



GETTING ORGANIZED

Video: Versa-Rack Assembly: Boa Rack System

<https://youtu.be/3z98frUJcUA>

These directions will take you through the basic steps in building the Boa Rack System.

Basic Tips and Advice

- Thoroughly read through instructions before starting.
- Make sure you have all of your packages. The Fed-Ex ground label on your packages will say how many packages come with your shipment. It is not unusual for packages to arrive separately, sometimes a few hours apart, sometimes a day or two apart.
- The packing slip will list all the parts that have been shipped with your order and the numbers of each that you should have received. Unpack the boxes and make an inventory of the parts using the packing list. Each system will have the same types of parts, but the sizes and numbers of those parts might be different.
- Complete the assembly steps in the order that they are presented.
- Don't be alarmed if you have leftover hardware when you are done.

Tools needed:

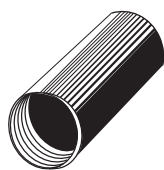
- 9/16" Wrench or Small Adjustable Crescent Wrench
- 1 Roll of Strong Masking Tape with a Width of at Least 2"

If you have problems with assembly, or are missing parts, you can call (920) 886-1220 ext. 15 or email CustCagesContact@aol.com

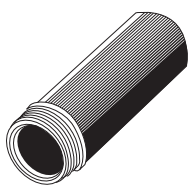
We are open 9:00 am – 4:30 pm CST Monday through Friday.

VERSA-RACK: BOA RACK SYSTEM LIST OF PARTS

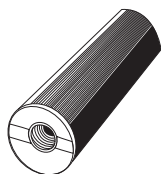
Below is a list of the parts for our entire rack system. Your unit(s) might not necessarily have all the parts shown below. Please refer to your packing list to see the parts and quantities that are included with your order. Please note that the vertical riser poles and the single spacer shown below are small cross sections of the actual parts you will receive. The actual parts will be longer in length.



22mm Female Threaded Insert



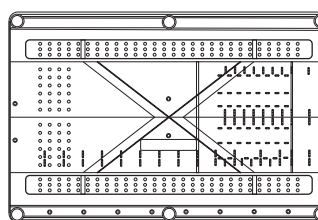
22mm Male Threaded Extension



3/8" Female Threaded Insert



Spacers 3 kinds:
Single Pole,
Double Pole, & Top



Shelves - 2 kinds:
With Steel Rails
& Without

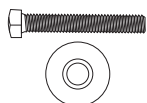


Flat Guide/
Stop

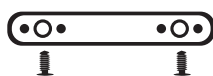


Heat
Cable

Vertical Riser Poles



Tightening Bolt
& Washer



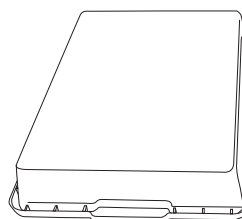
Slide Guide/Stop with
Rivets



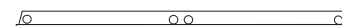
Locking



Non-locking



Tubs



L-bracket

Wheeled Casters

STEP ONE : ASSEMBLE THE BOTTOM SHELF

- Set a boa tub on the floor with the bottom of the tub facing up.
- Choose one end of the tub to be the front of the rack.
- Place a shelf with a steel rail at the front end of the tub so that the open side of the shelf with the heat cable clips is facing up, and the steel rail is oriented at the end of the tub.
- Place a shelf without a steel rail on the other end of the tub so that the open side of the shelf is facing up and the arrangement of cable clips is the same as the first shelf.
- Push the edges of each shelf that are in the middle of the tub together. These two shelves together will comprise the bottom shelf level of the boa rack. (*Illustration 1*)
- Position an L-bracket under one side of the two shelves so that the holes in the L-bracket are lined up with the underside of the vertical riser pole holes in the sides of the shelves, and the vertical flange of the L-bracket is pointing up along the edge of the shelves.
- Use some pieces of masking tape to hold the L-bracket in place, but do not cover the holes with tape. (*Illustration 2*)

STEP 2 : INSTALL THE BOTTOM SECTIONS OF THE VERTICAL POLES AND THE WHEELED CASTERS

- Each boa rack requires two vertical riser pole sections. The longer of the two poles is the bottom pole.
- There are nine vertical riser poles in a Boa Rack, but only seven of them will get a wheeled caster. The other two vertical riser poles will get a washer and tightening bolt installed on the bottom.
- Insert one longer vertical riser pole through each of the four holes along each side of the shelf, and one vertical riser pole through the hole in the center at the back of the shelf. The end of the vertical riser pole with the 3/8" female threaded insert should face the floor. (*Illustration 3*)
- Hand-tighten the casters with locking wheels into the 3/8" threaded inserts of the poles on the front corners of the shelf. (*Illustration 4-A*)
- Install a non-locking wheeled caster on all three poles on the back edge of the shelf, and on one of the two poles in the middle of each side. A total of seven wheeled casters will be installed on the rack, with the two locking wheels at the front corners.
- Install a washer and tightening bolt in the bottom of the two side vertical riser poles that did not receive a wheeled caster. Tighten by hand only. Do not use the wrench to tighten it. (*Illustration 4C*)
- Use several pieces of masking tape to hold the bottom of the vertical riser poles without casters up against the bottom of the shelf. The tape may not be strong enough to hold the vertical riser pole in place, especially when some force is applied to it, so you may want to find a solid object like a block of wood or stack of books to place under the pole to keep it in position.

Illustration 1

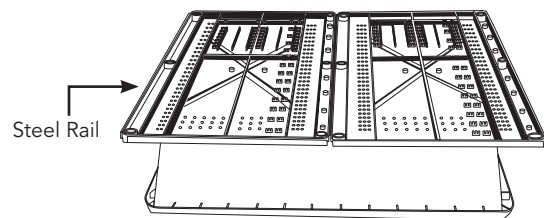


Illustration 2

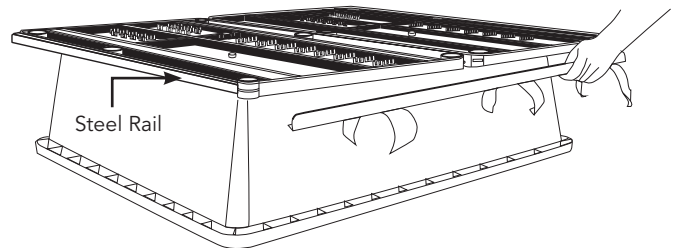


Illustration 3

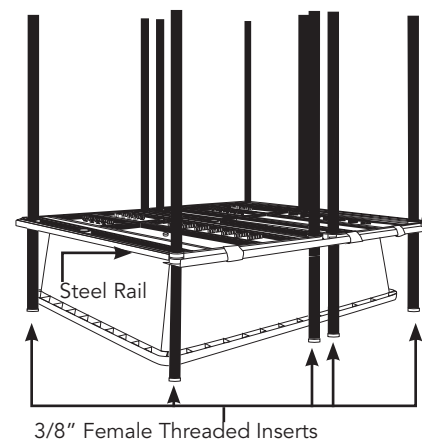
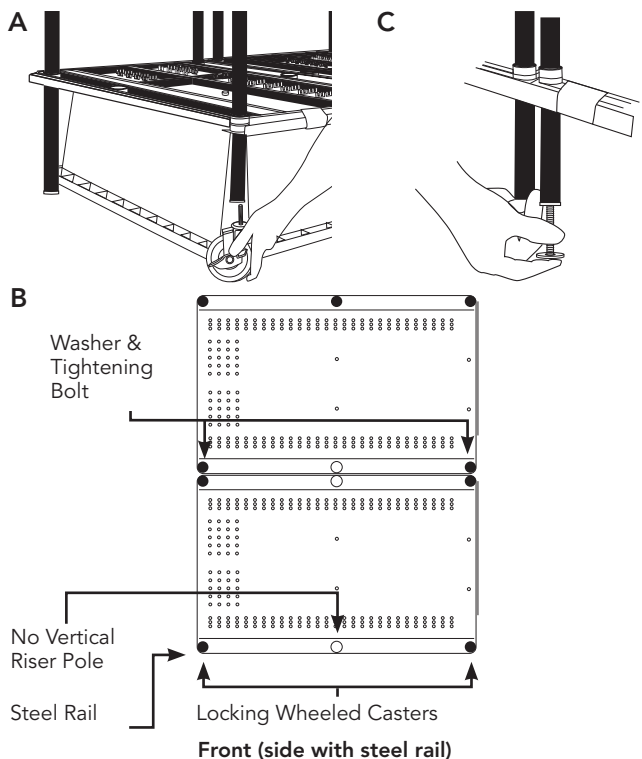


Illustration 4



STEP 3 : INSTALL THE GUIDES/STOPS WITH RIVETS ON THE BOTTOM OF THE REMAINING SHELVES

- The slide guides/stops with rivets will be positioned on the underside of the front section of each shelf (except for the lowest shelf) so that they are adjacent to the sides of the tubs. It is much easier to install the guides/stops with rivets before the rack is assembled. (*Illustration 5A*)
- There are holes in the shelf to receive the fasteners for the slide guides/stops with rivets.
- Position the holes in the slide guide/stop over the holes in the shelf with the flat side of the guide/stop against the shelf. (*Illustration 5B*)
- Push the barbed fasteners through the holes until they are fully seated. This will require some force.
- Install all of the slide guides/stops onto all of the shelves (except for the bottom shelf that is already assembled).

STEP 4 : INSTALL THE FIRST SET OF SPACERS ON THE VERTICAL POLES

- A boa rack has two types of spacers: single pole spacer and double pole spacer. There may also be a third type of spacer, the top spacer, which will be shorter than the other spacers. Set these top spacers aside.
- Slide a double pole spacer onto the two vertical poles that are next to each other on the sides of the rack.
- Slide a single pole spacer on each of the remaining vertical poles.
- Slide the spacers all the way to the top of the bottom shelf. (*Illustration 6*)

STEP 5 : INSTALL THE SECOND AND THIRD LEVEL SHELVES AND SPACERS

- Pick up a shelf without a stainless-steel rail on the front edge and rotate it so that the top is oriented the same as the top of the shelf already installed on the back end of the rack. The heat cable clips should be oriented the same way.
- Insert the tops of the vertical poles at the back of the rack through the holes in the second shelf and push it down to the top of the spacers installed above the bottom shelf.
- Pushing the shelf down is easier with two people and will require some wiggling and gentle banging to get the shelf into position. It is important to NOT use excessive force. The shelves are very strong, but they are still plastic.
- Select a shelf with the stainless-steel rail on the front edge (they should all have slide guides/stops installed) and install it on the poles at the front of the rack, making sure that the open side of the shelf with the cable clips is facing up, and the stainless-steel rail is at the front of the rack.
- Install another set of spacers above the second shelf.
- Repeat these steps to install the third level shelf and spacers above it.

Illustration 5

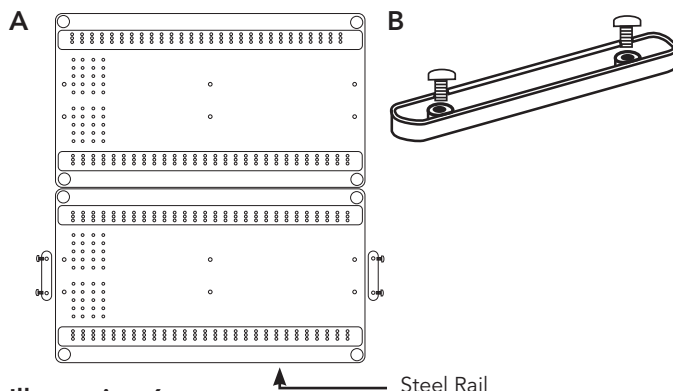


Illustration 6

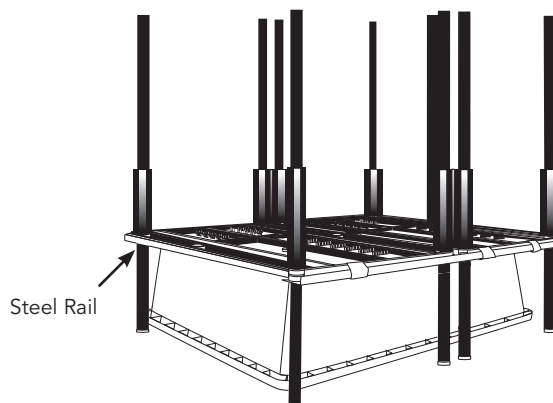
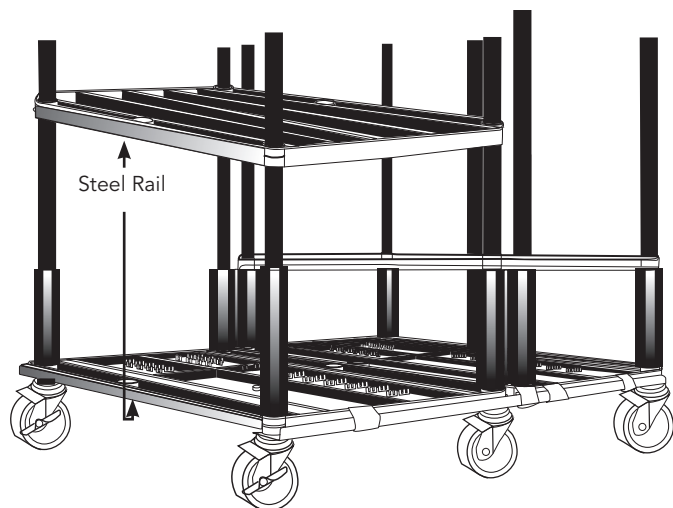


Illustration 7



STEP 6 : INSTALL AN L-BRACKET SUPPORT AND THE 4TH LEVEL SHELVES

- Slide a L-bracket support onto the vertical riser poles on each side of the rack. Make sure that the narrow vertical flange is point up and oriented to the outside of the rack.
- Install the shelves for the fourth level of the rack. (*Illustration 8*)

STEP 7: ATTACH THE TOP HALF OF THE VERTICAL RISER POLES

- The 22mm male threaded insert in the bottom of the top section of the vertical riser poles will thread into the 22mm female threads of the vertical riser poles already installed on the rack. (*Illustration 9*)
- Hand tighten the top half of each vertical riser pole.

STEP 8 : INSTALL SPACERS AND THE FIFTH LEVEL OF SHELVES

- Slide a set of spacers onto the vertical riser poles over the fourth level shelves. (*Illustration 9*)
- Install the fifth level shelves, and then the spacers above them. (*Illustration 9*)

STEP 9 : INSTALL THE LAST LEVELS OF SHELVES WITH L-BRACKET SUPPORTS

- The last set of L-bracket supports will go under the highest shelf that will have a tub setting on it when the rack is complete. The top-most shelf will not have any weight on it, and therefore will not need the L-brackets. (*Illustration 9*)
- Install the remaining levels on the rack.

Illustration 8

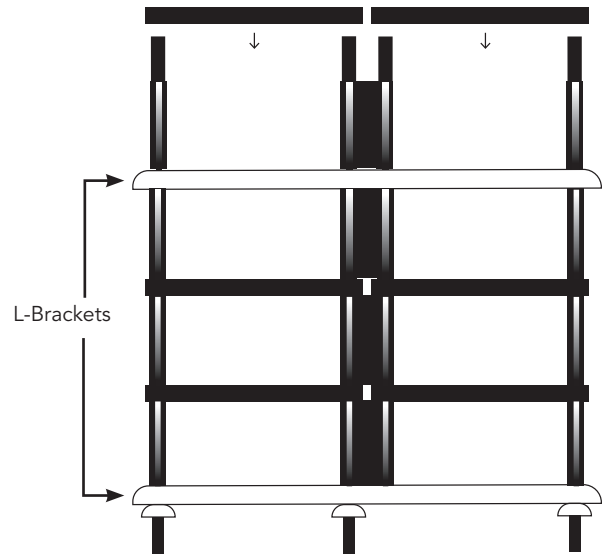
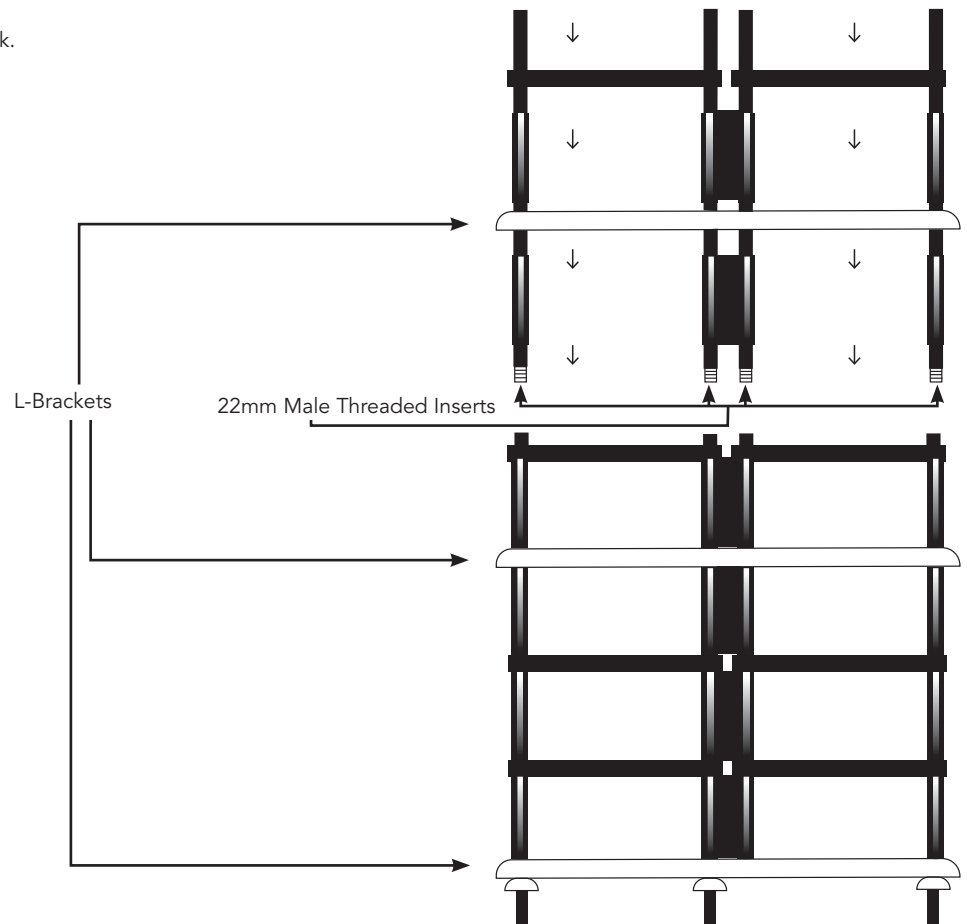


Illustration 9



STEP 10: TIGHTEN THE RACK

- Depending upon whether your rack is a 6 or 8-tub boa rack, you may or may not have a set of spacers that will slip over the vertical poles above the highest shelf. If you have those spacers, install them at the top of the vertical poles. (*Illustration 10*)
- To tighten the rack, place a washer over the top of each riser pole and insert a tightening bolt through it into the 3/8" female threaded insert in the top of the vertical pole. (*Illustration 10*)
- Hand tighten the bolt until you cannot tighten it any more.
- Use a crescent wrench to tighten the bolt CAREFULLY. The best way is to start with one of the vertical poles on a corner, tighten the bolt one complete turn with the crescent wrench and then try to twist the spacer under the top shelf. If the spacer rotates easily, tighten the bolt another turn. Repeat the steps, and count the number of turns of the wrench, until the spacer is hard (but not impossible) to twist.
- DO NOT OVER-TIGHTEN THE BOLTS!!! This can damage the rack. It is okay for the spacers to turn a little bit, but you do not want them to be loose.
- You will not be able to twist the spacers on the double poles, so tighten those about the same number of turns as the spacers on the single poles. Err on the side of fewer turns of the wrench.

STEP 11 : INSTALL THE HEAT CABLE

- Each Boa-Rack includes a heat cable that can be installed in the clips that are molded into the top of the shelves. (*Illustration 11*)
- The best practice is to install the cable under one end or side of the tub so that there is a temperature gradient in the tub.
- Heat rises, so the tubs at the top of the rack need less cable under them than the tubs at the bottom of the rack. Keep that in mind when you design the layout for your heat cable.
- Start at the top shelf of the rack and work your way to the bottom so that the plug of the heat cable will exit the rack at the level of an electrical outlet. Choose the exit point for your cable based upon where the rack will be positioned. You want the plug end of the cable to have easy access to the outlet.
- Leave a little slack in the cable where it exits and enters a shelf so that there is less chance that the cable will be pulled out of the clips.

STEP 12 : INSERT THE TUBS

- Slide the tubs into their positions on each shelf. The tubs should slide in easily. If the shelves are too tight for the tubs, loosen the tightening bolts until the tub can be inserted with no extra force.

STEP 13 : POSITIONING THE BOA RACK AND LOCKING THE WHEELS

- Roll the rack into the position that you want it to be. If the electrical outlet for the heat cable is behind the rack, plug the cable in before pushing the rack into its final position.
- When the Boa Rack is in its final position, lock each of the wheeled casters at the front corners.

Illustration 10

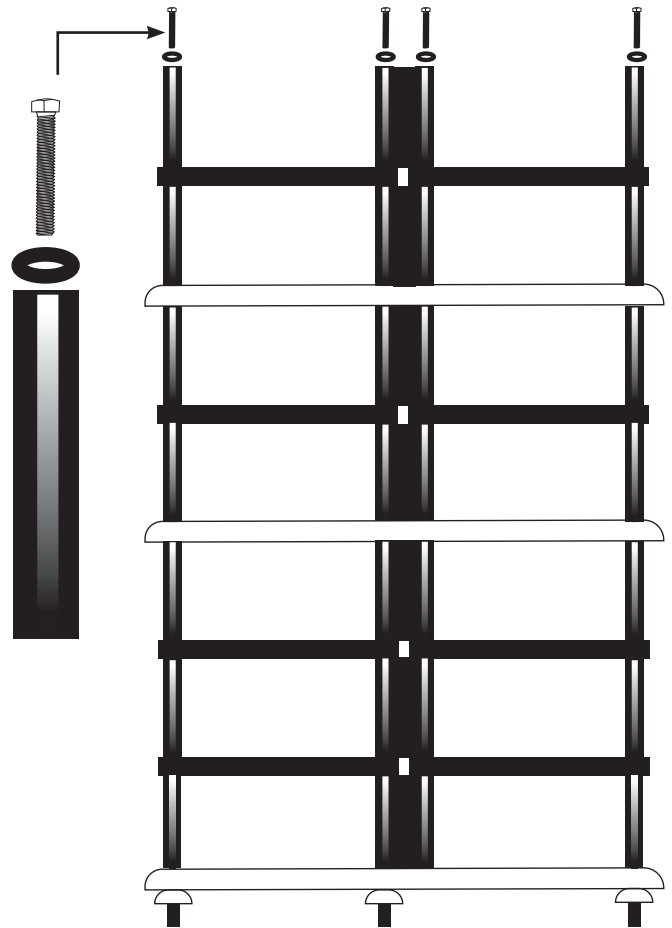


Illustration 11

