



CUSTOM CAGES HYBRID H3 ENCLOSURE READ BELOW!

GETTING ORGANIZED

Video: H3001 - Getting Organized <https://youtu.be/QPxCTfsNzhs>

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.
- Complete the assembly steps in the order that they are presented.
- If your unit comes with a stand or hood, assemble this first.
- Make sure you have enough help. Do not attempt to assemble cage without adequate help. Assembly is not excessively complicated but holding things in place requires multiple sets of hands.
 - Small cages with the longest side under 4 feet can be easily put together by 2 people.
 - Four to eight-foot cages require 2 or more people.
 - Large cages require 3 - 4 people, additional people makes it much easier.
- If you ordered a cage, hood, stand, pull out tray, removable floor, or removable divider, each unit you ordered will have its own packing list.
- Don't be alarmed if you have leftover hardware when you are done.

TOOLS NEEDED

- Tape measure (not provided)
- Scissors (not provided)
- Small Phillips-head Screwdriver (not provided)
- Allen Wrench (included with hardware)

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

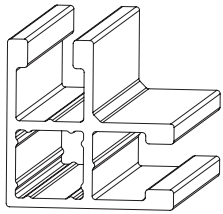
We are open 9:00 am – 4:30 pm CST Monday through Friday.

H3 HYBRID™ ENCLOSURE LIST OF PARTS

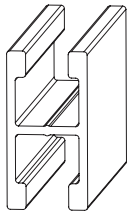
Below is a list of the parts for our entire cage system. Your unit(s) might not necessarily have all the parts shown below. Please refer to your packing list to see the parts and quantities that are included with your order. Please note that 33c, 33s, and "U" channel shown below are small cross sections of the actual parts you will receive. The actual parts will be longer in length.

SEPARATING YOUR PARTS

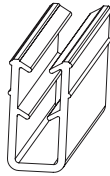
Cages, hoods, stands, and pull out tray parts are often shipped together in the same package(s). These instructions are intended for constructing one unit at a time. Make sure you separate all parts for each unit before assembling. Each unit you ordered will have its own packing slip. If any combination of the three were ordered you must follow these instructions from start to finish for each unit.



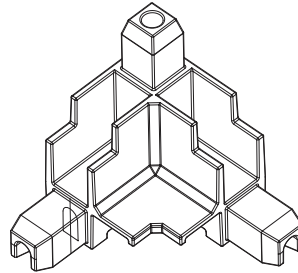
33C (Aluminum)



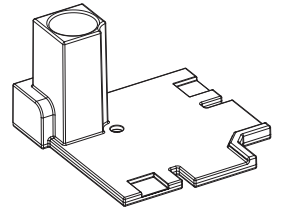
33S (Aluminum)



"U" Channel
(Plastic)



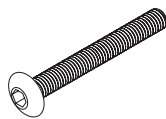
Corner Joint



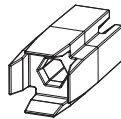
Corner Cap



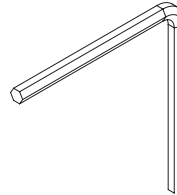
#4 x 3/8"
Flat Head Screw



1/4 - 20 x 2"
Button Head
Socket Screw



Draw Wedge



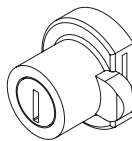
Allen Wrench



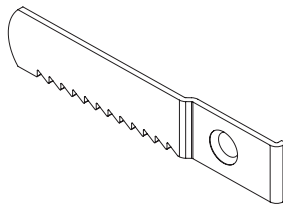
Threaded "T"
Nut for Lock



8-32 x 1/4"
Machine Screw
for Lock



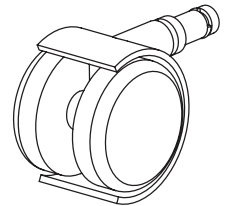
Door Lock Drum



Door Lock Slide



Stacking Pin



Caster

CORNER JOINT ASSEMBLY

Video: H3002 - Corner Joint Assembly

<https://youtu.be/8JMiDZu7a-o>

NOTE: This set of instructions is intended to provide practice for learning how to attach the aluminum frame members to a corner joint and is NOT an assembly step for the actual cage.

If you understand how the joint works from watching the video you can move on to the first steps in building the enclosure. If how the joint goes together is not clear, use these instructions to practice building a corner before starting on the enclosure.

Take a careful look at the corner joint and see that two of the corners are alike and one is different. The two that are the same are the horizontal corners that attach to horizontal frame members. Note that the channels for the screws on the horizontal corners are open, and the channel in the vertical corner is closed. The button head socket screws snap into the open channels of the horizontal corners, and are inserted through the closed channel in the vertical corner.

STEP 1

ATTACHING THE CORNER TO ALUMINUM FRAME MEMBERS

1.1 Horizontal Frame Members

Screw the draw wedge onto the end of the button head socket screw 2-3 turns. It is easiest to hold the button head socket screw in place with the Allen wrench while twisting the draw wedge.

Snap the screw into the correct position in the open channel of one of the horizontal corners of the joint. (*Illustration 1*)

Insert the draw wedge into the center opening of the aluminum frame member and push the corner of the joint into the frame until the corner is fully seated. (*Illustration 2*)

Use the Allen wrench to tighten the screw into the draw wedge a little bit. Do not completely tighten the draw wedge during this practice exercise.

1.2 Vertical Frame Members

Insert the button head socket screw through the closed channel in the vertical corner of the joint so that the thread end of the screw extends out of the top of the corner joint.

Thread the draw wedge onto the screw for a few turns

Insert the draw wedge into the center opening of the aluminum frame member and push the corner of the joint into the frame until the corner is fully seated.

Use the Allen wrench to tighten the screw into the draw wedge a little bit. Do not completely tighten the draw wedge during this practice exercise.

Now that you have practiced installing a frame member onto the horizontal and vertical corners of the joint, disassemble the corner and move on to building the enclosure.

Illustration 1

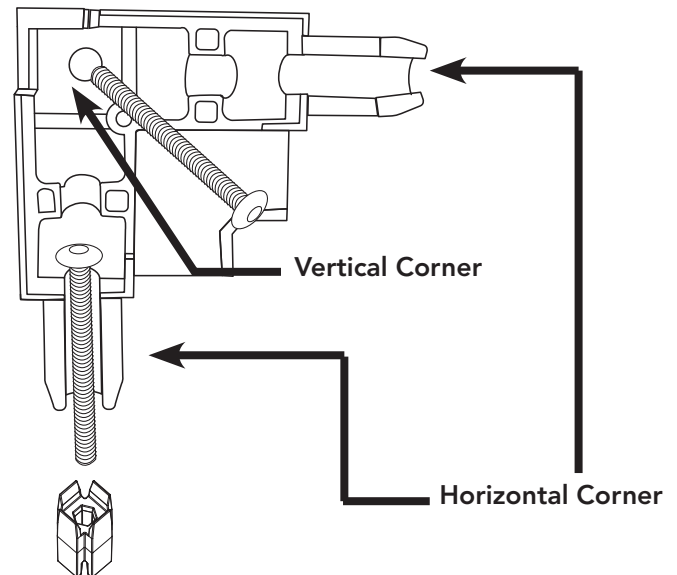
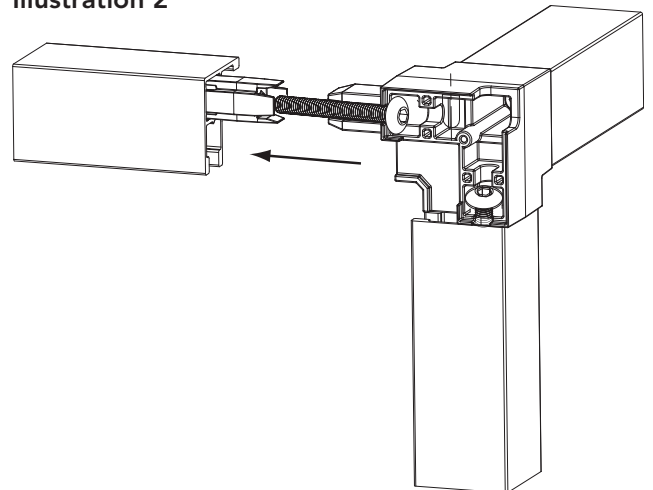


Illustration 2



ASSEMBLY INSTRUCTIONS - VERSION "A" CAGE, HOOD, OR STAND

STEP 2

"U" Channel Assembly

Video: H3003 - "U" Channel Side Panels

<https://youtu.be/sjTvCA2Cpis>

All stainless steel wire, acrylic, aluminum laminate and/or perforated aluminum panels should be framed with the plastic "U" channel strips (4 pieces for each panel) before they can be installed into the frames. Installing the "U" channel strips onto all of the panels that need them at the start of the project will save time later. See *Illustration 3*.

Parts Needed

- "U" channel parts (4 for each panel)
- Stainless steel wire, acrylic, aluminum laminate, and/or perforated aluminum panels

Lining up the "U" channel

The pieces of "U" channel are slightly shorter than the side they will snap onto. Starting on one side, make sure that you line up the "U" channel so that the end is at one corner of the panel.

Push the open side of the U channel firmly onto the edge of the panel until the edge of the panel is fully seated into the channel along its entire length.

Install the 2nd piece of "U" channel so that the end of it is against the piece of "U" channel you have already installed. The other end of the 2nd piece of channel should reach the end of the panel edge.

Work your way around the sides of the panel installing "U" channel in the same way.

STEP 3

Cage/Hood/Stand Back Assembly

Video: H3004 - Cage/Hood/Stand/Back Assembly

<https://youtu.be/5NGsdqa6b3g>

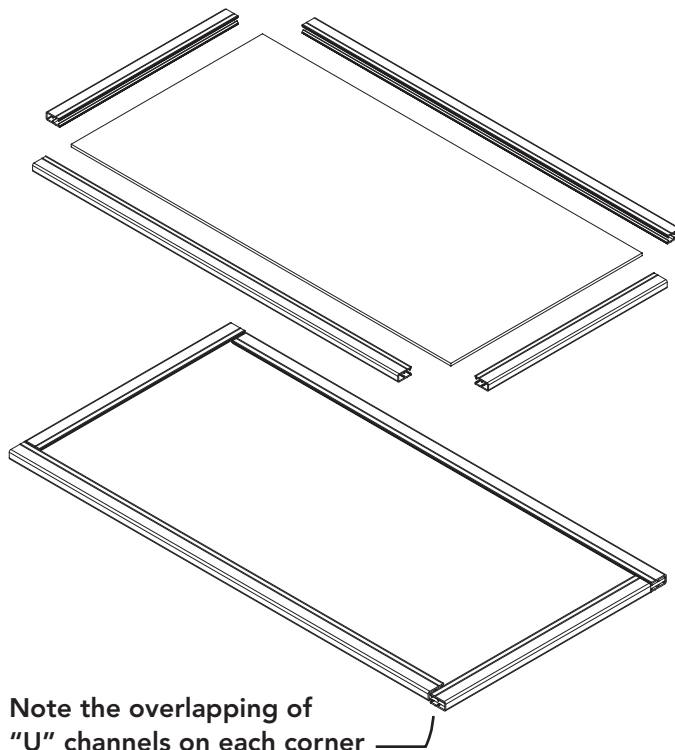
If your enclosure includes a hood or a stand, assemble those sections completely before building the cage..Build each section lying on its back, starting with the frame and panels that will make up the back of the section.

Parts Needed:

- 4 33C Aluminum Frame Members (2 vertical & 2 horizontal supports)
- 4 Corner Joints
- 8 Draw Wedges
- 8 Button Head Socket Screws
- Panel or Panels that will slide into the back frame
- 33S Panel Support (if more than one back panel)
- Hex Allen Wrench (included in hardware package)

(Continued on page H3-4)

Illustration 3



3.1 Layout all the parts

Arrange all the parts on the floor oriented in the positions they will be in when the back section is finished. Make sure that you identify the aluminum frame members that are horizontal and those that are vertical when the cage will be lifted upright (2 of each), and orient the corner joints correctly. The vertical corner of the joint is the single corner with the hole through which the Button Head Socket Screws will be inserted. The horizontal corners have channels that the Button Head Socket Screws will be snapped into. The inside of the panel should be facing up, and the outside facing the floor.

3.2 Assembling the Back of the Frame

Using the methods described in the Corner Joint Assembly (Video: H3002) section, build 3 sides of the frame using one vertical frame member and the two horizontal members. Tighten the screws in the draw wedges until they are snug, but do not completely tighten as you will need the frame to have some movement for the time being. You will tighten the screws later.

3.3 Sliding Back Panel into the Back Frame

If the panel is wire mesh you should have already framed the panel with "U" Channel prior to this step.

For units with one back panel follow *Illustrations 4 and 5*. For units with more than one panel in the back, follow *Illustrations 4 and 6*.

Slide the panel into the channels of the horizontal 33C frame members until the edge of panel is fully seated into the channel of the opposite vertical frame member. At this point, three sides of the panel should be in frame channel. If there are two panels, slide the first into place, set the 33S panel support on the panel edge in the middle of the back of the enclosure, and then slide the second panel into place so that the leading edge seats into the other side of the 33S panel support

Attach the remaining corner joints to the remaining piece of vertical aluminum frame member, and install the draw wedges onto the corners of the joint that will be used to complete the frame of the back panel.

Slide the draw wedges into the open ends of the frame members surrounding the installed panels and then completely tighten all the button head socket screws.

STEP 4

Assembling The Front of The Cage Frame

Assembling the front of the cage is very similar to the assembly of the back of the cage. See your packing list to determine which parts the front doors of your unit need.

Parts Needed

- 2 Front door panels (see packing list)
- 4 33C aluminum frame members (2 vertical and 2 horizontal supports)
- 4 Corner joints
- 8 Button head socket screws ¼ - 20 x 2"
- 8 Draw wedges
- Hex Allen Wrench
- 1 door lock drum
- Door lock slide
- Threaded "T" nut for lock
- 8-32 x ¼ machine screw for lock

Illustration 4

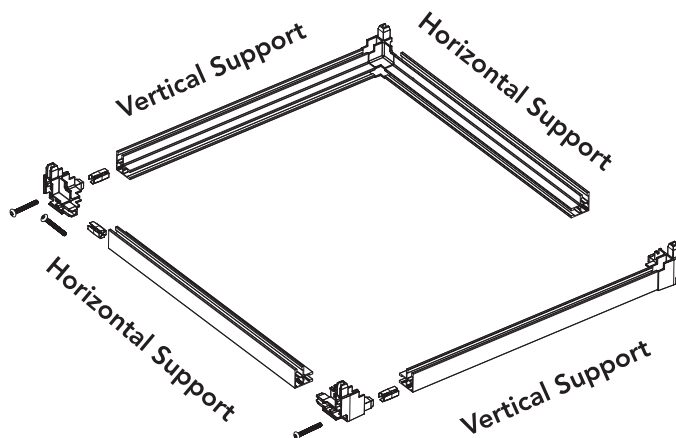


Illustration 5

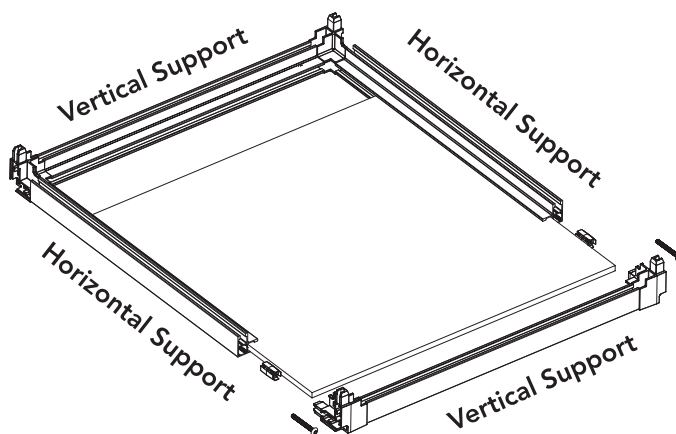
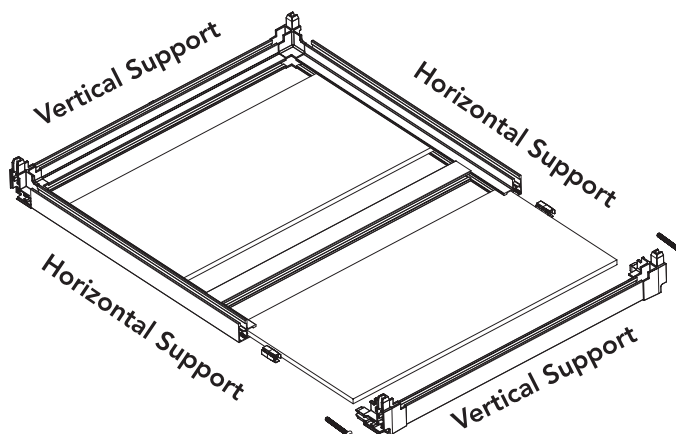


Illustration 6



4.1 Sliding Door Assembly

Video: *H3005-Cage/Hood/Stand Front & Sliding Door Assembly*

<https://youtu.be/naCCryg0n-c>

Lay out all of the pieces for the front in the position they will be oriented in when assembled. (*Illustration 7*) Remember that you are building the front of the cage with the inside of the cage facing up. Take careful note of the stickers on the doors, one will say 'inside' and the other will say 'outside'. Position the doors so the inside sticker is facing up and the outside sticker is facing down.

Using the methods described in the Corner Joint Assembly directions (Video: H3002), put together one vertical frame piece and two horizontal frame pieces.

Tighten the draw wedges so they are snug, but not completely as you will need some movement in the frame for the time being; you will tighten them later.

You may want to place the frame in a vertical position, leaning against a wall or table, to make it easier to assemble. Make careful note which side of the cage frame is the inside and which side is the outside. Note: The sides of the corner joints on the outside of the cage are flat.

The top and bottom edges of the door panels have narrow channels that slide along the edges of the horizontal frame channels.

(*Illustration 8*)

Install the door with the inside sticker first and orient it so that the sticker is toward the inside of the cage. Slide the door panel onto the inside edges of the horizontal frames. Slide the door all the way across the frame.

Install the door with the outside sticker, orienting it so that the sticker is toward the outside of the cage. Slide the door panel onto the outside edges of the horizontal frames. This is the opposite edge from which you installed the other door on. The doors should be able to slide past each other on the aluminum frame.

4.2 Install the Remaining Vertical Frame

Attach the remaining corner joints to the remaining piece of vertical aluminum frame member, and install the draw wedges onto the corners of the joint that will be used to complete the frame of the back panel.

Slide the draw wedges into the open ends of the frame members surrounding the installed panels and then completely tighten all the button head socket screws. (*Illustration 8*)

4.3 Assembling Door Lock

One of your door panels will have a $\frac{1}{4}$ " hole in one of the aluminum frame members. This hole is for fastening the door lock slide plate. Assemble the door lock slide to the aluminum frame member as shown in *Illustration 9*. Insert the 'T' nut of the lock assembly through the $\frac{1}{4}$ " hole from inside the cage. Hold the slide plate in position so that the hole in the plate is over the hole in the door, and the serrated side of the plate faces up and is positioned over the door panel. Use a Phillips head screw driver to install lock assembly machine screw into the 'T' nut through the holes in the slide plate and door frame. Close the sliding doors so that the slide plate is in the center. You should see the serrated end of the plate, but the end section with the hole and screw should be hidden by the frame of the front door.

(Continued on page H3-6)

Illustration 7

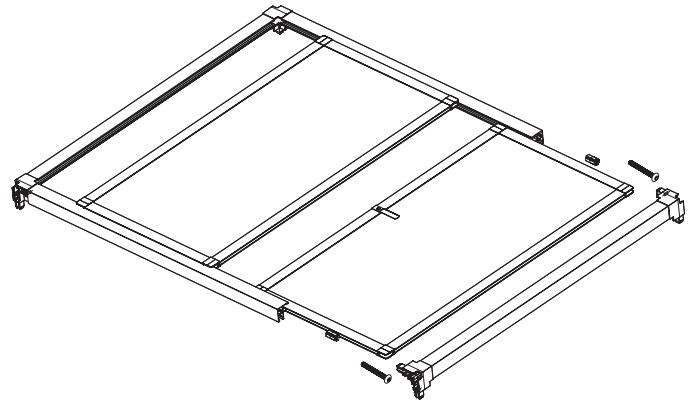


Illustration 8

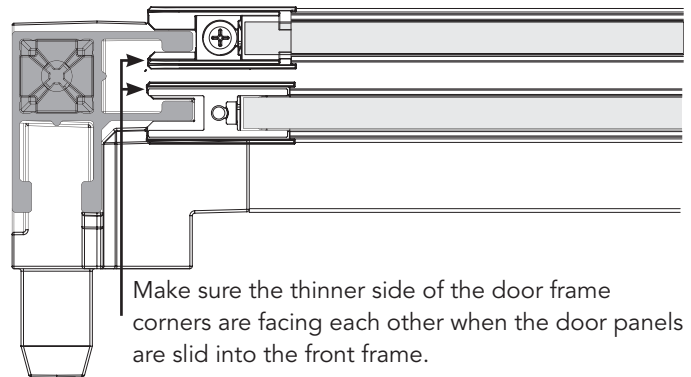
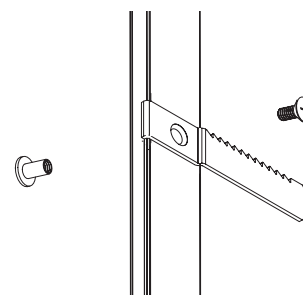


Illustration 9



(Step 4.3 Assembling Door Lock Continued)

Insert the end of the slide plate into the flat side of the door lock drum and push the door lock drum along the plate until it is flush with the edge of the outside door. (*Illustration 10*) Turn the key in the lock to secure the door.

STEP 5

Assembling Back, Front, Top, bottom, & Sides of Unit

Video: H3006 Side/Top/Bottom Panels & Front Section <https://youtu.be/LJJ0bHWglxw>

Parts Needed

- 4 33C Horizontal Aluminum Frame Pieces
- 8 Draw Wedges
- 8 Button Head Socket Screws
- Panels for the side, top and bottom of the section you are working on
- 33S Aluminum Panel Support (if there are two or more panels in the top, bottom, or sides)
- Completed front section of the unit
- Completed back of the section
- Hex Allen Wrench

5.1 Install Horizontal Frame Members to Back Section

Tilt the back of the section onto its side so that you can easily access two of the corner joints.

Install a Button Head Socket Screw with draw wedge into each open horizontal corner joint.

Slide a horizontal frame member onto one of the draw wedges until it is fully seated on the corner joint, and then tighten it completely. Install another horizontal frame member onto the other corner joint. Tighten the screws completely.

Tilt the back of the section onto its other side so that the corner joints that still need a frame member attached are easily accessible.

Repeat the steps to install horizontal frame members onto these remaining two corner joints, and tighten the screws completely.

Lay the back section flat on the ground so that the horizontal frame members just installed are extending up from the floor.

Slide Panels into the horizontal frame members. (*Illustration 11*)

Illustration 12 demonstrates how to assemble a unit with multiple back panels.

(Continued on page H3-7)

Illustration 10

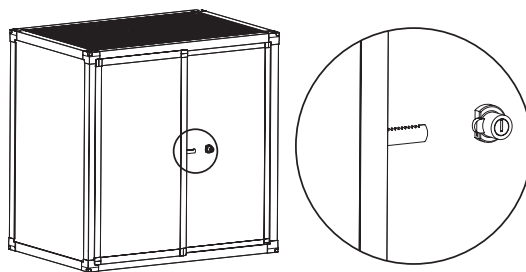


Illustration 11

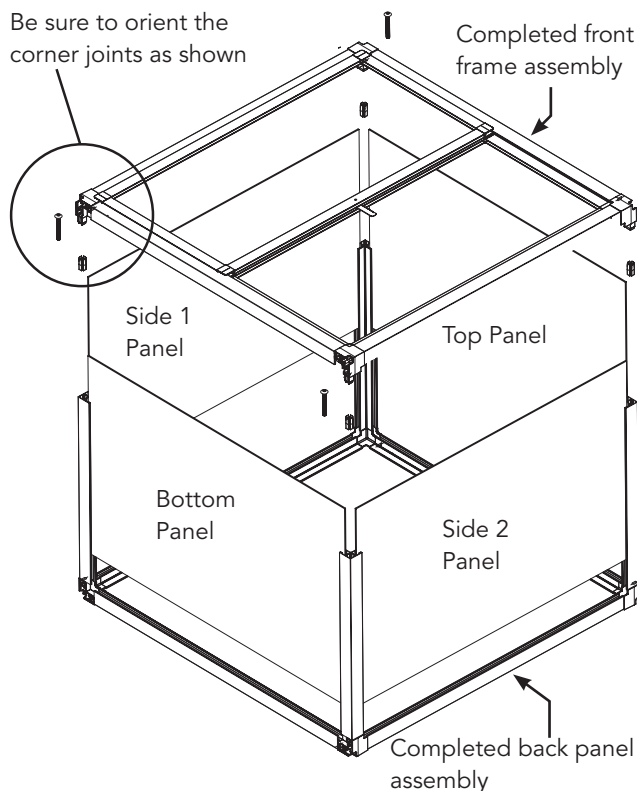
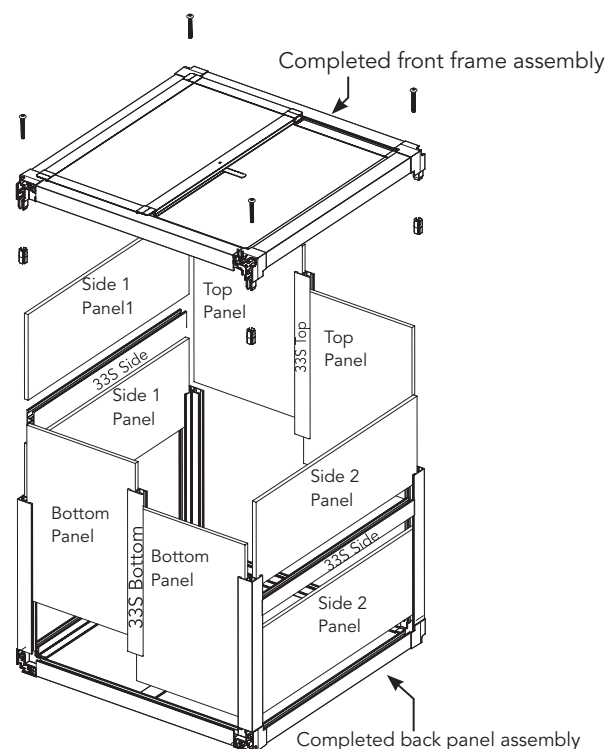


Illustration 12 For Multiple Back Panels



(Step 5.1 Install Horizontal Frame Members to Back Section continued)

NOTE:

- A stand will have panels all the way around and may have door panels on the front.
- A hood will have panels on the top, sides and back, will NOT have a bottom panel, and may have door panels on the front.
- If your cage has a pull out floor or pull-out tray, install only the top and side panels in this step.
- If your cage doesn't have a pull out floor or pull-out tray, you will be installing top, bottom, and side panels.
- Make sure the correct panels are going in their correct positions on the cage, and that accessory holes or openings are oriented where you want them to be. This is especially true for food and watering systems on the sides of the cage.
- All stainless steel wire, acrylic, aluminum laminate and/or perforated aluminum panels should already have the u-channels strips installed. Slide the panels into the frame channels until firmly seated.

5.2 Install the Completed Front onto the Section

- Flip the completed front over so the outside with the doors are facing up. Install a button head socket screw with attached draw wedge into the open channels of each corner of the front section. (*Illustration 12 page H3-6*)
- Set the front section on top of the assembled back and sides, sliding the draw wedges into the corners of the frames. Tighten all screws completely.

STEP 6

Finishing the Cage, Hood & Stand

Video H3007 Finishing the Cage - Hood - Stand

<https://youtu.be/qedxFiN8PWE>

Parts Needed

- All corner caps
- Small Black Sheet Metal Screws
- Stacking pins
- Pull-out Tray Corner Caps (if you have a pull-out floor or tray)
- Wheels and Casters (if you ordered a rolling stand)
- Phillips Head Screwdriver
- Hex Allen Wrench

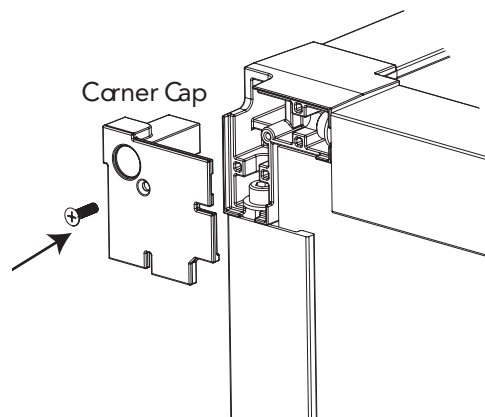
Double check to make sure all of the button head socket screws in the corner joints are tightened and then install the corner caps by inserting a small black sheet metal screw into the smaller center hole on each corner cap. Be careful not to over tighten. (*Illustration 13*)

If your cage has a pullout floor or tray, use the pull out floor/tray corner caps on the bottom of the cage. Secure with screws.

If your cage has a removable divider or a pull out tray or floor, you will need to install these parts to the bottom of the cage now.

View video H3008: Removable Divider (<https://youtu.be/RIwt-BzcZG0>) for instructions on how to do so. Then go to video H3009: Pull-out Tray Floor Assembly (https://youtu.be/aH_PNAgab8Q) and follow those instructions next. Only install those parts that are attached to the bottom of the cage. Then, return to video H3007 Finishing the Cage - Hood - Stand. (<https://youtu.be/qedxFiN8PWE>)

Illustration 13



STEP 7

Assembling Casters

If you have a cage or stand with casters it is easier to install them before stacking the cage on the stand.

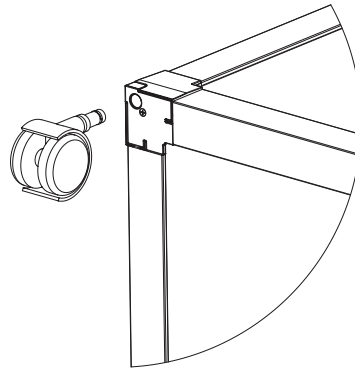
Parts Needed

- 4 Casters (6 casters for 2 section version B unit, 8 casters for 3 section version B unit)

Inserting casters into corners

While the cage is laying flat on its back, insert casters into each of the 4 corners of the cage. For multiple section units, only one of the adjoined corner joints requires a caster. If there are multiple stacked units, insert casters into the bottom most unit. (*Illustration 14*)

Illustration 14



STEP 8

Stacking of Cages, Hoods, and Stands

Once you have gone through the assembly instructions for each cage, hood, or stand completely, you can stack them as shown in *Illustration 15*.

Parts Needed

- All applicable assembled cages, hoods, stands
- 2 Stacking pins per stacked unit

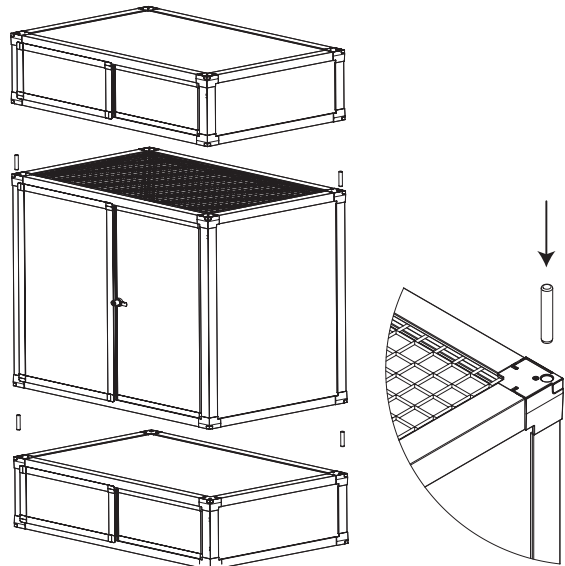
Inserting Stacking Pins into Stand, Cage, or Hood

Insert 2 stacking pins on diagonal corners for whatever unit you want another unit stacked on top of. You do not need one for every corner.

Pick up the cage and set it on top of the stand so that the stacking pins set into the holes of the corner caps on the bottom of the cage.

Now insert a set of stacking pins into the corner caps of the top of the cage and set the hood on top of the cage so that the stacking pins set into the holes of the corner caps of the bottom of the hood. (*Illustration 15*)

Illustration 15



OPTIONAL HARDWARE INSTALLATION

The items in this section do not come with the basic cage configuration and are sold separately.

ASSEMBLING DOME FIXTURE

Parts Needed

- Internal mounting hardware, quantities vary depending on how many you ordered.
- Pliers
- Screwdriver

Assembling Internal Mounting Hardware

Insert the threaded "T" nut through the pre-drilled hole at the top of the cage and screw the internal mounting hardware into the threaded "T" not from the inside of the unit. Then, assemble dome fixture as show in *Illustration 16* by tightening clamp around internal mounting hardware.

Note: Pliers and a screwdriver must be used when tightening the retention clip screw. Hand tightening is NOT sufficient. This dome fixture is rated for bulbs and emitters up to 200 watts. Do not exceed this 200 watt rating as doing so presents a fire hazard.

ASSEMBLING 3" ADJUSTABLE AIR FLOW VENT/CORD HOLE GROMMET

Parts Needed

- 1 part A
- 1 part B
- Plastic Rivet

After you have chosen the location(s) for your electric device(s) feed the cord through the pre-drilled opening in your unit.

Part B is the part that controls airflow and needs to be accessible. Depending on your unit's location you may choose to put part B on the inside or outside of your unit.

Insert part A into pre-drilled opening, your cords will now end up in the notched portion of part A. Note: Part A does not rotate and should fit snugly into pre-drilled opening.

Insert part B into part A again, aligning cords in notched portion. Insert plastic rivet into center hole and press firmly in the middle as shown in *Illustration 17*.

You can now rotate part B to achieve desired air flow setting or adjust for the amount of cords you are using. There should be a setting for 0 to 5 cords as well as closed to maximum air flow.

Should there be a need to remove the vent, you will need to pop out the core of the plastic rivet with a flat head screwdriver and pull parts A and B apart. The rivet is reusable.

Illustration 16

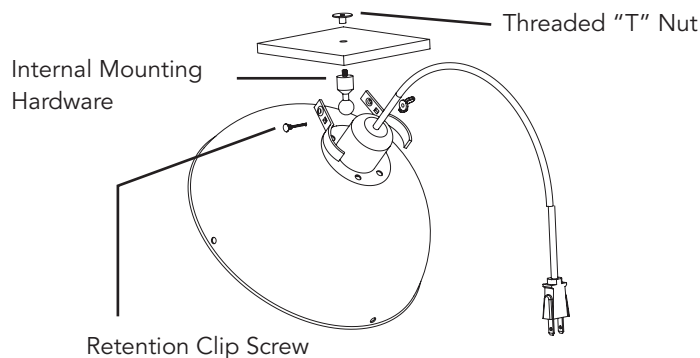
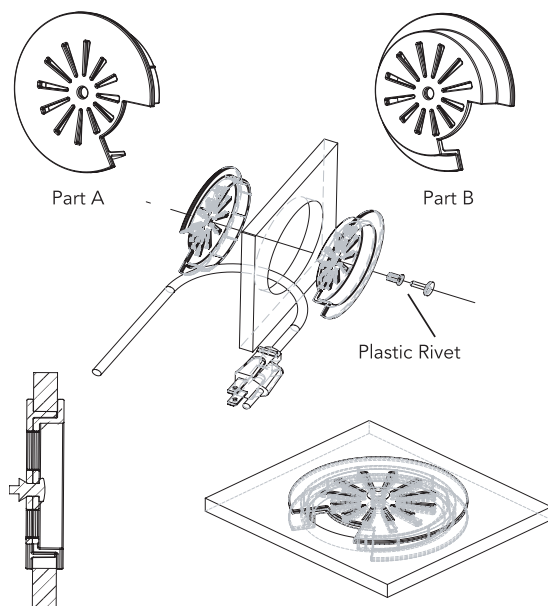


Illustration 17



PULL OUT FLOOR CONNECTOR(S)

Pull out floor panels should come pre-assembled (with the exception of special circumstances). However, some pull out floors come with 2 or more panels and may require connector(s) to join the two panels together. For any pull out floor, a clip can be connected to the front to help support the floor from sagging. Below are instructions for assembling connector(s) and clip(s).

Parts Needed

- Pull out floor panel(s)
- Pull out floor connector(s) (quantity varies, see packing slip)

Any pull out floor consisting of 2 panels requires 2 pull out floor connectors. Check your packing list to see how many pull out floors your cage comes with. If it comes with one, skip this step and go to “Pull Out Floor Clip(s) and Latch Installation Instructions” below.

These connectors permanently attach to one panel and temporarily attaches to the other panel. These connectors will allow you to pull out both panels at the same time from the front without having to reach into the cage.

Press fit the pull out floor connectors into the bottom of the aluminum frame approximately 3” from each side on the length member of one of your pull out floor panels as shown in Illustration 18. The floor with the connectors attached should slide into the top channel of the pull out tray track first. Lower the second floor panel onto the exposed lip of the pull out floor connectors and then slide it into the same track.

(Illustration 18)

PULL OUT FLOOR CLIP(S) AND LATCH INSTALLATION INSTRUCTIONS

Parts needed

- 1 Pull out floor clip for pull out floor

For any pull out floor over 36” in length, we include an optional pull out floor clip to help prevent the floor from sagging. Press fit the clip into the under lip of the front of the pull out floor frame as shown in Illustration 19. Then, pull upward on the top of the clip and hang the upper part of the clip onto the aluminum frame of the cage. To remove the panel or open the front door, lift upward on the top of the clip and pull away from the cage. You may need to pull the pull out floor an inch away from the front of the cage in order to slide the front door. The back door should slide comfortably with the clip still in place.

(Illustration 19)

Illustration 18

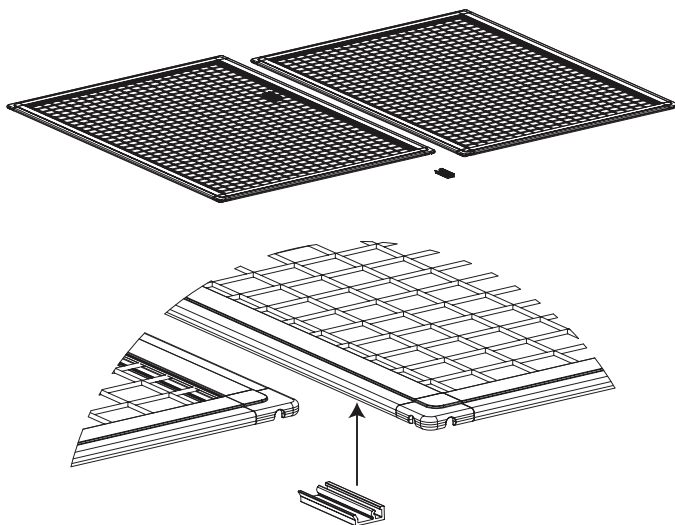
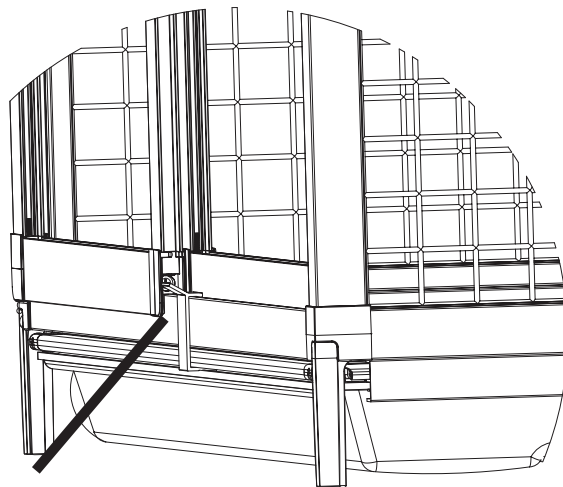


Illustration 19



Pull Out Floor Clip

