



Evolution Series  
*Sealed by GSG™*

# **Assembly Instructions**

Skill Level: Intermediate

Thank you and congratulations on your Evolution Series by GSG™ subwoofer purchase. We've tried to make your enclosure as easy to assemble as possible. Even though some folks could assemble this cabinet without reading the instructions, please do so.

**IT IS IMPORTANT TO READ THE INSTRUCTIONS  
AND FOLLOW THEM CAREFULLY**

NOTE: The build is not as complicated as the instructions make it appear at first glance. We have simply tried to highlight every point along the build where a builder may have questions and provide pictures and explanations. If you have any questions along the way, STOP!! and contact us. We'll help you figure things out. Hopefully, the instructions will help each builder achieve a fantastic result.

**INTERMEDIATE BUILD:**

**Evolution Series by GSG™ are an intermediate build. It is assumed that the builder has some experience building things before or is confident in his capabilities.**

**Evolution cabs require the use of clamps and it is assumed that the builder has some experience working with clamps. Evolution cabs also require that the builder pay attention to keeping their cabinets nice and square while building. Evolution cabs are precision machined for fit, so any mis-alignments by the builder are likely to result in small gaps, that won't affect performance for the most-part, may make for a less than ideal aesthetic.**

**WORKSPACE:**

Find a location that is clean, dry, and flat. Make sure there is plenty of room for you to move around your cabinet and that there is plenty of room for sliding in some of the panels. Ideally, the workspace will be about room temperature, but in no case should assembly take place when the temperature or the materials are under 50 degrees. If temperatures are high, the glue may have less working time before it starts to dry. If it is humid, allow extra time for the glue to dry (it turns dark brown when dry).

## PANEL PREPARATION:

Your subwoofer panels were cut on a precision CNC machine. Before assembling, check over your panels to ensure that they are free of any sawdust or other debris, especially in the dadoes.

Additionally, the CNC may sometimes leave a little bit of “hair” along some of the edges of the panels. This can be taken off by wiping along the edges with a cotton towel.

## TEAM:

Evolution Series by GSG are big and heavy by design. As your cab nears completion, it will become very heavy and may become unmanageable by one person.

PLEASE, find a person to help move the subwoofer if it is too heavy for you to manage alone.

We always recommend AT LEAST two people when moving Evolution Series and if moving up and down stairs, we STRONGLY RECOMMEND MOVING THE CABINET WITHOUT THE DRIVERS LOADED AND WITH THE ASSISTANCE OF THREE STRONG MEN.

## DRY FIT:

At each point along the way, you may find it helpful to “dry fit” the panels in the step prior to applying glue. This will help you see which points need to be lined up without the stress of glue drying.

Once familiar with how your cab goes together, you can move quickly once you start applying glue.

## A NOTE ON CLAMPING FORCE:

Research and experimentation has shown that there is no practical benefit to overtightening clamps. In fact, too much pressure on MDF can cause the panels to warp or become mis-aligned. The builder is encouraged to clamp the panels only as tight is as necessary to hold the panels together snugly with no gaps.

## GLUE UP:

Be sure to apply glue to ALL the edges where panels touch each other, not just in the dados (“dado” is a woodworking term for the grooves in the panels).

When the panels are sandwiched together, the glue should “squeeze out” along the entire length of the panels being joined together. Squeeze out on the inside of the cabinet doesn’t need to be cleaned up.

Seeing the glue squeeze out is important as it ensures that there will be no air leaks when the glue dries.

On the inside of the cabinet, where drips don’t matter, it is better to use too much glue vs. not enough glue.

Have a damp cloth ready to wipe up any runs or drips off the outside of the cabinet as you go along.

## WORKING TIME:

We recommend working at a pace that allows getting through each step in less than 10 minutes, which is when the glue will start to dry at room temperature (this is the approximate working time of Titebond III, which has the longest working time of the Titebond glue line). If you are outdoors or in a hot garage, drying time will be even less.

By using “extra glue” on the panels, you will have more working time before it begins to set up.

A couple of notes on the design and the instructions:

You may notice there are several places around your subwoofer where there are gaps along the panels; this is by design and is usually the case where clearance is provided just in case a panel bows or warps slightly prior to assembly.

There are several Evolution Series Sealed cabinets. All are a little different on the inside. Individual instructions are provided for each cabinet:

**Sealed 18".....Page 6**

**Sealed 21".....Page 17**

**Sealed 24".....Page 28**

**Final step (all cabs).....Page 40**

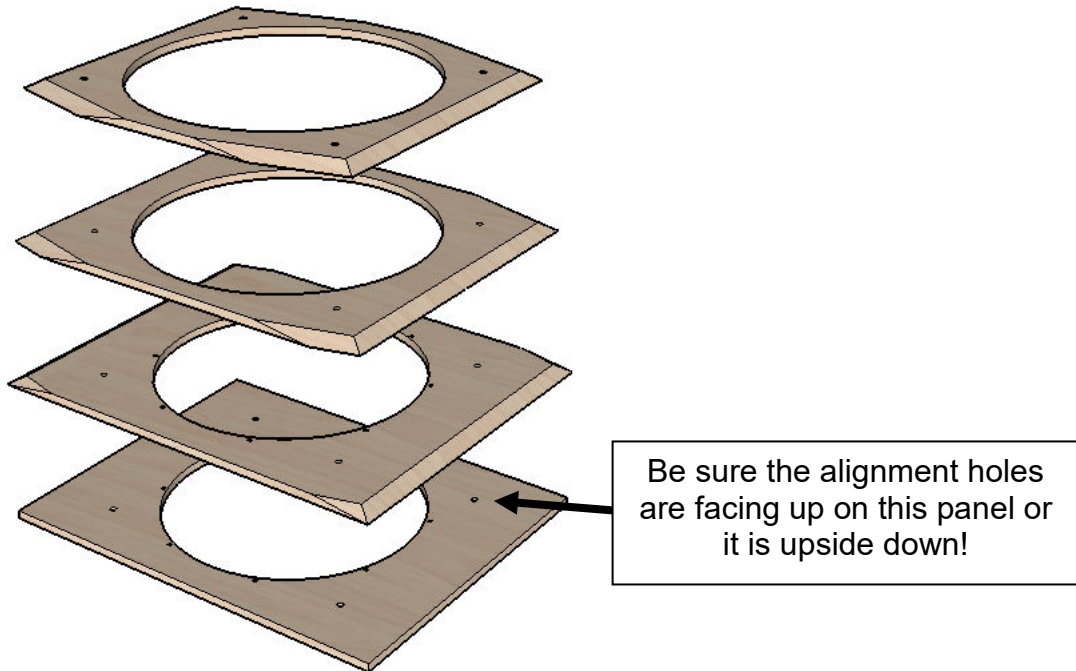
## 18 inch cabinet

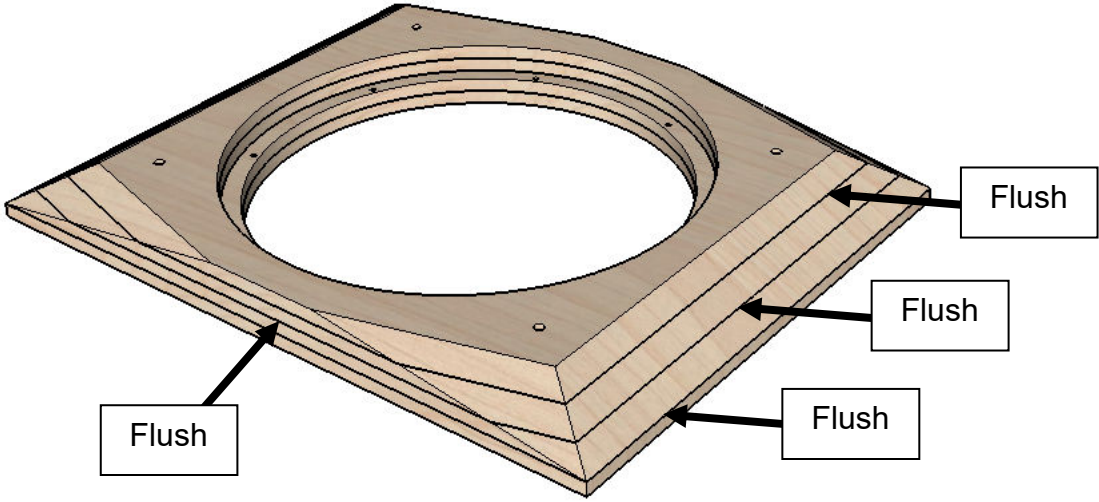
### ASSEMBLY

After you have read the entire instructions and are confident in your understanding of the process AND have dry fit the key panels so that you will see how they go together...begin!

Laminate up the baffle.

Dowels can be inserted into the alignment holes after glue is applied to keep the panels from sliding around. Be very careful with the edges, the **EDGES and CORNERS are VERY FRAGILE.**

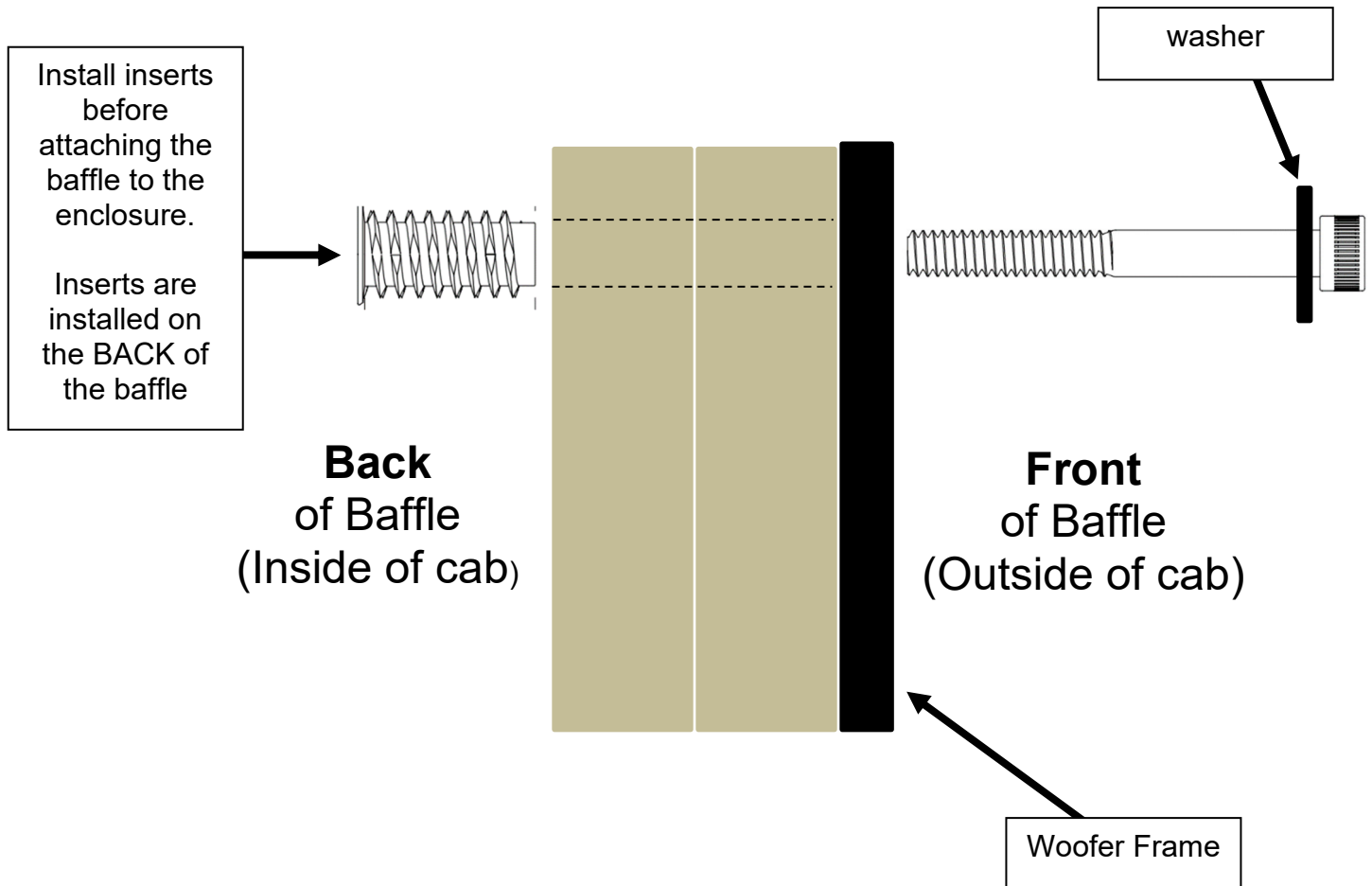




## Woofer mounting inserts.

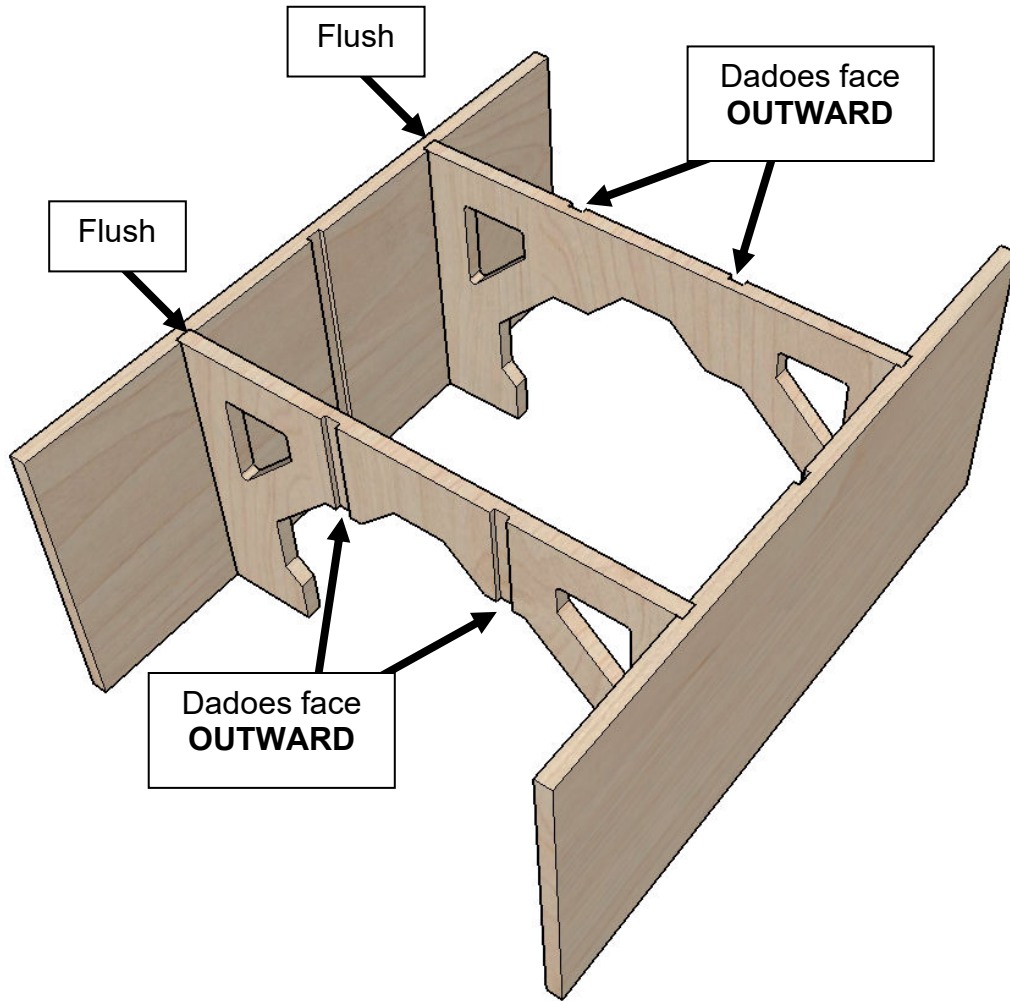
If you will be using woofer mounting inserts, they go in through the **BACK** of the baffle, so they will be easier to install **prior** to mounting the baffle on the enclosure.

Don't over tighten the woofer mounting bolts.  
Torque spec on the bolts is about 20 ft. lbs.

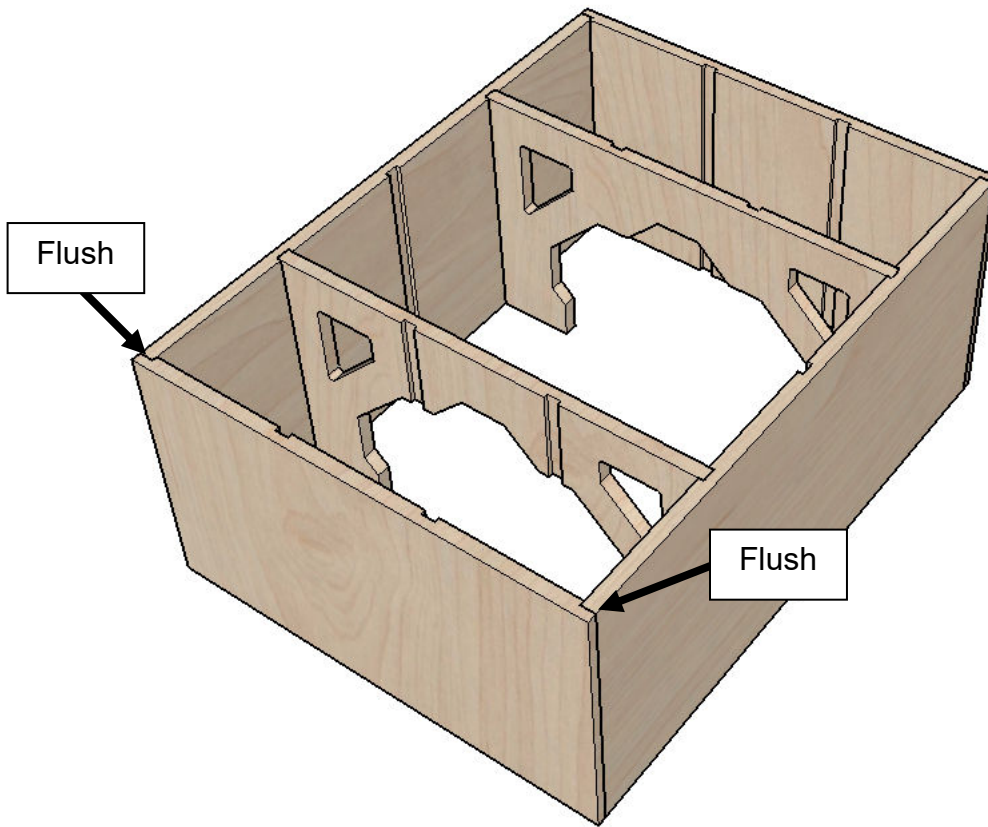




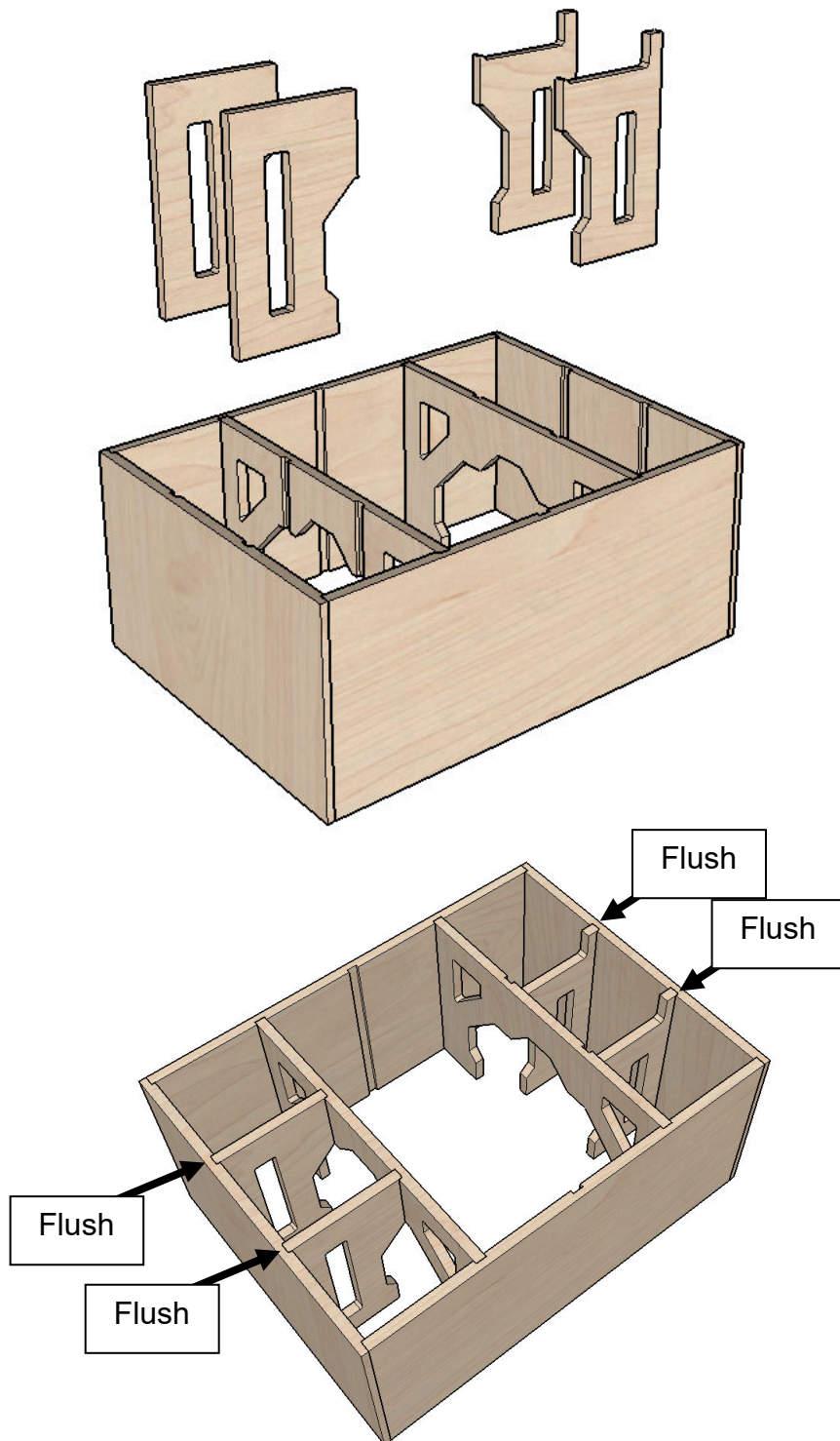
Side panels and horizontal braces.



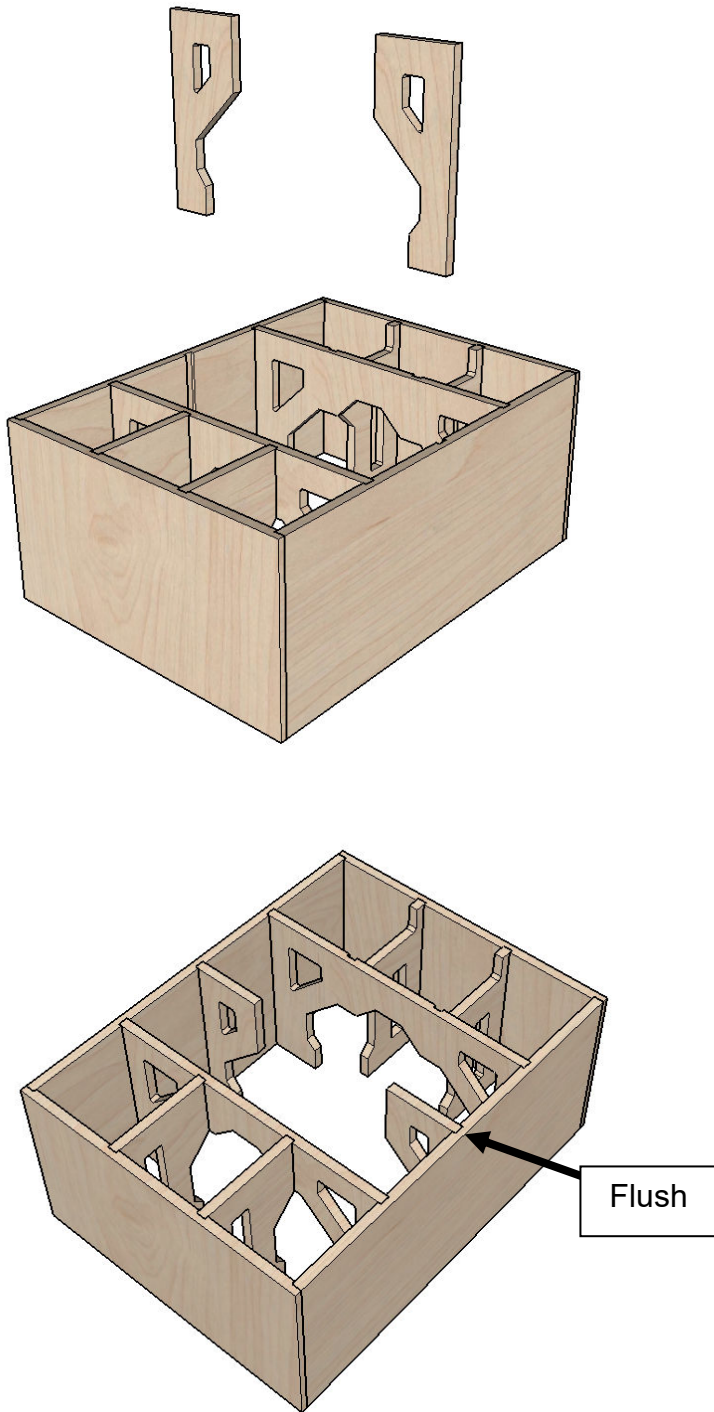
Top and bottom panels.



Top and bottom panel braces.



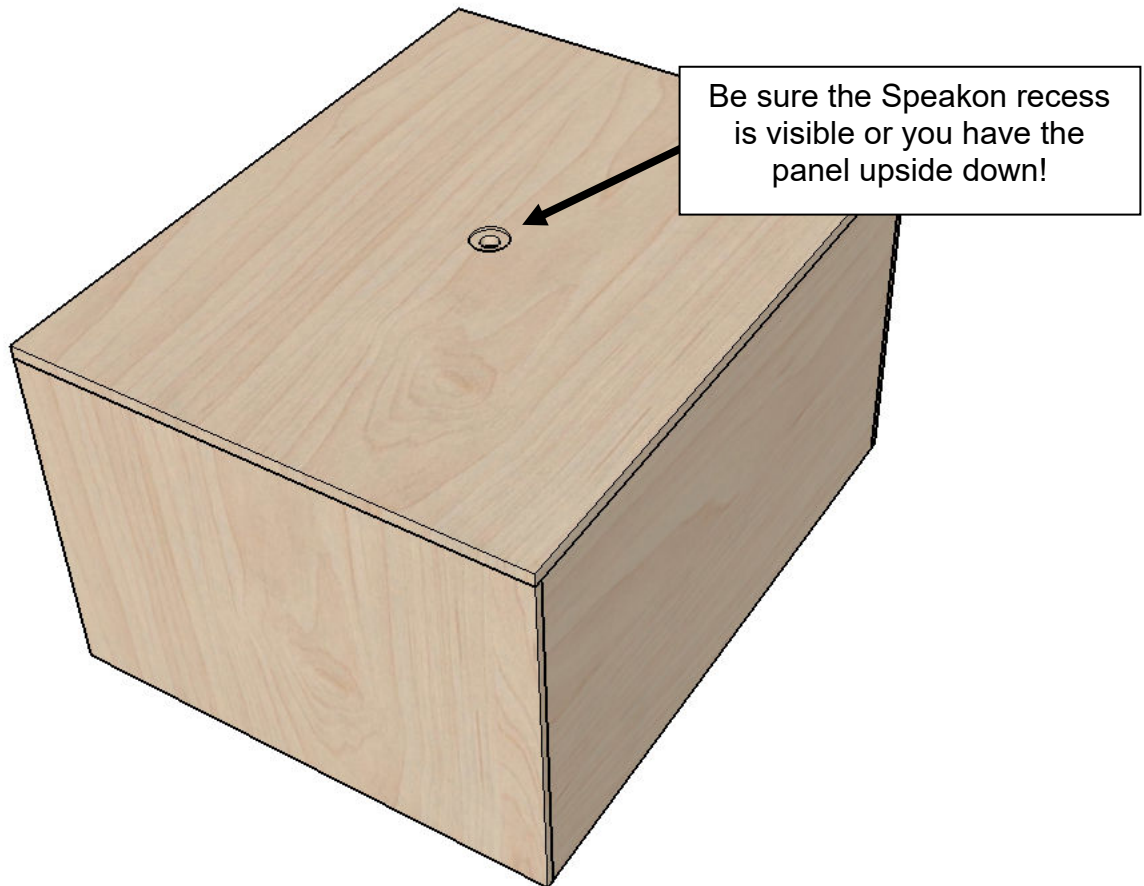
Side braces.



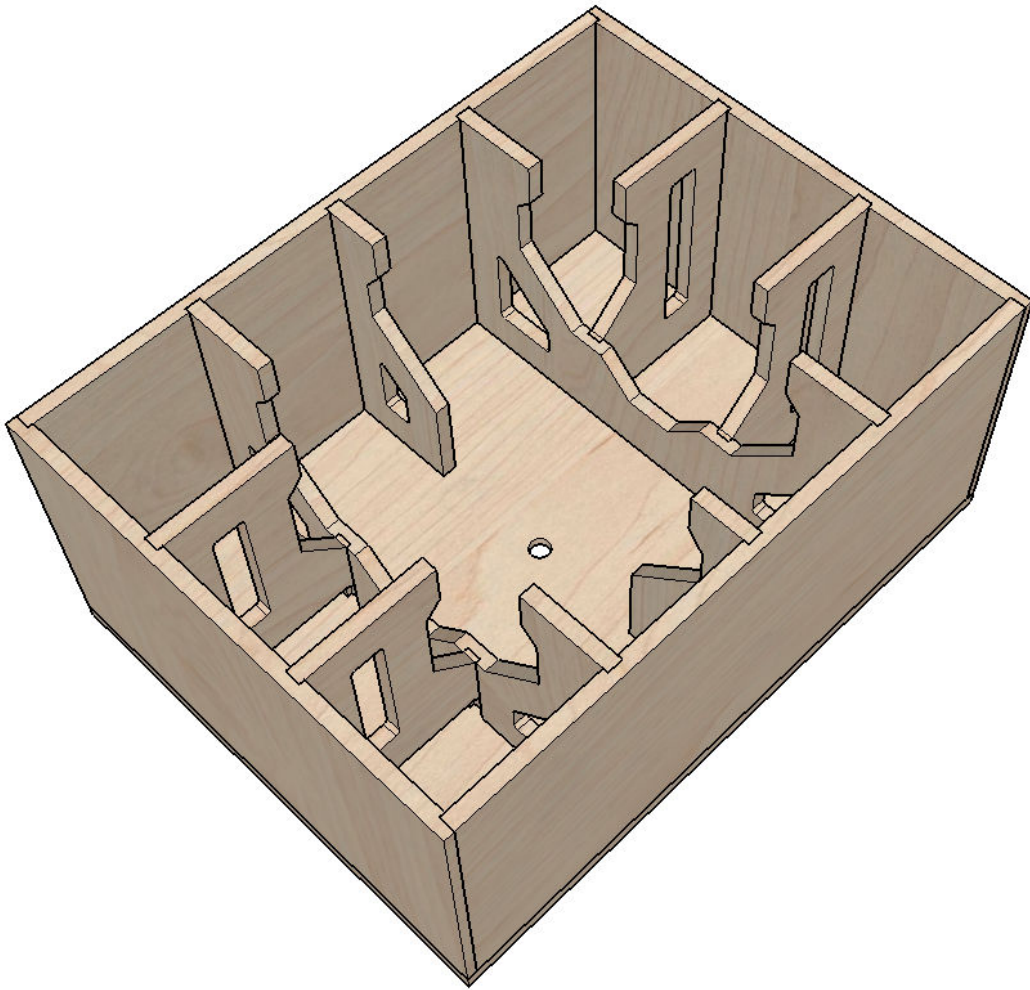
Rear panel.

Note: Ensure the Speakon recess is visible.

If the recess is inside the cab, you have the panel on upside down.

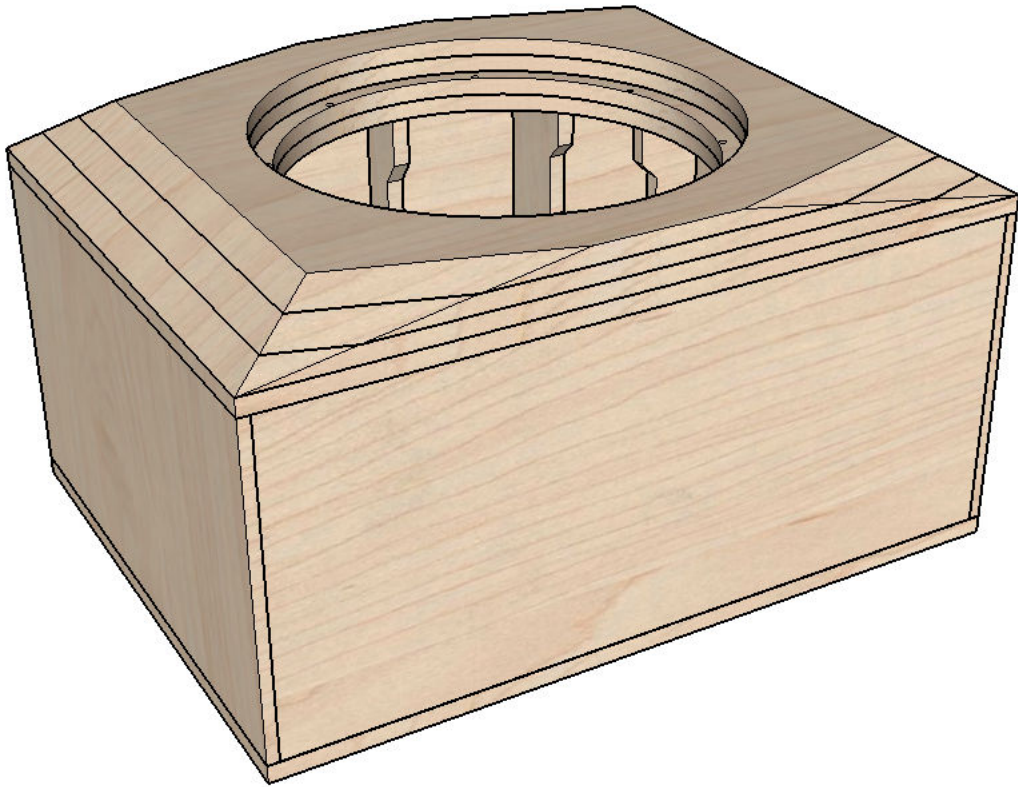


Flip cabinet over.



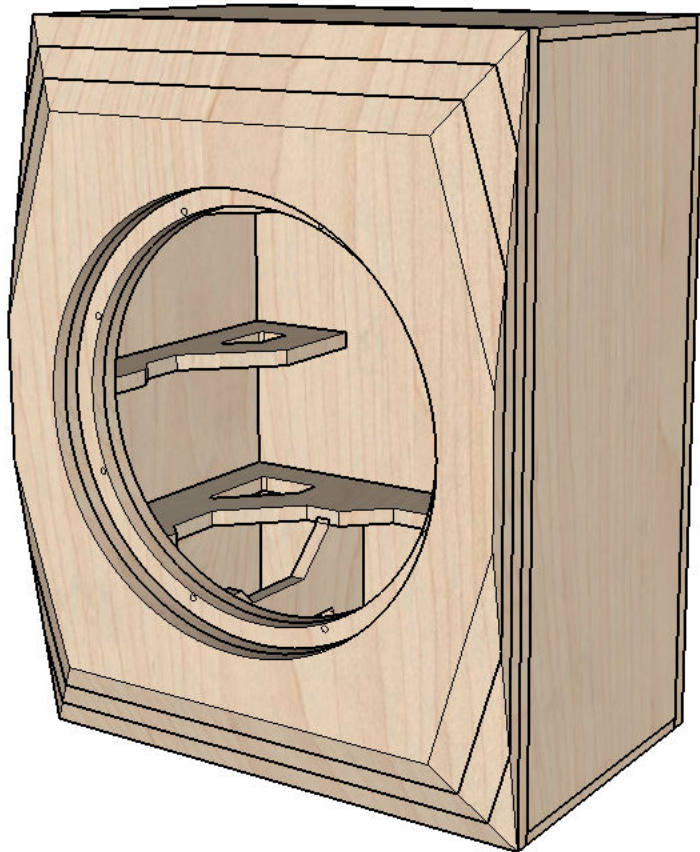
Baffle (with woofer-mounting inserts installed).

The moment of truth!



## Congratulations!

If you intend to coat with Duratex, we recommend a very slight roundover to take off the sharp edges. This can be done with careful sanding or with a router. If you intend to veneer your cab, the corners are best left sharp. Puddy up the baffle alignment holes.





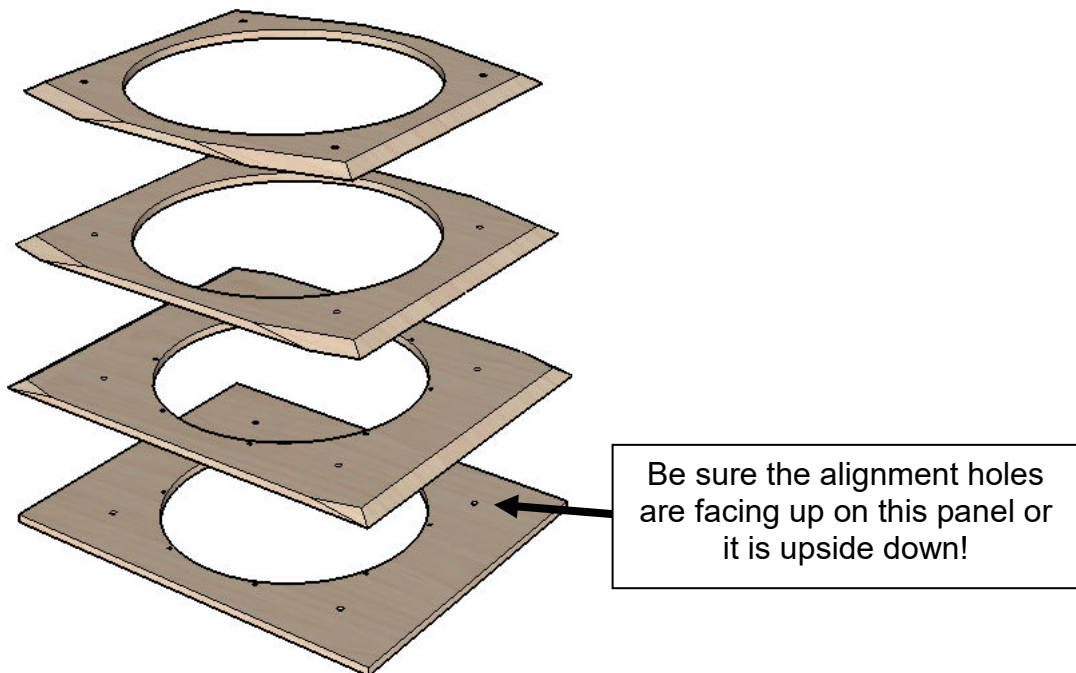
## 21 inch cabinet

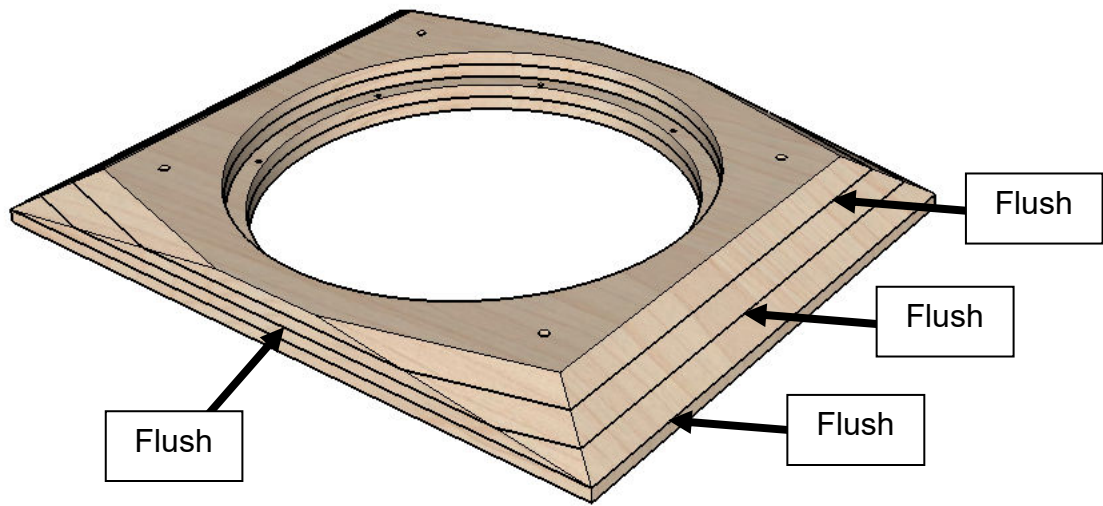
### ASSEMBLY

After you have read the entire instructions and are confident in your understanding of the process AND have dry fit the key panels so that you will see how they go together...begin!

Laminate up the baffle.

Dowels can be inserted into the alignment holes after glue is applied to keep the panels from sliding around. Be very careful with the edges, the **EDGES and CORNERS are VERY FRAGILE.**

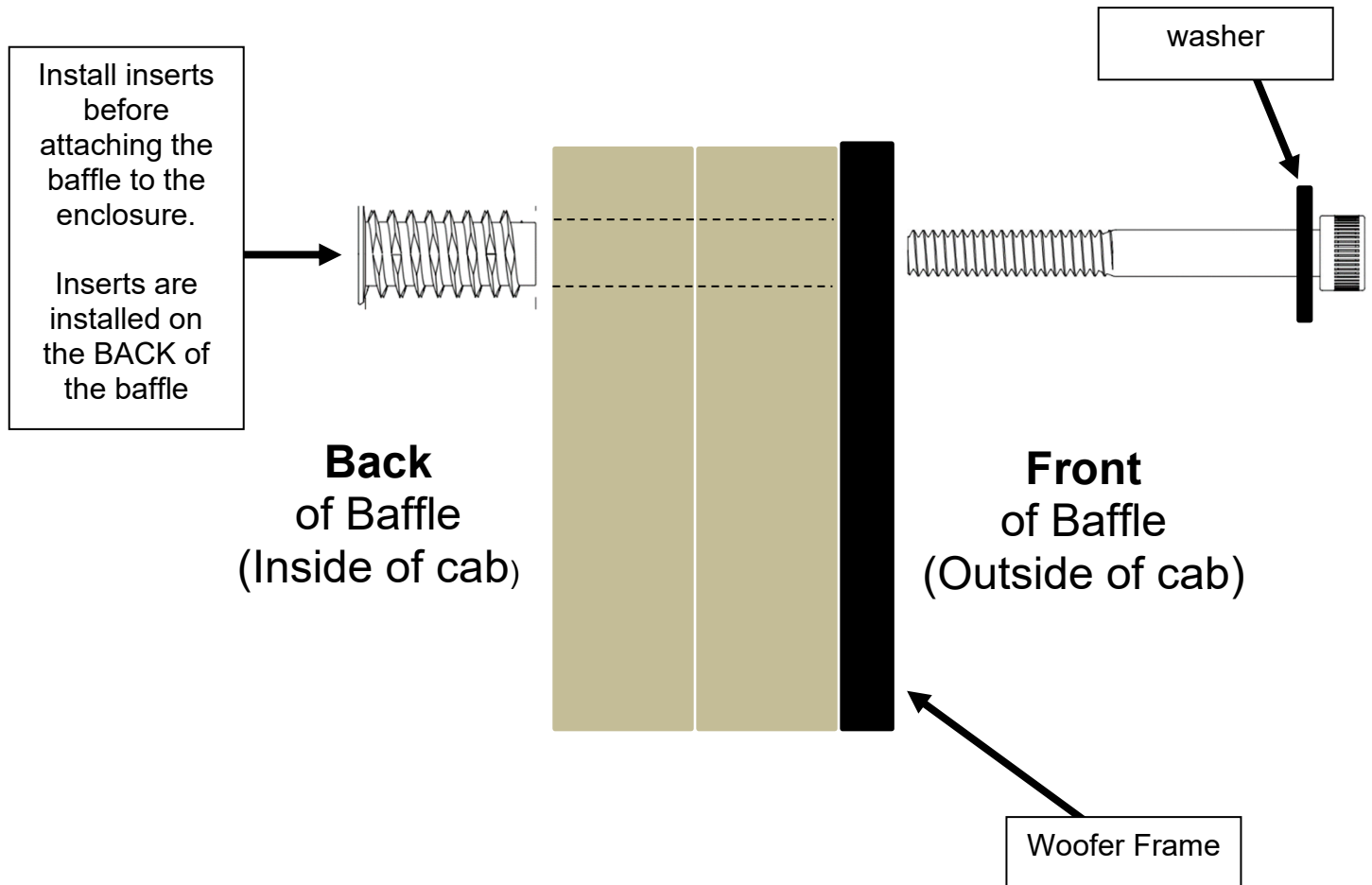




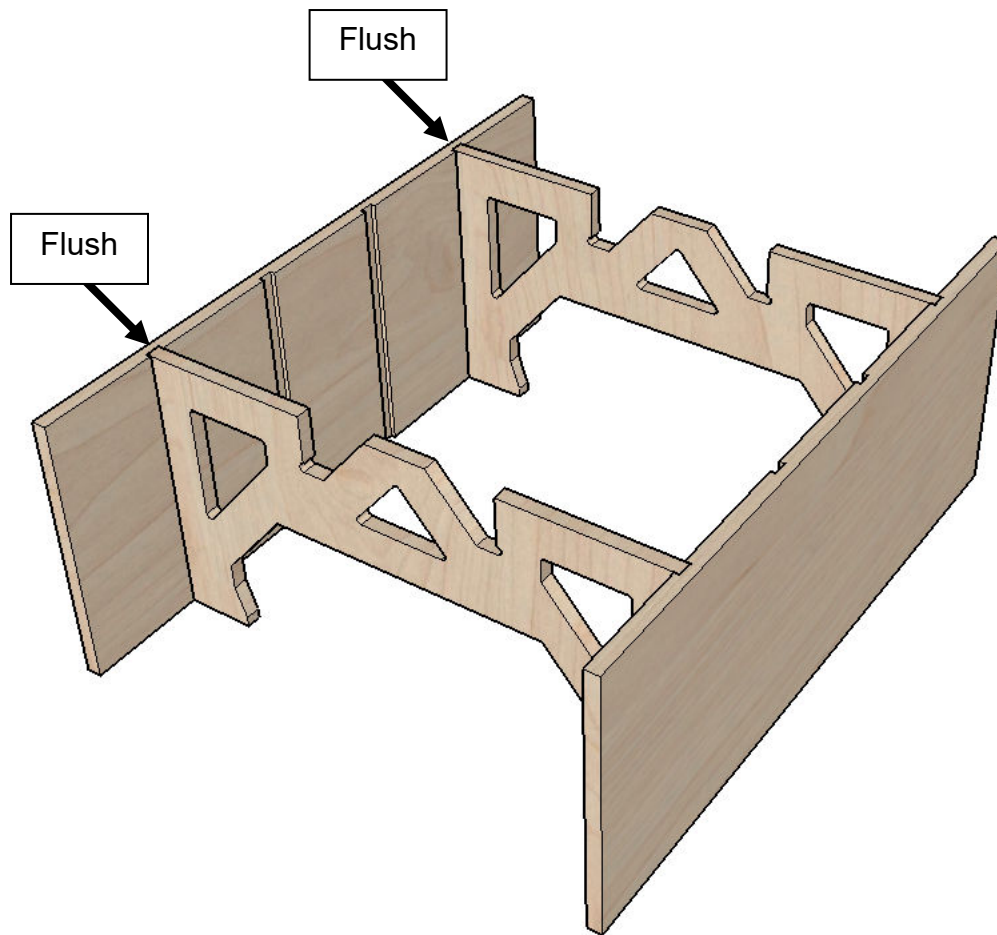
## Woofer mounting inserts.

If you will be using woofer mounting inserts, they go in through the **BACK** of the baffle, so they will be easier to install **prior** to mounting the baffle on the enclosure.

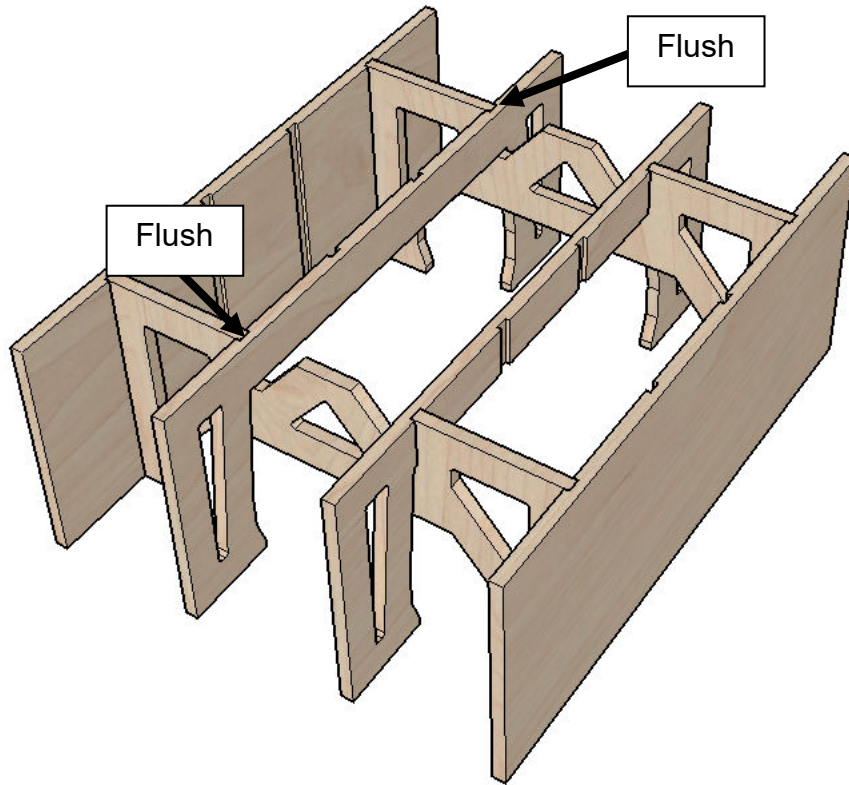
Don't over tighten the woofer mounting bolts.  
Torque spec on the bolts is about 20 ft. lbs.



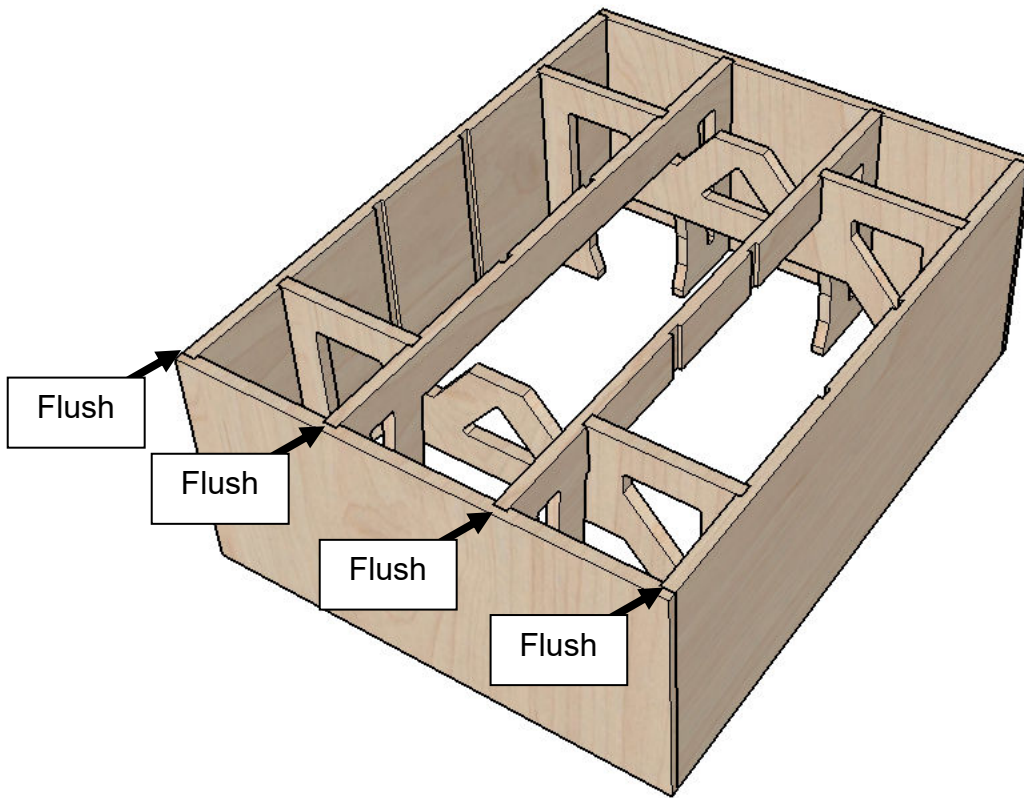
Side panels and horizontal braces.



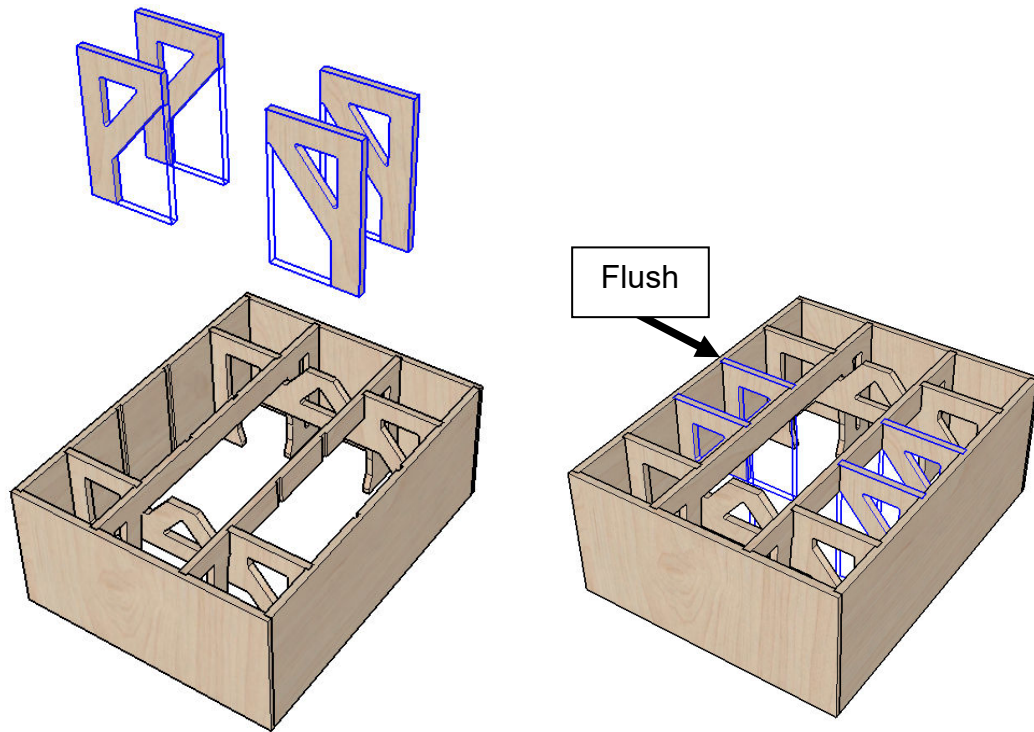
Vertical braces.



Top and bottom panels.



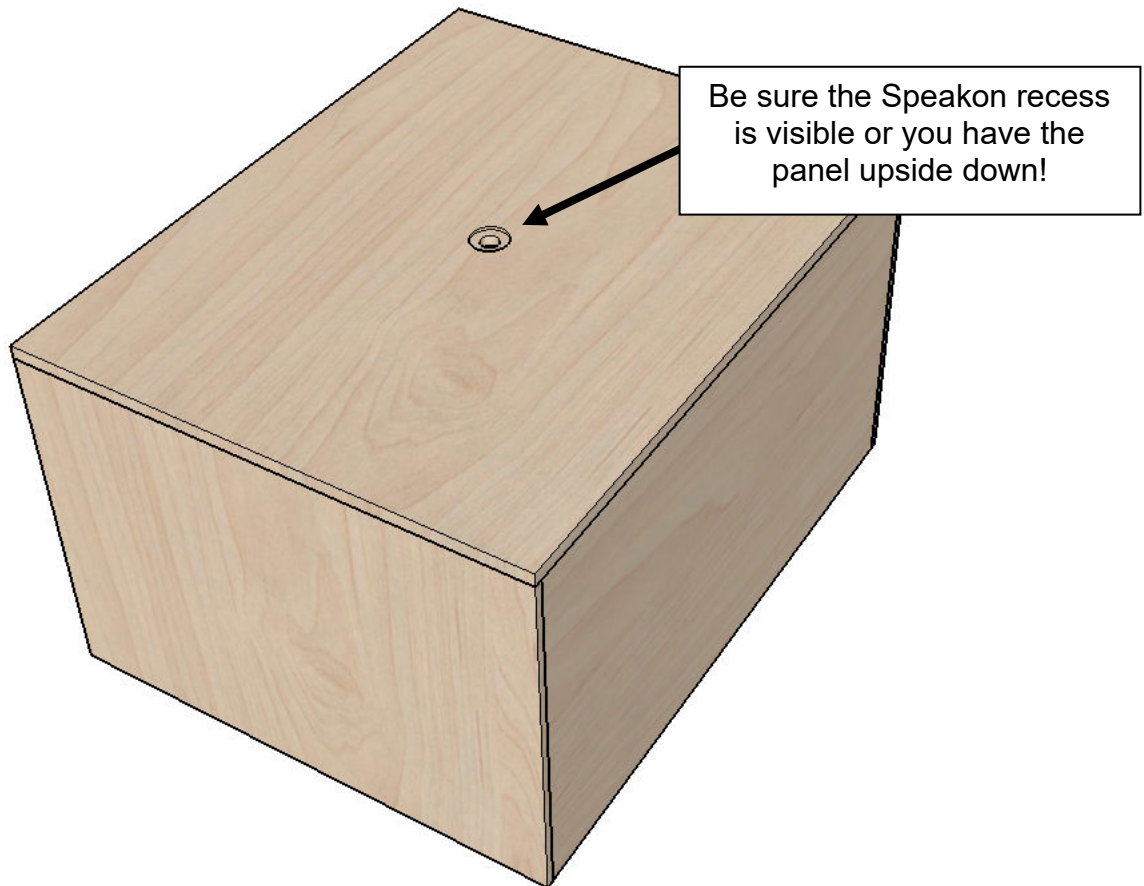
Small side braces.



Rear panel.

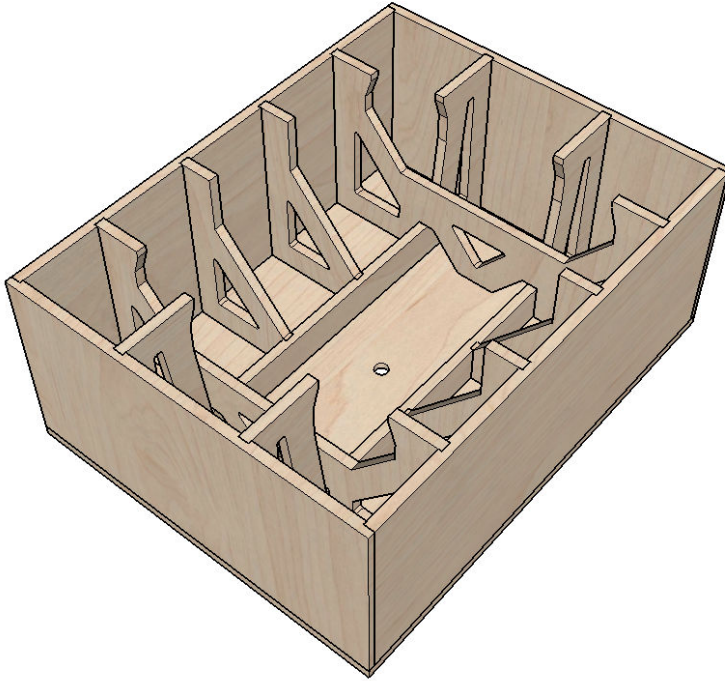
Note: Ensure the Speakon recess is visible.

If the recess is inside the cab, you have the panel on upside down.



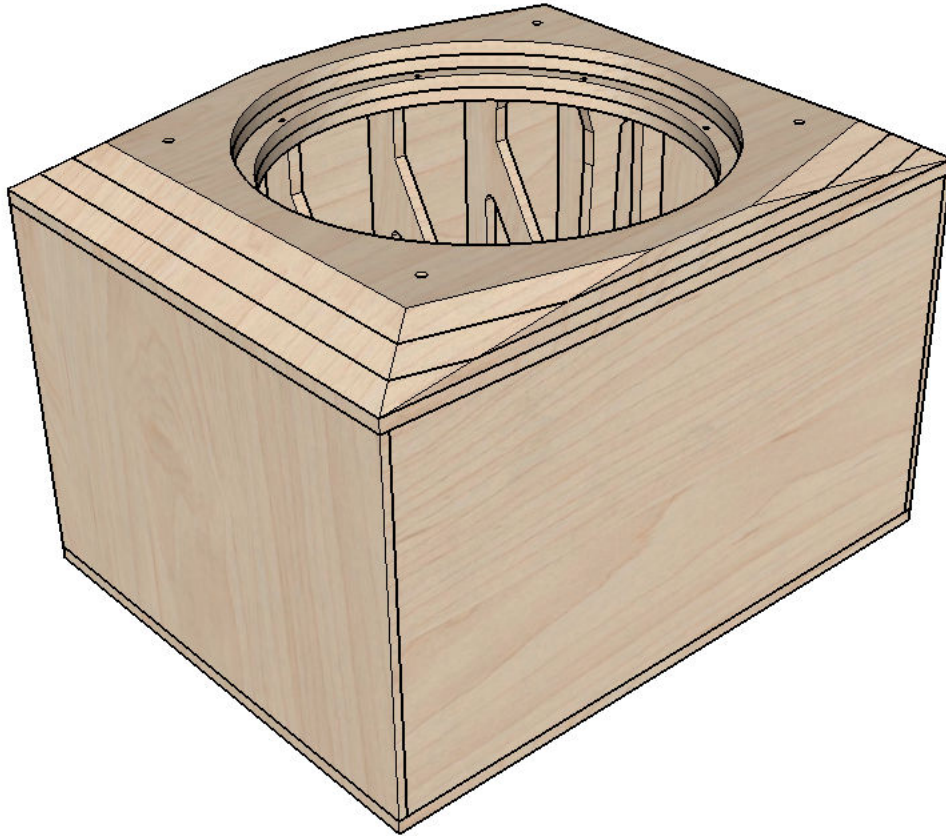


Flip cabinet over.



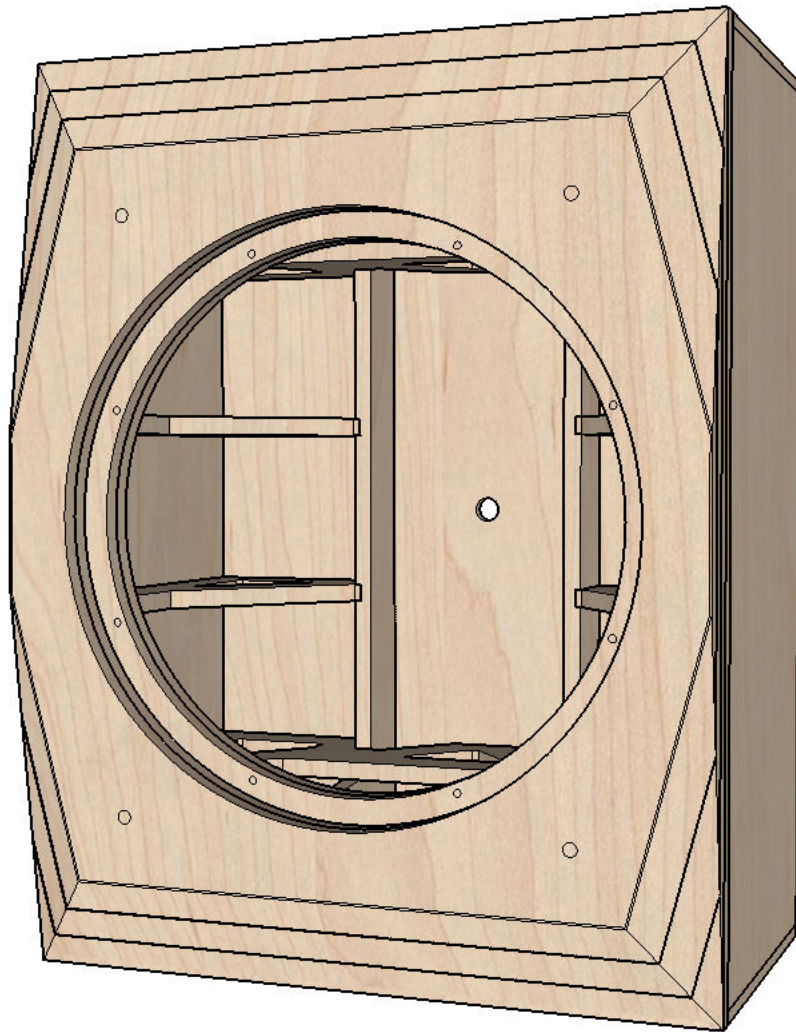
Baffle (with woofer-mounting inserts installed).

The moment of truth!



## Congratulations!

If you intend to coat with Duratex, we recommend a very slight roundover to take off the sharp edges. This can be done with careful sanding or with a router. If you intend to veneer your cab, the corners are best left sharp. Puddy up the baffle alignment holes.



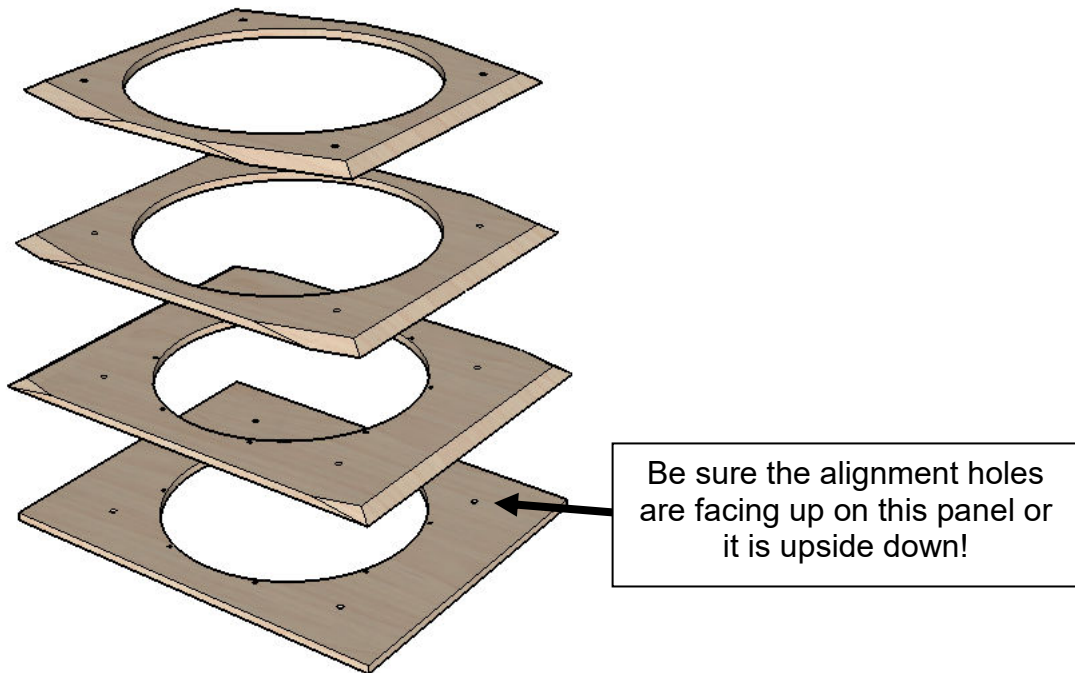
## 24 inch cabinet

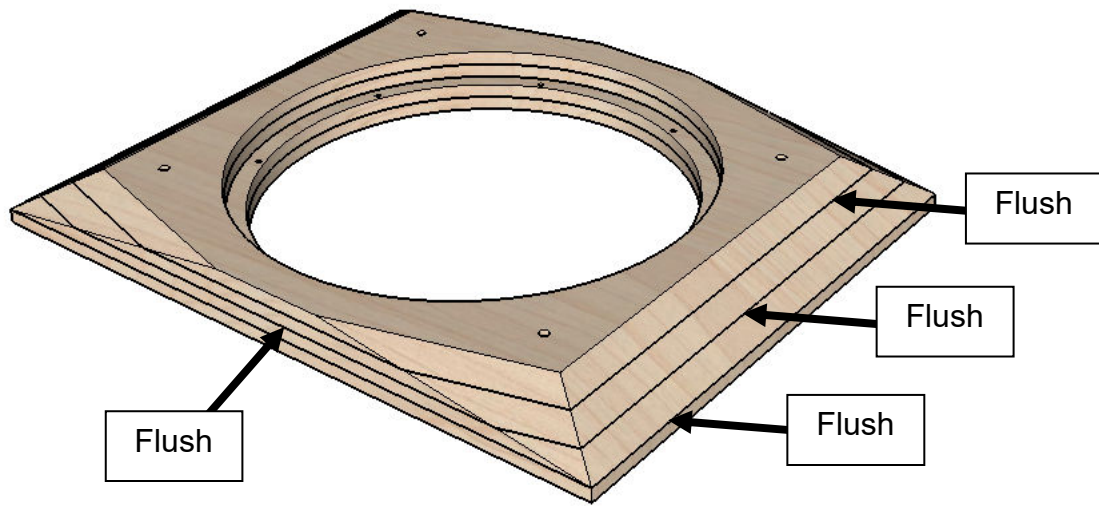
### ASSEMBLY

After you have read the entire instructions and are confident in your understanding of the process AND have dry fit the key panels so that you will see how they go together...begin!

Laminate up the baffle.

Dowels can be inserted into the alignment holes after glue is applied to keep the panels from sliding around. Be very careful with the edges, the **EDGES and CORNERS are VERY FRAGILE.**

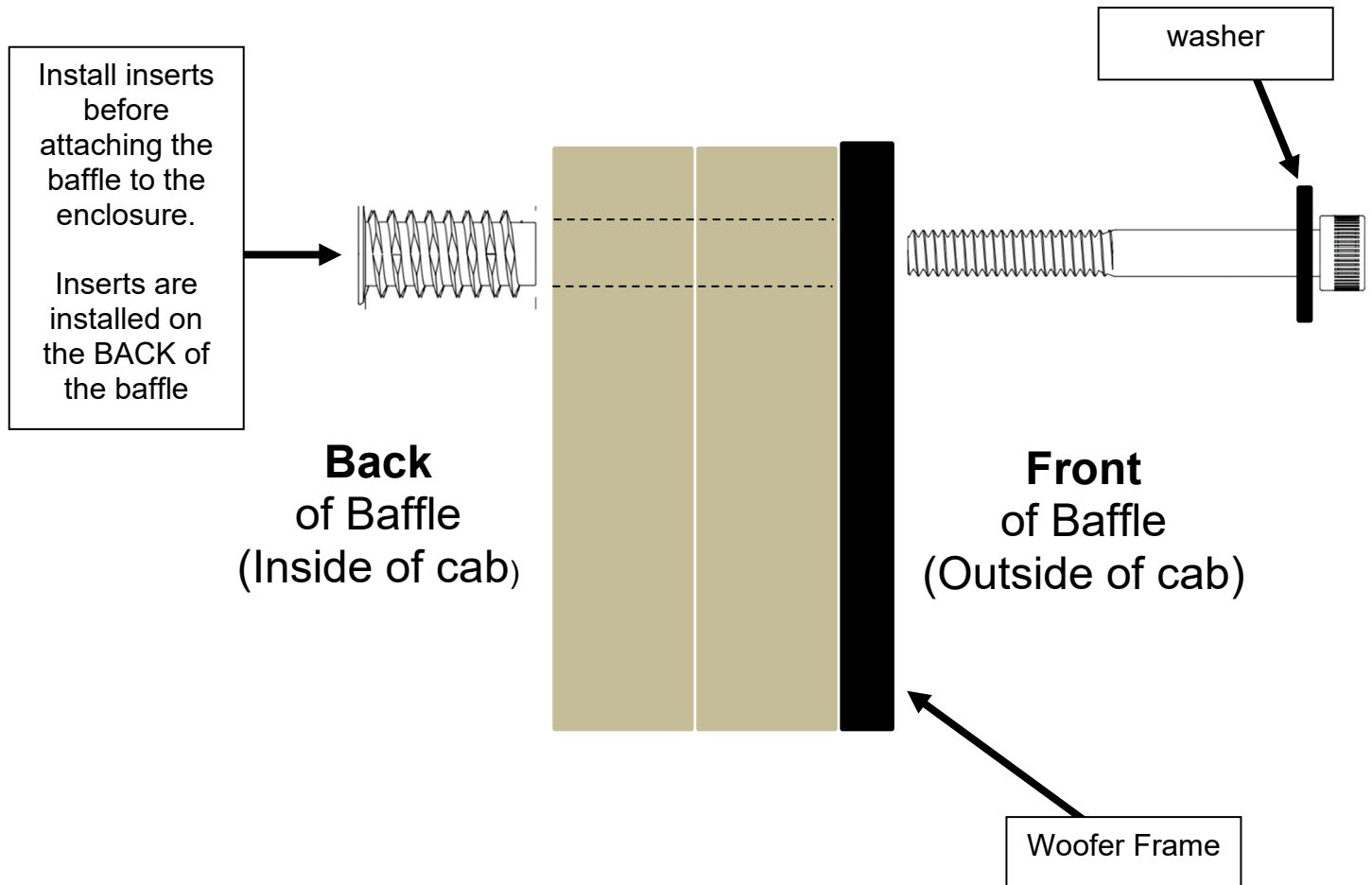




## Woofer mounting inserts.

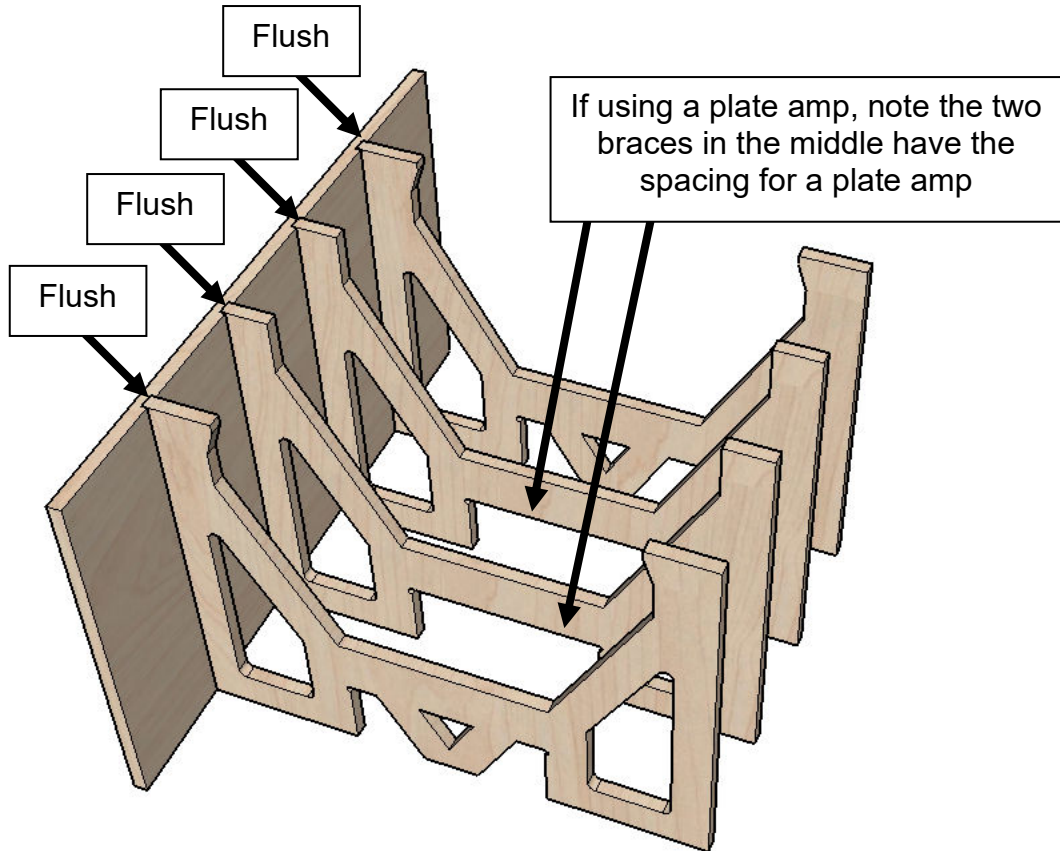
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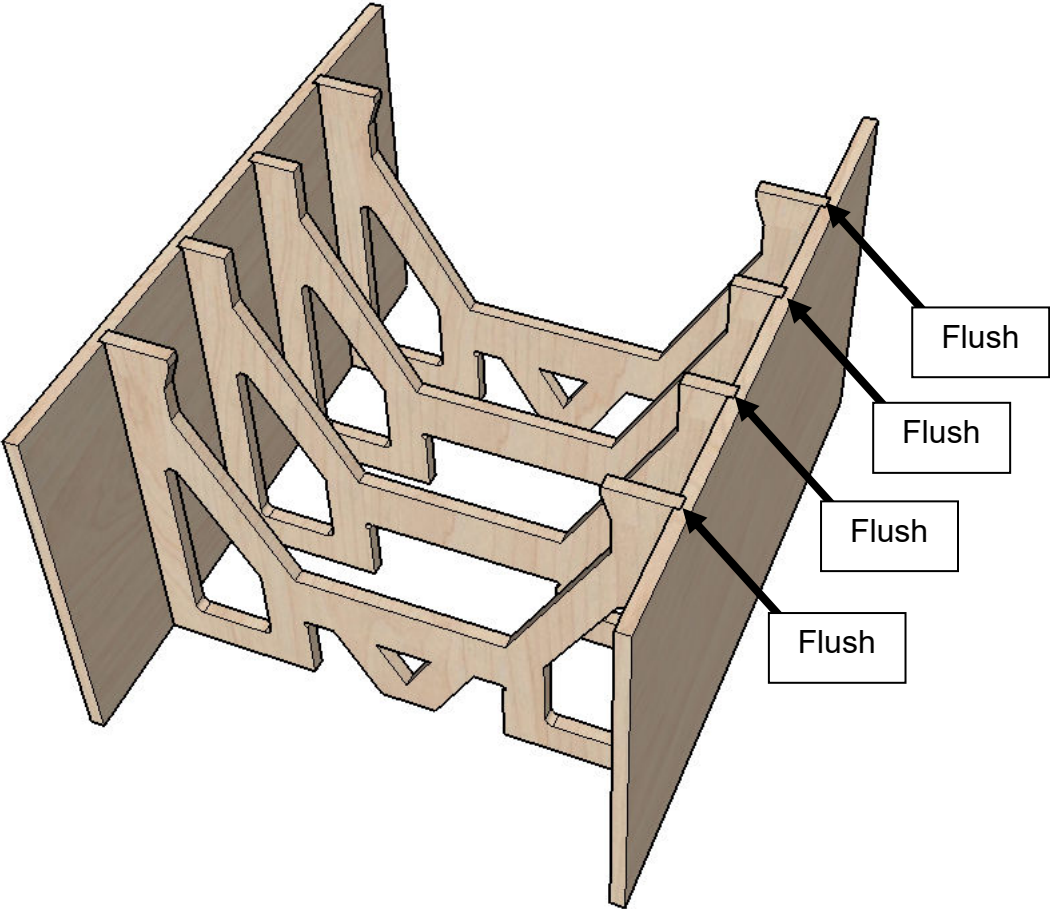


Side panel and horizontal braces.

If using a plate amp, be sure to note the placement of the two braces in the middle with allowance for the plate amp.

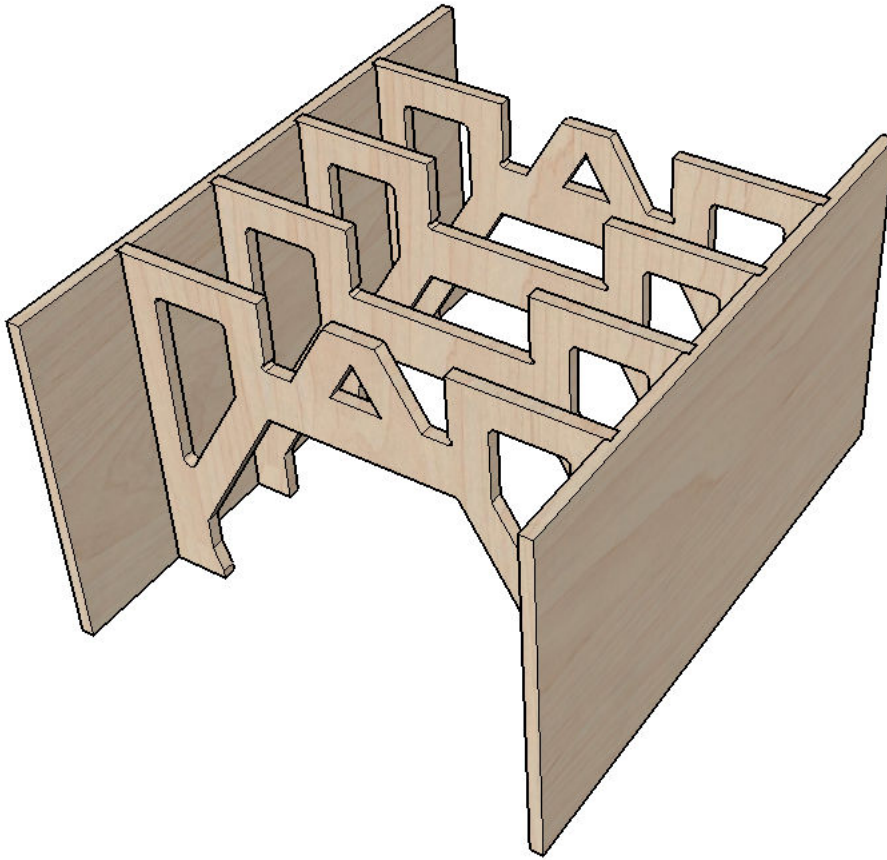


Second side panel.

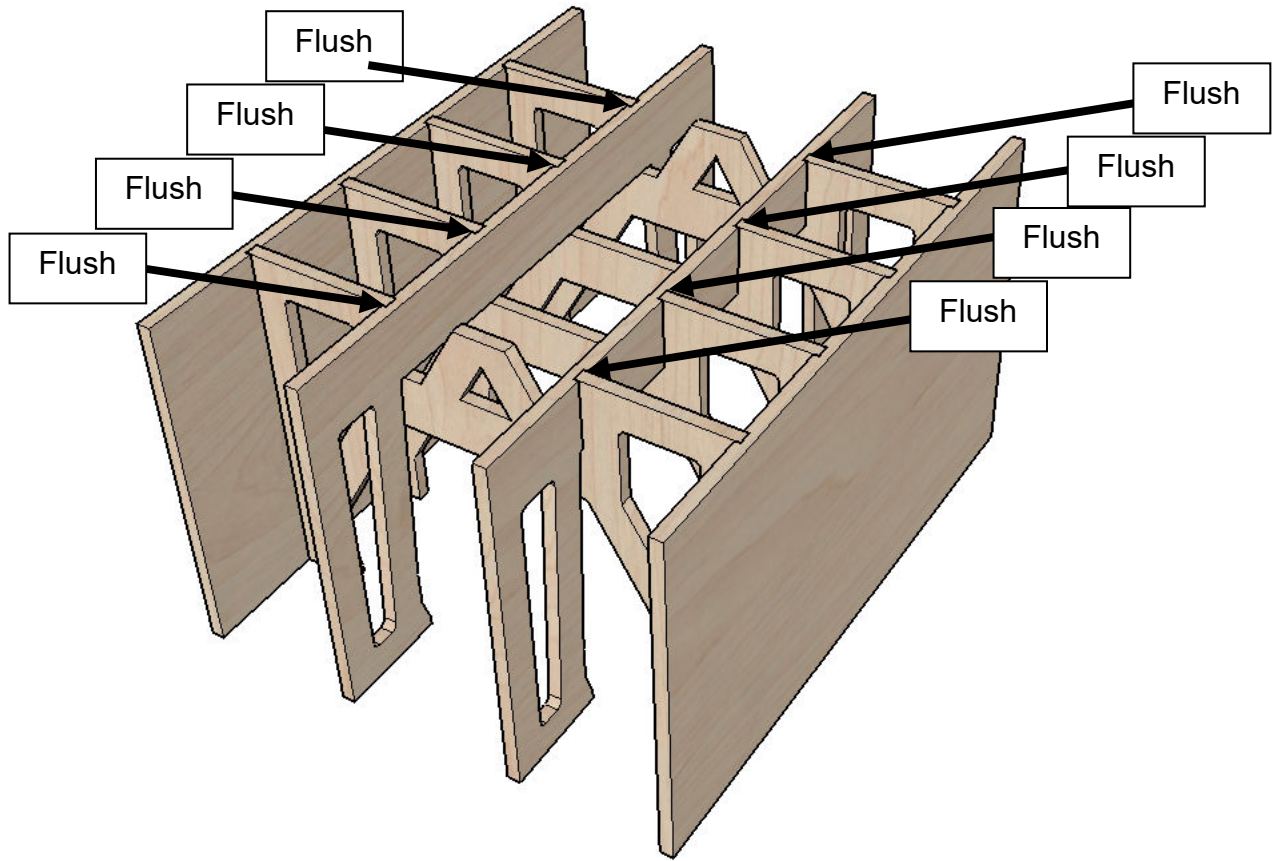




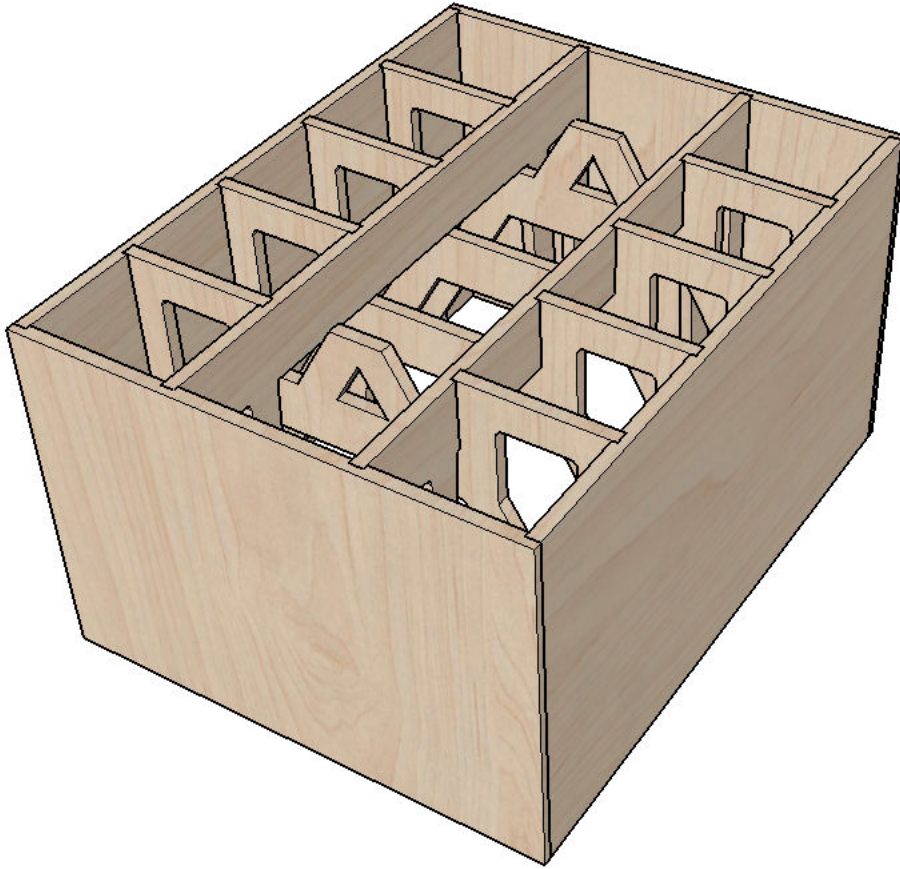
Rotate assembly.



Vertical braces.



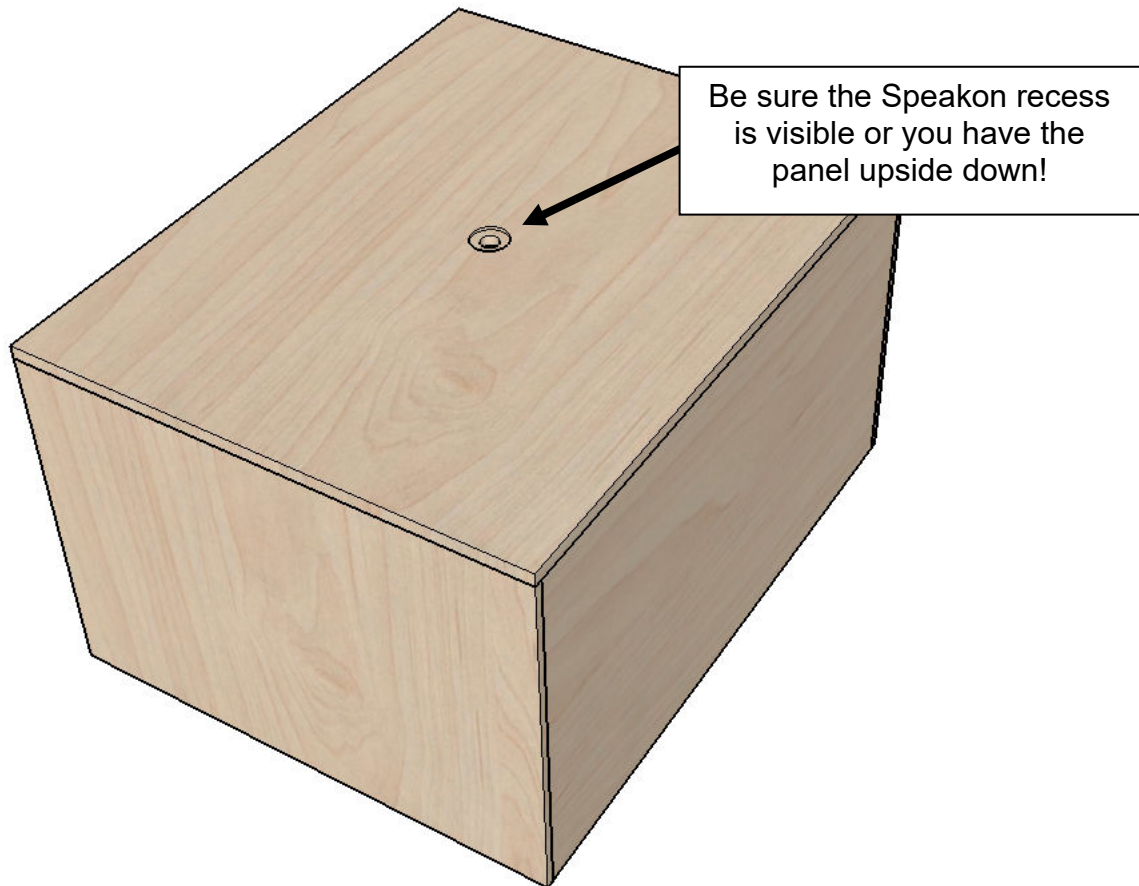
Top and bottom.



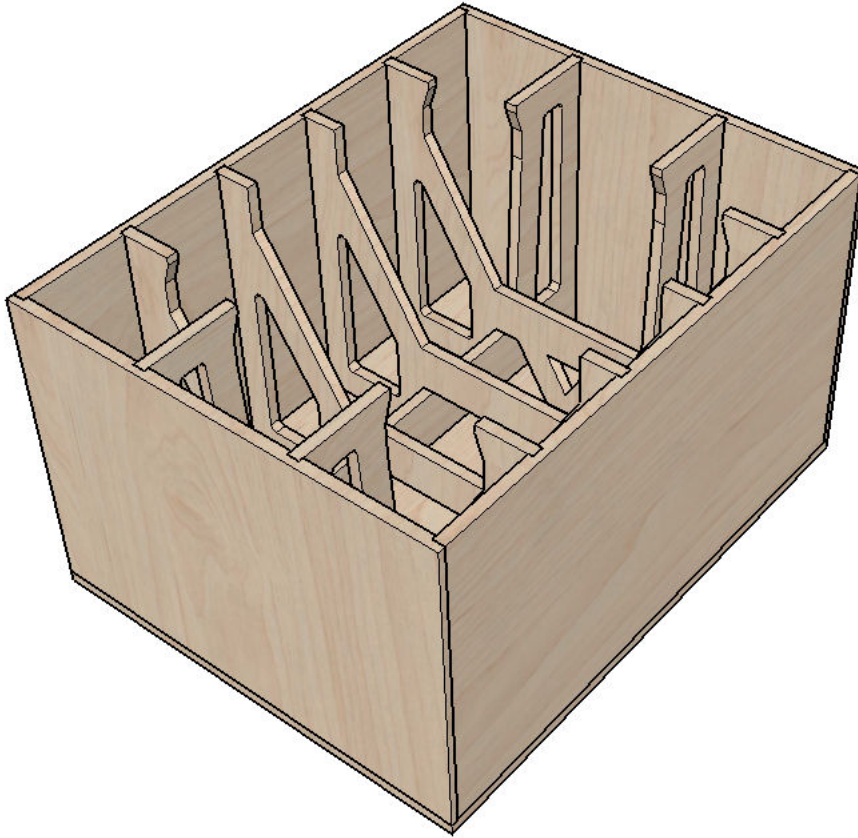
Rear panel.

Note: Ensure the Speakon recess is visible.

If the recess is inside the cab, you have the panel on upside down.

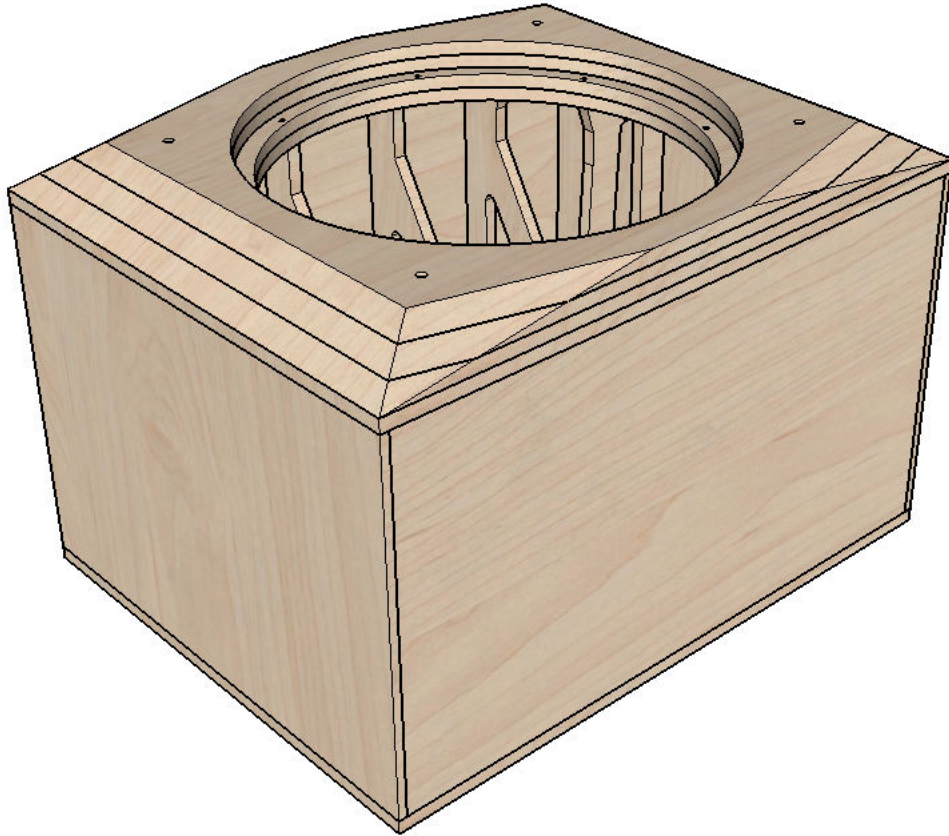


Flip cabinet over.



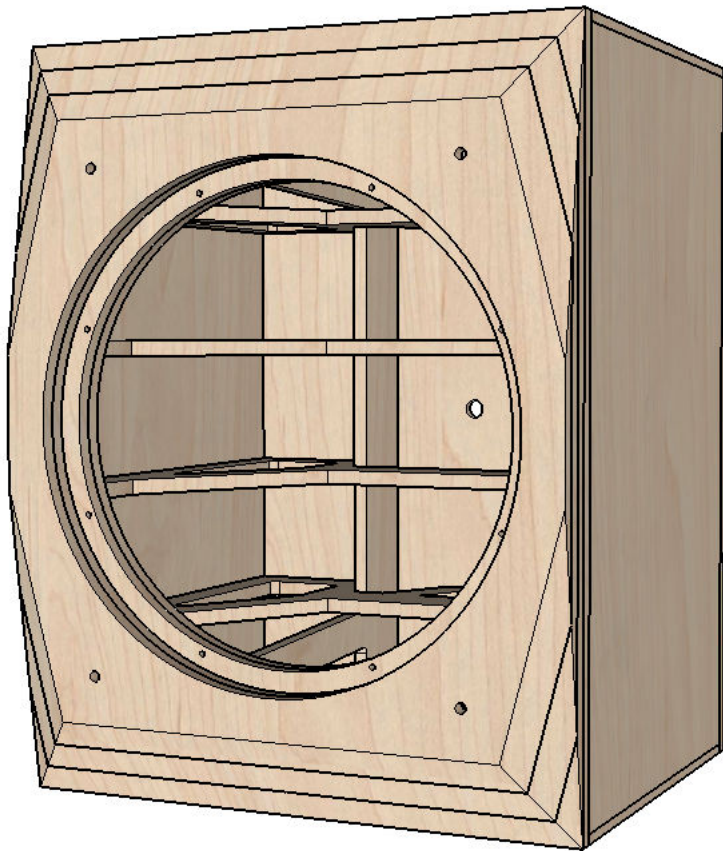
Baffle (with woofer-mounting inserts installed).

The moment of truth!



## Congratulations!

If you intend to coat with Duratex, we recommend a very slight roundover to take off the sharp edges. This can be done with careful sanding or with a router. If you intend to veneer your cab, the corners are best left sharp. Puddy up the baffle alignment holes.



## Final steps

If you are shooting for a super smooth seamless look, you may wish to apply spackle around the perimeter of the baffle and along the two seams on the top of the cabinet prior to painting.

Best practice is to lay it on thick, wait for it to fully dry, then sand it down to be perfectly flush.

We recommend this one, which turns white when dry.

If using spackle, do not attempt to paint until it is fully dry or the paint may not adhere properly.

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[END]