

# VISION CAGE SHELVES ASSEMBLY INSTRUCTIONS

## GETTING ORGANIZED

Video: [Vision Cage Shelves Assembly https://youtu.be/JA-gydXuGCK](https://youtu.be/JA-gydXuGCK)

### Basic Tips and Advice

- Thoroughly read through the instructions and watch the entire video before starting.
- Your shipment may arrive in either a single shipment on a pallet, or in a multiple-box shipment. If your shelves are shipped in multiple boxes, make sure that you have the entire shipment before trying to assemble the unit.
- The packing slip will list the number of each part shipped for your shelving unit. Unpack the shipment and make an inventory of all the parts before starting the assembly. If there are any missing parts, contact customer service right away. **DO NOT TRY TO ASSEMBLE SHELVES IF PARTS ARE MISSING.**
- Complete the assembly steps in the order they are presented.
- The top spacers may be a different length than the rest of the spacers and will be the last spacers used. Set them aside.
- **TWO PEOPLE** are necessary to assemble the unit.

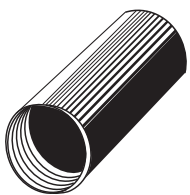
### Tools needed:

- 9/16" wrench or small crescent wrench
- Step ladder
- Small level

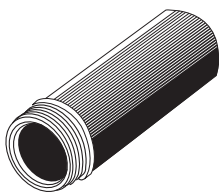
If you have problems with the assembly or are missing parts, call (920) 886-1220 ext. 15 or email [sales.support@customcages.com](mailto:sales.support@customcages.com). Customer service representatives are available from 9AM to 4:30PM CST Monday through Friday.

### Vision Cage Shelves List of Parts

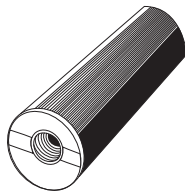
Below is a list of parts for a shelving unit. The numbers and sizes will be different for each shelving unit configuration, so the pictures below may not match your specific shelves exactly.



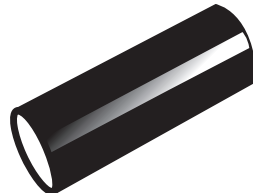
Vertical Riser Pole - 22mm Female



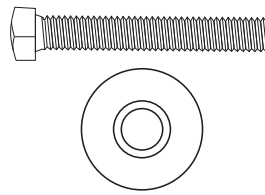
Vertical Riser Pole - 22 mm Male



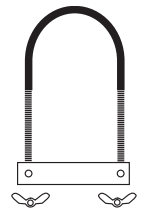
3/8" Female Vertical Riser Pole



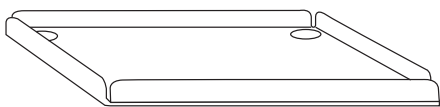
Spacer



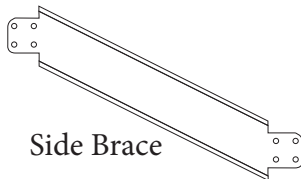
Tightening Bolt & Washer



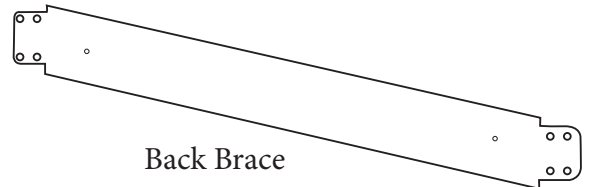
Brace U-bolt w/ wingnuts



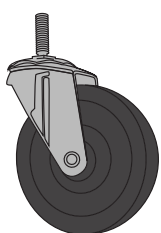
Shelf



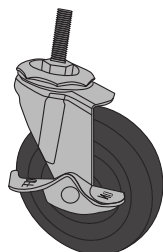
Side Brace



Back Brace



Caster Wheel - Non-locking



Caster Wheel - Locking

## STEP 1: Lower Poles, Casters & the Bottom Shelf

- Place one of the cages on the floor. It will be used to support the bottom shelf during the first part of the assembly.
- Set one of the shelves on top of the cage. The bent edges of the shelf should be facing up. *Illustration 1*
- The six-foot long shelves will have five vertical riser poles (three in the back and two in the front). All of the other shelves will have four vertical riser poles. Locate the correct number of poles that have a 3/8" female threaded insert in one end and 22mm female threads on the other end (no insert).
- There is no difference in the edges of the shelves under 6 ft long. The 6 ft shelves have three holes in the back and two holes in the front, and a reinforced flange along the front edge of the shelf.
- Thread the bolt from a caster wheel into the threaded insert. Make sure that the locking casters are installed on the front corners of the shelf. Install all of the lower riser poles and casters in this way.
- At this point there will be a shelf on a cage with a riser pole with a caster wheel attached extending from the floor up through each hole in the shelf.

## STEP 2: Spacers & 2nd Shelf

- There may be a set of spacers that are shorter than the rest (one spacer for each pole) which will be used at the top of each pole. Set those spacers aside.
- Refer to the spacer chart (page 4) to determine the number of spacers between each shelf.
- Slide the correct number of spacers down each pole onto the top of the bottom shelf.
- Slide the second shelf into position on top of the installed spacers. This step will require two people.
- Lifting from the poles on both ends of the unit, raise the shelves enough to pull the cage out from under the bottom shelf and lower the unit so that the casters are resting on the floor. This will require two people. One person will need to hold and support the shelving unit from this point forward until the tightening bolts have been installed. *Illustration 2*

## STEP 3: Braces

- Shelving units for the model 600 and 622 cages will have two back braces. All of the shorter units will only have one back brace. *Illustration 3*
- Attach all of the braces to the vertical poles. The flat side of the braces will face out. When looking at a side or the back of the shelves the braces will always angle down from the upper left to lower right. It is not possible to install the braces in another orientation.
- The bends of the u-bolts will be against the inside of the poles. The threaded ends of the u-bolts will pass through the pre-drilled holes in the ends of the braces, and then through the support plate for the u-bolts' wing nuts. Thread the wing nuts onto the ends of the u-bolts, but **DO NOT TIGHTEN THE WING NUTS**. *Illustration 4*
- The person holding the shelves steady will hold the poles as vertically straight as possible while the other person tightens the braces.

Illustration 1

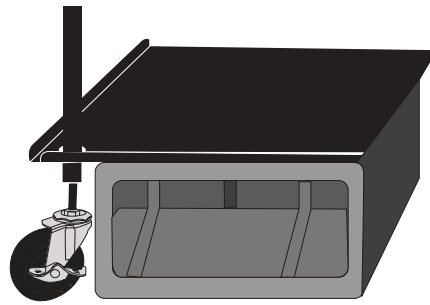
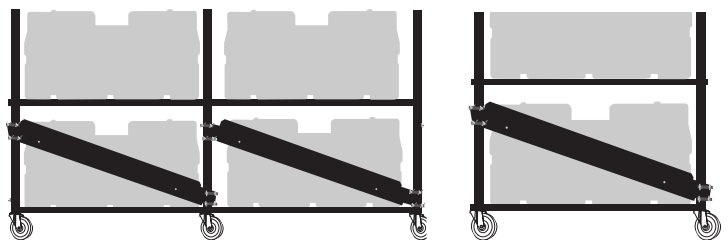


Illustration 2



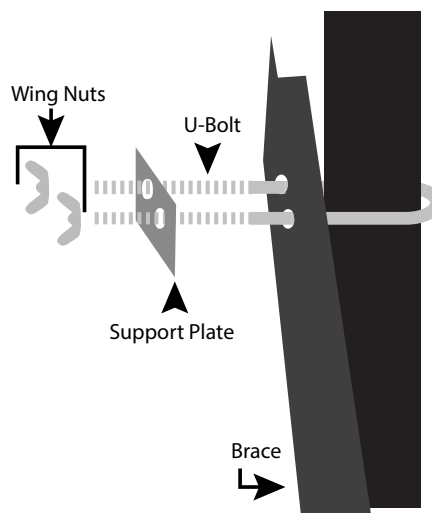
Illustration 3



Models 600/622

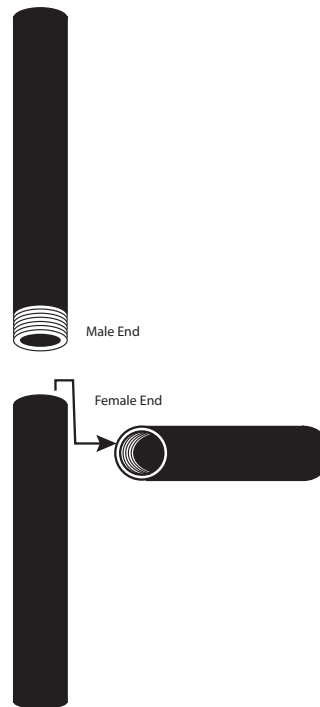
All Other Models

Illustration 4



- Start with the right-side brace (the side with the top end of the brace on the front pole). Hold the poles attached to that brace as vertically straight as possible while the brace is lifted up off of the bottom shelf and the wingnuts tightened to finger tight, no need to over-tighten.
- Move to the back brace (or braces) and repeat the process to tighten them while the poles are held in a vertical position.
- Tighten the remaining side brace last. The poles may not be perfectly straight, but they will be adjusted later. The shelving unit is now stable enough to complete the assembly without needing to be held.

Illustration 5



#### STEP 4: Upper Poles & Remaining Shelves

- The 22mm male end of each upper pole will thread into the 22mm female end at the top of each bottom pole. Install all of the top poles *Illustration 5*
- Install a set of spacers onto the poles above the second shelf, and then a third shelf over the spacers. *Illustration 6*
- If your cage only has three shelves you can go on to Step 5. If your cage has more than three shelves, install the spacers over the third shelf, and then lift the fourth shelf onto the poles and lower it on top of the spacers. If there are more than four shelves, repeat the sequence of spacers and shelves until all of the shelves are on the unit.

#### STEP 5: Top Spacers & Tightening Bolts

- Place the remaining spacers on the poles over the top shelf. If your shelving unit has a set of spacers that are different than the rest of the spacers, place those different spacers at the top.
- Thread a tightening bolt with a washer into the 3/8" threaded insert in the top of each pole and tighten them to finger tight. Use a 9/16" wrench to tighten the bolts to the point where it is not easy to rotate a spacer around the pole. *Illustration 7*
- Once all of the bolts are tightened the shelving unit will be able to stand unsupported.

Illustration 6



#### STEP 6: Adjusting the Braces

- The shelving unit is stable, but the poles may not be perfectly vertically straight. The last step is to use a level to check for straightness of the poles and adjust the braces, if necessary. Side braces control the front to back position of the poles. The back braces control the left to right position of the poles.
- Start with front right corner pole (the pole with the high end of the side brace). Hold the level against the pole on the front or back side and check for level. *Illustration 8*
- If the pole is not level, loosen the wing nuts on the top end of the side brace (do not loosen the wing nuts at the lower end of the brace on the back corner pole). Push or pull the front corner pole front or back to straighten it until it is level, and then retighten the wing nuts on the brace to a **FIRM** finger tight.
- Move the level to the next pole to the right (the back corner pole on the same side of the rack), use the level to make sure that the pole is in a vertical position left and right. If it is not straight, loosen the wing nuts at the upper end of brace attached to that pole, straighten the pole, and then retighten the wing nuts.

Illustration 7

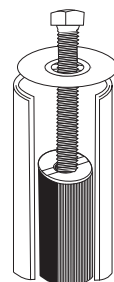
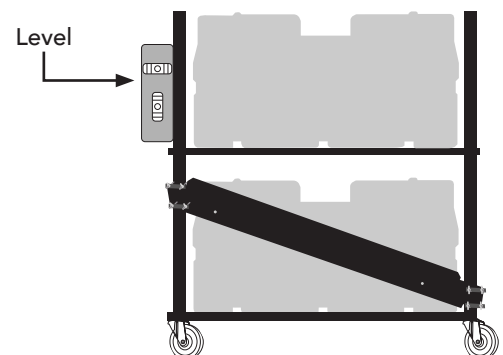
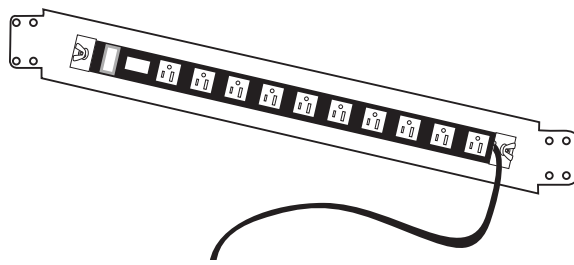


Illustration 8



- Work your way around the rack checking the poles are level and adjusting the braces as needed. After tightening all the braces the shelving unit should sit flat with the poles in a vertical position.
- The braces that have been installed will greatly reduce wobble in the shelving unit, but on some units there may still be a slight sway when the unit is moved. If you have purchased an extra set of braces, install them onto the poles above the second shelf.

Illustration 9



### OPTIONAL POWER STRIPS

- Each brace has pilot holes drilled for attaching an electric power strip using the bolts and wing nuts supplies with the power strip. *Illustration 9*

Spacer Chart

Vision Cage SKU Number    Length of each spacer    Number spacers **BETWEEN** each of the shelves

622	5.375"	4
600	5.375"	3
433	3.5"	8
422	5.375"	4
415	5.375"	5
400	5.375"	3
332	5.375"	4
322	3.5"	7
222	5.375"	5
221	3.5"	4
215	5.375"	4
211	5.375"	3
111	3.5"	5