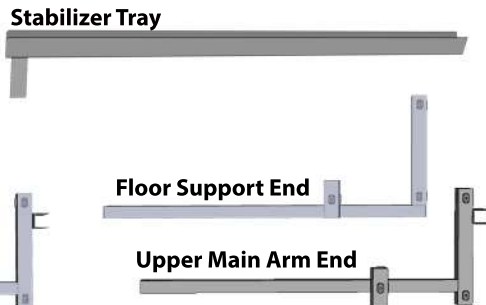
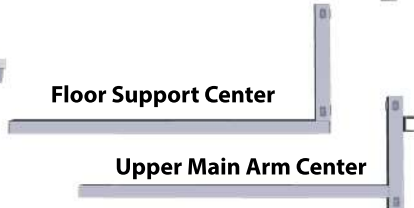


Left Orientation-16 bike

**LOCATE ALL PARTS AND
HARDWARE BEFORE BEGINNING
RACK ASSEMBLY**

**These assembly instructions illustrate
a 16-bike rack. The assembly
process is the same for the
12-bike and 14-bike versions;
only the rail lengths and
the quantities of parts
and hardware differ.**

PARTS



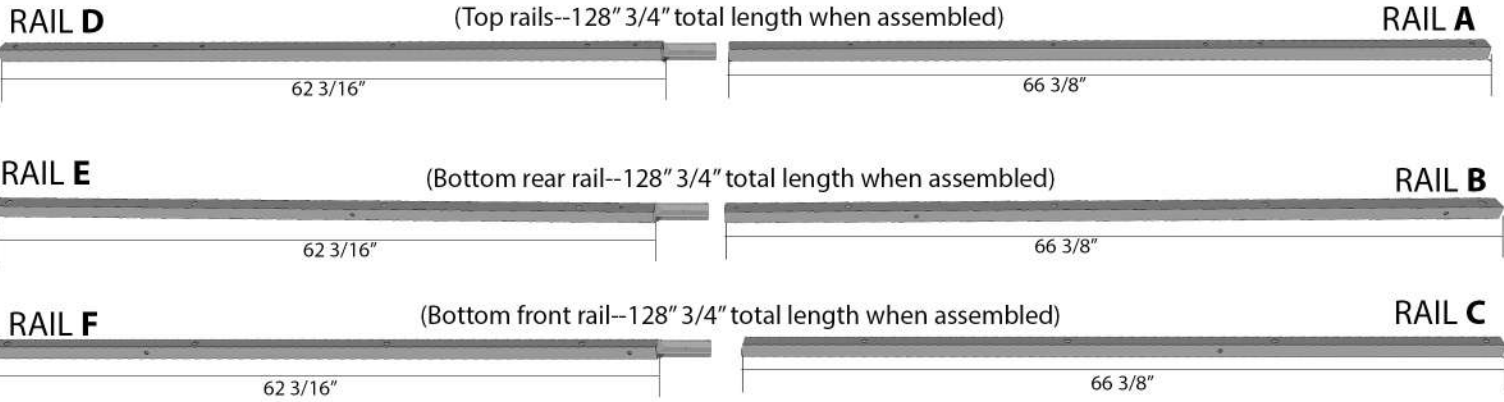
*These rails can be re-oriented to build a right facing or left facing rack. See **Step 2/pg. 4** for details.

NOTE: *The rail letters above are for a 16 bike, which will be used for these assembly instructions. If assembling a 12 or 14 bike rack, refer to the **SPLIT RAIL PAIRINGS** key sheet included in the assembly instructions for the rails required for your rack.*

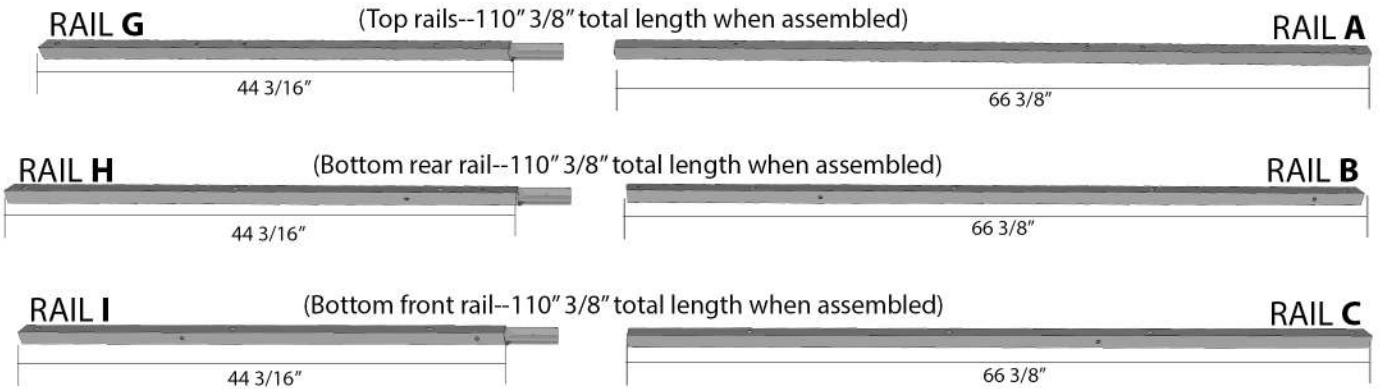
Due to the modular nature of rack instructions, part quantities may vary. See packing list for part and hardware quantities.

SPLIT RAIL PAIRINGS

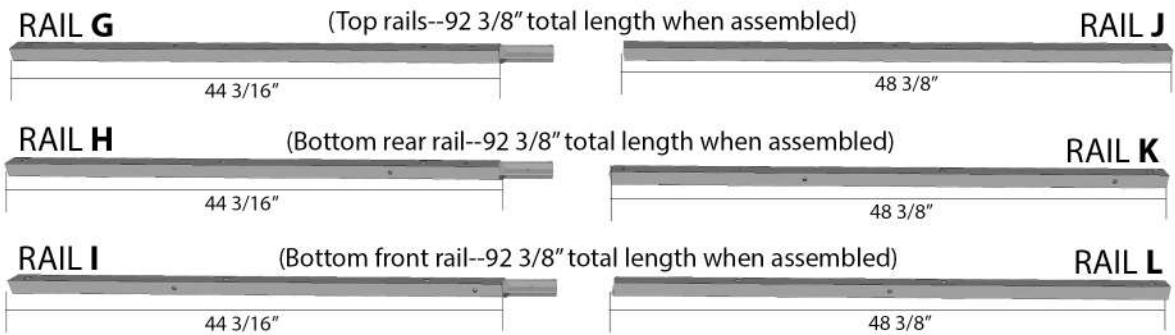
24 bike, 16 bike



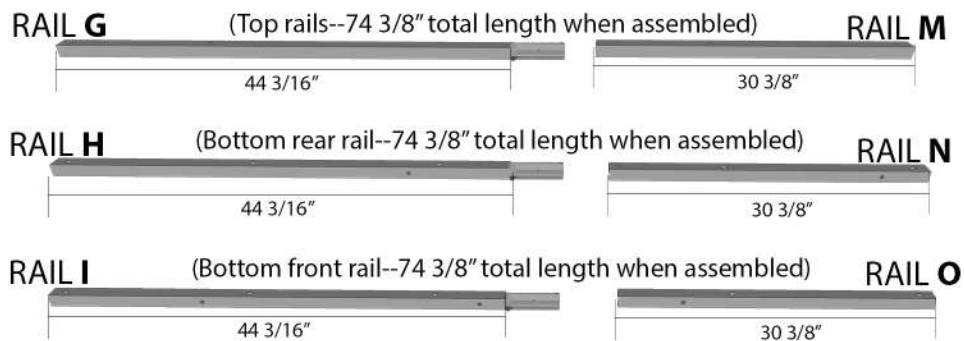
21 bike, 14 bike



18 bike, 12 bike



15 bike, 10 bike





TOOLS

NEEDED:

- *socket wrench with 7/16" and 1/2" sockets
- *7/16" wrench
- *1/2" wrench
- *rubber mallet
- *drill (recommended for rolling bolts on rails)
- *tape measure

HARDWARE

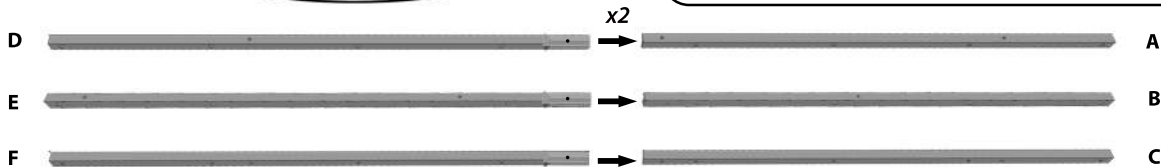
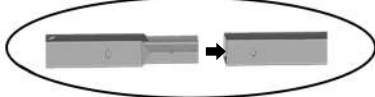


STEP 1: Assembling split rails

needed: rails A,B,C,D,E,F (for 16 bike)

rolling bolts, rubber mallet, drill or socket wrench, 7/16" socket

- 1a.** Match the split rails as they are paired on *page 2* (or as they are paired on the *SPLIT RAIL PAIRINGS key sheet*). All rails are laser cut with their letters.



- 1b.** Connect all paired split rails--D and A to make the two top rails, E and B to make the rear bottom rail, and F and C to make the front bottom rail.

NOTES--READ BEFORE CONTINUING RAIL ASSEMBLY!

*the identification letters of rail sections should be facing DOWN and on the ends of the completed rail.

*be sure holes are lined up before sliding together each pair of rail pieces

*use a rubber mallet to gently tap on the rail ends to snug each pair together

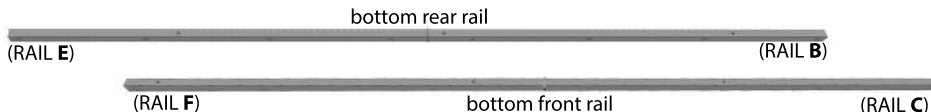
*gold rivets in the bottom front, and rear rail holes should face UP

Assembling split rails (contd. from pg. 3)

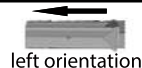
1c. Secure each assembled rail with a rolling bolt. A drill with A 7/16" socket is recommended. If using a hand socket use moderate downward pressure, making sure bolt is straight.

STEP 2: Deciding Rack Orientation/Assembling Base

2a. Lay out both the bottom rear rail (E+B) and bottom front rail (F+C), again making sure the letters of the assembled rails are facing **downward** (note from pg.3).

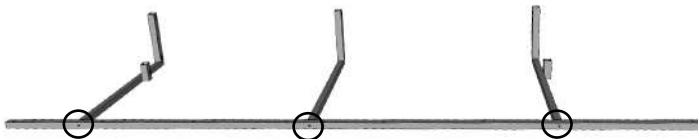


2b. Whichever way the crimped end of the split rail assembly faces, that will be the direction your trays face.

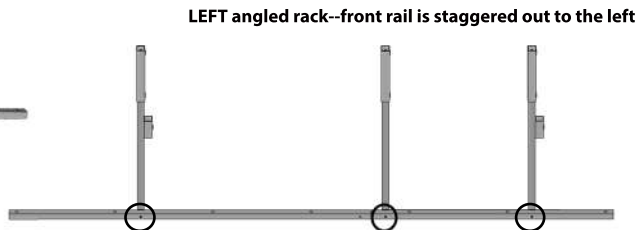


NOTE: Rails/rack parts starting with **2c.** will be laid out for a RIGHT orientation. For a left orientation, simply flip each rail 180 degrees (the second illustration in **2c.** shows a left oriented rack).

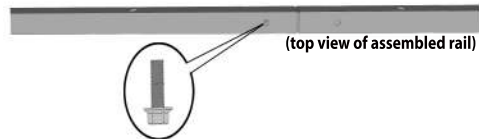
2c. Lay out bottom **front** rail, then set floor support ends and floor support center behind it, matching the supports with the rail holes.



RIGHT angled rack--front bottom rail is staggered out to the right



LEFT angled rack--front rail is staggered out to the left

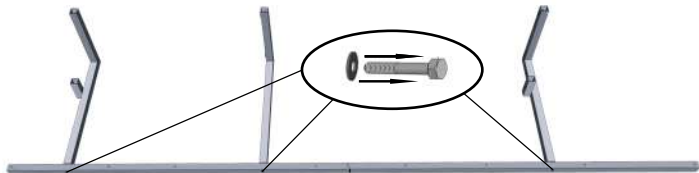


(top view of assembled rail)

needed: Bottom rear rail (E+B), bottom front rail (F+C), floor support ends, floor support center, 5/16"x 2" bolts, 5/16" washers

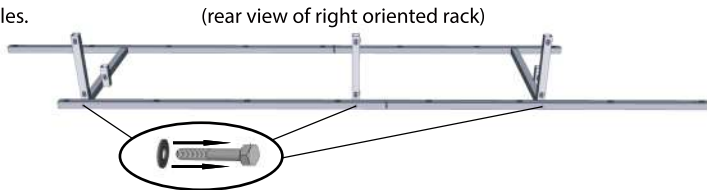
Deciding rack orientation/Assembling base (contd. from pg. 4)

2d. Attach floor support ends and floor support center to rails with 5/16" x 2" bolts and 5/16" washers. Tighten bolts.



2e. Place rear bottom rail behind floor support ends and floor support center, lining up support holes with rail holes.

2f. Attach rear bottom rail to floor support ends and floor support center with 5/16" x 2" bolts and 5/16" washers. Tighten bolts.



2g. The base framework is now complete. Reference diagrams below before continuing assembly.



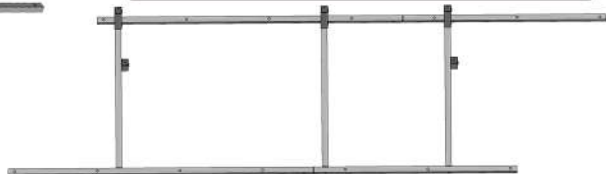
RIGHT ANGLED RACK CHECKLIST:

- *front bottom rail is staggered to the right
- *rear bottom rail is staggered to the left
- *laser cut letters on rails are facing down/the floor
- *crimped ends of assembled rails are facing right



LEFT ANGLED RACK CHECKLIST:

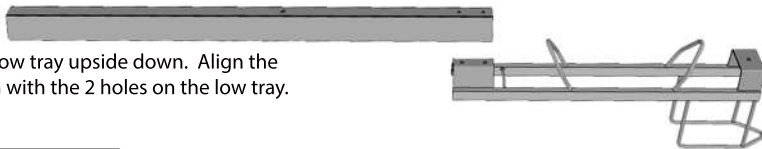
- *front bottom rail is staggered to the left
- *rear bottom rail is staggered to the right
- *laser cut letters on rails are facing down/the floor
- *crimped ends of assembled rails are facing left



STEP 3: Pre-assemble trays

needed: trays, stabilizer trays, stanchions, 1/4" washers, 1/4" x 3/4" bolts, 1/4" stopnuts, 1/2"x1" plugs, 1-1/4" plugs, 7/16" socket, socket wrench, 7/16" wrench

3a. Turn stanchion and low tray upside down. Align the 2 holes on the stanchion with the 2 holes on the low tray.

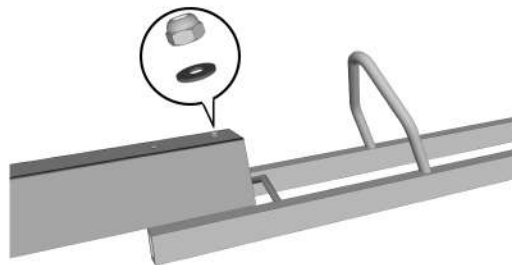
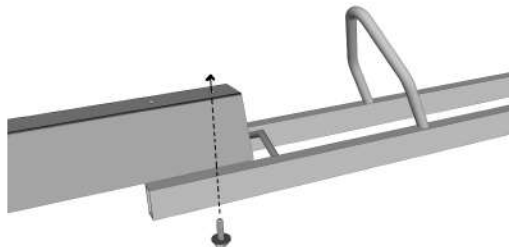


3b. Place a 1/4" washer over a 1/4" x 3/4" bolt.



(low tray should be on **OUTSIDE** of stanchion, as shown above)

3c. Insert bolt and washer combo into one of the two holes of the tray assembly.



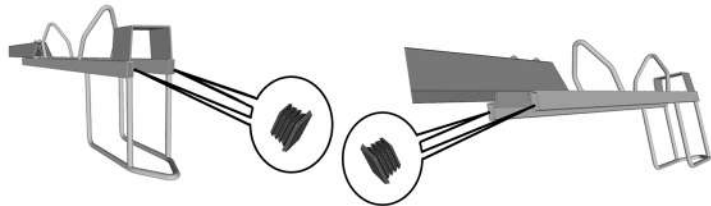
3d. Fasten bolt/washer in place using a 1/4" washer and 1/4" stop nut. Tighten **LOOSELY** using both the 7/16" socket/wrench and 7/16" wrench.

3e. Repeat steps 3b.-3d. for second hole, then **finish tightening** both bolts and stop nuts with the 7/16" socket/wrench and 7/16" wrench.

3f. Repeat steps 3a.-3e. for all remaining low trays (including stabilizer trays), and stanchions.

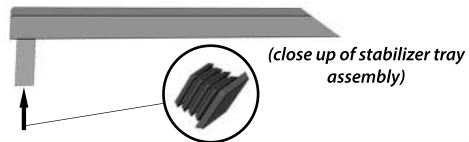
Pre-assembling trays (contd. from page 6)

3g. Insert 1/2"x 1" plugs into the front and back of the stanchion as shown. (4 plugs per stanchion)



3i. Repeat step 3g. for the remaining assembled trays.

3j. Insert a 1-1/4" plug on the bottom foot of each of the stabilizer trays.



NOTE: the remainder of the instructional diagrams will be for a **right oriented** rack. For a left oriented rack, simply mirror the remaining parts.

STEP 4: Attach tray assemblies to bottom rails

4a. Place spacers over the riv nut holes (holes with metal inserts) on the rails. Place spacers **at an angle, not flush** with rails.



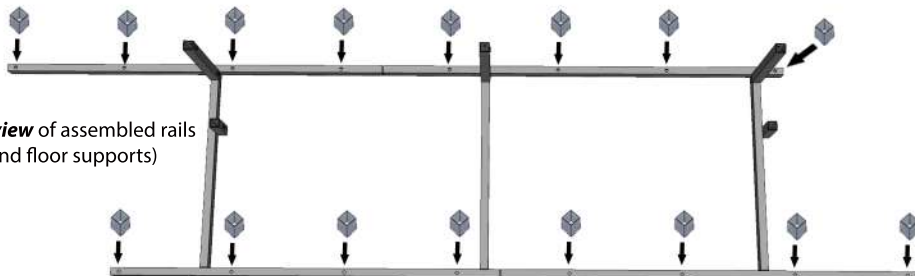
YES



NO

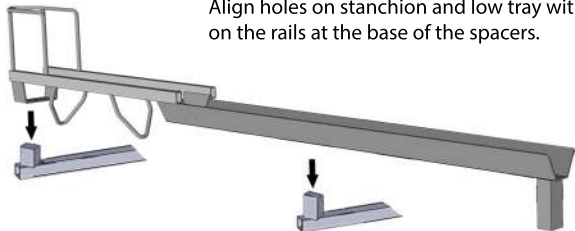
needed: tray/stanchion assemblies, bottom front and rear rails with attached floor supports, spacers, 5/16" washers, 5/16" x 3 3/4" bolts, 1/2" socket/wrench

(top view of assembled rails and floor supports)



Attach tray assemblies to bottom rails (contd. from pg. 7)

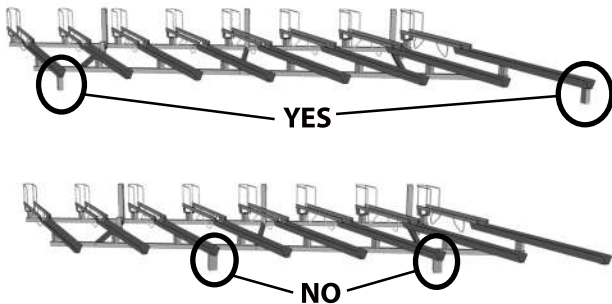
4b. Starting on one of the **ends** of the bottom rail assembly, Place a **stabilizer tray assembly** on top of a set of spacers. Align holes on stanchion and low tray with holes on the rails at the base of the spacers.



4c. Attach the stabilizer tray assembly and spacers to rails using (2) 5/16" x 3 3/4" bolts and (2) 5/16" washers.



4d. Repeat steps 4b. and 4c. for all remaining trays, **making sure both stabilizer trays are on the ENDS of the bottom rail assembly.**



The base of your rack is now complete!

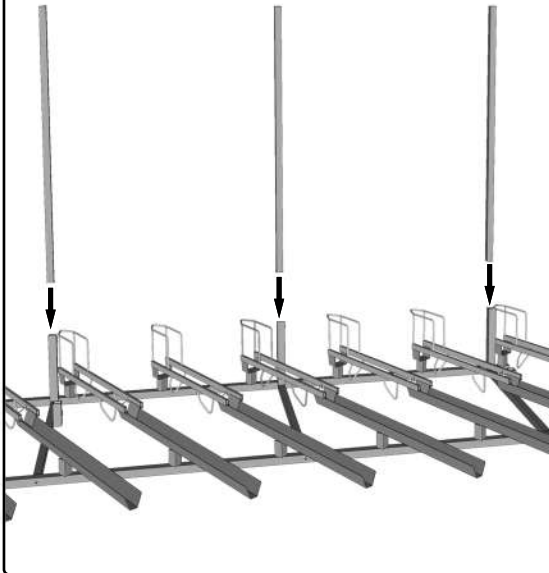


STEP 5: Beginning to build the 2nd tier

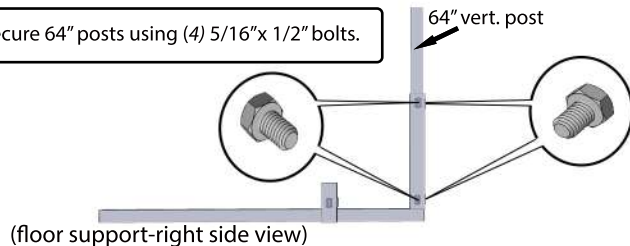
needed: 64" and 57" vertical posts, 5/16" x 1/2" bolts, 1/2" socket and wrench

NOTE: After securing/bolting both sets of vertical posts to the floor supports, there **WILL BE PLAY** in the vertical posts and bottom base assembly until the main arms and top rails are attached.

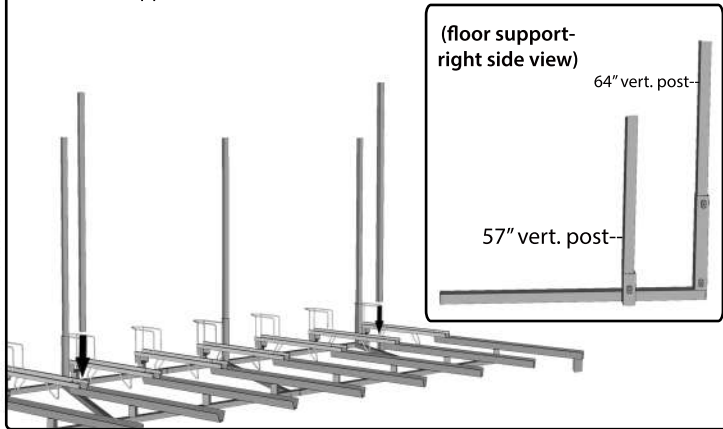
5a. Insert the 64" vertical posts into the rear vertical portion of the floor supports.



5b. Secure 64" posts using (4) 5/16" x 1/2" bolts.

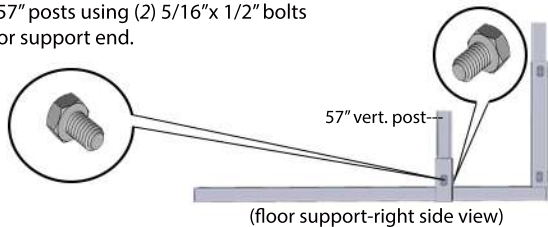


5c. Insert the 57" vertical posts into the shorter middle portion of the floor supports.



Beginning to build the 2nd tier (contd. from pg. 9)

5d. Secure 57" posts using (2) 5/16" x 1/2" bolts for each floor support end.

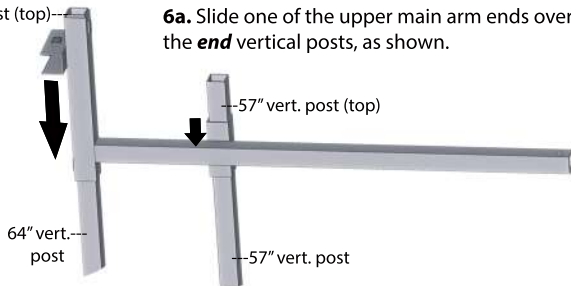


NOTE: After securing/bolting both sets of vertical posts to the floor supports, there **WILL BE PLAY** in the vertical posts and bottom base assembly until the main arms and top rails are attached.

STEP 6: Attaching arms and top rails

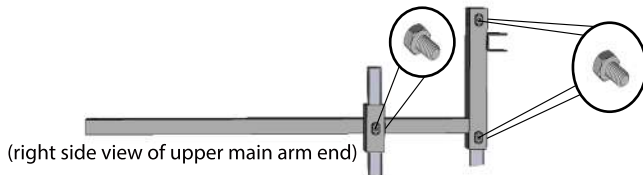
needed: upper main arm ends, upper main arm center, assembled top rails, 5/16" x 1/2" bolts, 5/16" x 3" bolts, 5/16" washers, 5/16" stopnuts, 1/2" socket and wrench, tape measure

6a. Slide one of the upper main arm ends over a pair of the **end** vertical posts, as shown.



6b. Adjust upper main arm end up or down the vertical post for desired rack height.
It's recommended to make the rear insertion point of the upper main arm ends flush with the tops of the 64" vertical posts as shown on the diagram in 6a.

6c. Hold upper main arm in place by loosely inserting the (6) 5/16" x 1/2" bolts into the main arm.



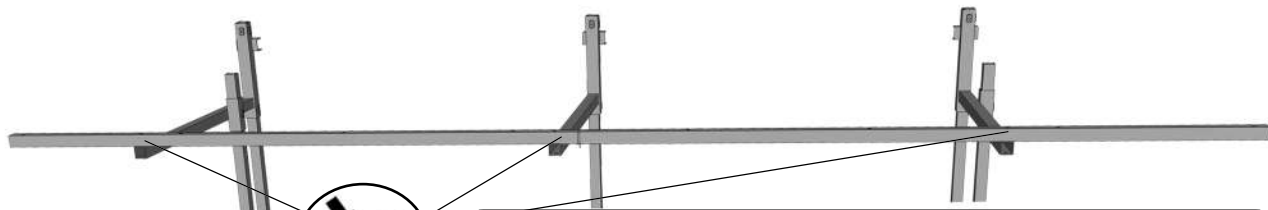
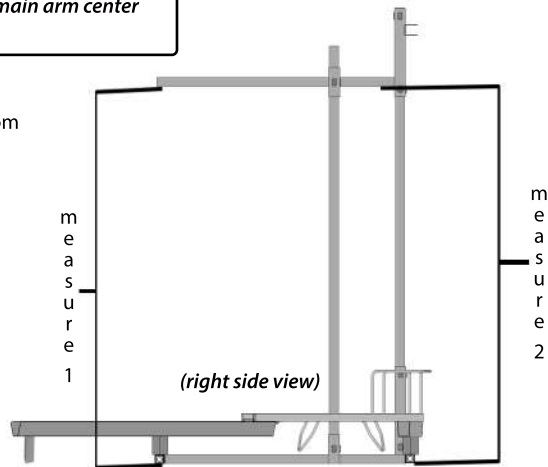
Attaching the arms and top rails (contd. from pg. 10)

6d. Repeat steps **6a.-6c.** for other upper main arm end and main arm center (*main arm center will only attach on the middle 61" vertical post*)

6e. Using a tape measure, confirm that upper main arm ends and center main arm are level with **2 measurements**: (1)the height from the bottom of rack base to the front bottom of the upper main arm end, and (2)the back bottom main arm end to back bottom of rack base. Repeat for main arm center. **These measurements should be equal.** Adjust upper main arm ends/center up and down as needed.

6f. Tighten bolts that were inserted in step **6c and 6d.**

6g. Place one of the top rails (Either top rail-they're interchangeable) on top of the front of the upper main arm ends and center arm.



6h. Align holes on the rail with holes in upper main and center arms.

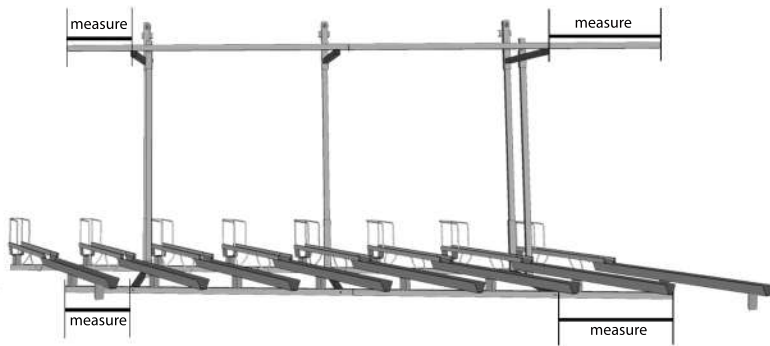
NOTES ON RAIL PLACEMENT FOR BOTH FRONT AND BACK TOP RAILS:

*letters of top rails should be on the bottom/facing the floor.

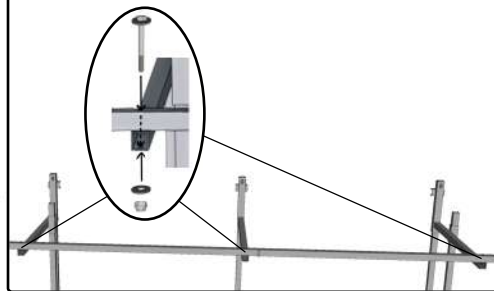
*the crimped half rail of each split rail assembly will face the way the rack is oriented—if rack is right angled, the crimped half rail will face right, and vice versa for a left angled rack.

Attaching the arms and top rails (contd. from pg. 11)

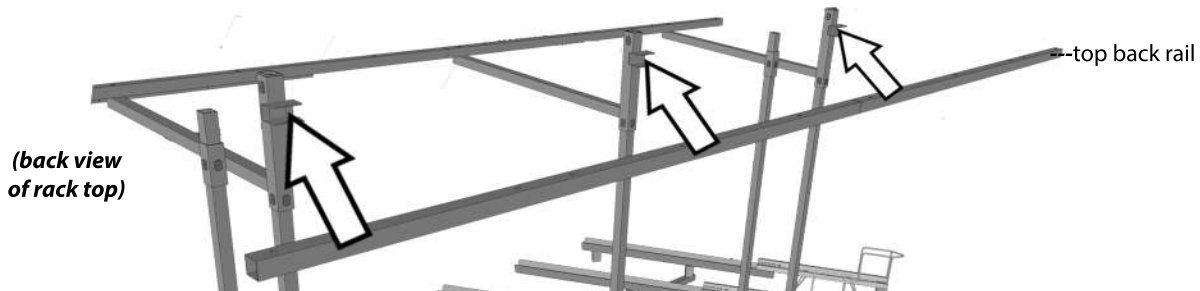
6i. Using a tape measure, make sure right and left top ends of rail are equal to the left and right bottom rail ends.



6j. After double checking that upper main arm and rail holes are aligned, secure top front rail to upper main arms/center with 5/16" x 3" bolts, 5/16" washers, and 5/16" stopnuts.



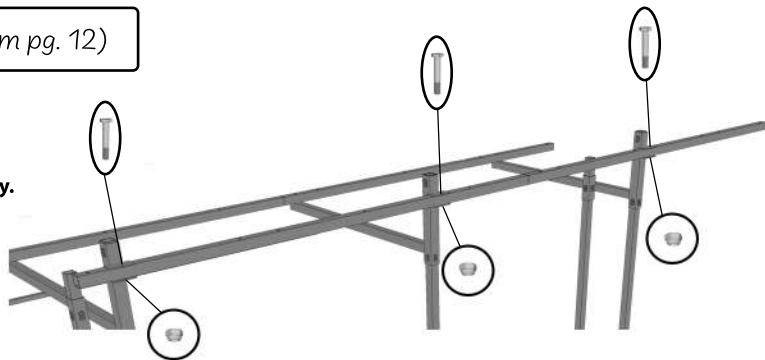
6k. From the *back side* of the rack, place remaining top rail into the C-channels on the back of the upper main arms/center arm. **Follow notes on rail placement on page 11** to ensure proper hole/angle alignment.



Attaching the arms and top rails (contd. from pg. 12)

6l. Fasten rear top rail to the back of upper main arms/center with 1/4" x 1 3/4" bolts and 1/4" stopnuts. **DO NOT over tighten--hand tighten only.**

NOTE: the 1/4" x 1 3/4" bolts are inserted through the holes in the arm c-channels, in **front** of the rail, not **through** the rail.

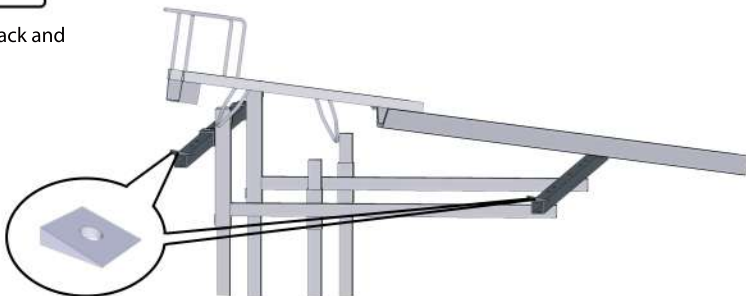


STEP 7: Aligning top rear rail/ attaching tray assemblies.

7a. Repeat Step 6h (from pg 11) with top rear rail.

7b. Place slides on top of end holes of both the back and front rail. **Angle slides to match angle of trays**, as done in **Step 4a (pg. 6)** with spacers.

needed: tray assemblies, slides, 5/16" x 1/2" bolts, 5/16" x 2-1/2" bolts, 5/16" washers, 5/16" stopnuts, 1/2" socket and wrench, tape measure

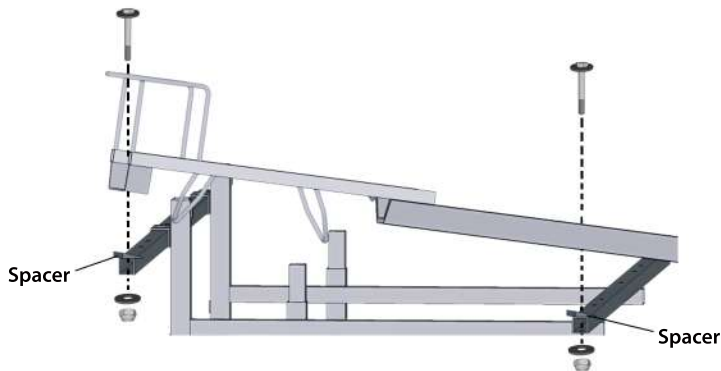


Aligning top rear rail/ attaching tray assemblies (contd. from pg.13)

7c. Place first tray assembly. Line up bolt holes on tray assembly with the corresponding holes on the top front and top rear rails. **Be sure spacers are still placed properly (see pg 13) on top of the rails.**

7d. Fasten tray assembly to both top rails with 5/16" x 2-1/2" bolts (2 per tray), 5/16" washers (4 per tray), and 5/16" stopnuts (2 per tray).

7e. Repeat **Steps 7c-7d.** for all remaining tray assemblies.

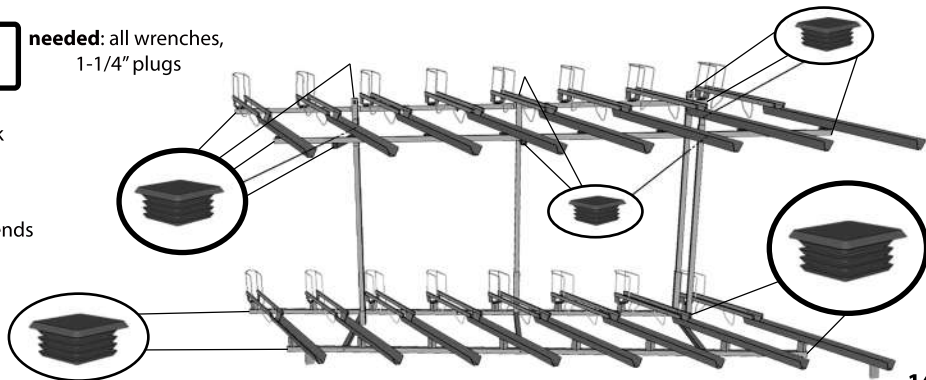


STEP 8: Finishing Touches

needed: all wrenches,
1-1/4" plugs

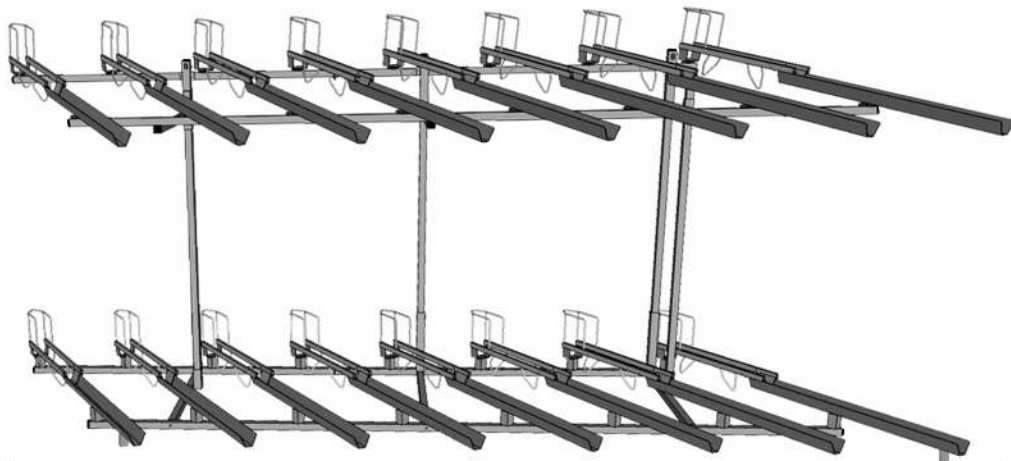
8a. Go back through the assembled rack and tighten any loose bolts.

8b. Insert 1-1/4" plugs into all exposed ends of supports, rails, and arms.





Your rack is now complete!



STOP

STOP

BEFORE LOADING BIKES:

It is recommended that the rear derailleur is set on the middle cog and the front derailleur is set on the largest chain ring to prevent chain or derailleur damage.