

## **BRYSTON MODEL T SPEAKER Q & A**

Cabinet construction: materials, design, what's happening inside? I had a peak in the port with a flashlight and noticed some interesting bracing.

The cabinet has a 1.5 inch thick front baffle, a vertical brace from top to bottom in the centre of the cabinet, and 12 interlocking braces front and back of the vertical brace. All the braces are uniquely spaced so as to have no dominant resonance mode - See attached

**Bass Driver construction:** 

The woofers use a ceramic-coated composite aluminum cone, large diameter voice coil on a high temperature fibreglass former, die cast aluminum frames, and FEA optimized motor system.

Midrange construction:

The midranges use a ceramic-coated composite aluminum cone, die cast aluminum frames, and FEA optimized motor system.

Why the choice to use two, and what were the challenges faced in doing so/what are the benefits?

The dominant advantage to multiple drivers is the increased power handling and sheer SPL achievable before compression occurs; this is a big deal as even at modest levels the dynamic peaks can be very demanding. There is also an advantage that can be achieved in the soundstage presentation if the design is done carefully. The disadvantage would be it is much more complex to design as the interaction between all the drivers means many more on and off axis listening window and power response curves need to be looked at and worked with.

Tweeter construction:

The tweeters use a 1 inch pure titanium dome, Ferro-fluid damping/cooling, temperature stable ferrite magnets, and FEA optimized motor system.

Why the choice to use two, and what were the challenges faced in doing so/what are the benefits?

Same as above on tweeter.

Information on your relationship with Axiom, why you guys had them do the driver design, and how this speaker came to be?

I have known Ian the owner of Axiom casually for years all the way back to the days of Floyd Toole and the National Research council in Ottawa where most of the Canadian

speaker companies got their start and developed their philosophies of speaker design. I was aware that speaker engineer Andrew Welker had moved to Axiom after Canadian speaker company API was purchased and called them both to ask if they would be interested in building me a reference loudspeaker for my personal use to evaluate our Bryston electronics. I knew Axiom was one of the few companies with an anechoic chamber on site and had sophisticated equipment capable of facilitating complex speaker measurement techniques.

My initial request was for a fully Active system with no performance compromises. We spent almost 2 years with a variety of versions and about 6 months ago I was happy with the results and installed the finished Active system in my sound room at home. Long story short - distributors, dealers and friends heard them and convinced me to offer them commercially. Given the complexity of Active systems we set about to develop Passive versions of the Model T which came very close to the performance level of the Active version.

At that point the project just took on a life of its own as our dealers and distributors said they wanted Centers and Surrounds and Subs to match – so here we are with a complete line of Bryston loudspeakers available to our customers and a way to acquire 'Predictable Performance" for our customers all the way from the source to the speaker.

Cross over: points and components, are these built in house?

The crossover points for the Model T are 160 Hz and 2.3 kHz. All of the components used have been carefully selected for ultra-low distortion and the high power handling requirements of the Model T. All the crossovers are built in-house. The Model T Signature provides an outboard 'Passive' crossover to allow for tri-wiring applications as well as an easy transition to a fully Active system using an external active crossover in the future.

Are all of the drivers made by Axiom?

Yes all aspects of the drivers are designed and manufactured in our own factories.

Is there anything unique about the porting technology employed, I noticed the shape is something I have not come across before.

The air in a port is traveling faster in the center relative to the sides due to friction. All ports have some level of noise. The concave/convex port walls add surface area to the port wall thereby minimizing friction thereby reducing port noise. The ports also have curved edges at both the entrance and exit from the port further reducing port noise.

Are there any specific area's that you wish me to highlight in the review such as unique technologies employed?

The expansive listening window/power response and the lack of dynamic compression so you can listen at real world levels.

What size room do you recommend for these speakers?

Because of the excellent dispersion I have used them in rooms as small as 13x17x8 and as large as 25x36x10 with good results.

## **Recommended amplification?**

Given the high efficiency (91dB anechoic) the model T can be driven with moderate power and various types of amplifiers (transistor, Class D, Tubes etc.) So power amplifiers between 100 to 900 watts can be employed depending on room size and listening levels required. The Model T has a benign impedance curve as well so nothing exotic is required.

US pricing \$6,495 a pair with vinyl finish - \$7,495 a pair with Wood finish.

Warranty

10 Years

What is the cost of the optional real wood veneer, and at this price range, why did Bryston decide to offer a base veneer as a finish rather than a real wood veneer?

First and foremost we wanted to build an accurate loudspeaker, not a piece of furniture (not that there's anything wrong with that) and I wanted to supply our customers with as accurate a product that the current state of the art technology allows at the most competitive price possible. If you want real wood veneers or exotic finishes we can do it at additional costs but it does not provide better performance than the base models. Some vinyl's are really quite cosmetically exceptional and it is tough to tell the difference sometimes between real woods and vinyl's these days. Also vinyl will typically wear better over time and deal better with spills etc. – Customers choice!!!

Do the outriggers come standard with the speakers or are they optional?

Outriggers are optional – the speakers come with spikes and furniture feet standard.