

## Bryston and PMC: Even More Movie Hits

Well here we are again. The movie and television industry continues to use Bryston Amplifiers and/or PMC Loudspeakers in the production of feature length movies and TV programs.

Recent movie releases include:

Pleasantville

Psycho

Simon Birch

The Parent Trap

Meet Joe Black

Holy Man

I Still Know What You Did

Last Summer

Practical Magic

Patch Adams

Dancing With Architecture

My Favourite

The Out Of Towners

Soldier

Sphere

T-Rex Imax 3D

The Book of Stars



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## The B60R Strikes Again

I am pleased to report that the Bryston B-60R integrated amplifier a runner-up Product of The Year Award for 1998 in the December issue of Stereophile. We are extremely proud of this exceptional little integrated amplifier and the company it keeps in this runner-up category.

The B-60 has now achieved awards in every major marketplace in the world (including Japan no less). We

also continue to receive glowing reports from our customers via the Internet ([www.by/bryston.ca](http://www.by/bryston.ca)) on how pleased they are with the performance and value of their B-60's once they install them in their own systems.

If our B-60 backorder list is any indication there are still many people out there who value the simplicity and intimacy of a superb stereo system.



## Is Your System Out Of Balance

One question which keeps coming up over and over is the controversy regarding audio — components being "fully balanced" versus what is sometimes referred to as "balanced converting to single ended" at the input of the electronic component (preamp, electronic crossover, amplifier etc). The correct term for this balanced converting to single ended is more accurately referred to as "differential amplifier balancing"

Popular mythology has seen fit to 'bless' the concept

of 'fully-balanced' (meaning of course, two completely separate signal paths through a component, with its attendant doubling of parts cost and complexity, and halving of reliability). This approach completely misses the place, which is, of course, to eliminate hum and noise picked up by the audio cables feeding the component.

The reason for this is that a differential amplifier rejects any common-mode noise which appears at its

Urban Legend  
True Crime  
Rounders  
Lethal Weapon 4  
The Judas Kiss  
Dr Doolittle  
Long Island Incident  
My Giant  
Meet The Deedles  
Recent TV shows:  
Godzilla  
Lionhearts  
Hercules  
Robocop  
Thicker Than Blood  
The Rat Pack  
Earth to The Moon



input, by a factor equal to its common-mode rejection ratio, (normally over 1000:1). A 'fully-balanced' circuit has a common-mode rejection ratio of precisely zero, since all signal, common-mode or not, is simply amplified and passed along via the two signal paths. It then remains up to the following component to attempt to reject that amplified noise, if it has a differential amplifier.

Thus, fully-balanced circuitry is subject to passing along any noise which might be picked up on all the cables. Then it hits the final component in the system, usually the power amp, where the differential amplifier at its input is left to deal with the sum total of the common mode noise in the signal path, (multiplied by all the gain in the system).

I don't think this is an ideal scenario. If each component, (source, preamp, electronic crossover, power amp), had its own differential amplifier input, it would cancel any common-mode noise which appeared ahead of it, rather than amplifying it.

Bryston makes a product which operates in the fully-balanced mode a microphone preamp (BMP 2), but this unit has an input transformer which rejects com-

mon-mode noise by a factor of over 250,000:1. The reason it operates on two separate signal paths is to expand its dynamic range beyond what digital storage media can accommodate. Since the next step in the signal path is into digital storage media (CD, DVD etc.) from there, this separate signal path is obviously not a concern in any following signal-processing on its way to your living room, and your ears.

All the above simply points out that what has been called fully balanced circuitry has a host of disadvantages from cost to noise overload, to complexity and reduction in reliability. It has no useful advantages in the digital or analog signal chain beyond the mic preamp. Bryston audio components with the exception of our BMP-2 mic preamp, all operate their balanced inputs on differential amplifier technology.

# BRYSTON

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