



D1



P5

“... cutting edge designs ... detail to die for
... equal to or better than the best ...”



BY THOMAS J. NORTON

In today's hotly contested home theater market, the big consumer-electronics manufacturers are grabbing an increasingly important slice of the pie. Their new, big-boned receivers—with prices to match—approach (or sometimes exceed) the performance of most separates. The competition is fierce, with those mega-corporations using their marketing clout, engineering expertise, and production efficiency to built better products, but smaller companies can still compete. They're fighting back with separate pre-pros and power amps that trade on their traditional strength: sound quality.

Anthem was spun off several years ago from high-end audio company Sonic Frontiers, after the latter was acquired by Canadian speaker manufacturer Paradigm. Since then, the company has earned an enviable reputation for its

electronics. Their PVA 7 power amp won *Stereophile Guide to Home Theater's* Editor's Choice (Gold) Award, and their AVM 20 pre-pro was praised by Robert Deutsch in his *SGHT* review.

Anthem continues to produce cutting-edge designs. Their flagship pre-pro and multichannel power amp, the Statement D1 and Statement P5, can compete head on with anyone's best.

AN AMP AND A HALF

Like most power amps, the 5-channel Anthem Statement P5 doesn't appear that complex at first glance. Its most obvious characteristics are its sheer size and weight—nearly 2 feet deep and a forklift-ready 130 pounds. Anthem makes a similarly designed 2-channel amp, the P2, that weighs a comparatively svelte 75 pounds and can be added to the P5 if

you plan on a 7.1-channel system. There are also two smaller, less-powerful amps in the Statement line: the A2 and A5, the latter producing a paltry 180Wpc (all 5 channels driven into 8Ω). The 2-channel A2 would likely be my first choice among the Statement amps for those extra back channels (though we have not tested it); its rated 200Wpc into 8Ω should be more than sufficient for those extra surrounds.

The front panel of the P5 sports only a power switch and six blue LED indicator lights, one for the amp as a whole and one each for the channels. Around back are 10 input jacks (five single-ended and five balanced, each of the latter with a choice of two gain settings: 0 and -6dB), five pairs of speaker outputs, and trigger in/out jacks. There's also a three-position switch to control the turn-on mode. Manual limits the on/off functions to the front-panel

switch, Trigger controls the amp using a 5-24V signal from an external component, and Auto-On powers-up the amp whenever it senses a signal on any channel, switching it off 20 minutes after the signal stops.

There are also two IEC connectors for separate detachable power cords. Because of the P5's huge power capability and corresponding appetite for AC current, Anthem recommends that each of these receptacles be connected to a different electrical circuit to prevent tripping the circuit breakers in your house if the current draw becomes too great. This is most likely to occur when you power the amplifier up (or if you listen to highly insensitive speakers at head-banging levels). But the P5 does have a soft-start feature to minimize this.

I don't have two separate circuits in my listening room, so I used the same circuit for both connections. Apart from a brief and negligible dimming of the room lights at turn-on, this caused no electrical problems or obvious negative sonic consequences. I did try running a very long extension cord to a different circuit in another room for one of the amp's power inputs, but I could find no benefit to this apart from the potential entertainment value of watching guests tripping over the cord during a pre-movie countdown.

If you must use the same circuit for both power inputs, be sure that your circuit breaker will not trip, and also that the breaker is fully functional. (According to one knowledgeable power-conditioner company with whom I spoke recently, old circuit breakers that have previously tripped a number of times can sometimes cease to function and remain locked in the "on" position. This was news to me, and clearly a possible hazard if correct.)

At the heart of the P5, and the reason for its enormous weight, are separate power supplies for each channel, each with its own, completely separate toroidal transformer. Furthermore, each amplifier channel features two independent power-supply sections—one for the input/driver stage, another for the output stage—operating from separate windings on that channel's power transformer. The input stages of each amplifier channel use eight bipolar devices. Fourteen bipolar output transistors on each channel provide a huge current capacity.

To minimize output impedance and optimize power output, there are no fuses on the power supply rails. If a problem occurs, such as a short, Anthem's ALM (Advanced Load Monitoring) system, located outside the signal path, shuts down the offending channel by opening a circuit breaker. Separate circuit breakers for each channel are located on the amp's top cover near the front. They are externally accessible; once a problem has been cleared, they may be easily reset without rummaging around inside the amplifier.

AND A PRE-PRO TO MATCH

It's obvious from the specifications that the D1 offers all the S-video and composite-video inputs you could possibly need, and then some. Its four component inputs (and two outputs) are also generous. The on-screen menus are currently available only from the composite or S-video outputs.

At present, the D1 does not have DVI or HDMI switching, or any transcoding (conversion of all video inputs to the highest-

quality output to allow for a single-cable feed to the display). Both transcoding and HDMI switching have been promised for a future upgrade.

"... punchy and clean ... sparkled with realistic detail ... refined sense of air and space ... solid imaging ... excellent depth ... large, majestic soundstage ... just the right degree of warmth ... startlingly powerful ..."

In addition to an ample supply of single-ended, 2-channel analog audio inputs, there is one balanced, 2-channel analog audio input. The D1 also has both single-ended and balanced outputs for all 7.1 channels. There are parallel outputs for a second center channel (something I do not recommend) and a second subwoofer. The D1 also supports two remote zones of operation, each with video (composite and S-video) and 2-channel, single-ended audio outputs. If the Center 2 and Sub 2 balanced outputs are not used, they can be reconfigured as a balanced, 2-channel output for zone 2.

You also get one 6-channel analog input (single-ended only). This input set—and the one 2-channel, balanced audio input—may be configured either to bypass all digital stages and signal processing or to include the digital stages for bass management, time alignment, surround mode settings, bass/treble control, audio group delay, and THX post-processing. The A/D conversion is selectable in the user setup menu (separately for 2-channel and 6-channel inputs), up to a maximum of 24-bit/96kHz (DTS Neo:6 is limited to 48kHz).

Other features include an AM/FM tuner (not often found in surround pre-pros), bypassable bass and treble controls (ditto), full THX processing (which may be engaged with or without Re-Equalization), lip-sync compensation, and advanced high- and lowpass filter settings (separate crossover settings for different speakers, making it possible to do setups such as 70Hz crossover for the front LCR, 90Hz lowpass for the sub, and 100Hz crossover for the surrounds).

There are also three useful equalization controls. THX Boundary Gain Compensation corrects the balance for a listening or speaker position too near a wall, which can result in bloated bass. Center EQ compensates for the response deviations that can result from placing a center channel atop a large TV (it's adjustable for set size). And the Room Resonance Filter is a single band of parametric equalization on the subwoofer channel for tuning out the most troublesome low-frequency room peak. I did not use these features for this review, but I found the Center EQ and Room Resonance Filter useful when I used the D1 in my review of a Focal-JMLab Diva Utopia Be speaker system.

CIRCUITS

Describing the circuit features of the D1 risks technobabble to rival that of *Star Trek*: dual Motorola DSP engines operating at warp—um—150 MIPS, dual 3Mbit/8ns external cache memory, a four-layer motherboard with dual independent six-layer converter boards for separate analog and digital layers, analog input-level control via Crystal analog attenuators in differential

mode, Wima capacitors of metalized polyester and polypropylene, Nichicon coupling capacitors, magnetically shielded toroidal power transformers, and a phase-compensated main deflector dish. OK, maybe not that last one, though I could swear I saw it somewhere in Anthem's extensive literature.

The D1 also provides upconversion of all digital sources, including Dolby Digital and DTS, to 24-bit/192kHz resolution. Together with 128x oversampling, this allows the D/A converters to use gentle third-order filters, which Anthem argues results in flatter high-frequency response and lower harmonic distortion and noise. The upsampling and oversampling circuits cannot be bypassed, so I could not assess their contribution to the sound of the D1 separately from the unit's overall performance.

THE MANY MODES OF THE D1

For Dolby Digital and DTS soundtracks, the D1 may be configured for 5.1-, 6.1-, or 7.1-channel operation. Full THX processing is provided for any of these setups. THX has now dubbed the 7.1-channel configuration "Advanced Speaker Array" or ASA—concerned, no doubt, that we were all growing bored with the old acronyms and needed new ones. The name overpopulation continues with THX MusicMode, designed to produce 7.1-channel playback from discrete 5.1-channel music sources, such as DVD-Audio and SACD. These high-resolution formats cannot be played back in this mode if the multichannel analog inputs are set up in analog-bypass mode.

The mode explosion continues with the offerings for 2-channel material. Stereo is your home-room here, providing a conventional 2-speaker playback (with or without subwoofer, depending on your chosen setup). For surround simulation from a 2-channel source, Dolby Pro Logic IIx Music/Movie/Game and THX Game modes are included in the latest version of the D1's software (1.1). As originally released (software version 1.0), the unit had Pro Logic II only (Pro Logic II without the "x" suffix is limited to 5.1 channels). The processor also includes both of the DTS competitors to Pro Logic IIx: DTS Neo:6 Music and Cinema can both simulate up to 6.1 channels. Anthem also has its own surround simulation mode for 2-channel sources, AnthemLogic Music (up to 6.1 channels, with no center channel) and AnthemLogic Cinema (up to 7.1 channels, including a center).

There are a few other modes for completists (though thankfully not the usual Stadium, Church, Jazz Club, or the ever-popular Bottom of a Well). These modes include both Mono and Mono Academy settings. The latter, designed in the 1930s to mask soundtrack hiss, is handy mainly for very old films—though many of these will be already have been noise-reduced in the DVD-transfer process.

SETUP

While the D1 may be controlled from its front panel, many important functions can be accessed only from the multi-device, learning remote. The remote is a generic, rather fussy affair with a lot of buttons whose lettering is often hard to read, even with the backlighting provided. Many owners will graduate to a more user-friendly universal remote or one of those cutting-edge, touchscreen systems that seem to breed mainly in the warm environment of custom home-theater installations.

I never grew to love the D1's remote, but once I got past its multifunction buttons, I was okay. The button used to call up the setup menu, for example, is the same button used to make on-the-fly adjustments to both the subwoofer and the LFE levels. Press it once to adjust the overall subwoofer level; press it again to adjust just the LFE portion of the subwoofer output. Press and hold it for a few seconds to enter the setup mode.

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Once past that hurdle, you'll have little trouble configuring the D1 if you have even limited experience setting up a surround pre-pro or receiver. The procedure as described in the owner's manual appears much more complicated than it actually is. The secret is to rely on the onscreen setup menus together with the remote. There are readouts on the front panel's information window as well, but they aren't nearly as useful as the main onscreen menus. But remember that you'll have to use a composite or S-video connection to your video display to see these menus.

There are 12 major steps in the setup menu. If you're a novice at this and find it confusing to wing it by referring to the menus alone, each step is explained reasonably well in the manual. Setting up the Room Resonance Filter is potentially the most complex part of the configuration process, and I recommend that you don't mess with it until you become comfortable with the D1's operation and sound in your system. (Leave the Apply Filter control set to Off.) The instructions provided in the manual for setting up this filter are rather skimpy, and there is no automatic setup function. Anthem might want to consider providing more detail for making use of this feature—particularly for inexperienced users who plan to set up the D1 without the assistance of a knowledgeable custom installer or dealer.

PERFORMANCE: P5

I began my evaluation by listening to the amplifier by itself on 2-channel music. The system was different from the one I would later use for the final listening tests. The DVD player was the Ayre DX-7, the preamp-processor was the TACT TCS MkII (with its Theater Correction functions bypassed—that is, without equalization), and the speakers were the Energy Veritas v2.8s, driven full range with no subwoofer.

The amplifier kept a respectably tight rein on the Veritas' bass and midbass, which can sound too rich and warm with the wrong system and setup. The bottom end was powerful and the midbass was punchy and clean. The midrange and treble sparkled with realistic detail. A refined sense of air and space, solid imaging, and excellent depth fully realized the large, majestic soundstage these speakers are capable of. In a brief but controlled comparison, a vintage Proceed AMP5 power amp was a little less silky-sounding, a little less sweet,

and a bit harder, cooler, and dryer. But the difference was subtle, and at my preferred listening levels (loud but not ear-piercing), the power output advantage of the Anthem P5 was not obvious. (The Proceed is rated at 125Wpc into 8 Ω .)

In short, the Anthem P5 demonstrated all the best characteristics of good solid-state design: iron-fisted control of the speakers (particularly in the low frequencies), power for any practical application (and some not-so-practical ones!), detail to die for, and a pleasing but not overblown warmth. Audiophiles searching for a lush tube sound in a solid-state amp won't find it here, but I can't imagine anyone else finding the tank-like P5 lacking in any respect—except perhaps portability!

TWO ON THE AISLE

In my system, the Anthem combo proved quite sensitive to the balance between the main speakers and the subwoofer. It took only a couple of dB of excess subwoofer output to change the sound from open, punchy, and dynamic to a little too slow and fat. Fortunately, the D1 provides 0.5 dB steps in all of its level adjustments; many competitors still offer only 1 dB increments. While 1 dB steps are adequate, I find them a little coarse for a high-resolution system. And I actually prefer the finer resolution of 0.1 dB steps, but that's just a reviewer thing (for facilitating level matching and such). To my knowledge, only a few products in the marketplace (most of them from Mark Levinson) offer 0.1 dB level adjustments, and not enough of them offer 0.5 dB steps.

Once the system was dialed-in for best performance with a subwoofer, the Anthem combination sailed through 2-channel music. Voices had just the right degree of warmth, bass was startlingly powerful, the top end was silky sweet and detailed, and the overall timbre was nearly ideal. (Like all audiophiles, I still search for the perfect timbre and balance.) Depending on the program material, imaging and depth were equal to or better than the best I've yet heard in my current home theater room. The system wasn't always happy with overbright or edgy recordings, but with well-balanced sources, it sang.

Compared to the Sony STR-DA9000ES receiver, the Anthem combo's marginally richer, warmer midbass, together with its slightly sweeter top end, earned it the nod over the Sony overall. The Anthems also were slightly less forward, providing a subtly better rendition of depth. The differences were not immediately obvious, however, particularly on soundtracks, and the Sony remains an impressive performer overall.

I also tried the Anthem's multichannel simulation modes in my 5.1-channel setup, primarily Pro Logic IIx and AnthemLogic. I was particularly impressed by AnthemLogic. It added a subtle ambience without degrading the front two channels. Depending on the recording, I also sometimes preferred AnthemLogic Cinema to AnthemLogic Music. The primary difference between the two is that AnthemLogic Cinema engages the center channel, while the Music version does not. Your preference will depend not only on the program material, but also on the quality of your center-channel speaker and how well-matched it is to your left and right fronts. I actually preferred AnthemLogic Cinema to straight 2-channel playback on some material. It not only offered a more stable image but, surprisingly, a noticeably smoother, more fluid sound on centered voices and instruments.

PUTTING IT ALL TOGETHER

Considering how well it performed on music, I wasn't surprised to find that the D1-P5 combination also did a spectacular job with 5.1-channel movie soundtracks. Or, I should say, it moved out of the way and let the soundtracks speak for themselves, limited only by the rest of the system. I've recently been making extensive use of the remake of *Flight of the Phoenix* as a reference for both audio and DVD picture quality. This truly awesome soundtrack was one of the best sound mixes and the Anthems did not disappoint with it. The swirling sandstorm in the film's seminal crash sequence surrounded me, its low frequency rumble (combined with the roar of the plane's engines) certainly made me think twice about adding a flight over the Gobi desert in a decrepit C-119 to my vacation plans. And in the closing sequence, combining a roaring engine, gunfire, and music in a potent mix, the Anthems ramped up the excitement to a fever pitch.

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Love his movies or hate them, Jerry Bruckheimer fills his soundtracks with effects and music. *National Treasure* may not be a treasure of a film, but it does have an intriguing, exciting soundtrack. Trevor Rabin's score occasionally lapses into mickey-mousing, but it nevertheless adds a lot to a film that can use the help. The Anthems kept up the thrills by capturing the cinematic sweep of a score that's more majestic than the film it supports. The dialog and effects are super, too. The only shortcoming of the soundtrack is a slightly ragged feel (there's a distinctive synthesized sound to much of the music); it isn't as smooth-sounding as the other films referenced here, but it's clear from the many other soundtracks I sampled that the D1 and P5 were simply doing their job and reproducing the source, warts and all.

On a quieter note, *Kate and Leopold* isn't an action film by any stretch, but its soundtrack does include at least one rousing, demo-worthy sequence along with sweetly recorded music and clean dialog throughout. Through the D1 and P5, the music behind the opening titles was warm and lyrical, with an open, airy quality that immediately prepared me to enjoy the film (which I did—it's a mixture of sci-fi time travel and romantic comedy). Early in the story, we're at a nineteenth-century ball accompanied by a nicely recorded ensemble. Soon the scene shifts outside to a heavy thunderstorm, with rain pouring all around and enough thunder and lightening to challenge your subwoofer, though not enough to break your lease. After we pass through a time portal (!), we end up in the present, where most of the film takes place.

From there to the end, there's little out of the ordinary on the soundtrack, but the score remains lush and sweet, the dialog is natural, and the ambience of the real-world environments is entirely believable.

CONCLUSIONS

As I remarked in the Focal-JMLab Diva Utopia Be speaker-system review, the latest generation of top-of-the-line receivers will get you a good way toward the best sound that separates have to offer. And I can't honestly say that that the Anthem duo does multichannel effects or ambience any better. Those things are handled by software processing or pre-programmed chips; they're performance parameters that most competent pre-pros and high-end receivers can pretty much do equally well without breaking a sweat. The D1-P5 combination certainly does do the job on the effects in soundtracks at least as well as any other pre-pro/amp combination I've had in my system.

"... the D1 and P5 can compete head on with anyone's best."

More important, the Anthems' performance on music is superb, whether that music comes from a 2-channel source, a multichannel source, or any film soundtrack. The D1 and P5 are undeniably expensive, but not only do they execute all the obvious things correctly, they also excel at those refinements and subtleties that audiophiles can—and often do—spend a great deal more that this to get.

Addendum: As noted earlier, Anthem is planning an update to the D1 (and to their less-expensive AVM 20 and AVM 30 pre-pros as well). It will include HDMI switching (4 in, 1 out) with the ability to input DVD-A via HDMI and video transcoding of all sources to component and HDMI outputs. In addition, the D1 will also include a scaler for component and HDMI, user-selectable up to 1080p. (The decision has not yet been made about whether to include the scaler in the less-expensive AVM 20 and AVM 30.) The upgrade will also add component-video switching to zone 2. Another possible update is the inclusion of IEEE 1394 inputs for DVD-A and SACD, but as of this writing, that decision is not final.

The exact release date of the update has not been announced, but it should be relatively soon. As applied to existing units, the upgrade will require extensive hardware changes, including a new back panel, but Anthem expects the cost of the current model plus the cost of the upgrade will equal the price of the new model. So it probably doesn't matter if you buy now and upgrade or wait and buy the new model. If you anticipate no need for those extra capabilities (which, as announced, do not suggest any alteration of the product's already fine sound quality), now might be a good time to snap up the current D1 at a good price.