BRYSTON

BRYSTON T^{10}
TECHNICAL SPEAKER BROCHURE

WELCOME TO THE NEXT LEVEL

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

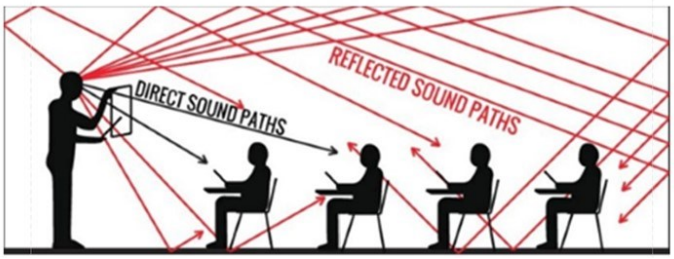
Sounds in real life are dynamic-they can move from whisper quiet to dramatically loud in a split second. For speakers to sound real, they need to respond just as fast. Bryston speakers can keep up with whatever your music and movie soundtracks throw at them. The largest Model T^{10} can play at up to 118dB before it even starts to distort! Even the smallest Tiny T^{10} 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

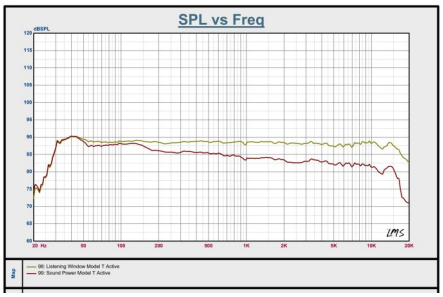
When you are listening to a loudspeaker in a room you are always listening to a balance between the 'Direct Sound' and the 'Reflected Sound' from the boundaries of the room – this is called the 'Power Response or Sound Power.



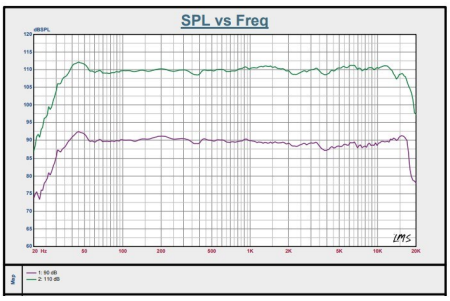
WHEN YOU LISTEN TO A SPEAKER IN A ROOM YOU ARE NOT LITENING TO THE "ON AXIS' RESPONSE YOU ARE LISTENING TO THE SOUND POWER

DEFY THE ORDINARY

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

THIS LACK OF DYNAMIC COMPRESSION 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

WELCOME TO THE NEXT LEVEL

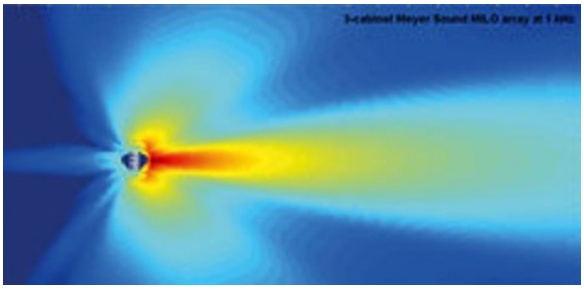
BRYSTON MODEL TINY T^{10} POINT SOURCE

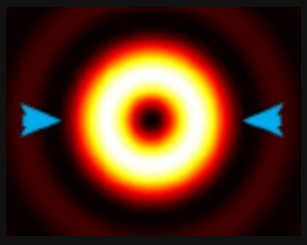
In physics, a point source is an energy source with negligible dimensions – a tiny, singular point in space where the energy emanates. In physics terms, a true point source speaker would be infinitely small with the ability to produce frequencies from 20Hz to 20kHz.

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

TINY T^{10}

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

ENGINEERED

FOR

MUSIC

WELCOME

TO THE

NEXT LEVEL

BRYSTON MODEL COMPACT T[10] 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

COMPACT T[10]

BRYSTON MODEL MINI T[10] 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

MINI T[10]

BRYSTON MODEL TRIM T[10] LINE ARRAY

Trim T-10, Boston Cherry

TRIM T[10]

MUSIC

WITH

EMOTION

WELCOME

TO THE

NEXT LEVEL

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"

Woofer Dual HP 6.5"

Dimensions H W D (inches) 60x10x16

Dimensions H W D (mm) 1520x260x410

Weight (lbs) each 83

Weight (kg) each 38

BRYSTON MODEL MIDDLE T^{10} LINE ARRAY

MIDDLE T^{10}

THE

DEMO

IS

EVERYTHING

WELCOME

TO THE

NEXT LEVEL

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) 67x10x17
Dimensions H W D (mm) 1700x440x260
Weight (lbs) each 102
Weight (kg) each 46

BRYSTON MODEL T[10] LINE ARRAY

MODEL T[10]

BECAUSE YOU'RE TIRED OF LISTENING TO AVERAGE

WELCOME TO THE NEXT LEVEL

SPECIFICATIONS:

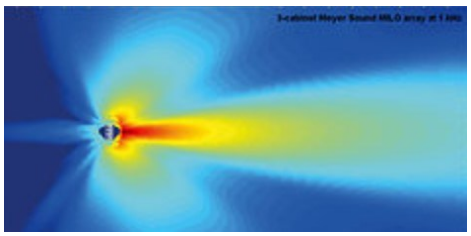
Enclosure Reflex / Vortex
Max RMS Amp Wattage 1200 Watts
Min Amp Power 50 Watts
Freq Resp +/-3dB 25 Hz- 20 kHz
Impedance (Ohms) 4
SPL in Room 1w/1m 92 dB
SPL Anechoic 1w/1m 88 dB
X-Over 250 Hz & 2 kHz

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

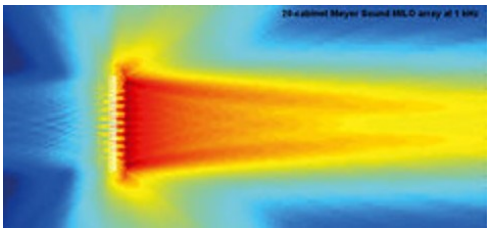
BRYSTON LINE ARRAY SPEAKERS

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.



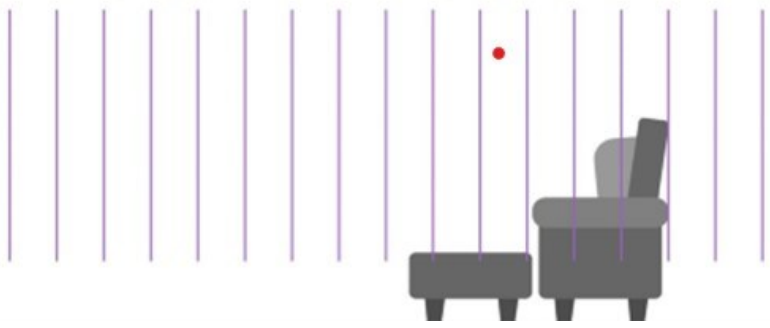
POINT SOIURCE



LINE ARRAY

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

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



ADVANTAGES

OF

LINE ARRAY

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.

ALL BRYSTON SPEAKERS COME WITH FOUR CHANGEABLE MODULES TO SWITCH BETWEEN

SINGLE-AMP

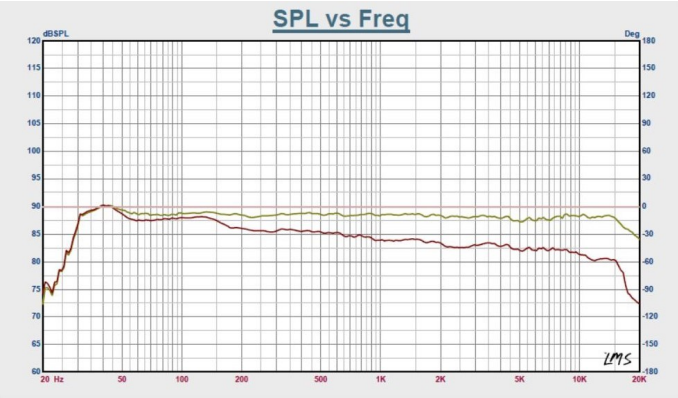
BI-AMP

TRI-AMP

ACTIVE

WELCOME TO THE NEXT LEVEL

BRYSTON 'ACTIVE' T^{10}



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 Bryston 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.

IT'S IMPORTANT TO STAY ACTIVE

WELCOME TO THE NEXT LEVEL

BRYSTON BAX-1 ACTIVE CROSSOVER

ALL BRYSTON SPEAKERS ARE AVAIABLE IN ACTIVE OR PASSIVE VERSIONS

WELCOME TO THE NEXT LEVEL

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

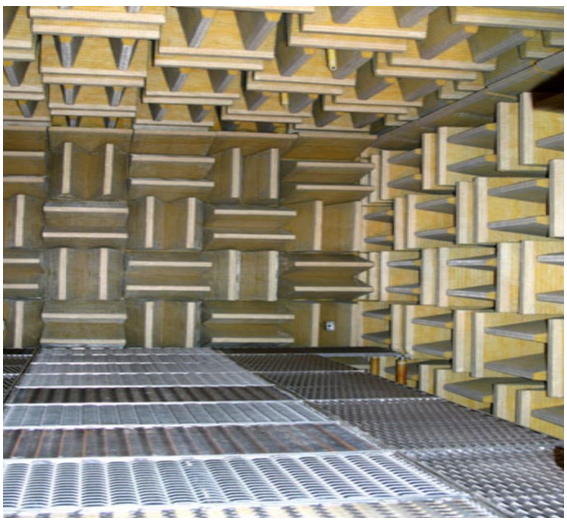
Unless designed as a dedicated crossover all active crossovers typically provide the customer with a more typical 'generic' approach to adjustments.

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 exactually 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.



TYPICAL BRYSTON 'ACTIVE' SETUP

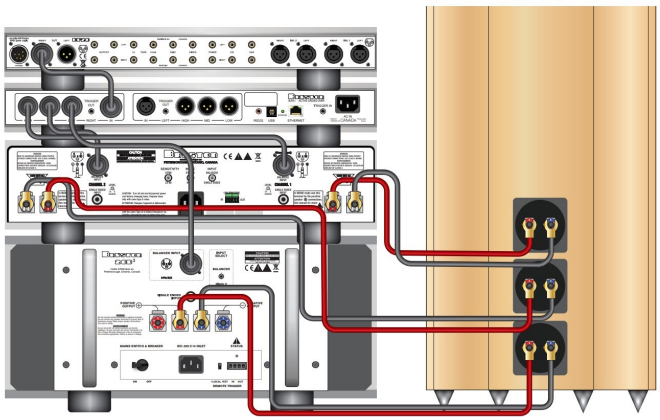
The Bryston BAX-1 Digital Electronic Crossover is really a very specialized and unique crossover. Unless designed as a dedicated crossover all active crossovers I am aware of just provide the customer with a 'generic' approach to adjustments. By that I mean you can choose the slope and the crossover 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 T^{10}'s have different software then the Middle T^{10} and the Mini T^{10} has different software again. The reason for that is we put each version of the Model T^{10}'s in our factory anechoic camber 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 T^{10} 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

MADE IN CANADA / FABRIQUÉ AU CANADA

ACTIVE FEATURES INCLUDE:

- XLR analog input from your line-level preamp.
- 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

SUBWOOFER INTEGRATION

SUBWOOFER integration has always been difficult to achieve given the complexity of the many different types of Main speakers utilized in a typical audio system.

Bryston is pleased to introduce a series of Subwoofer Towers specifically designed to integrate with our T-10 Series Tower Speakers. These stereo Sub Towers can be used with either our **'Passive or Active'** T-10 Tower speakers.

There will be three physically, cosmetically and software matched versions of these TS-10 Sub Towers:

1. **Model TS-10 Sub Tower (Six - 8 inch drivers each)**
2. **Middle TS-10 Sub Tower (Six - 6.5 inch drivers each)**
3. **Trim TS-10 Sub Tower (Four - 6.5 inch drivers each)**

TS-10 SUB TOWER

The TS-10 stereo subwoofer towers will require the new Bryston BAX2 (2-way electronic crossover) and two more channels of amplification with dedicated software which utilizing DSP will blend the TS-10 Tower to the Mains over the bass frequency range response from 150Hz down to their specific cutoff point.

BAX-2

So, at the very low frequencies you will have the stereo TS Subwoofer Tower bass and the bass drivers in the stereo Mains all acting as one large massive integrated bass driver.

This is the optimum way to achieve the proper integration of your Main speakers with your Subs.

It will also drive the room in the bass area from multiple points in space which helps reduce the standing waves in your listening room as well as incredibly low distortion throughout the very low bass frequencies due to multiple low frequency drivers sharing the load.

ALL BRYSTON SPEAKERS ARE AVAIABLE IN ACTIVE OR PASSIVE VERSIONS

WELCOME TO THE NEXT LEVEL

SUBWOOFER SPECIFICATIONS

DSP TECHNOLOGY

All the Bryston TS-10 Subwoofer Towers utilize the Bryston BAX-2 digital electronic crossover with intelligent DSP to ensure optimize performance.

The TS-10's have a perfectly linear response down to their specific cutoff point. This gives you bass realism, texture and control like you have never experienced before.

The intelligent DSP also means your TS-10 Subwoofer plays at very powerful levels without ever having to worry about unwanted pops and noises coming from your subwoofer.

TS-10 SUBWOOFER TOWERS

- **Model TS-10 Sub Tower** (Six - 8 inch drivers each)
  Matches Physically and Cosmetically the Model T-10 Tower
  Dimensions H W D (inches) 72" x 12" x 17"
  Dimensions H W D (mm) 1830 x 310 x 440
  Frequency Response (+/-3dB) Hz 16 - 150

- **Middle TS-10 Sub Tower** (Six - 6.5 inch drivers each)
  Matches Physically and Cosmetically the Middle T-10 Tower
  Dimensions H W D (inches) 67" x 10" x 17"
  Dimensions H W D (mm) 1700 x 440 x 260
  Frequency Response (+/-3dB) Hz 18 - 150

- **Trim TS-10 Sub Tower** (Four - 6.5 inch drivers each)
  Matches Physically and Cosmetically the Trim T-10 Tower
  Dimensions H W D (inches) 60" x 10" x 16"
  Dimensions H W D (mm) 1520 x 260 x 410
  Frequency Response (+/-3dB) Hz 18 - 150

FEATURES

- Ultra High-Power Woofer Design
- Enclosure Sealed
- Die Cast Woofer Basket
- DSP Amplitude Response Control
- Featuring XLF (Extended Low Frequency) Intelligent Control

INTELLIGENT DSP ENSURES ULTIMATE PERFORMANCE

WELCOME TO THE NEXT LEVEL

BRYSTON WIRELESS SPEAKERS

Our Bryston Wireless loudspeakers are based on Bryston's passive speakers using the high quality internal passive crossovers and drivers but the Wireless speaker series models incorporate an internal state of the art amplifier in each speaker.

All Wireless models ship with a Wireless 'four-in-one transmitter' that permits streaming over Wi-Fi via Apple AirPlay or UPnP.

On the rear of the transmitter are a line-level analog input, digital optical in, four USB ports for connecting external storage devices, and an Ethernet port.

It also incorporates a Pi Linux-based computer, which makes possible network playback from NAS drives and supported streaming services, under control of a Web-based interface that can run on iOS and Android devices.

ALL BRYSTON SPEAKERS ARE AVAIABLE IN ACTIVE OR PASSIVE VERSIONS

WELCOME TO THE NEXT LEVEL

STANDARD AND CUSTOM COLOURS

You can order your Bryston Model T[10] 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

Red Rosewood

Walnut

Your Custom Finish

BRYSTON SPEAKERS HAVE A 20 YEAR WARRANTY TO THE ORIGINAL OWNER

WWW.BRYSTON.COM

ALL BRYSTON SPEAKERS ARE AVAILABLE IN CUSTOM COLOURS AND FINISHES

WELCOME TO THE NEXT LEVEL