



“... one of the most successful audio/video surround-sound processors in the marketplace.”



BY JEFF VAN DYNE

My longtime interest in woodworking has given me a deep appreciation of well-designed tools. The best offer a balance of functional design, build quality, and art. For example, for some time now Bosch has made some of the finest jigsaws on the market. Functional design elements such as toolless blade changes improve ease of use, while the blade-guide system ensures a more accurate cut. High build quality is evident in a machined base plate that eliminates flex and improves accuracy, unlike the stamped-steel bases of cheaper saws. Art goes beyond engineering and is tangible only as the feel of the grip in your hand and the balance of the tool as you make a cut. When these three factors work in concert, they produce a superior tool. A cheaper saw will still cut wood, but the better tool will do the job with less effort and more accuracy.

A home-theater processor, too, is a tool — but rather than a tool designed to shape wood that you can see and touch, it is designed to shape the sound reaching your ears. And like the finest woodworking tools, the very best processors are balanced combinations of functional design elements, build quality, and art. The Anthem AVM 30 is one of those rare cases in which the designers have managed to combine all three elements into a cohesive unit that is much more than the sum of its parts.

However, this came as no surprise — my reference processor for the last couple of years has been the Anthem AVM 20, and I love it. I have, for most of my life, leaned more toward big-bang-for-the-buck budget gear, so the decision to drop a significant sum of money on the AVM 20

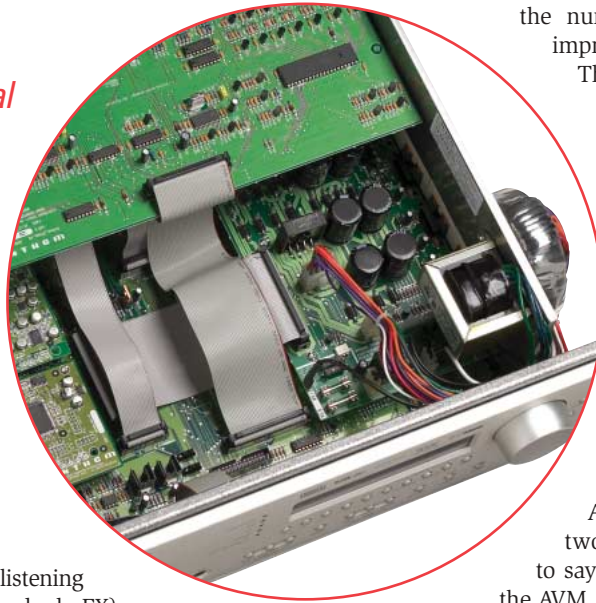
was not one that I came to easily. However, I’ve found that this decision has correlated well with the ones I’ve made in purchasing my favorite woodworking tools. My appreciation for these tools has increased with continued use, and the additional money spent on them has been returned many times over. So it has been with the AVM 20.

IS THERE ANYTHING THEY DIDN'T THINK OF?

A quick glance at the accompanying list of the AVM 30's “Features” will give you some idea of how complete its design is. It's hard to imagine any circumstance for which Anthem hasn't planned — the AVM 30's sizable rear panel is packed with connectors. Aside from a considerable array of standard connections for audio

and video switching, there are four component-video inputs and a pair of outputs, a set of ten balanced XLR preamp outputs (including dual center and sub outputs), a stereo XLR input, and even an AES/EBU digital input. Also included is an RS-232 port for control of the system via high-end touchscreen remotes. This also provides an input path for updating the processor's operating software. (More on that in a bit.) As if that weren't enough, Anthem has also included jacks for an IR receiver and emitters so that a remote from the second or third zone can pass commands along to source components attached to the AVM 30. What little room is left on the rear panel is reserved for an upcoming add-on that will provide HDMI video switching and video transcoding.

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You'll also find a large selection of listening modes, including Dolby Digital (standard, EX), Dolby Pro Logic IIx (Music, Movie, Matrix, Game), DTS (standard, ES), Neo:6 (Music, Movie), All Channel Stereo and Mono, THX (Cinema, Ultra2 Cinema, Music, Game, EX), and Anthem's proprietary AnthemLogic (Movie, Music). What is conspicuously absent is any kind of painfully reverberant "church" or "hall" mode. So much the better.

When my AVM 30 was delivered, it lacked the Pro Logic IIx and THX Game modes. These were delivered during the course of this review via a software update, made possible by the RS-232 port on the back of the processor, and one megabit of flash memory used to store program code for the DSP processor. When a new processing format comes out, or if Anthem finds a way to improve on its existing processing capabilities, they develop new code and place it on their website for download free of charge. The update process simply requires downloading and unzipping the code, connecting the AVM 30 to your computer via a serial cable, and running Anthem's installer program. This is a terrific idea, and means your processor is much less likely to be obsolete only a few months after you purchase it. The AVM 20 has been updated a handful of times in the last few years, and these upgrades have brought along a number of new features and improvements.

Build quality is another thing that's almost self-evident. Removing the AVM 30 from its box told me a lot. At 28 pounds, the processor is heavier than many receivers or amplifiers. No wonder. The processor is fairly large to begin with, and the heavy chassis doesn't flex at all when moved. The other main culprit in

the weight factor is an oversized toroidal power supply with 80,000 μ F of filter capacitance. This is twice the capacitance of the three-channel Chiro C-300 amplifier I'm using in another room right now. What you can't see are such things as the four-layer main board, Burr-Brown op-amps, and Crystal analog volume control. It seems that nothing on the AVM 30 was done cheaply.

The basic setup was fairly straight forward, helped dramatically by a well-written Quick Start guide at the front of the owner's manual. However, getting everything nailed down and tweaked for best performance took some time. This had nothing to do with complexity but everything to do with the number of options Anthem offers to improve the performance of your system. The good news is that just running through the Quick Start will yield excellent performance. However, spending the time to investigate and set some of the AVM 30's more unusual features may have a dramatic impact on its overall performance.

USE

Anthem's ability to build high-quality products that sound great is well documented. In fact, all of the comments about sound made by Jeff Fritz in his review of the AVM 20 apply to the AVM 30: The two products are sonic equals. Suffice it to say that when it comes to sound quality, the AVM 30 can stand toe-to-toe with any competitor in its class and not flinch. The special features mentioned below in many cases enable it to sound even better.

The first of these is the Room Resonance Filter, which can be used to tame a single response peak and thereby improve the overall sound of the entire system. This works by setting the filter for a specific center frequency, the amount of attenuation, and the filter's width, in hertz. This means you can very tightly filter out one particularly nasty response peak in your room. Almost any room will benefit from this feature; I've found it very effective in my own. It takes a while to test and configure, but the results are well worth the effort.

There are also features like a center-channel EQ, designed to correct for frequency-response anomalies caused by placing a speaker atop a TV. I turn this on or off depending on the speakers I'm using, but in those cases where I've found it useful it can clear up dialogue and reduce the nasality or hollowness of a center-channel.

The AVM 30's advanced subwoofer crossover setup allows crossover frequencies for the fronts, center, surrounds, and rears to be independently selected in 5Hz increments from 25Hz to 160Hz, virtually ensuring that you can squeeze the optimum performance from any combination of speakers. While the standard 80Hz crossover will probably work with most speakers, I've found with many speakers that even a 10Hz shift one way or the other can have a dramatic impact on a system's tonal balance. These crossover settings are

available for all analog sources as well, though some purists will complain that this requires passing the incoming analog signal through A/D and then D/A converters. However, during numerous A/B tests with the AVM 30 and my own AVM 20, I was unable to detect any substantive difference in sound quality. I'd go one step further to argue that the ability to fine-tune the speaker/subwoofer interface far outweighs any marginal impact the A/D-to-D/A conversion might have, particularly with difficult-to-integrate speakers.

Another uncommon feature that can help in certain situations is the AVM 30's Lip Sync Delay. Many people who use projection systems with video scalars complain of problems with the audio being out of sync with the video due to heavy video processing. This may become an issue for me in a few months, when construction is completed on my dedicated theater room. I've also seen this occasionally when watching high-definition TV via my Sony SAT-HD200 DirecTV receiver. The Anthem's Lip Sync Delay easily resolves this with a few clicks of the remote, bringing everything back into sync.

These are only a few of the AVM 30's features designed to improve the performance or usability of your system; discussing every one of them would take much more space than is available in this review. Suffice it to say that the AVM 30 is designed to give you all the tools you need to get the most out of your system.

I'd never been much for music surround modes, but AnthemLogic Music has changed my mind. The input for my XM tuner is set to default to this mode; I find it greatly improves the sense of soundstage depth, and adds a little ambient life that is sacrificed by the heavy compression algorithms used by satellite radio. I've tried various surround modes for music; AnthemLogic is the only one I use regularly.

All the features in the world wouldn't do a bit of good if the AVM 30's sound wasn't up to snuff. To me, the test of a surround processor's excellence is in the details. Loud crash scenes get all the attention in home-theater demos, but the best of the best can also do the subtle stuff exceptionally well. The AVM 30 excelled at subtleties. A case in point is the bird flying away in

the opening scene of *Gladiator*. It's a tiny detail that I'm sure few viewers pay much attention to, but the delicacy of the sound of fluttering wings as the bird travels through space to the right of the screen, then to the left and up as the scene changes, is important — we see Maximus' expression lighten as his eyes follow the bird, then just as quickly darken as his thoughts return to the task at hand. The AVM 30 passed this subtlety test with flying colors.

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The AVM 30's multitude of setup and bass-management options can pay huge dividends in sound quality when you put everything together in a real system. I spent a lot of time experimenting with some of these settings one night while watching *Contact*, and made some interesting discoveries. Switching my Magnepan MC1 surrounds in and out of dipole mode in the Anthem's setup menu proved how effective the additional processing is: the rear soundstage opened up dramatically in the jungle scenes at the Arecibo radio telescope. Also, during the launch sequence, the Boundary Gain Compensation in the AVM 30's subwoofer settings reduced an overbearing boom from my subwoofer, leaving only the low rumble of the launch.



AVM 30 VS. AVM 20

I had nothing in the house to compare the AVM 30 with other than Anthem's own AVM 20. This turned out to be easy — the two are sonic equals, or at least I could discern no differences after the half hour or so required to strip one processor out of my system and patch the other one in. To the already capable AVM 20 the 30 adds two more component inputs and a second component output to feed duplicate video to another zone. Other changes include twice the memory for DSP programming code as well as a faster processor, which noticeably improves the 30's response to menu commands. The most visible change is the blue fluorescent display and blue and red LEDs, which remind me of the interior lighting of my VW Passat. All I can say about this is that it's just plain cool to look at. Oh, and the AVM 30 costs less than the AVM 20.

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WRAPPING UP

I've never regretted spending a little more for a woodworking tool that transcends basic utility. While such tools are generally more expensive, the increased pleasure in using them and the improved results have always proven to be worth every extra penny.

The Anthem AVM 30 is the audio equivalent of some of the best woodworking tools I've used. It combines functional design, build quality, and art to create one of the most successful audio/video surround-sound processors in the marketplace. This is one of those rare cases in which these three factors have come together to produce a remarkable tool of unique elegance and utility. The longer I had it in my system, the more I appreciated what it could do.