

AVM 30



Award was given for previous version.  
Model has been improved for even better sound.



“... irresistible ... state-of-the-art ...

among the front rank of top-performance preamps”

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**PREAMPS WITH STAR POWER**

When you watch a movie like *Spider-Man 2* in an Imax theater, as I did recently, you're likely to be struck not only by the sheer size and detail of the picture, but also by the seemingly effortless ability of the Imax system to put out immense amounts of sound. Much of this ability comes from having *lots* of amplifier power. The Imax theater in Manhattan claims to have 12 kilowatts of power on tap!

While even the most elaborate home theaters don't need that much power, it's daunting how much wattage you do need for a big space. For an Imax-like experience in a room bigger than, say, 3,000 cubic feet, you might need double or even quadruple (!) the wattage you can get from the most powerful A/V receivers.

You can only get oomph like that from separate large power amplifiers driven by

a preamp with the latest surround sound technology, such as Anthem's AVM 30, Krell's Showcase, and Parasound's Halo C1. Like Cleopatra's barge floating down the Nile, these preamps are awash in luxury trappings. All, for example, are THX Ultra-certified, which means not only that their basic audio performance meets stringent requirements (especially for playing movie soundtracks) but also that they're armed with THX post-processing functions.

The Anthem and Parasound are actually THX Ultra2-certified, which means they're optimized for a full 7.1-channel setup, incorporating three speakers across the front as well as *four* surround speakers – two on the sides and two behind the listener. The Ultra2 processing creates a stereo effect between the two back surround speakers for greater sonic envelopment and smooth pans between the surrounds. THX certification also ensures proper bass

management and other refinements, like a speaker-level limiter to prevent subwoofer overload and, in the Ultra2 preamps, boundary-gain compensation to help prevent excessively boomy bass.

A high-end feature that is *not* a THX requirement but immediately obvious from a glance at the preamps' rear panels is the extensive use of "professional" XLR (a.k.a Cannon) connectors. These provide a "balanced" connection in which two signal-carrying conductors are surrounded by a shield. Balanced connections can reject most external interference that gets past the shield and are useful in big-room installations where the cable runs between the preamp and the power amps are very long or where the audio cables must run close to other wiring that might emit interference.

*“... unusually comprehensive ... one of the very few preamps — to provide full bass management and speaker-distance compensation for its multichannel analog input — vital to getting the best out of DVD-Audio and SACD. This alone should promote it to your A list if you want a state-of-the-art system.”*

But even balanced lines won't avoid the hum-inducing ground loops often caused by connecting things like TVs and satellite or cable boxes. And to reject the most interference, the connectors' wiring should be slightly different on the sending and receiving ends. But this is stuff a professional installer can help you with.

The most recent of the preamps we tested – high-end separates tend to have a longer model life than receivers do – the Anthem AVM 30 provides 7.1-channel playback of 5.1-channel soundtracks via some of its THX decoding modes and 5.1- or 6.1-channel playback for stereo sources via Dolby Pro Logic II and DTS Neo:6, respectively. Like the Krell and Parasound preamps, our sample of the Anthem lacked the newer Dolby ProLogic IIx (DPL IIx) processing, which can generate both 6.1- and 7.1-channel surround from stereo, though a downloadable software upgrade is promised. The AVM 30 produces a similar effect with a proprietary mode, AnthemLogic.

The Anthem is the only preamp here with an AM/FM tuner (6 AM and 18 FM presets). You'll also find a clock and two programmable on/off timers for the main listening area as well as similar timers for each of two remote zones.

*“... rock-solid and very detailed imaging from all multichannel sources, including SACDs and DVD-Audio discs, and all types of music, from soundtracks to operas ...”*

## SETUP

It's not trumpeted in the Anthem promotional literature, but the AVM 30 is one of the very few preamps – or receivers, for that matter – to provide full bass management and speaker-distance compensation for its multichannel analog input. Both functions

are vital to getting the best out of DVD-Audio and SACD playback. This alone should promote it to your A list if you want a state-of-the-art system. There's no special setup for these features beyond the usual level and distance settings, though these are made in fine increments of half a decibel and half a foot.

The setup process is uneventful, though you get a few options not found on typical A/V receivers, such as being able to trim the source levels to reduce big differences in volume as you switch between inputs (the Krell and Parasound also allow this) and being able to enter different crossover frequencies for each speaker. During operation, the small front-panel display manages to cram in basic information, like the sound mode and volume setting.

*“The AVM 30's sonic capabilities and mix of features already place it among the front rank of top-performance preamps ... hard to beat for features, usability, price, and performance.”*

Anthem's Room Resonance Filter, a very important feature that can *greatly* improve bass performance, is a singleband parametric equalizer with a finely tunable center frequency. It's used during setup to flatten out the single prominent low-frequency room resonance that afflicts most speaker installations. Although Anthem gives detailed instructions, this is best done not by ear but by an automated system, or with a sound-level meter having a flat bass response (which leaves out the otherwise useful and affordable models from RadioShack). A professional installer could help you set up this feature.

*“... when each preamp is judged on its merits and value for its price, the AVM 30 is irresistible.”*

On the rear panel, all the inputs are on a black background and all the outputs on white — very simple and effective color coding — with labels big enough to be legible in somewhat dim lighting. The backlit remote is sensibly laid out, although the multiple functions of some buttons might take a little getting used to.



SURROUND MODES	
Dolby Digital EX/DTS-ES	yes/yes
Dolby Pro Logic II	music and movie
DTS Neo:6	Music and Cinema
THX Post processing	Cinema, Ultra2 Cinema, Music Mode, Surround EX
Others	AnthemLogic, All-channel stereo and Mono, Mono-Academy
SETUP OPTIONS	
Minimum channel-balance, speaker-distance-compensation increments	1/2 dB, 1/2 foot
Bass Crossover frequencies	every 5 Hz from 25 to 160 Hz
Crossover frequency separately selectable for each channel	yes
Subwoofer phase control	every 5° from 0 to 180°
Subwoofer polarity setting	yes
THX Boundary gain Compensation	yes
Bass peak-level manager	yes
Equalization	bass/treble presets for each speaker/mode
Overall bass and treble controls	yes
Input source level trims	yes
Surround mode assignable to input	yes
Group delay (lip sync-matching)	yes
CONNECTIONS	
Component-video (all HDTV-capable)	4 inputs, 2 outputs
Component/S-video	7/7 inputs, 5/5 outputs
Digital Audio	1 AES/EBU, 3 optical inputs; 2 coaxial outputs
Multichannel analog audio	6 channels in, 10 out on both RCA and XLR connectors
Analog Stereo	7 RCA inputs, 4 outputs (Tape, VCR, Zone 1/2); 1 XLR Input
12-volt relay triggers	3 Outputs
Infrared receivers/emitters	5/2
RS-232 serial port	yes
OTHER FEATURES	
Remote control	backlit, universal preprogrammed
Headphone jack	1/4 Inch
AM/FM tuner	yes
Miscellaneous	clock, sleep timer, separate Music/Cinema speaker setup; software-upgradable via RS-232 port

## PERFORMANCE

Often, small things – like the fine adjustments Anthem provides for speaker balancing and distance compensation can make a big difference. The AVM 30's half-foot increments let me dial in rock-solid and very detailed imaging from all multichannel sources, including SACDs and DVD-Audio discs, and all types of music, from soundtracks to operas (try the Decca SACD of Puccini's *La Bohème*). While the AVM 30's basic surround processing didn't sound any different from the same modes employed by the other preamps, the overall sound quality in our room was often superior due to the greater degree of setup control it provides.

THE AVM 30's sonic capabilities and mix of features already place it among the front rank of top-performance preamps. Once equipped with DPL IIx, it will be thoroughly up to date and hard to beat for features, usability, price, and performance.

## THE BOTTOM LINE

In an ideal world I'd be able to pick the jewels individually. From Anthem, I'd take the multichannel bass management and distance compensation, the bass-resonance filter, and the rear-panel paint job. From Parasound, I'd take the auxiliary multichannel outputs (several more of them, in fact), the frontpanel display, and the button/knob control system, as well as both large and small remote controls and the automatic calibration. As for the Showcase, I can't wait to see what gems Krell comes up with when it releases the new signal-processing circuitry. At these prices, I'm sure they'll be brilliant and well polished. But when each preamp is judged on its merits and value for its price, the Anthem AVM 30 is irresistible.

FREQUENCY RESPONSE	
Dolby Digital (20 Hz to 20 kHz)	+0.14, -0.02 dB
Multichannel analog input (10 Hz to 100 kHz)	+0.006, -1.96 dB
96-kHz/24-bit stereo	10 Hz to 40.5 kHz +0.16, -3 dB
NOISE LEVEL (re 200 mV output)	
Dolby Digital (16-bit signals)	-75.0 dB
Multichannel analog input	76.6 dB*
CD	-75.2 dB
96-kHz/24-bit stereo (24/16-bit input signals)	-84.8/ -77.9 dB
BASS-MANAGEMENT PERFORMANCE	
Subwoofer-output and high-pass-filter frequency response (80-Hz crossover setting)	subwoofer: -24 dB per octave high-pass: -12dB per octave
Maximum unclipped subwoofer output	6.2 volts with 0.26% THD+N
Bass-Management/Speaker-distance compensation for multichannel analog input	yes/yes

\*The measured noise level of the Anthem on its multichannel analog input reflects its digital bass-management/distance-compensation processing.