

BRYSTON



BRYSTON T¹⁰
TECHNICAL SPEAKER BROCHURE

WELCOME TO THE NEXT LEVEL

BRYSTON



**WHEN YOU LISTEN
TO A SPEAKER
IN A ROOM
YOU ARE NOT
LISTENING TO THE
“ON AXIS”
RESPONSE
YOU ARE
LISTENING TO THE
SOUND POWER**

**DEFY
THE
ORDINARY**

BRYSTON LOUDSPEAKERS

It is not sufficient to simply design speakers to look good on paper. In days past Bryston's loudspeaker engineers participated in ground breaking research that modernized speaker engineering. Since then, we have done more to correlate measured performance with perceived sound quality than just about every other manufacturer on the planet.

Bryston's loudspeakers are extraordinary in their ability to reproduce lifelike sounds both accurate in timbre and dynamic range. Further, they are protected by our industry leading 20 Year Warranty against defects in materials and workmanship. Dressed in our stock or custom real wood veneer or paint, they look as great as they sound. Contact your local dealer today for an audition.

SOUND POWER

We perfect the entire power response of the loudspeaker. We don't just hear the direct on-axis frequency response. Bryston loudspeakers have a flat response from ± 15 degrees off axis. Furthermore, the entire 360 degree sound-field demonstrates exceptional freedom from major peaks or dips that could color the reflected sound around your room. Therefore, Bryston loudspeakers are far easier to place in your room than competing brands and will sound more neutral overall.

REAL WORLD DYNAMICS

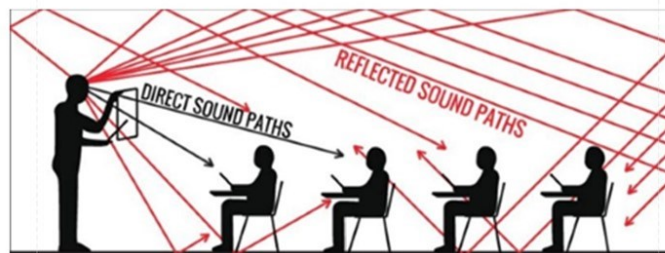
Sounds in real life are dynamic-they can move from whisper quiet to dramatically loud in a split second. For speakers to sound real, they need to respond just as fast. Bryston speakers can keep up with whatever your music and movie soundtracks throw at them. The largest Model T¹⁰ can play at up to 118dB before it even starts to distort! Even the smallest Tiny T¹⁰ can exceed 100dB all without deviating from the ideal response curve taken at reference level. It's not uncommon to find speakers costing many times as much that can't compete.

STEREO OR CINEMA

Truly great loudspeakers are equally comfortable playing music or movies. They show no bias. Our Model T and Model A Series are nuanced and delicate when playing fingerpicked guitar but also powerful and in command when rocking out. They have been engineered to have no character of their own. Let your music and movies do the talking. Hear them just as the artists intended through Bryston Loudspeakers.

DIRECT VS REFLECTED

When you are listening to a loudspeaker in a room you are always listening to a balance between the 'Direct Sound' and the 'Reflected Sound' from the boundaries of the room – this is called the 'Power Response or Sound Power.



PERFORMANCE DEFINED — DYNAMIC /CLEAN /ACCURATE

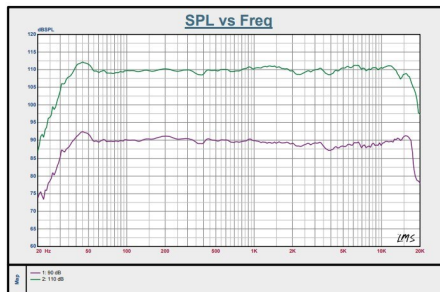
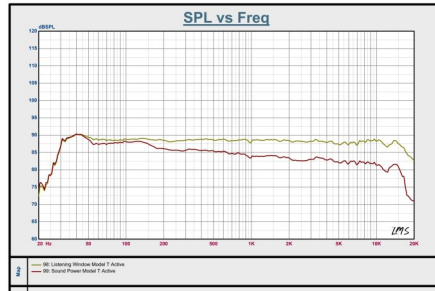
BRYSTON



**THIS LACK
OF
DYNAMIC
COMPRESSION
IS
ASTONISHING
PERFORMANCE
REGARDLESS
OF PRICE**

**WELCOME
TO THE
NEXT LEVEL**

A. B. C's. OF BRYSTON LOUDSPEAKERS



More useful than a single on-axis frequency response plot is that of the listening window - an average of measurements taken on and off axis. Note the superb linearity and absence of major peaks and dips that cause audible tonal errors. Sound power is a weighted average of the speaker's total radiated energy. Excellent linearity here coincides with superb sound-staging and remarkable balance in the room

Dynamic compression, or the inability to maintain composure under high playback levels plagues many loudspeakers. Bryston's astonishing lack of compression brings a lifelike realism to dynamic events in music and movie soundtracks without introducing artifacts that might disrupt your enjoyment. Note that the frequency response of the speaker at a punishing 110dB is virtually identical to that of the speaker at a more common level of

90dB. This is astonishing performance regardless of price

A. Extraordinary dynamic range and lack of compression has been achieved by developing drivers that are efficient, capable of high power handling and extraordinarily low levels of distortion. We also use multiple drive units in parallel so that the system can play louder with less effort than a single driver solution.

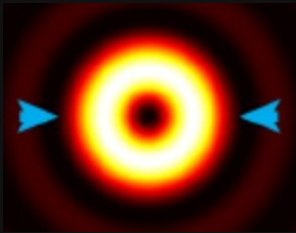
B. Essential to the clarity and neutrality of our speakers are well engineered crossover networks. Whether internal (standard) or external (Signature Edition), these not only divide the full spectrum of sound across different drivers, but also are used to correct even small non-linearities found in our driver elements.

C. Thick walls, up to a 1½ inch thick front baffle, and a precisely designed network of internal braces ensure that the cabinet is all but perfectly inert and contributes virtually no sonic signature of its own. With no cabinet resonances, you only hear the beautiful sound of your recordings.

D. Thorough understanding of fluid dynamics led us to develop a fluted port profile which eliminates vent noise even at extreme pressures. This mastery of engineering enabled us to utilize the advantages of a vented system without the turbulent distortion frequently associated with ports.

E. Bryston carefully engineered drivers to achieve excellent performance and reliability parameters using advanced modeling and finite element analysis tools. Once initially developed, we verified performance and durability in our anechoic chamber and accelerated life test facility

BRYSTON



**A TRUE
POINT SOURCE
SPEAKER IS
PHYSICALLY
IMPOSSIBLE
FROM A PURLY
PHYSICS
STANDPOINT**

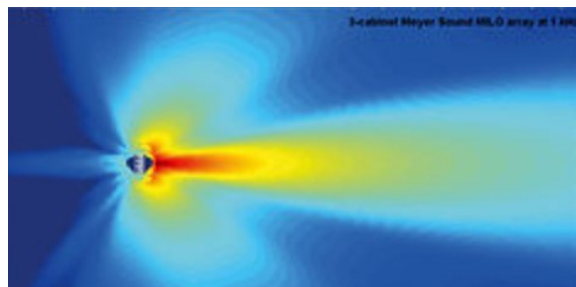
BRYSTON MODEL TINY T¹⁰ POINT SOURCE

In physics, a point source is an energy source with negligible dimensions – a tiny, singular point in space where the energy emanates. In physics terms, a true point source speaker would be infinitely small with the ability to produce frequencies from 20Hz to 20kHz.

Most speakers approximate this performance by using single drivers or coax drivers or in most cases 2 or 3-way drivers clustered together as close as physically possible.

A point source speakers sound expands away from the speaker as an ever-enlarging sphere.

Unlike the line array system or an omni a point source speaker radiates sound in a spherical pattern.



SPECIFICATIONS:

Enclosure Reflex / Vortex

Max Amp RMS Wattage 250 Watts

Min Amp Power 10 Watts

Freq Resp +/-3dB 60 Hz- 20 kHz

Impedance (Ohms) 8

SPL in Room 1w/1m (dB) 91 dB

SPL Anechoic 1w/1m (dB) 87 dB

X-Over 250 Hz & 2 kHz

Tweeter Single 1" Titanium

Midrange Single 3"

Woofer Single 6.5"

Dimensions H W D (inches) 15.5 x 8.5 x 8.25

Dimensions H W D (mm) 483 x 23 x 267

Weight (lbs) each 11

Weight (kg) each 5



BRYSTON



**ENGINEERED
FOR
MUSIC**

**WELCOME
TO THE
NEXT LEVEL**

BRYSTON MODEL COMPACT T¹⁰ POINT SOURCE

SPECIFICATIONS:

Enclosure Reflex / Vortex
Max Amp RMS Wattage 500 Watts
Min Amp Power 10 Watts
Freq Resp +/-3dB (Hz) 45 Hz-20 kHz
Impedance (Ohms) 8
SPL in Room 1w/1m 91 dB
SPL Anechoic 1w/1m 87 dB
X-Over 250 Hz & 2 kHz
Tweeter Single 1" Titanium
Midrange Single 5.25"
Woofer Single HP 6.5"
Dimensions H W D (inches) 19x9.3x10.5
Dimensions H W D (mm) 483x236x267
Weight (lbs) each 26
Weight (kg) each 12



BRYSTON MODEL MINI T¹⁰ POINT SOURCE

SPECIFICATIONS:

Enclosure Reflex / Vortex
Max Amp RMS Wattage 600 Watts
Min Amp Power 20 Watts
Freq Resp +/-3dB 35 Hz- 20 kHz
Impedance (Ohms) 4
SPL in Room 1w/1m 90 dB
SPL Anechoic 1w/1m 86 dB
X-Over 250 Hz & 2 kHz
Tweeter Single 1" Titanium
Midrange Single 5.25"
Woofer Single 8"
Dimensions H W D (inches)
22.5 x 10.5 x 10
Dimensions H W D (mm)
571 x 267 x 250
Weight (lbs) each 42
Weight (kg) each 19



PERFORMANCE DEFINED — DYNAMIC /CLEAN /ACCURATE

BRYSTON



**MUSIC
WITH
EMOTION**

**WELCOME
TO THE
NEXT LEVEL**

BRYSTON MODEL TRIM T¹⁰ LINE ARRAY

SPECIFICATIONS:

Enclosure Reflex / Vortex

Max Amp RMS Wattage 700 Watts

Min Amp Power 30 Watts

Freq Resp +/-3dB 32 Hz- 20 kHz

Impedance (Ohms) 4

SPL in Room 1w/1m 91 dB

SPL Anechoic 1w/1m 87 dB

X-Over 250 Hz & 2 kHz

Tweeter Dual 1" Titanium

Midrange Dual 5.25"

Woofers Dual HP 6.5"

Dimensions H W D (inches) 60" x 16" x 10"

Dimensions H W D (mm) 1520x 410 x 260

Weight (lbs) each 83

Weight (kg) each 38

**SPEAKER
PICTURE
COMING
SOON**

BRYSTON



**THE
DEMO
IS
EVERYTHING**

**WELCOME
TO THE
NEXT LEVEL**

BRYSTON MODEL MIDDLE T¹⁰ LINE ARRAY

SPECIFICATIONS:

Enclosure Reflex / Vortex

Max Amp RMS Wattage 1000 Watts

Min Amp Power 50 Watts

Freq Resp +/-3dB 28 Hz - 20 kHz

Impedance (Ohms) 4

SPL in Room 1w/1m 92 dB

SPL Anechoic 1w/1m 88 dB

X-Over 250 Hz & 2 kHz

Tweeter Dual 1" Titanium

Midrange Dual 5.25"

Woofer Quad HP 6.5"

Dimensions H W D (inches) 67" x 17" x 10"

Dimensions H W D (mm) 1700 x 440 x 260

Weight (lbs) each 102

Weight (kg) each 46

**SPEAKER
PICTURE
COMING
SOON**

BRYSTON



**BECAUSE YOU'RE
TIRED OF
LISTENING TO
AVERAGE**

**WELCOME
TO THE
NEXT LEVEL**

BRYSTON MODEL T¹⁰ LINE ARRAY



SPECIFICATIONS:

Enclosure Reflex / Vortex
Max RMS Amp Wattage 1200 Watts
Min Amp Power 50 Watts
Freq Resp +/-3dB 25 Hz- 20 kHz
Impedance (Ohms) 4
SPL in Room 1w/1m 92 dB
SPL Anechoic 1w/1m 88 dB

X-Over 250 Hz & 2 kHz
Tweeter Dual 1"
Midrange Dual 5.25"
Woofer Quad 8"
Dimensions H W D (inches) 72" x 12" x 17"
Dimensions H W D (mm) 1830 x 310 x 440
Weight (lbs) each 133
Weight (kg) each 61

PERFORMANCE DEFINED — DYNAMIC /CLEAN /ACCURATE

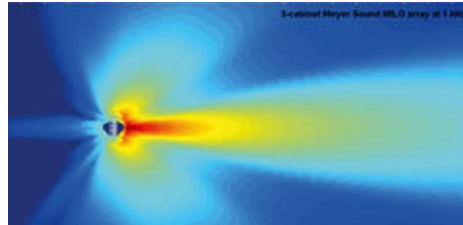
BRYSTON



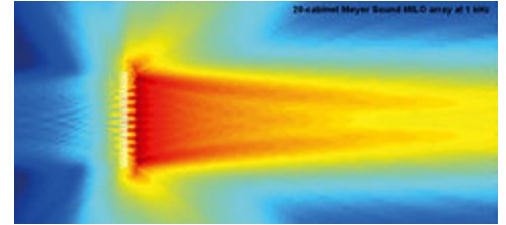
BRYSTON LINE ARRAY SPEAKERS

Bryston tower speakers are partial Line Arrays and different from point source speakers in the way they radiate energy into the room.

The sound radiates outward in an expanding cylinder, as though from a line in space.



POINT SOURCE

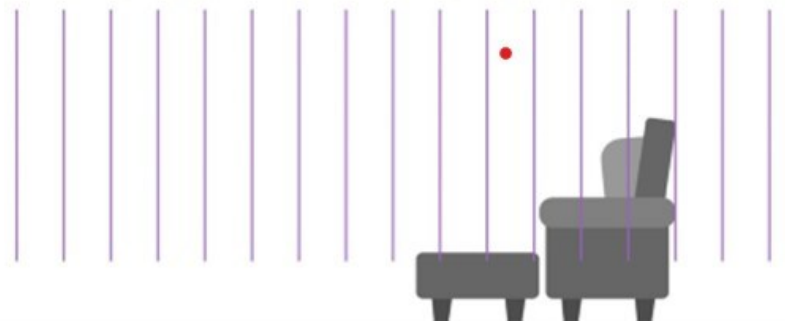


LINE ARRAY

**ADVANTAGES
OF
LINE ARRAY**

There are some significant advantages to this type of sound propagation:

- **More uniform SPL throughout the listening space**
- **Arrays effectively reduce cancellations in floor and ceiling reflections**
- **The perceived volume is quite uniform throughout the listening area.**
- **Having the woofers pressurizing the room at four different locations also assist in reducing the huge dips and peaks in the frequency response all too common in most listening rooms.**
- **Allows you to hear more of the music in your room.**
- **Superior Intelligibility**
- **A greater Sense of Realism**



**WELCOME
TO THE
NEXT LEVEL**

PERFORMANCE DEFINED — DYNAMIC /CLEAN /ACCURATE

BRYSTON



**ALL BRYSTON
SPEAKERS COME
WITH FOUR
CHANGEABLE
MODULES TO
SWITCH BETWEEN**

SINGLE-AMP

BI-AMP

TRI-AMP

ACTIVE

WELCOME

TO

THE

NEXT

LEVEL

ALL BRYSTON SPEAKERS AVAILABLE IN ACTIVE OR PASSIVE VERSIONS

Not only are all our Bryston speakers available in **ACTIVE** or **PASSIVE** versions but any passive version can be easily modified to an active version simply by changing out the **Passive crossover module** for the **Active**.



PERFORMANCE DEFINED — DYNAMIC /CLEAN /ACCURATE

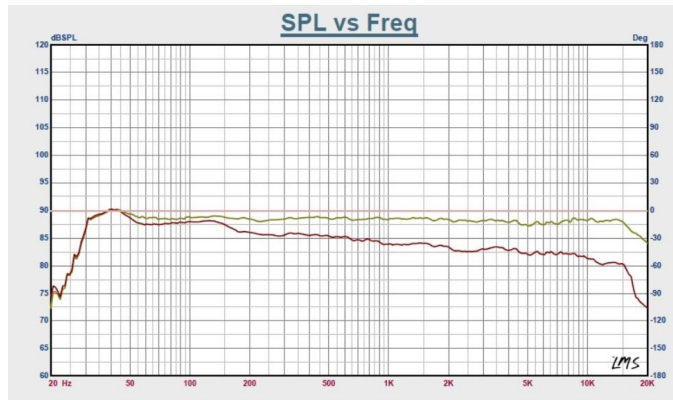
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**IT'S
IMPORTANT
TO
STAY
ACTIVE**

**WELCOME
TO THE
NEXT LEVEL**

BRYSTON 'ACTIVE' T¹⁰



Why Active

Bryston's 'Active' speakers come even closer to the ideal power response without sacrifices to on-axis response. Power response is the weighted measure of a loudspeaker's total energy. It is not sufficient to simply design for flat on-axis response.

By ensuring that power response tracks the more narrowly defined listening window closely, we can ensure that the room's contribution to the final sound is beneficial, not destructive.

Bryston's Active Loudspeakers leverage the incredible power of our DSP engine to enable our engineers to optimize both listening window and sound power at once. These are often competing ideals. Now listeners can have truly neutral in-room response across the whole spectrum.

Select your Speakers

Bryston offers all our T10 models of speakers in Active versions. Each loudspeaker is expertly constructed in Canada and finished by talented craftsmen in the fine wood of your choosing. No internal crossover is present, Each driver section is powered directly from the attached amplifier.

Whichever you pick, expect realistic tone, lifelike three dimensional space, and incredible clarity. All models are protected by Bryston's legendary 20 year warranty.

Pick your Power

Unlike with so many other active loudspeaker systems, with our models amplification is more than simply an afterthought. Each loudspeaker requires three amplifier channels—one for high frequency, one for midrange, and one for low frequency. Any mixture of Bryson power amplifiers would be the optimum choice or, build your own amplifier complement as long as the gains are the same.

The Crossover

Inside the all new BAX-1 DSP Crossover lies the magic that elevates the system to a new ultimate performance. The BAX-1 receives line level analog audio from your preamp and converts it to digital with exacting precision. Like a traditional crossover, bands are divided, but response is also corrected. Our engineers use the powerful DSP engine to precisely neutralize system response errors that would otherwise go uncorrected. Low, midrange, and high frequency outputs are generated which then feed 6 amplifier channels.

Do you want a custom sound? You can even custom tailor the bass response to match your room using the on-board web based user interface.

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**ALL BRYSTON
SPEAKERS ARE
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ACTIVE
OR
PASSIVE
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BRYSTON BAX-1 ACTIVE CROSSOVER



The Bryston BAX-1 Digital Electronic Crossover is really a very specialized and unique crossover.

Unless designed as a dedicated crossover all active crossovers typically provide the customer with a more typical 'generic' approach to adjustments.

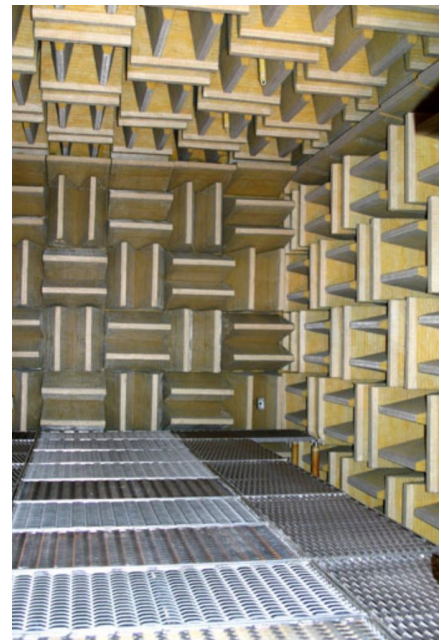
By that I mean you can choose the slope and the crossover point and sometimes the Q but they do not take into account the unique total radiated energy of the speaker (which is exactly what you hear in a real room)

The Bryston BAX-1 on the other hand is designed in the Bryston factory anechoic chamber with over 300 measurements both vertically and horizontally with a specific Bryston speaker in mind.



Anechoic chambers are very expensive but they eliminate any reflections from the speaker influencing the measurement of 'on and off' axis sound power response accuracy.

Each and every Bryston Active Model T10 loudspeaker has a different and dedicated version of software depending on the specific speaker model.



BRYSTON ANECHOIC CHAMBER

BRYSTON



ACTIVE FEATURES INCLUDE:

- XLR analog input from your line-level pre-amp.
- 3 pairs (low, mid, high) of XLR analog out to feed your choice of amplifier complement
- 96/24 analog to digital to analog conversion
- Factory programmed crossover settings
- Controllable via web-based user interface
- 6 channels of amplification required (3 channels per loudspeaker)
- Firmware upgradeable (e.g. w/ Bass EQ and other new features)

TYPICAL BRYSTON 'ACTIVE' SETUP

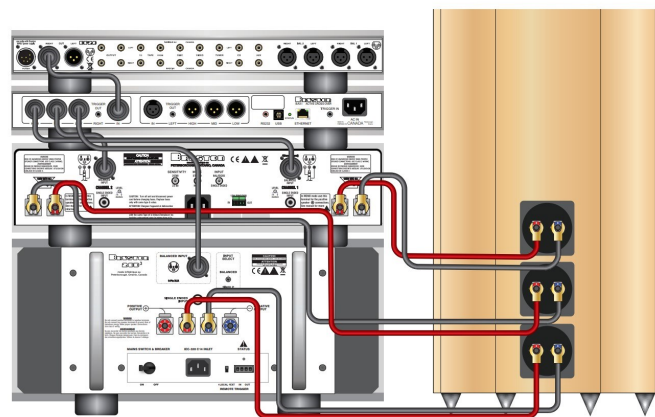
The Bryston BAX-1 Digital Electronic Crossover is really a very specialized and unique crossover. Unless designed as a dedicated crossover all active crossovers I am aware of just provide the customer with a 'generic' approach to adjustments. By that I mean you can choose the slope and the crossover point and sometimes the 'Q' but they do not take into account the 'SOUND POWER' or total radiated energy of the speaker (which is what you actually hear in a room)

The Bryston BAX-1 on the other hand is designed with a specific Bryston speaker in mind. The Active Model T¹⁰'s have different software than the Middle T¹⁰ and the Mini T¹⁰ has different software again. The reason for that is we put each version of the Model T¹⁰'s in our factory anechoic chamber and we make over 300 measurements but vertically and horizontally around the speaker and adjust the software to provide as accurate as possible the best SOUND POWER for the specific Model T¹⁰ speaker.

Additionally, most fully active systems restrict your choice of preamplifier and amplifiers by building in internal chip type amplifiers and preamplifiers which save space but can limit performance.

Bryston's system includes a high resolution external digital crossover model BAX-1 that accepts input from your favorite stereo analog preamplifier and outputs analog signal to your choice of amplifiers. The BAX-1 makes it easy to choose the amplifiers that work best for your listening preferences. Each loudspeaker needs 3 (preferably Bryston) amplifier channels with equal gain.

Most listeners will choose a high powered mono amp for the bass section and a medium powered two channel amp for the midrange and tweeter sections. High quality DSP crossover improves performance by directly powering drivers without intermediate passive components in the crossover. Also, much finer adjustments can be made to compensate for response non-linearities. Because we are no longer confined to traditional crossover geometry, we can tailor the on and off axis response independently for incredibly natural tone and spatial resolution.



BRYSTON Model T Active Loudspeaker System

BRYSTON



**ALL BRYSTON
SPEAKERS ARE
AVAILABLE IN
ACTIVE
OR
PASSIVE
VERSIONS**

**WELCOME
TO THE
NEXT LEVEL**

HOME THEATER AND SUBWOOFERS

Critical to the performance of any home theater is a very close timbre match between all speaker channels. When each speaker in a multi-channel playback system sounds just like the others, suspension of disbelief requires little imagination.

PERFORMANCE: A center or surround channel's performance requirements are the same as any other speaker. It must be clear, spacious, neutral and dynamic. All our Bryston T¹⁰ Center and Surround speakers are designed to possess each of these characteristics with abundance. Like all other Bryston products, the goal is accurate playback. It's a perfect match for all Bryston main channel loudspeakers



MODEL: T¹⁰ CENTER

There will be 4
Centers:

- Tiny TC10
- Compact TC10
- Trim TC10
- Model TC10

There will be 3 Subs:

- Mini T10
- MiddleT10
- Model T10

BRYSTON SUBWOOFERS:

Bryston Subwoofers are available in two distinct configurations:

'Column' Design or 'Bipolar' Design

The 'Column' design is a traditional forward facing bass driver available in either a single, double or triple configuration. The 'Bipolar' design is a side firing opposing driver arrangement

A "sub" is a speaker that produces very deep bass tones, lower even than the bass that a large floor-standing speaker's woofers can produce. You 'FEEL' the low frequencies!

Bryston's subs, for small, medium and large rooms, accurately reproduce these 'feeling' effects in your listening room.



MODEL T10 & MIDDLE T10 SUBS



BIPOLE SUBS DUAL 8 AND DUAL 12

BRYSTON



STANDARD AND CUSTOM COLOURS

You can order your Bryston Model T¹⁰ loudspeaker finished in our beautifully lacquered fine hardwood in the standard stock colours or a custom finish of your choosing to complement your home décor.

In addition to the in-stock Walnut, Boston Cherry, and Black Ash shown below, a larger selection of natural wood and highly durable painted veneers can be selected for any Bryston freestanding or stand-mounted loudspeaker.

Natural Cherry



Boston Cherry



Black Ash



**ALL BRYSTON
SPEAKERS
ARE AVAILABLE
IN CUSTOM
COLOURS
AND
FINISHES**



Red Rosewood



Walnut



Your Custom
Finish

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