



## **SUNCATCHER RECTANGLE W/DOUBLE GABLE ROOF ASSEMBLY INSTRUCTIONS**

### **GETTING ORGANIZED**

Video: SCA001 <https://youtu.be/8p-l-d2P9C4>

### **TOOLS NEEDED**

- Phillips Head Screwdriver
- 7/16" regular wrench

### **HELPFUL TOOLS TO HAVE**

- Power screwdriver or drill with a Phillips Head bit and a square drive bit, to remove screws from shipping crate - *not to assemble the Suncatcher*
- A utility knife or a pair of scissors for removing packing materials
- A step ladder
- Rubber or plastic mallet
- Regular flat black Rust-Oleum spray paint to cover any scratches in powder coating that may occur when handling the parts of the cage.

### **BASIC TIPS AND ADVICE**

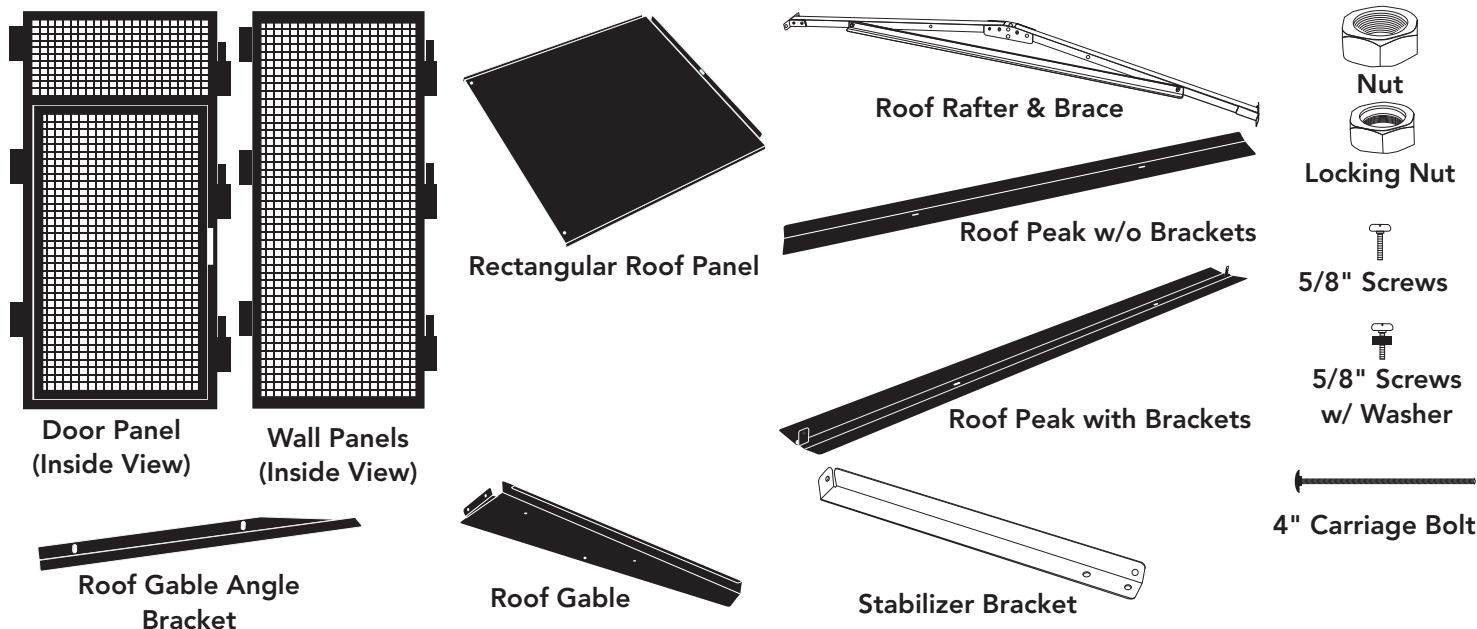
- A Suncatcher enclosure is engineered to be easily assembled by two people; one person to hold parts in place while the other secures the parts with screws and bolts.
- Thoroughly read through instructions before starting.
- Complete the assembly steps in the order that they are presented.
- Choose a level place to set the cage and build the cage in the location where it will be set.
- Collect all the tools that you will need.
- Unpack the shipping crate and take an inventory of the enclosure parts. The exact type and number of parts may be different depending on the size of the cage and the accessories you ordered. Refer to the packing list for the complete inventory.
- Unpack and place all the parts near where the enclosure will be located.
- Do not use a drill or power screw driver to seat the screws. Over tightening may damage parts or overheat screws and nuts.
- Do not let the stainless steel hardware pieces get too hot. Heat makes them expand and difficult to install.
- In order for all the parts of a Suncatcher enclosure to be assembled in their correct positions it is very important that the parts be able to move a bit while they are being put together. Do not tighten any nuts or screws completely until the end of assembly.
- The nuts with locking nylon inserts must not be tightened further than just getting them onto the screws before the final tightening of the cage. Once the locking nuts are tightened, they are very hard to loosen or remove.
- Don't be alarmed if you have leftover hardware when you are done.

### **RECEIVING & UNPACKING**

Video: SCA002 <https://youtu.be/bLH4q1y4b-U>

- Your Suncatcher enclosure will be shipped in a large crate. Use a Phillips head screwdriver to remove the outside panels of the crate. If it is necessary to remove any of the crate support lumber a square-drive bit will be needed to remove the interior screws.
- Unpack the crate before taking inventory. Take care to not scratch the powder coated parts.
- Remove any protective packing materials and lay the parts out where they are easily accessible and can be seen.
- You should have all the parts listed on your packing list enclosed with your unit. All Suncatcher enclosures have the same basic parts, but the numbers and size of each may vary depending on upon the size of the cage.
- Small parts can be easily lost in packaging so carefully look through all packaging.

## PARTS LIST



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

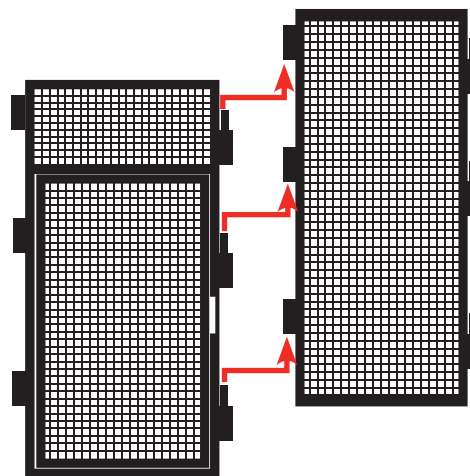
We are open 9:00 am – 4:30 pm CST Monday through Friday.

## STEP 1 Assembly of Door & Side Panels

Video SCA003 <https://youtu.be/fy0q0nLSbsU>

- The top frame of door and wall panels will have one threaded insert on the outside and two threaded inserts on the inside of the panel.
- Looking from the inside of a panel, the left side will have round tubular hinges without pins, and the right side will have hinges with stainless steel pins pointing up.
- Start with the door panel. While one person holds the door panel in an upright position, a second person can line up the hinges without pins on the wall panel over the hinges with pins on the door panel. *Illustration 1*
- Insert the top of the center hinge pin first, because it is slightly longer than the upper and lower pins, but **DO NOT** push it down.
- Line up the upper and lower hinges. Once they are in place, apply gentle pressure to the **FRAME** of the wall panel to seat the hinges onto the pins. **DO NOT APPLY PRESSURE ON THE WIRE MESH TO SEAT THE HINGES.** Gently swinging the wall panel back and forth will help to seat the hinges. If the hinges are stubborn, use a rubber or plastic mallet to gently tap on the top corner of the frame above the hinge. **DO NOT TAP ON THE MIDDLE OF THE FRAME.**
- Continue putting wall panels in place until the ring of panels is complete, including seating the hinges between the last wall panel and the door panel.
- Gently push and pull on the frames of the panels to arrange them in the correct shape.

Illustration 1



## STEP 2 Roof Supports

Video SCA004 <https://youtu.be/SQijeO7Gw4E>

- On a cage that is longer than it is wide, the roof gables will be positioned on the narrow ends. We suggest locating the door under a roof gable. Pre-assemble the roof gables and angle brackets by positioning the angle bracket on the inside of the gable with the flat, narrow end of the bracket parallel with the top flange of the gable and pointing towards the narrow end of the gable. There are left and right side gables and angle brackets, and they will only fit together correctly left + left and right + right. Secure the angle bracket to the gable using a 5/8" screw and locking nut, with the locking nut against the angle bracket. **DO NOT COMPLETELY TIGHTEN THE LOCKING NUTS.** *Illustration 2*
- Attach the gables to the tops of the wall/door panels on the outside of the ends of the cage with the flat side of the gables facing out of the cage. Use a 5/8" screw with washer through the bottom hole on the gable into the threaded insert in the top of the wall/door panel. There will be a left and a right side gable over both ends of the cage. **DO NOT COMPLETELY TIGHTEN THE LOCKING NUTS.** *Illustration 3*
- Use a screw and locking nut to connect the adjacent flanges on the wide ends of the gables inside the cage at the **BOTTOM ONLY**. Do not connect the gables through the top holes at this point. **DO NOT COMPLETELY TIGHTEN THE NUTS.** *Illustration 4*
- Install the roof rafter/braces between opposite wall panels parallel to the gable ends. There will be one rafter/brace for each pair of wall panels down the length of the cage. Use screws to secure the brackets at the ends of the rafters to the two threaded inserts at the top of the wall panels. **DO NOT COMPLETELY TIGHTEN THE SCREWS.** *Illustration 5a & 5b*
- Use a screw to install the bent end of the stabilizer brackets onto the gable-end wall/door panels. Before inserting the screw line up the stabilizer bracket from a hole on the top of the wall/door panel to the hole in the rafter/brace. If the brace is on the side of the rafter facing the end wall, the second hole from the flat end of the stabilizer will line up with the hole in the bracket. If the brace is on the other side of the rafter, the hole in the end of the stabilizer will line up. The stabilizer brackets should be installed at 90° angles to the wall/door panels and rafter/braces. Use a screw and locking nut to connect the stabilizer bracket to the rafter/brace. There will be one stabilizer bracket for each wall/door panel on both ends of the cage. **DO NOT COMPLETELY TIGHTEN THE NUTS & SCREWS.** *Illustration 5b*

Illustration 2

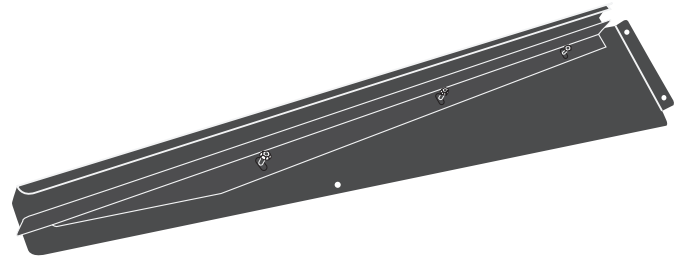


Illustration 3

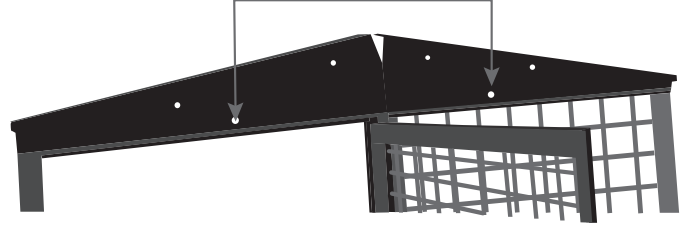


Illustration 4

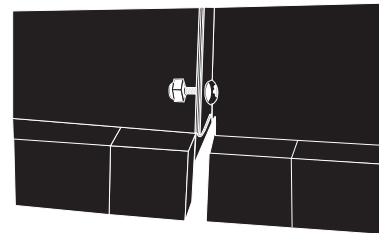


Illustration 5a

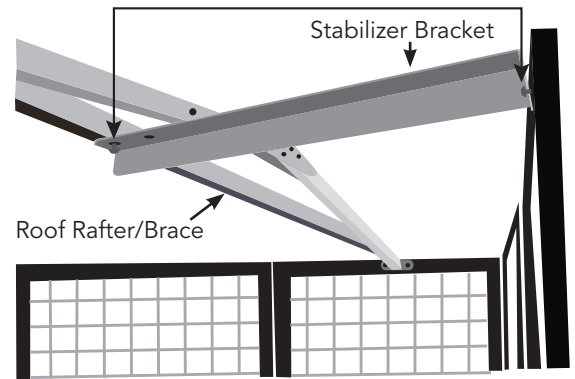
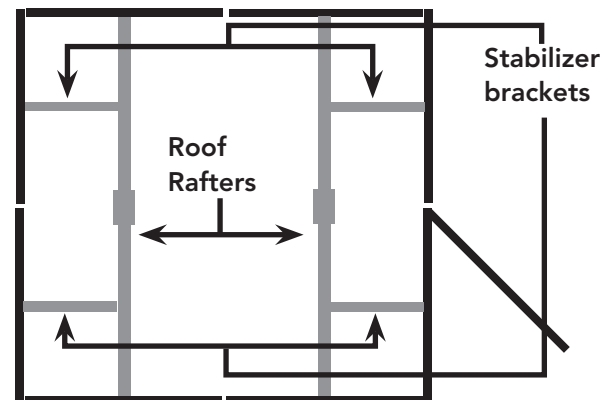


Illustration 5b



- If the cage is relatively short, there will be one roof peak with a bracket attached at both ends. If the cage is longer, there will be two pieces of roof peak with a bracket attached to one end. Set roof peak w/brackets on top of the roof rafters with the bracket ends of the roof peak under the top edge of the roof gables where they come together and the brackets facing down. Use a screw and locking nut to connect the bracket to the gables through the hole in the bracket and both holes in the adjacent gable flanges. **DO NOT COMPLETELY TIGHTEN THE NUTS.** *Illustration 6*
- If the cage has more than one roof peak w/bracket the ends of the roof peak without a bracket will overlap on top of the cage. If the cage is too long for a single roof peak there will be two pieces of roof peak with one bracket on an end. The holes in the roof peaks will line up over the roof rafters. Use a screw and locking nut to connect the bracket under the roof peak to the tops of the gables through the holes in the top of the gable flanges inside the cage. *Illustration 7*

### STEP 3: Roof Panels & Roof Peak

Video SCA005 <https://youtu.be/ZOn4aktatq8>

- Locate a roof panel. The top edge of the panel is flat; the left edge is bent into a downward-facing channel; the bottom edge has a downward flange with a screw hole in the middle; and the right edge is has an upward flange. *Illustration 8*
- Facing one side of the cage, install the first roof panel on the left end of the roof by inserting the left edge of the roof panel between the gable angle bracket and top edge of the gable, then slide the roof panel up to the roof peak. The top edge of the roof panel will sit on top of the roof peak, and the bottom edge of the roof panel will be secured to the top of the wall panel with a screw w/washer. **DO NOT COMPLETELY TIGHTEN THE SCREW.** *Illustration 9*
- Install the rest of the panels of the roof from left to right, with the channel on the left edge of each panel overlapping the flange on the right side of the panel installed before it. The right edge of the last panel installed will slide between the gable angle bracket and top of the gable on the right side of the roof. Install all the panels on both sides of the cage.
- Lay pieces of roof peak w/o brackets on the top edges of the roof panels with the ends of the roof peak over the top corners of the gables. The holes in the roof peak should line up with the holes in the roof peak under the roof panels and the centers of the rafters. There will be a gap between the roof peaks along most of their length.
- Insert a 4" carriage bolt through the holes in the roof peaks and through the hole in the center of each roof rafter. If the holes do not line up to easily insert the bolt, adjust the roof peaks. Install a nut (not a locking nut) on the bolt inside the cage, but do not tighten it more than finger-tight. *Illustration 10*

Illustration 6

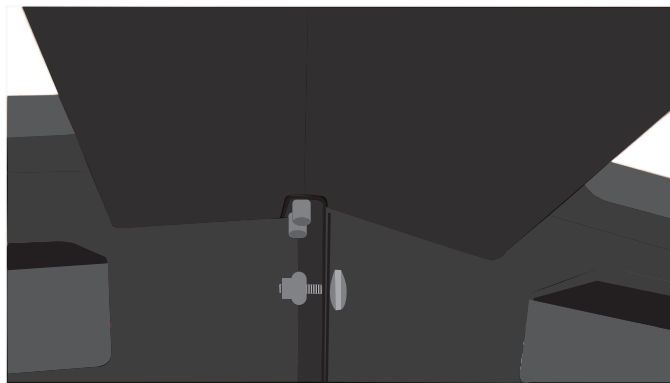


Illustration 7

Overlapping roof peak pieces with holes lined up over the tops of the rafters.

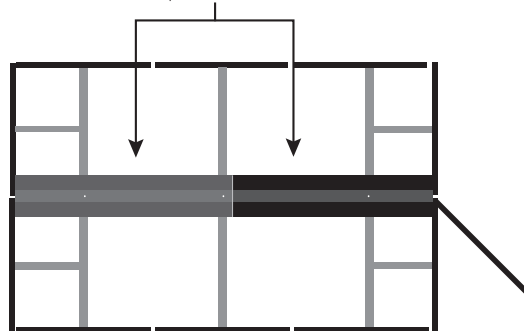


Illustration 8

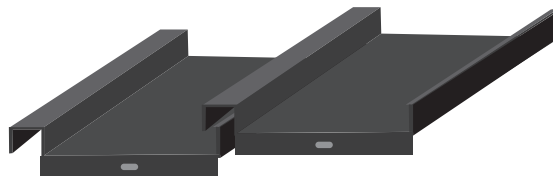


Illustration 9

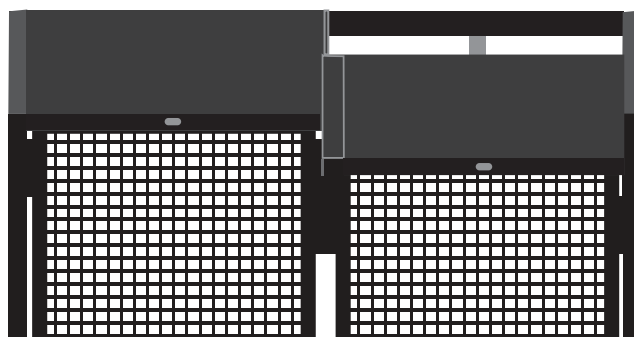
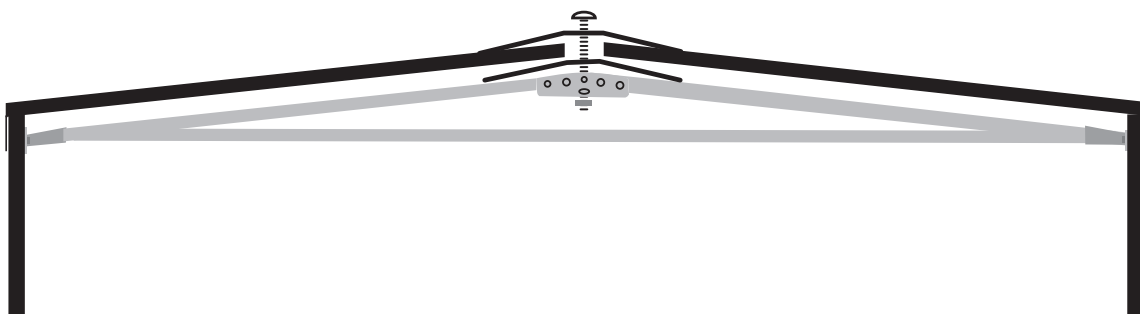


Illustration 10



## STEP 4: Tightening & Finishing

Video SCA006 <https://youtu.be/NLtA91s8hT0>

- Inspect all of the connection points in the cage. Make sure that they are aligned correctly and can slightly move. If any connection points are misaligned, gently adjust the parts around them until they can move.
- Start the tightening process outside the cage and finish in the center of the inside of the cage. **DO NOT OVER TIGHTEN.** Just snug is tight enough. The tightening sequence is:
  1. Tighten the screws at the tops of the wall/door panels outside the cage.
  2. Move inside the cage and tighten all the screws at the tops of the wall/door panels inside the cage.
  3. Two people will work together to tighten the connection between the gables and the gable angle brackets. One person will hold the locking nuts in place with a wrench while pushing the angle bracket up so that the edge of the roof panel is as snug as possible against the top of the gable. The other person will tighten the screw from the outside of the cage. *Illustration 11*
  4. Tighten the nuts connecting the stabilizer brackets to the roof rafter/braces.
  5. Tighten the nut on the 4" carriage bolt under each roof rafter
  6. Inspect all the fasteners outside and inside the cage to make sure that they are snug.
  7. Lastly, install a second nut (not a locking nut) onto each 4" carriage bolt in the center of each rafter and tighten it against the nut already in place.

Illustration 11

