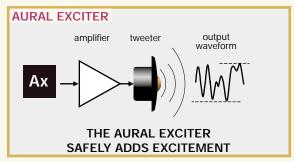
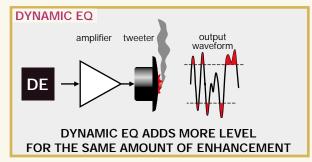
# Aural Exciter vs. Other Sonic Enhancers

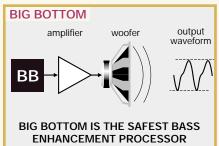


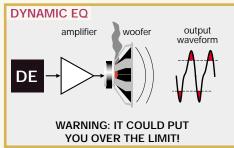
The Aural Exciter adds dynamically related harmonics to the signal at very low levels and these harmonics add little, if any, level to the signal. Because of the intelligence in the Aural Exciter side chain, the effect is useful over an extremely wide input dynamic range.

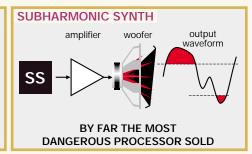


**Dynamic EQ** boosts a part of the frequency spectrum when the input is above a threshold. If the input is already high, the additional equalization can result in overloading the amplifier, speakers or both.

# BIG BOTTOM VS. OTHER BASS ENHANCERS







A speaker's excursion increases with low frequency peaks. If those peaks are increased by a Dynamic EQ and/or a Subharmonic Synthesizer the speaker, at the very least, will fatigue more quickly. This will also increase the danger of the speaker jumping the gap or literally coming apart.

**Big Bottom** adds little or no peak energy to the signal. Instead, it adds density (persistence of a low peak-to-average ratio). This additional bass density adds presence and punch, even in less than powerful playback systems.

**Dynamic EQ** boosts a part of the frequency spectrum when the input is above a threshold. If the input is already high the additional equalization can result in overloading the amplifier, the speakers or both.

Subharmonic Synthesizers synthesize bass where none existed before by generating a signal component an octave below the lowest frequency present. The result requires much more amplifier power and extreme woofer excursions to reproduce. Result - DANGER!

#### SPECIFICATIONS

AUDIO		Nomina	I Operating Level	+4dBu	-10dBv (-7.8dBu)
Frequency Response:	10Hz - 38KHz (± 0.5dB)				
Dynamic Range:	120dB	INPUT:	Connector:	XLR-3F and TRS 1/4"phone jacks	same
Hum and Noise (unweighted 22Hz-22kHz):	-93dBu		Type:	Transformerless, active balanced	same
Crosstalk (10Hz-22kHz):	-79dB		Balanced:	40ΚΩ	40ΚΩ
THD (10Hz-22kHz @max.output):	.0003%		Unbalanced:	20ΚΩ	20ΚΩ
IMD (10Hz-22kHz @max.output):	.0007%		Maximum Level:	+27dBu	+12.5dBV (+14.8dBu)
Other Specifications			CMRR:	>40dB	same
Power Requirements:	90-250VAC 50-60Hz, 12w	OUTPUT	: Connector:	XLR-3M and TRS 1/4"phone jacks	same
Dimensions:	19"W x 1.75"H x 8.25"D		Type:	Active balanced (may be used unbalanced)	same
	(482.6mm x 44.5mm x 209.6mm)		Balanced:	112Ω	same
Net Weight (Rackmounted):	6lbs (2.73kg)		Unbalanced:	$56\Omega$	same
Shipping Weight:	9lbs (4.1kg)		Maximum Level:	+27dBu Unloaded, +25dBu into $600\Omega$	+12.5dBV (+14.8dBu)



# Improving the way the world sounds<sup>sm</sup>

11068 Randall Street, Sun Valley, CA 91352, USA (818) 767-2929 • Fax:(818) 767-2641 www.aphex.com • sales@aphex.com Aphex, Aural Exciter, and Big Bottom are registered trademarks of Aphex Systems, Ltd.

Bass Enhancer circuitry is included in Aphex Model 204 and is covered by US patent # 5,359,665

Aural Exciter circuitry is included in Aphex Model 204 and is covered by U.S. patents # 4,150,253 and #5,424,488

Foreign patents issued or pending. All Aphex products are ETL listed or pending.

Aphex is constantly striving to maintain the highest professional standards. As a result of these efforts, modifications may be made from time to time to existing products without prior notice. Specifications and appearance may differ from those listed or shown.

# HPHEX Model 204 Augal Excited and Optical Big Bottom



#### **APHEX**

#### BENEFITS

#### AURAL EXCITER

- Increased Presence and Clarity
- Restores Natural Brightness
- Greater Perceived Loudness
- Improved Detail and Intelligibility

#### BIG BOTTOM

- Deeper, More Resonant Bass
- Little or No Increase in Peak Output
- Tighter Bass Articulation
- Extended Low Frequencies

enhances live, recorded, broadcast and webcast sound. The patented Aural Exciter enhances detail, clarity and imaging. It has even been scientifically proven to increase intelligibility. It pulls a vocal or an instrument up out of a mix. It punches up an entire mix, even in a noisy or reverberant environment.

The new Optical Big Bottom, adds low-end punch with deeper, more powerful bass. This enhanced bass can be packed into

your tracks without overloading the recorder and into your PA system without adding more amps or speakers.

You cannot achieve these improvements with any other processing regardless of price. There are many "enhancers" on the market, but none can match the effectiveness and musicality of the patented processes in the Model 204.

#### Interesting Facts

- Introduced in 1975, it originally rented for \$30 per recorded minute
- The standard of the industry with over one million channels sold
- Used in thousands of recordings and broadcasts, clubs, concerts, stadiums, DJ rigs, MI rigs, restaurants, airports and houses of worship
- Licensed by major manufacturers for assistive listening systems, Web audio, telephony, PA systems, home entertainment and car stereo
- Aural Exciter and Big Bottom are single ended circuits— no decoding is required

#### FEATURES

- Two independent, low noise channels
- Adjustable Tune, Harmonics and Mix Controls on Aural Exciter
- Adjustable Drive, Tune and Mix Controls on Big Bottom
- Switchable -10dBV/+4dBu operating level
- ♦ Balanced XLR and 1/4" I/O
- Internal Power Supply

# Model 204 Augal Excited and Optical Big Bottom

# For Recording, Mixing and Mastering

The Aural Exciter restores the subtle nuances that are often damaged in the recording process. Its patented Transient Discriminate Harmonics Generator determines which parts of the signal need harmonic enhancement while other "enhancers" do not have this intelligence, making their effect much less musical. The effect creates more space around each element of the mix and greater overall dimensionality. Additionally, the Big Bottom gives more and deeper bass without overloading the recording medium. Also, record your stereo masters, CDs, and car tapes through the Model 204 - they will sound better no matter what the source or where you play them back, this even applies to heavily bit rate reduced audio sources such as MP3 files.

# For Live Sound - Touring PA & Monitors, Pixed Instructions, DJ Rigs

The Model 204 will improve the performance of just about any sound system. It will extend the apparent response at both ends of the spectrum and will increase the width and uniformity of high frequency dispersion. The "dead spots" are filled in without "hyping" the high end. The Big Bottom increases low frequency **density** - greater loudness with no increase in peaks. This process, unlike multiband compression, does not change the impact of the bass. All this without adding more amps or speakers!

# For Bronocasting & Weecasting

Broadcasting and webcasting have limited frequency response and dynamic range. The Aural Exciter and Big Bottom extend high and low frequencies without eating up headroom or causing more limiter action. Broadcasts are louder and more present. Webcasts are cleaner and more natural sounding. The effects are noticeable even on tiny computer speakers.

# For Musical Instrument Amplification

The Model 204 improves the detail and articulation of your amplified instrument. The Aural Exciter extends the highs by restoring the natural overtones that are often lost in miking and amplification. Big Bottom extends the lows for bass instruments. These enhancements can help you punch through in a noisy or reverberant room and make your current rig 'big enough' for much larger rooms.