

# Infinite Test Baffle

## How-To Guide



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## 1. Introduction

This baffle is simple to build although it does take up some space. So, I've tried to add in a couple of features that make it less invasive and a little more portable. I had to make some trade-offs. First, I had to choose one of the baffle sizes out of the several designated in the IEC spec (see below). There are different dimensions depending on what size driver you are testing. After weighing the options, I went with the baffle for a 10" driver. However, the hole bored in the baffle will accommodate the 12" driver just in case you want/need to test something that large. I didn't make it larger purely due to concern about stability. Finally, I figured that smaller drivers would be fine too. Here are the IEC 268.5 specs:

**Fig. B1. Standard baffle dimensions for low-frequency driver measurements.**

Nominal Loud-speaker Size <sup>1</sup>	Baffle Dimensions <sup>2</sup>			
	A	B	C	D
200 mm (8 in)	1350 mm	1650 mm	225 mm	150 mm
250 mm (10 in)	1690 mm	2065 mm	280 mm	190 mm
315 mm (12 in)	2025 mm	2475 mm	340 mm	225 mm
400 mm (15 in)	2530 mm	3090 mm	420 mm	280 mm

A feature of my version is that I intend used ¼" lauan plywood as my mounting platform for the drivers. Again, a trade-off. It may not be optimal due to the edge of the lauan square, but it gives flexibility. Any driver up to 12" can be tested because a 14"x14" square of ¼" can have a hole bored in it to accommodate a particular driver. Want to test a 1" dome tweeter? Cut a piece of ¼" and then make the right size hole according to the spec sheet. How about a 6" midrange? Same idea. I've found that once you made one for a particular size driver, it can often be reused.

This baffle also folds in half. Otherwise, it would just be too hard to move and store. That means a couple of hinges on the front. Another trade-off I was willing to make. Hooks on the rear secure it vertically when in use. Finally, a handle on the rear gives you something to help move it when it is folded up.

## 2. Bill of Materials

Item Description	Quantity
4'x8'x3/4" Plywood	2
2"x4"x8' Stud	3
1/4" Lauan Plywood	<i>As Needed</i>
2-1/2" Hook & Eye Latch	2
4 in. x 3-3/20 in. Zinc Plated Tee Hinge	2
6-1/2" Door Pull	1
2-1/2" Deck Screws	Box
#10 x 3/4" Wood Screws	Box

## 3. Cutting Baffle Components

The baffle is made from two sections of 3/4" plywood. Each section is 66-1/2" wide and these are the first cuts to make as it makes the whole panel easier to work with. I made an 8' rip fence that guides my circular saw. I found a video on how to make it on Youtube...very simple and clever. Once those cuts are done, I rip each piece to 40-41/64" high. Now I have both the top and bottom halves of the baffle.



I place one half on my sawhorses and mark out the center of the hole. Once marked, I use my Jasper Jig to make a 12" diameter hole.



For the rear support assembly, cut all pieces to length.

#### 4. Assembly

Next, I am going to make the support assembly. I screw the 4' and 3' segments together using 2-1/2" deck screws. Then I screw the diagonal braces on and dry fit in place. Once satisfied, I set the support assemblies aside.



I placed the top and bottom panels on the ground with the front side up. Now is the time to install the hinges. I measure in 14-27/64" and make a mark. This is where to align the edge of the hinge. I secure the hinge with #10 x 3/4" wood screws. I realize it's not optimal to have anything protruding on the front. The only other option was to have it be full size all the time and that just wasn't going to work for me.



Next, I flip the assembled baffle over to install the hooks. The hooks are used to secure the baffle in an upright position when is use. I measure over 16" and install the hook and eye there.



Then I measure over 33-1/4" over (the center) and 4" down from the seam. Installing a handle here that aids in moving the baffle.



Here's the final product:

## 5. Dimensional Drawings



